



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End

of Day CCV

Yes / No

WIN Station Name: Mill Creek Upstream of Bayshore Drive

Date: 3/22/2023

WIN/Field ID: G3NW0141

WBID: 644

ENR:

Latitude: 30.51998

County: Okaloosa

Org ID: 21FLPNS

Longitude: -86.48907

Receiving Body of Water: -

RQ: 2023-03-20-19

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Frank Butera			x		
☒	Nathan Mulkey	x	x		x	
☐						
☐						

Sampling Equipment	
☒ Sample Container	☒ Carboy Chum bucket
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Meter	
Secchi Equipment ID:	
Collection Method	
☒ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# 154179 (PRODSS)						
Photos: YES	Flow: FLOW			Tide:		Tide Times: High: Low:						
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:												
SBIO ID Numbers: SBIO ID: 86264. HA ID: 18176. RPS ID 10065. BENTH ID: 45584												
Notes: / SCI COLLECTION TIME: 1045												

Duplicate Sample

Time Zone: CEN	Time:	Field ID:	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone: CEN	Time: 1000	Field ID: FB_03222023	(Blank Type_DDMYYYY)
DI Source: Ice room	Location: Pensacola		
DI Type: Field Blank	Equipment ID:		
DI Container (Name/ID):		DI Container Type: Chum_Bucket	

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:



RQ-2023-03-20-19
Customer: NW-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Frank Butera, Nathan Mulkey
Field Report Prepared By: Frank Butera
Sampling Agency: FDEP

Place Label Here WIN ID/Field ID: G3NW0141 Location: Mill Creek Upstream of Bayshore Drive						Comments: Microbiology sample(s) submitted to contract laboratory.				
Matrix: Fresh						(Check one) ☒ GRAB ☐ COMPOSITE				
Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT _h)
	1030 CEN	7.67	75.8	14.8	6.17	0.15	0.3 ☒ VOB (S)	0.3	113.7	0.05
3/22/2023							Central Lab please use top row for login purposes			
	CEN									
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)		☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☐ H2SO4*		☒ <2	1	A
		Lot #	2229010		Exp:	08/30/23				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☐ <2	1	A
		Lot #	2126030		Exp:	06/02/23				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot #				Syringe Lot#				
Biochemical Oxygen Demand (BP-1L)		BODTEST OV-BODUNIN				ICE				
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice			1	A
Physical/Aggregate (Marine) (P-1L)		☐ Alkalinity / W-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC		Formalin Lot #	1234	☒ Formalin			2	B
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☒ E Coli ☐ F Coli ☐ Enterococci ☒ Contract Lab				☒ Ice		1	A	
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice		MCAA Exp. Date		
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI ☒ WE8321-MS		☒ W-PSNP-TQ	W-CT-Cl-R	☐ Ice		MCAA Lot#	5	A
		W-PCB-TQ-R		W-CARB-AA (5 ml of MCAA** Buffer Solution)		W-TR-SQ-R				
Phytoplankton/Periphyton		W-PCB-TQ-R		PKD-QN-BV		☐ Ice				
Name: Frank Butera Nathan Mulkey				Signature:				Date: 03/22/2023		

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID 86264 ORG ID 21FLPNS LATITUDE 30.51998
COUNTY Okaloosa WIN ID/STORET # G3NW0141 LONGITUDE -86.48907
DATE 3/22/2023 TIME 10:30 CTZ SAMPLING AGENCY FL DEP - NWROC
SITE NAME Mill Creek Upstream of Bayshore Drive RQ- 2023-03-20-19
FIELD ID/NAME G3NW0141 RECEIVING BODY OF WATER Boggy Bayou WBID 644 Project: SMP / TMDL Studies

