

RQ-2019-06-10-34

Field Personnel processing steps

☐ New Field IDs created (when using a new station) Date: _____ initials: _____ ☒ NA

☐ Create entry in SMPStationCreationFile if new station is used

\\Fidep1\wqap\NW ROC\TMDL\WIN_Station Creation

☒ Date sampled Date: 6/12/19 initials: mm

☒ Update MAT Date: 6/12 initials: mm

☒ Update "SMP Tracker" Date: 6/12 initials: mm

☐ Photos put into archive Date: _____ initials: _____ ☐ NA

☒ RQ Sheet – from LIMS (display/print request)

☒ Field Sheets initialed/dated @ "Scan/Save Field Sheets" then scanned and saved into:

Scans_ToBeProcessed Date: 6/13/19 initials: mm

☒ Update "Data Tracker"

\\publicfiles\pubfds\DEAR\WQAPmonitoring\StrategicMonitoring\2019\21FLPNS

Ready for folder system (top)

LIMS processing (to be completed by LIMS data personnel) (MC)

☐ Field parameters entered into LIMS Date: _____ initials: _____

☐ Digital RQ packet put into

SMP 2019/Data/Scanned Field Sheets Date: _____ initials: _____

☐ Digital field Sheets put into archive Date: _____ initials: _____

☐ Date submitted for QA/QC Date: _____ initials: _____

☐ Update "Data Tracker"

Database processing (Cheryl)

☐ Field parameters QA/QC in LIMS Date: _____ initials: _____

☐ Lab results put into archive (CB) Date: _____ initials: _____

☐ Data migrated to WINS Date: _____ initials: _____

☐ Update "Data Tracker"

Notes:

Ref:
Dep:

Date: 22Apr19
Wgt: 9.00 LBS
DV:

0.00

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Send: PRIORITY OVERNIGHT Master 4751 8779 0045
TRCK: 4751 8779 0045

***** OVERNIGHT Master 4751 8779 4349
TRCK: 4751 8779 4408

T Master 4751 8779 4349
TRCK: 4751 8779 4419

Date of Request: 21-MAY-2019
 Created By: KING_M On: 21-MAY-2019
 Modified By: JASROTIA_P On: 22-MAY-2019
 Customer: NW-DIST
 Project: SMP
 Division: Division of Environmental Assessment and Restoration
 District: Northwest District NWROC
 Sampling Event: SMP Bioassessment

Send Coolers To:

Phone: 850-595-0605
 160 Government Center
 Suite 208
 Pensacola, FL 32502-5794
 Attn: Michael King

Program Module Number:

Priority: 3
 Event Status: A
 Criminal Investigation: NO
 Chemistry Request Reviewed By: WATTS_J On: 22-MAY-2019
 Biology Request Reviewed By: JASROTIA_P On: 22-MAY-2019
 Sampling Kit Required: NO Ship on:
 Sampling Kit Shipped:
 Sampling Kit Packed By:
 Preservatives Needed: NO
 Date to Receive Samples: 10-JUN-2019
 Received By:

Send Final Report To:

160 Government Center
 Suite 208
 Pensacola, FL 32502-5794
 Attn: Cheryl Bunch

Report Type: Final Only
 FTP Data: NO
 QC Report: YES
 Date Log: NO
 Authorization Log: NO

Comments: Group A: (WBID 18A, 356) Nutrients, Metals, Tracers, Q-PSNP-TQ
 Group B: SCI, Algae_ID
 Group C: (WBID 11) Nutrients, Metals, Tracers, Full Pesticides
 Packing notes:
 Please send labels

Bottle Group A (Water) With 2 Samples:

Bottle Type: P-1L	Number of Bottles: 2	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO ₃ /L
Total Alkalinity		
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
Turbidity		
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
Chloride		
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Fluoride		
W-SO4-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices
Sulfate		
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
TDS		
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample
TSS		
Bottle Type: BP-1L	Number of Bottles: 2	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry
Chlorophyll-a, Corrected		

Bottle Group A (Water) With 2 Samples:

Bottle Type: BP-1L	Number of Bottles: 2	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry
Chlorophyll-a, Uncorrected		
Phaeophytin-a		
Bottle Type: TEST HAS NO	Number of Bottles: 2	Preserved With: ICE
NW-UWF-ECQ	Template: DEFAULT	(SM 9223 B Quanti-Tray) E. coli by Colilert-18/QT by UWF in Pensacola
Escherichia Coli-Quanti-Tray		
Bottle Type: BG-500ML	Number of Bottles: 2	Preserved With: ICE
W-E8321-DI	Template: DEFAULT	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
*Acesulfame K		
*AMPA		
*Endothall		
*Glufosinate		
*Glyphosate		
*Sucralose		
W-E8321-MS	Template:	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
*Acetaminophen		
*Carbamazepine		
*Fluridone		
*Hydrocodone		
*Ibuprofen		
*Imazapyr		
*Naproxen		
*Primidone		
*Pyraclostrobin		
*Triclopyr		
2,4-D		
Bentazon		
Diuron		
Fenuron		
Imidacloprid		
Linuron		
MCP		
Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: HNO3
W-ICP	Template:	(EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects
Barium		
Calcium		
Iron		
Magnesium		
Potassium		
Sodium		
Zinc		
W-ICPMS	Template:	(EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects
*Boron		
Aluminum		
Antimony		
Arsenic		
Cadmium		
Chromium		
Copper		
Lead		
Nickel		
Selenium		
Silver		
Thallium		
Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
Ammonia-N		

Bottle Group C (Water) With 1 Samples:

Bottle Type: BG-1L Number of Bottles: 2 Preserved With: ICE
W-PSNP-TQ Template: DEFAULT (EPA 8270E) Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Fipronil Sulfone
Fonofos
Hexazinone
Malathion
Metalaxyl
Metolachlor
Metribuzin
Mevinphos
Molinate
Norflurazon
Parathion Ethyl
Parathion Methyl
Pendimethalin
Phorate
Prometon
Prometryn
Simazine
Terbufos
Terbuthylazine

* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

Bottle Group A (Water) With 2 Samples:

Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: ICE And H2SO4
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
NO2NO3-N		
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
Total-P		
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
Kjeldahl Nitrogen		
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
Organic Carbon		
Bottle Type: P-125ML	Number of Bottles: 2	Preserved With: FILTER-ICE
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
O-Phosphate-P		
Bottle Type: BG-1L	Number of Bottles: 6	Preserved With: ICE
W-PSNP-TQ	Template: DEFAULT	(EPA 8270E) Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS
*Dimethenamid		
*Dithiopyr		
*Fipronil Desulfinyl		
*Oxadiazon		
*Prodiamine		
*Tebuconazole		
Acetochlor		
Alachlor		
Ametryn		
Atrazine		
Atrazine Desethyl		
Azinphos Methyl		
Bromacil		
Butylate		
Chlorpyrifos Ethyl		
Chlorpyrifos Methyl		
Cyanazine		
Demeton		
Diazinon		
Disulfoton		
EPTC		
Ethion		
Ethoprop		
Fenamiphos		
Fipronil		
Fipronil Sulfide		
Fipronil Sulfone		
Fonofos		
Hexazinone		
Malathion		
Metalaxyl		
Metolachlor		
Metribuzin		
Mevinphos		
Molinate		
Norflurazon		
Parathion Ethyl		
Parathion Methyl		
Pendimethalin		
Phorate		
Prometon		
Prometryn		
Simazine		
Terbufos		
Terbutylazine		

Bottle Group B (Biological) With 3 Samples:

Bottle Type: PJ-2L	Number of Bottles: 6	Preserved With: Formalin
--------------------	----------------------	--------------------------

Bottle Group C (Water) With 1 Samples:

Bottle Type: P-500ML Number of Bottles: 1 Preserved With: HNO3
 W-ICP Template: (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Sodium

Zinc

W-ICPMS Template: (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

*Boron

Aluminum

Antimony

Arsenic

Cadmium

Chromium

Copper

Lead

Nickel

Selenium

Silver

Thallium

Bottle Type: P-500ML Number of Bottles: 1 Preserved With: ICE And H2SO4
 W-NH3 Template: DEFAULT (EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
 Ammonia-N
 W-NO2NO3 Template: DEFAULT (EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
 NO2NO3-N
 W-S-A-TP Template: DEFAULT (EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
 Total-P
 W-TKN Template: DEFAULT (EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
 Kjeldahl Nitrogen
 W-TOC Template: DEFAULT (SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
 Organic Carbon

Bottle Type: P-125ML Number of Bottles: 1 Preserved With: FILTER-ICE
 W-PO4-F Template: DEFAULT (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
 O-Phosphate-P

Bottle Type: BG-1L Number of Bottles: 2 Preserved With: ICE
 W-PSNP-TQ Template: DEFAULT (EPA 8270E) Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

*Dimethenamid

*Dithiopyr

*Fipronil Desulfinyl

*Oxadiazon

*Prodiamine

*Tebuconazole

Acetochlor

Alachlor

Ametryn

Atrazine

Atrazine Desethyl

Azinphos Methyl

Bromacil

Butylate

Chlorpyrifos Ethyl

Chlorpyrifos Methyl

Cyanazine

Demeton

Diazinon

Disulfoton

EPTC

Ethion

Ethoprop

Fenamiphos

Fipronil

Fipronil Sulfide

Bottle Group B (Biological) With 3 Samples:

Bottle Type: PJ-2L Number of Bottles: 6 Preserved With: Formalin
 MI-FW-QLDC Template: DEFAULT (SOP-IZ06) No. Taxa of FW macroinverts, qual samp, 20 dipnets.
 *Macroinvert-FW-Qual-DipnetX20-#Taxa-Rep2
 *Stream Condition Index (SCI)

Bottle Type: PT-50ML Number of Bottles: 3 Preserved With: ICE
 ALGAL_ID Template: DEFAULT (SOP-AB05) Qualitative assessment of algal taxa present without counts
 *Dominant sample taxon

Bottle Group C (Water) With 1 Samples:

Bottle Type: P-1L Number of Bottles: 1 Preserved With: ICE
 ALKALINITY Template: DEFAULT (SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO3/L
 Total Alkalinity

TURBIDITY Template: DEFAULT (EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
 Turbidity

W-CL-IC Template: DEFAULT (EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
 Chloride

W-COLOR Template: DEFAULT (SM 2120 B) True Color measured at 450 nm
 Color (true)

W-F Template: DEFAULT (SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
 Fluoride

W-SO4-IC Template: DEFAULT (EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices
 Sulfate

W-TDS Template: DEFAULT (SM 2540 C-97) Total Dissolved Solids in aqueous matrices
 TDS

W-TSS Template: DEFAULT (SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample
 TSS

Bottle Type: BP-1L Number of Bottles: 1 Preserved With: ICE
 CHLSUITE-W Template: DEFAULT (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry
 Chlorophyll-a, Corrected
 Chlorophyll-a, Uncorrected
 Phaeophytin-a

Bottle Type: TEST HAS NO Number of Bottles: 1 Preserved With: ICE
 NW-UWF-ECQ Template: DEFAULT (SM 9223 B Quanti-Tray) E. coli by Colilert-18/QT by UWF in Pensacola
 Escherichia Coli-Quanti-Tray

Bottle Type: BG-500ML Number of Bottles: 1 Preserved With: CH2ClCOOH Pre-Preserved
 W-CARB-AA Template: DEFAULT (EPA 8321B) Carbamates in water matrices by HPLC/MS/MS
 3-Hydroxycarbofuran
 Aldicarb
 Aldicarb Sulfone
 Aldicarb Sulfoxide
 Carbaryl
 Carbofuran
 Methiocarb
 Methomyl
 Oxamyl
 Propoxur

Bottle Type: BG-500ML Number of Bottles: 4 Preserved With: ICE
 W-CT-CI-R Template: DEFAULT (EPA 8276) Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization
 Chlordane
 Toxaphene

W-PCL-SQ-R Template: DEFAULT (EPA 8270E) Organochlorine pesticides in water matrices by GC/MS-SIM
 *Bifenthrin
 *Cis-Nonachlor
 *Ethalfluralin
 *Hexachlorobenzene
 *Trans-Nonachlor
 Aldrin
 Alpha-BHC

Bottle Group C (Water) With 1 Samples:

Bottle Type: BG-500ML Number of Bottles: 4 Preserved With: ICE
W-PCL-SQ-R Template: DEFAULT (EPA 8270E) Organochlorine pesticides in water matrices by GC/MS-SIM

Alpha-Chlordane
Beta-BHC
Carbophenothion
Chlorothalonil
Cypermethrin
DDD-p,p'
DDE-p,p'
DDT-p,p'
Delta-BHC
Dicofol
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Endrin Ketone
Gamma-BHC
Gamma-Chlordane
Heptachlor
Heptachlor Epoxide
Methoxychlor
Mirex
Permethrin
Trifluralin

Bottle Type: BG-500ML Number of Bottles: 1 Preserved With: ICE
W-E8321-DI Template: DEFAULT (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

*Acesulfame K
*AMPA
*Endothall
*Glufosinate
*Glyphosate
*Sucralose

W-E8321-MS Template: (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

*Acetaminophen
*Carbamazepine
*Fluridone
*Hydrocodone
*Ibuprofen
*Imazapyr
*Naproxen
*Primidone
*Pyraclostrobin
*Triclopyr
2,4-D
Bentazon
Diuron
Fenuron
Imidacloprid
Linuron
MCP

Bottle Type: P-500ML Number of Bottles: 1 Preserved With: HNO3
W-ICP Template: (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Barium
Calcium
Iron
Magnesium
Potassium



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
Yes ☒ No ☐

WIN Station Name: Big Coldwater Creek (east fork) upstream of Springhill Rd Date: 6/12/19
(mm/dd/yyyy)
WIN/ Field ID: G4NW0434 WBID: 18A Latitude: 30.79187
(Decimal Degrees)
County: Santa Rosa ORG ID: 21FLPNS Longitude: -87.02344895
(Decimal Degrees)
Receiving Body of Water: Big Coldwater Creek RQ-2019- 06-10-34