RIPARIAN ZONE / STREAM FEATURES

LIMS ID: 2395941

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category) : Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ Commercial ☒ Industry ☐ Other (Specify) <u>Kurban AFB</u>								Landscape Development Intensity Index (LDI) <u>N/A</u>
Local Watershed Erosion (select one) : ☐ None ☐ Slight ☒ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>50m</u> <u>2.0</u> m wide <u>.25</u> m/s <u>1.25</u> m/s <u>0.05</u> m/s		
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank : <u>8.0</u> Right Bank : <u>17</u>				Hydrologic Modification Score (per FT 3101) <u>7-8</u>		<u>.3</u> m deep <u>0.2</u> m deep <u>0.1</u> m deep		
High Water Mark: <u>1.5</u> + <u>0.6</u> = <u>2.1</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No		Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☒ Heavily Shaded ☐ Moderate Shaded (46-80%)		
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized : ☐ Some recovery ☐ Recent, severe								

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																																																																										
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Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐																																																																										
Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐																																																																										
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☐ ☒ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐																																																																										
AMBIENT FIELD CONDITIONS / NOTES: Previous SCI 04/ 25/ 2018. <u><2m² Vegetation. LVS not Approp.</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																													
SAMPLING TEAM: Nathan Mulkey, Frank Butera			SIGNATURE : 		DATE : <u>3/22/2023</u>																																																																								

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).

SBIO ID: 86246

100
BF

%S

Vg

90

BF

%S

Vg

80

BF

%S

Vg

70

BF

%S

Vg

60

BF

%S

Vg

50

BF

%S

Vg

40

BF

%S

Vg

30

BF

%S

Vg

20

BF

%S

Vg

10

BF

%S

Vg

Left
Bank

Downstream

Snag 3.4
Root 3.4
LP
Plant
OTR

Snag 3.4
Root 2.4
LP 0.1
Plant
OTR

Snag 6.4
Root 4.4
LP 0.4
Plant
OTR

Snag 0.5
Root 1.4
LP 0.1
Plant
OTR

Snag 2.4
Root 2.4
LP 0.1
Plant
OTR 0.2

Snag 3.5
Root 1.5
LP 0.2
Plant
OTR 2.4

Snag 4.4
Root 1.4
LP 0.2
Plant
OTR 0.4

Snag 2.4
Root 2.4
LP 0.3
Plant
OTR

Snag 2.4
Root 2.4
LP 0.3
Plant
OTR

Snag 1.5
Root 0.5
LP 0.1
Plant 0.6
OTR

WIN ID G3NW0141

Substrates: Code key,
draw proportionate habitat
abundance.



Snags

$$\frac{24}{320} = 7.5\%$$



Roots/undercut banks

$$\frac{18}{320} = 5.6\%$$



Leaf Packs (or mats)

$$\frac{14}{320} = 4.4\%$$



Macrophytes

$$\frac{0.8}{320} = 0.2\%$$



Pipe (PVC)



BAR



$$\frac{2.6}{320} = 0.8\%$$

Velocity: 0.25 m/s

Note where velocity
measures were taken. 52m

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 3.2 m

Average depth 0.34 m

WQ & chemistry taken @ 4 m

Station Name:

Mill Creek Upstream of
Bayshore Drive

Project. SMP / TMDL Studies

Sampled By/Date: 3/22/2023

FB, NM

0 m Latt. 30.52005

0 m Long. 86.488916

100 m Latt 30.52076

100 m Long 86.4856

$$\frac{1.5}{2.0} = 0.75$$

0-10 meter [A]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.5	Bankfull	Bankfull
0m width (m)	Root 0.5	+	+
10m width	Leaf 0.1	Slope	Slope
Avg. Depth	Veg 0.4	+	+
Max Depth	Gravel 0.6	Veg	Veg
Rip. Buff L	Rock 7.0	+	+
Rip. Buff R	3	(Si) (G) (S) (A) (H) (F)	

10-20 meter [B]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
20m width	Root 2.0	+	+
	Leaf 0.3	Slope	Slope
Avg. Depth	Veg 2.0	+	+
Max Depth	Gravel 1.5	Veg	Veg
Rip. Buff L	Rock 7.0	+	+
Rip. Buff R	0.18	(Si) (G) (S) (A) (H) (F)	