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
MIKE KING					☒	☒	☒	☒	☒
STOPHER SLADE					☒	☒	☒	☒	☒
MYRANDA CLARK					☒	☒	☒	☒	☒

Sampling Equipment		
☒ 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/ Low <u>Normal</u> / High / Flooded		Meter ID# <u>155072</u>	Matrix: Fresh <u>Marine</u> / 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 (µmhos/cm)	Temp. (C°)
EST	09:25	0.3	0.15	0.3	4.50	95.0	4.51	0.01	19.1	22.9
CEN				"5"						

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:
SBIO ID Numbers: SBIO-ID: 79880 HA-ID: 16117 RPS-ID: 9388 Macrophyte-ID: 11400 LIMS#: 2095105

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>SA 8344070</u>	<u>12/10/2019</u>	☒ 2
Metals	☒ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3	<u>NA 9099030</u>	<u>04/09/19</u>	☐ 0
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☒ Ice	<u>15159049</u>		
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-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-TO ☐ 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:

Field/WIN ID → G4NW0434

Location: Big Coldwater Creek (east fork) upstream of Springhill Rd

Signature: [Signature] Date: 6/12/2019

LIMS EVENT ID: WIN Import ID: QC Station ID, Field Parameters In LIMS DMT: Scan/Save Field Sheets (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

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

SAMPLE ID 79880 ORG ID 21 FLPNS LATITUDE 30.79124
 COUNTY Santa Rosa STORET # G4NW0434 LONGITUDE 87.02388
 DATE 6/12/19 TIME 0925 SAMPLING AGENCY FDCP NWROC
 SITE NAME Big Coldwater Creek (east fork) upstream of Springhill Rd
 FIELD ID/NAME G4NW0434 RECEIVING BODY OF WATER Big Coldwater Creek

RIPARIAN ZONE / STREAM FEATURES

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

Forest/Natural 70 Silviculture 25 Field/Pasture 5 Agricultural 1 Residential 1 Commercial 1 Industry 1 Other (Specify) 1

Landscape Development Intensity Index (LDI)

1.28 (2010)

Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side

Left Bank: 718 Right Bank: 718 except for 30m

Hydrologic Modification Score (per FT 3101) 1 - 2

High Water Mark: 2.5 + 0.5 = 3.0
 (m) (above present water level) (present depth) (above bed)

Artificially Impounded

☐ Yes ☒ No

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

20m 12 m wide

0.33 m/s 0.33 m/s 0.33 m/s

0.3 m deep 0.5 m deep 0.6 m deep

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

% Coverage INVERT # Times Sampled PERI # Times Sampled

Woody Debris (Snags) 7 4
 Undercut Banks / Roots 2 7
 Leaf Packs or Mat 0.5 4
 Aquatic Vegetation 0.25 4
 Rock or Shell Rubble.. 1.3 2
 Sand..... 27 2
 Mud / Muck / Silt 27 2
 Other ... gravel 27 2
 Other

WATER QUALITY

Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)
 Top: 0.3 22.9 4.51 4.50 95.0 19.1 0.01 0.3
 Mid: 155077 ☒ VOB
 Bottom: 0.3 TOTAL DEPTH

Meter ID: 155077

Water Odors Normal ☒ Petroleum ☐
 Sewage ☐ Chemical ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
 Sample Preserved? ☒ Yes ☐ No
 Lot Number: 588344070 Exp: 12/10/19
44/944030 6/11/19

Algae Sample Taken? ☐ Yes ☒ No
 Sample 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 ☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

M. KING M. CLARK S. SLADE

SIGNATURE

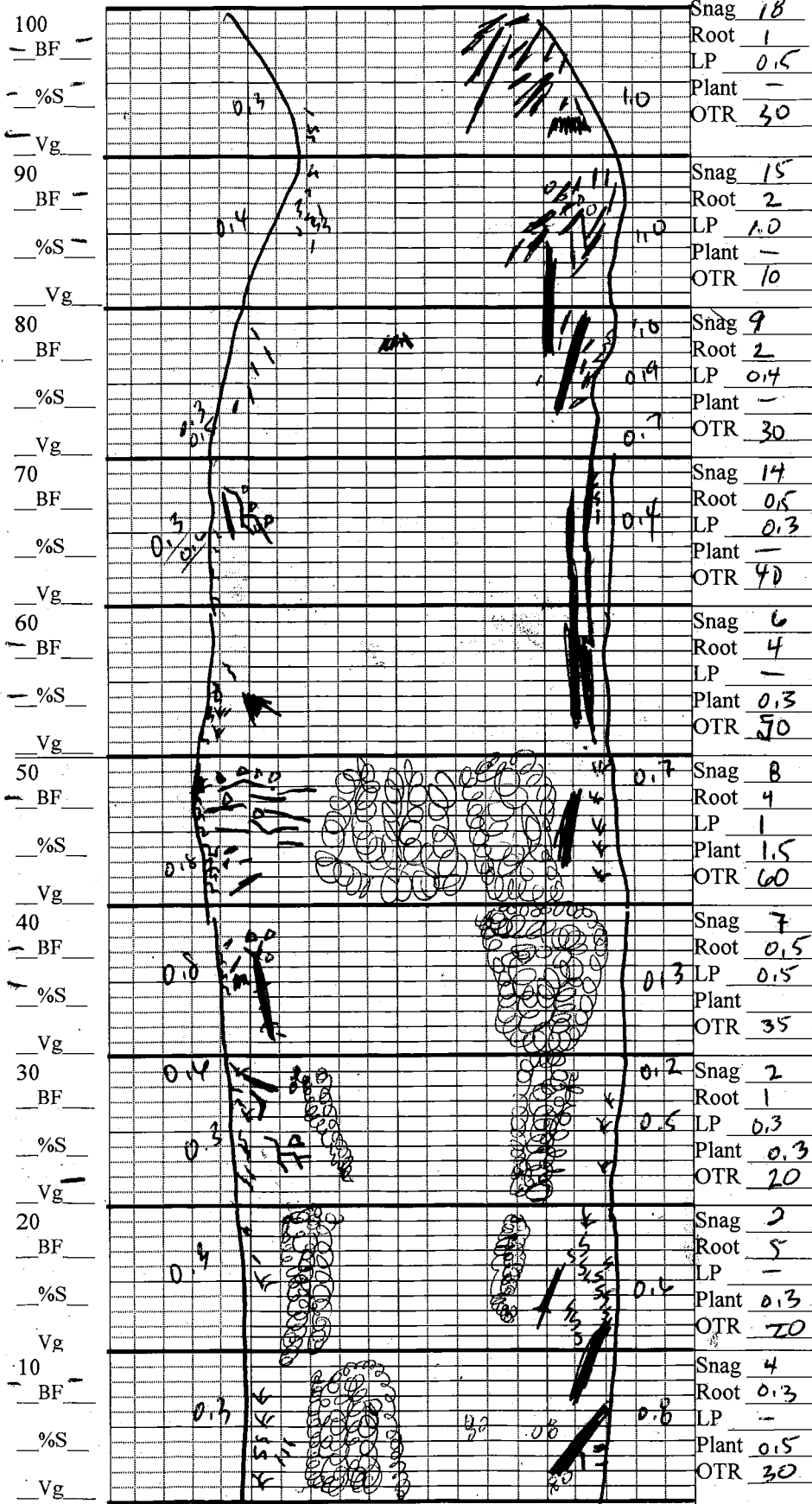
DATE

6/13/19

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).



Left Bank

Downstream

Hw 2.5

STORET: 64NW0434

Location: Big Coldwater Creek

upstream of Springhill Rd

Project: SMP

Sampled By: MIKE KIRBY

Date: 6/12/19

Substrates: Code key, draw proportionate habitat abundance.



Snags

85/12

9.55

7.1



Roots/undercut banks

20.3

1.7



Leaf Packs (or mats)

5.1

0.5



Macrophytes

3/12

0.25



gravel



pools

11

Velocity:

Note where velocity measures were taken: 20 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.

AWL

Average width 12 m

Average depth 0.5 m

WQ & chemistry taken @ 0 m

0 m Latt. 30.79124

0 m Long. 87.02388

100 m Latt. 30.79207

100 m Long. 87.02339

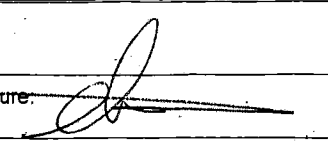
DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>FDEP NW ROC</u>		STORET STATION NUMBER: <u>G4NW0434</u>	DATE (MM/DD/YYYY): <u>06/12/2019</u>	RECEIVING BODY OF WATER: <u>BIG COLDWATER CREEK</u>
REMARKS:	COUNTY: <u>Santa Rosa</u>	LOCATION: <u>Big Coldwater Cr (east fork) upstream of Springhill Rd</u>		FIELD ID/NAME: <u>G4NW0434</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>16</u>	20 19 18 17 <u>16</u>	15 14 13 12 11	10 9 8 7 6	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 <u>9</u> 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 <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>17</u> ----- Primary Score <u>61</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 <u>17</u> 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>20</u>	<u>20</u> 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>8</u> Left Bank <u>8</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. <u>8</u> 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>75</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