20-30 meter [C]	Habitat Area (M)	Left Bank	Right Bank
	Snag 0.5	Bankfull	Bankfull
30m width	Root 1.0	+	+
	Leaf 0.1	Slope	Slope
Avg. Depth	Veg 0.4	+	+
Max Depth	Gravel 0.4	Veg	Veg
Rip. Buff L	Rock 7.0	+	+
Rip. Buff R	18	(Si) (G) (S) (A) (H) (F)	

30-40 meter [D]	Habitat Area (M)	Left Bank	Right Bank
	Snag 4.0	Bankfull	Bankfull
40m width	Root 1.0	+	+
	Leaf 0.2	Slope	Slope
Avg. Depth	Veg 0.4	+	+
Max Depth	Gravel 0.6	Veg	Veg
Rip. Buff L	Rock 2	+	+
Rip. Buff R	7.0	(Si) (G) (S) (A) (H) (F)	

40 - 50 meter [E]	Habitat Area (M)	Left Bank	Right Bank
	Snag 3.5	Bankfull	Bankfull
50m width	Root 1.5	+	+
	Leaf 0.2	Slope	Slope
Avg. Depth	Veg 0.4	+	+
Max Depth	Gravel 0.5	Veg	Veg
Rip. Buff L	Rock 2.0	+	+
Rip. Buff R	7.0	(Si) (G) (S) (A) (H) (F)	

50-60 meter [F]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
60m width	Root 2.0	+	+
	Leaf 0.1	Slope	Slope
Avg. Depth	Veg 0.4	+	+
Max Depth	Gravel 0.5	Veg	Veg
Rip. Buff L	Rock 0.2	+	+
Rip. Buff R	7.0	(Si) (G) (S) (A) (H) (F)	

60-70 meter [G]	Habitat Area (M)	Left Bank	Right Bank
	Snag 0.5	Bankfull	Bankfull
70m width	Root 1.0	+	+
	Leaf 0.1	Slope	Slope
Avg. Depth	Veg 0.2	+	+
Max Depth	Gravel 0.3	Veg	Veg
Rip. Buff L	Rock 7.0	+	+
Rip. Buff R	7.0	(Si) (G) (S) (A) (H) (F)	

70-80 meter [H]	Habitat Area (M)	Left Bank	Right Bank
75m - 3.5m	Snag 1.0	Bankfull	Bankfull
80m width	Root 4.0	+	+
	Leaf 0.4	Slope	Slope
Avg. Depth	Veg 0.3	+	+
Max Depth	Gravel 0.4	Veg	Veg
Rip. Buff L	Rock 5.0	+	+
Rip. Buff R	7.0	(Si) (G) (S) (A) (H) (F)	

80-90 meter [I]	Habitat Area (M)	Left Bank	Right Bank
	Snag 4.0	Bankfull	Bankfull
90m width	Root 2.0	+	+
	Leaf 0.1	Slope	Slope
Avg. Depth	Veg 0.3	+	+
Max Depth	Gravel 0.5	Veg	Veg
Rip. Buff L	Rock 7.0	+	+
Rip. Buff R	7.0	(Si) (G) (S) (A) (H) (F)	

90 - 100 meter [J]	Habitat Area (M)	Left Bank	Right Bank
	Snag 3.0	Bankfull	Bankfull
100m width	Root 3.0	+	+
	Leaf 0.1	Slope	Slope
Avg. Depth	Veg 0.4	+	+
Max Depth	Gravel 0.6	Veg	Veg
Rip. Buff L	Rock 7.0	+	+
Rip. Buff R	7.0	(Si) (G) (S) (A) (H) (F)	

Station Name

Mill Creek Upstream of Bayshore

Drive

Storet: G3NW0141

Date 03/22/2023

0 meter (Dec Deg)

30.52405

36.48916

100 meter (Dec Deg)

30.52076

36.48856

Water Quality Measured at

0

Stream Velocity and location.