136

TOTAL SCORE

Date: <u>6/12/2019</u>	Analyst: <u>MIKE KING</u>	Signature: 
------------------------	---------------------------	--

SBIO VISIT IT 79880

HA ID 16117

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: G4NW0434 County: Santa Rosa Date: 6/12/19 Investigators: MIKE KINGS

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

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

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

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

Secchi depth 0.3
Estimated? ☒

points ranked 4-6 4
total points assessed 93
% points ranked 4-6 4.3%

Check accompanying data collected at same site/date

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

RQ- 2019-06-10-34

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 79880

RPS ID 9388

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

Waterbody: Big Coldwater Creek	Date: 6/12	County: Santa Rosa	Storet Number: G4NW0434
Analyst: MIKE KING	Signature: 		
Comments:	LIMS ID 2095105		

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.

SBIO ID 79880		Meter Mark										Specimen collected (check)	Macro ID 11400		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	
HERBACEOUS SPECIES													HERBACEOUS SPECIES												
Alternanthera philoxeroides													Micranthemum glomeratum												
Bacopa caroliniana													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													Pontedaria 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													Xyris Xyris Xyris												
Ludwigia repens													Xyris Xyris												



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name:

Big Coldwater Creek West Fork upstream of Walling Rd

Date:

6/12/19
(mm/dd/yyyy)

WIN/ Field ID:

G4NW0436

WBID:

11

Latitude:

30.843099

(Decimal Degrees)

County:

Santa Rosa

ORG ID:

21FLPNS

Longitude:

-87.088227

(Decimal Degrees)

Receiving Body of Water:

Coldwater Creek

RQ-2019-

06-10-34

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
MIKE KING					☒	☒	☒	☒	☒	☒ Sample Container	☐ Van Dorn	☐ Pole		
STEPHER SWIDE					☒	☒	☒	☒	☒	☐ Carboy	☒ Syringe			
MYRANDA CLARK					☒	☒	☒	☒	☒	☐ Dipper	☐ Other			
										Depth Measured with <u>Y&I</u>				
										Equipment ID				
										Collection Method				
					☒ Wading	☐ Canoe/Kayak								
					☐ From Shore	☐ Electric Motor								
					☐ Other	☐ Gasoline Motor								
Water Level: Dry/ Pooled/ Low / Normal / High / Flooded					Meter ID# <u>185077</u>			Matrix: <u>Fresh</u> / Marine / DI						
Photos: <u>Yes</u> / No		Flow: No Flow / Intertidal / <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	11:11	0.7	0.3	0.7	7.73	90.1	5.25	0.02	51.8	22.8				
CEN				"5"										
Biological Samples Collected: None					<u>HA</u>	<u>SCI</u>	<u>RPS</u>	Algae ID	<u>LVS</u>	LVI	Other:			
SBIO ID Numbers: SBIO-ID: 79879					HA-ID: 16116		RPS-ID: 9387		Macrophyte-ID: 11399		LIMS ID 2095108			
Parameter Suite		Parameter Methods				Preservation		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 ☐ HNO3		☒ <2						
Filtered Nutrients		☒ W-PO4-F ☐ Field Filtered 0.45 um Filter				☐ Ice <u>15159019</u>								
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-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 ☒ W-CT-CL-R ☐ W-E8321-DI				☒ Ice								
		☒ W-PCL-SQ-R ☐ W-E8321-MS ☐ W-CARB-AA												
Phytoplankton		☐ DITY-QN-C ☐ PKD-QN-C												

Notes:

Signature:

Field/WIN ID →



G4NW0436

Location:

Big Coldwater Creek West Fork upstream of Walling Rd

Date:

6/10/2019

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

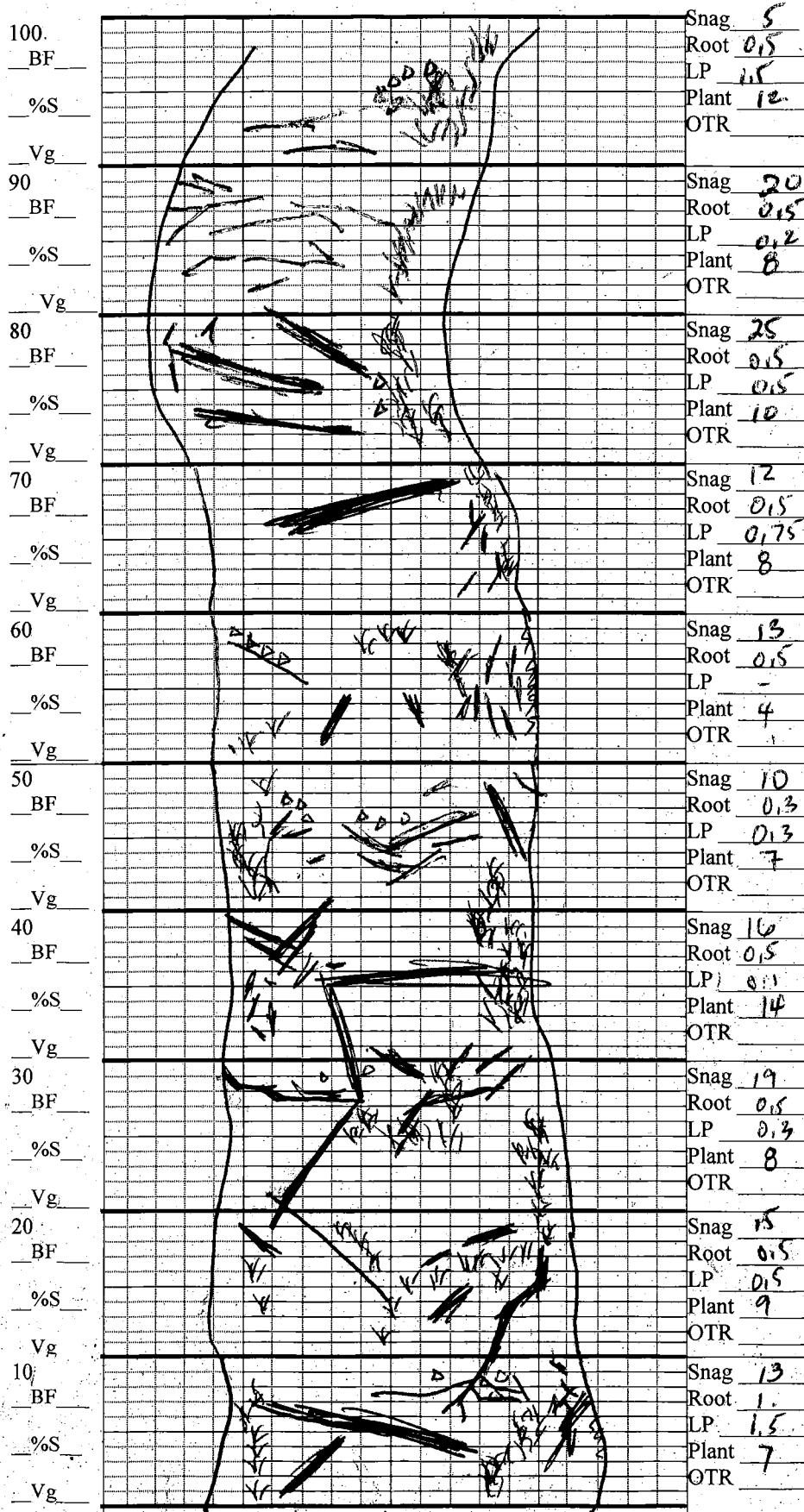
Migrate Data to WIN:

Verify Data In WIN:

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).



Left Bank
Downstream
9m

STORET: A4NW0436

Location: Big Coldwater Cr West

Fork upstream of Walling Rd

Project: SMP

Sampled By: MIKE KING

Date: 6/12/19

Substrates: Code key, draw proportionate habitat abundance.

- ☒ Snags 148 27.4 16.5
- ☒ Roots/undercut banks 5.3 0.6
- ☒ Leaf Packs (or mats) 5.65 0.63
- ☒ Macrophytes 87 9.6
- ☐
- ☐
- ☒ 111

Velocity:

Note where velocity measures were taken: 30 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.

Depth 0.6
Width 9

Depth 0.6
Width 10

Depth 0.6
Width 7

Depth 1.0
Width 9

Depth 1.2
Width 9

Depth 1.1
Width 9

Depth 1.2
Width 10

Depth 1.0
Width 9

Depth 1.1
Width 9

Depth 0.9
Width 9

Depth 0.6
Width 9

Average width 7 m

Average depth 0.9 m

WQ & chemistry taken @ m

0 m Latt. 30.84264

0 m Long. 87.088746

100 m Latt. 30.84301

100 m Long. 87.08858

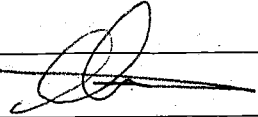
DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: FDED NW ROC		STORET STATION NUMBER: G4NW0436	DATE (MM/DD/YY): 6/12/19	RECEIVING BODY OF WATER: Cold water Creek
REMARKS:	COUNTY: Santa Rosa	LOCATION: Big Coldwater Creek West fork upstream of Walling Rd		FIELD ID/NAME: G4NW0436

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>17</u>	20 19 18 <u>17</u> 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>14</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 <u>14</u> 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 <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>20</u> ----- Primary Score <u>71</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. <u>20</u> 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>20</u>	<u>20</u> 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>10</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>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 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>9</u> Left Bank <u>8</u> ----- Secondary Score <u>77</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 <u>9</u>	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. <u>8</u> 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