0.25 m/s 52 meter mark

Number of Pools & Location

0

High Water: 1.5

Silt smothering @

A - J

A - J

Sand Smothering @

B, G, H, I, J

B, G, H, I, J

Algae Smothering @

A, D, F, H, J

A, D, F, H, J

Degraded Banks @

A, D, F, H, J

A, D, F, H, J

Degraded Banks @

A, D, F, H, J

A, D, F, H, J

Fe/Sulfur Bact. @

I I

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Bank Stability Score. Left Bank 2.0 Right Bank 2.7 Category Left Bk Suboptimal Right Bk Suboptimal
 Add all plus signs (Max: 30 possible) and Divide by 10. Scoring. Poor: 0.0 - 0.9 pts. Marginal: 1.0 - 1.9 pts. Suboptimal: 2.0 - 2.9 Optimal: 2.1 +

Notes. Stream channel is pressed against/constrained by retention wall for adjacent strip mall.

Total Habitat	Sq. Meters	Percent
Snags	26	8.1%
Roots	18	5.6
Leaf	1.0	0.5
Veg	0.6	0.2
Rock	2.6	0.8
Gravel		
Sand	271.2	84.7%
Other		
Sum 1° Habitat		153

Avg. Depth	Max. Depth	Avg. Width
0.34	0.6	3.2

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

SAMPLING AGENCY: FL DEP DEAR NWROC. 21FPLNS		STORET STATION NUMBER: G3NW0141	DATE (MM/DD/YY): 03/22/2023	RECEIVING BODY OF WATER: Boggy Bayou
REMARKS: WBID 644	COUNTY: Okaloosa	LOCATION: Mill Creek Upstream of Bayshore Drive	FIELD ID/NAME: G3NW0141	

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>12</u>	20 19 18 17 16	15 14 13 <u>12</u> 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 14 13 12 11	6% to 15% major productive habitat <u>10</u> 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>15</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 <u>15</u> 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>8</u> ----- Primary Score <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 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 <u>8</u> 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. <i>Left side partially channelized</i>	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>14</u>	20 19 18 17 16	15 14 13 12 11	<u>10</u> 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. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. <u>8</u> <u>7</u> 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	Width of vegetation greater than 18 m 17m Right Bank <u>8</u> 8m Left Bank <u>5</u>	Width of vegetation >12 to 18m <u>8</u> 7 6	Width of vegetation 6 to 12 m. human activities close to system <u>5</u> 4	Less than 6 m of buffer zone due to intensive human activities 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. Right Bank <u>7</u> <u>7</u> Left Bank <u>7</u> ----- Secondary Score <u>52</u>	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 <u>7</u> 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

97

TOTAL SCORE

30m of left channel is present / conserved by retaining wall.

Date: <u>3/22/23</u>	Analyst: <u>F. Butler</u>	Signature: <u>[Signature]</u>
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SBIO ID: 86264

HA ID: 18176

62-160.800, F.A.C.

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Mill Creek Upstream of Bayshore Drive County: Okaloosa Date: 3/22/2023 Investigators: F Buta

STORET Station Number: G3NW0141

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		60	1	N	N	
	2					2			
	3					3			
	4					4			
	5			96		5			91
	6					6			
	7					7			
	8		44			8			
	9		N			9		N	15
10	1	N	N		70	1	N	N	
	2					2			
	3					3			
	4					4			
	5			96		5			90
	6					6			
	7					7			
	8					8			
	9		N			9		N	10
20	1	N	N		80	1	N	N	
	2					2			
	3					3			
	4					4			
	5			96		5			80
	6					6			
	7					7			
	8					8			
	9		N			9		N	10
30	1	N	N		90	1	N	N	
	2					2			
	3					3			
	4					4			
	5		3	96		5			96
	6					6			
	7					7			
	8					8			
	9		N			9		N	10
40	1	N	N		100	1	N	N	
	2					2			
	3					3			
	4					4			
	5			96		5			96
	6					6			
	7					7			
	8					8			
	9		N			9		N	10
50	1	N	N			1	N	N	
	2					2			
	3					3			
	4					4			
	5			96		5			
	6					6			
	7					7			
	8					8			
	9		N			9		N	10

Secchi depth 0.3
Estimated? No

points ranked 4-6 5
total points assessed 5
% points ranked 4-6 100%

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey X
Habitat Assessment
SCI/Biorecon
Water sample
RQ- 2023-03-20-19

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. 86264

RPS ID. 10065

RPS score 5.05

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.
Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.
Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.
Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

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

Waterbody: Mill Creek Upstream of Bayshore Drive	Date: 3/22/23	County: Okaloosa	Storet Number: G3NW0141
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Analyst: F. Buta Signature: [Signature]

Comments: < 2 m Veg LOS not Approp.

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.

[illegible]

Field ID: G4NW0141

RPS ID 10065

SBIO ID 86264

Macro ID	N/A
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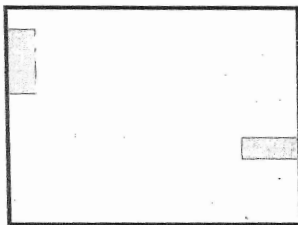
LIMS ID 2395941

RQ-2023-03-20-19

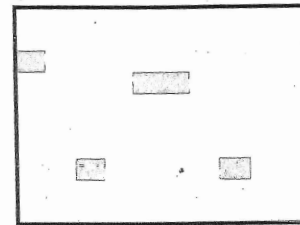
Revision Date: March 1, 2014

[illegible]

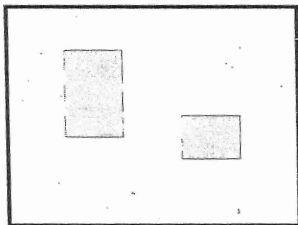
5% Macrophyte Coverage



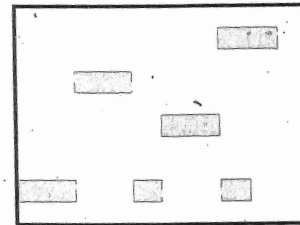
5% Macrophyte Coverage



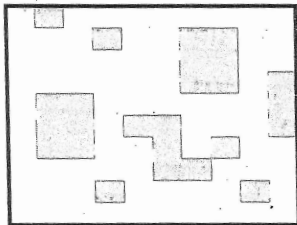
10% Macrophyte Coverage



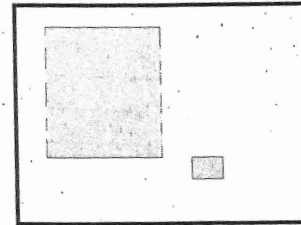
10% Macrophyte Coverage



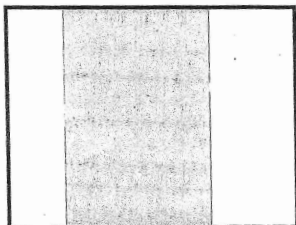
25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage

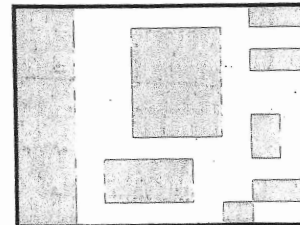


Photo Log

Storet G3NW0141

Station Name: Mill Creek Upstream of Bayshore Drive

Date: ~~3/22~~ 3/22/2023

Samplers: F. Butler, N. Mulkey

- 1 N
- 2 E
- 3 S
- 4 W
- 5 Upstream
- 6 Downstream
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

95m 2.0m
0.2 0.25 m/s 0.25
0.2 4m 0.2

Notes.