148

TOTAL SCORE

Date: 6/12/19	Analyst: MIKE KING	Signature: 
---------------	--------------------	--

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>G4NW0436</u>					County: <u>Santa Rosa</u>		Date: <u>6/12/19</u>		Investigators: <u>MIKE KIRBY</u>	
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	2		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				24
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2	N			
	3					3	X			
	4					4				
	5					5				36
	6					6				
	7					7				
	8					8	N			
	9					9	N			
20	1	N			80	1	X			
	2					2	X			
	3					3	N			
	4					4				
	5					5				40
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	X			
	2					2	X			
	3					3	X			
	4					4	X			
	5					5	N			20
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	X			
	2					2				
	3					3				
	4					4				
	5					5	N			24
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N			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.					
	2				Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.					
	3				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.					
	4				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%.					
	5									
	6									
	7									
	8									
	9									

STORET Station Number:
G4NW0436

Secchi depth 0.7
Estimated? Y

points ranked 4-6 1
total points assessed 88
% points ranked 4-6 1

Check accompanying data collected at same site/date

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

RQ- 2019-06-10-34

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 79879

RPS ID 9387

Waterbody: Big Coldwater Creek West Fork	Date:	County: Santa Rosa	Storet Number: G4NW0436
Analyst: Mike Ruy	Signature:		
Comments:	LIMS ID 2095108		

[illegible]

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

SAMPLE ID 79879 ORG ID 21FLPNS LATITUDE 30.843099
COUNTY Santa Rosa STORET # G4NW0436 LONGITUDE -87.088227
DATE 6/12/19 TIME 1111 SAMPLING AGENCY FDEP NW ROC
SITE NAME Big Coldwater Creek West Fork upstream of Walling Rd WBID 11
FIELD ID/NAME G4NW0436 RECEIVING BODY OF WATER Coldwater Creek
LIMS ID 2095108

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) ☐

Landscape Development Intensity Index (LDI)

Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side

Left Bank: 5.8 Right Bank: 5.8

Hydrologic Modification Score (per FT 3101)

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

Artificially Impounded

☐ Yes ☐ No

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

9 m wide

0.33 m/s 0.33 m/s 0.33 m/s

0.3 m deep 0.5 m deep 0.8 m deep

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
% Coverage INVERT PERI
Times # Times
Sampled Sampled

Woody Debris (Snags) 16 4

Undercut Banks / Roots 0.6 4

Leaf Packs or Mat 0.6 4

Aquatic Vegetation 10 4

Rock or Shell Rubble..

Sand..... 4

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: 0.3 22.8 5.25 7.73 90.1 51.8 0.02 0.7

Mid: ☒ VOB

Bottom:

Meter ID: 155077 TOTAL DEPTH 0.7

Water Odors Normal ☒ Petroleum ☐

Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☒ Sheen ☐

Globs ☐ 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

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify)

AMBIENT FIELD CONDITIONS / NOTES:

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

M. King N. M. M. King

SIGNATURE:

[Signature]

DATE:

6/12/19

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: 155077

RQ- 2019-06-10-34

Project: SMP

Notes: (1) Always wait for meter to stabilize before recording any readings.

(2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).

(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 1/11/19

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro-meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.											P / F	L / F
ICV											P / F	L / F
CCV	M. King	6/12	0705	22.2	759.3	8.71	8.64	99.8			(P) F	(L) F
CCV	M. Clark	6/12	1441	22.7	756.7	7.73	7.69				(P) F	(L) F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	M. King	6/12	0710	190405A	04/2020	10000	10000	(P) F	(L) F
ICV	M. King	6/12	0712	190110A	01/2020	1,000	1009	(P) F	(L) F
CCV	M. Clark	6/12	1445	190405C	4/2020	100	102.9	(P) F	(L) F
CCV								P / F	L / F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	M. King	6/12	0715	2811803	10/2020	7.0	24.4	7.00	-28.1	(P) F	(L) F
Calibr.			0714	2902818	01/2021	4.0	24.5	4.01	149.9	(P) F	(L) F
Calibr.			0717	4904609	10/2020	10.0	24.7	9.99	-203.1	(P) F	(L) F
ICV			0720	2902818	01/2021	4.0	24.6	4.05		(P) F	(L) F
CCV	M. Clark	6/12	1448	2811803	10/2020	7.0	21.9	7.03	-31.6	(P) F	(L) F
CCV										P / F	L / F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ; mV pH 4 Range $+180 \pm 50$; mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 1/11/19

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass / Fail	Lab / Field
Pressure mode in air	M. King	6/12	0730	0.000	0.000	(P) F	(L) F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: