



RQ-2021-05-17-38

Customer: WQAP

Project ID: SMP

Collected By: Mike King, Nathan Mulkey

Field Report Prepared By: Mike King

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4NW0347

Location: Deadfall Creek upstream of Jackson Rd

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)
6/17/2021	1030 CEN	7.04	78.5	20.6	4.55	0.3	0.6 ☒ VOB (S)	0.6	22.9	0.01
	CEN						Central Lab please use top row for login purposes			

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 # SA0353110 Exp: 01/11/2022				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO3*	☒ <2	1	A
	Lot # NA0344060 Exp: 01/04/2022				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # 17097890				
	Syringe Lot # 0079929				
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-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC	☒ Formalin		2	
Periphyton (PT-50ML)	☒ ALGAE-ID	☒ Ice		1	B
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			
Pesticides (BG-500ML) (BG-1L)	☒ W-E8321-DI ☒ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-CL-R	☒ Ice		5	A
	☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-DIELDRIN				
Phytoplankton/Periphyton	DTM-QL-C ☐ PEN-QL-C ☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			
	DTM-QN-C ☐ PRN-QN-C ☐ PKD-QN-BV ☐				

Name:
Mike King
Nathan Mulkey

Signature:

Date:

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Site Name Deadfall Creek upstream of Jackson Rd
Field ID 64NW0347 Storet "
Visit ID 82506
RPS ID 9723
Macro ID 11825
HA ID 16863

Date: 6/17
Project: SMP
RQ: 2021-05-17-38
LIMS ID: 2255965
WBID: 145B

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial m

☒ Date and Initial QA: 6/24/21 SS

☒ RPS entered in SBIO Initial m

☒ Date and Initial QA: 6/24/21 SS

☒ LVS entered in SBIO Initial m

☒ Date and Initial QA: 6/24/21 SS

☐ < 2 m² vegetation

☐ Plants getting verified

Date submitted: _____

☐ Plants verified

Date returned: _____

☒ RPS authorized in SBIO

☒ Date and Initial: 7/14/2021, FB

☒ RPS score: 37.37

☒ Macro authorized in SBIO

☒ Date and Initial: 7/14/2021, FB

☒ LVS Score: FLEPPC 0.0%, Aug. PofC 6.56

☒ SCI complete: 8/26/2021 T. Risk SCI Score: 81

☒ Add SBIO-ID, HA-ID, RPS-ID, MACROPHYTE-ID and LIMS# to field sheet in database

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

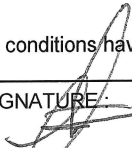
SAMPLE ID 82506 ORG ID 21FLPN3 LATITUDE 30.87769
COUNTY OKALOSA WIN ID/STORET # G4NW0347 LONGITUDE 86.63857
DATE 6/17/2021 TIME 11:30 CTZ _____ SAMPLING AGENCY FL DEP - NWROC
SITE NAME Deadfall Creek western of Jackson Rd RQ- 2021-05-17-38
FIELD ID/NAME G4NW0347 RECEIVING BODY OF WATER Deadfall creek WBID 145B Project: SMP

RIPARIAN ZONE / STREAM FEATURES

LIMS ID: 2255965

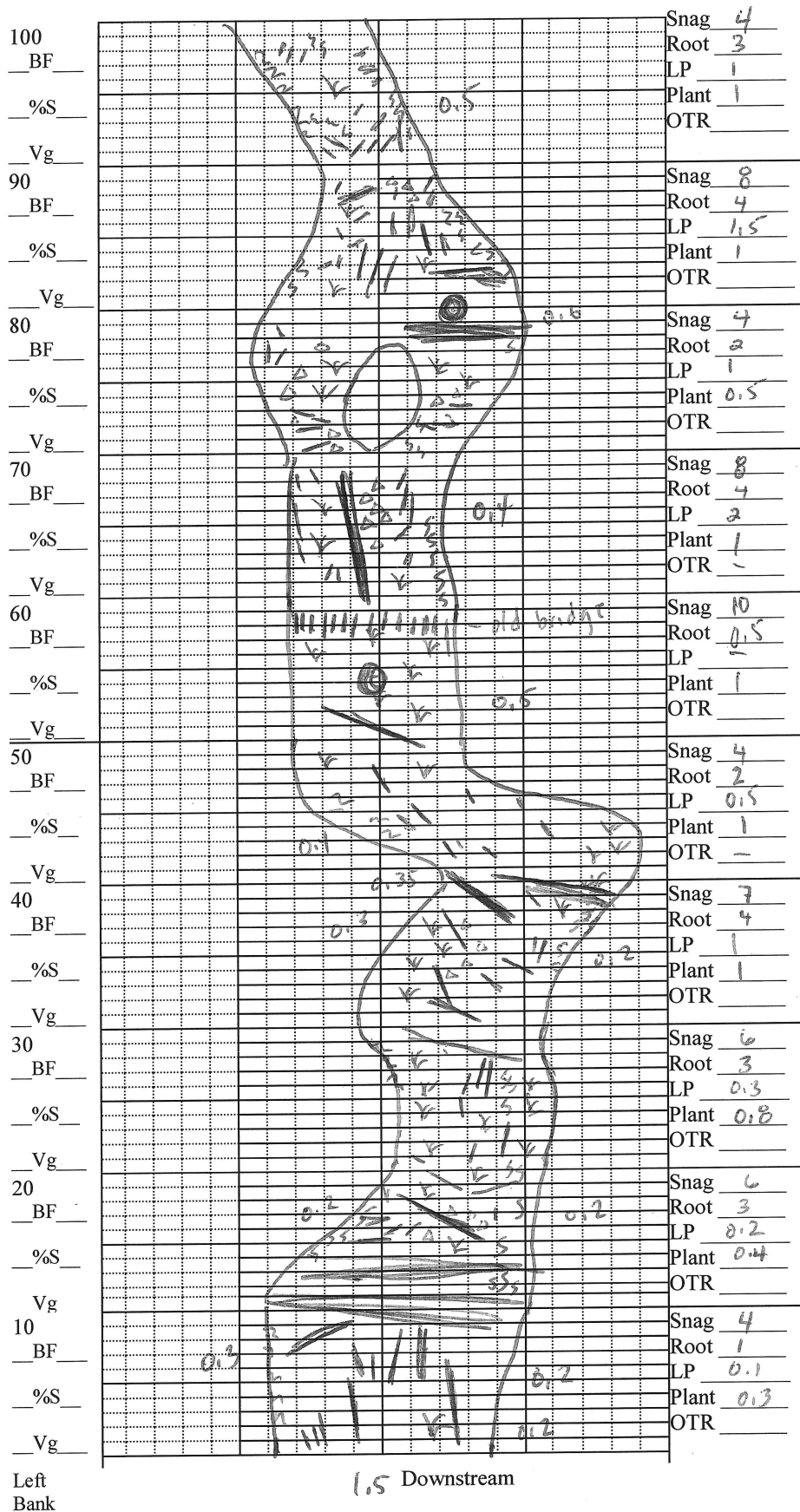
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐						Landscape Development Intensity Index (LDI) <u>1.1 (SBIO 2016*)</u>	
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>1.5</u> m wide	
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy							
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>218</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>		<u>0.15</u> m/s <u>0.33</u> m/s <u>0.25</u> m/s	
High Water Mark: <u>0.5</u> + <u>0.6</u> = <u>1.1</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No		<u>0.2</u> m deep <u>0.3</u> m deep <u>0.2</u> 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			WATER QUALITY <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MGL)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>0.3</u></td> <td><u>20.4</u></td> <td><u>4.55</u></td> <td><u>7.04</u></td> <td><u>78.5</u></td> <td><u>22.9</u></td> <td><u>0.01</u></td> <td><u>0.6</u></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MGL)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u>0.3</u>	<u>20.4</u>	<u>4.55</u>	<u>7.04</u>	<u>78.5</u>	<u>22.9</u>	<u>0.01</u>	<u>0.6</u>	Mid:								☒ VOB	Bottom:								
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Bottom:																																												
Woody Debris (Snags) <u>30</u> <u>4</u> <u></u> Undercut Banks / Roots <u>13.25</u> <u>4</u> <u></u> Leaf Packs or Mat <u>4.25</u> <u>4</u> <u></u> Aquatic Vegetation <u>3.5</u> <u>4</u> <u></u> Rock or Shell Rubble <u></u> <u></u> <u></u> Sand <u></u> <u>4</u> <u></u> Mud / Muck / Silt <u></u> <u></u> <u></u> Other <u></u> <u></u> <u></u> Other <u></u> <u></u> <u></u>			Meter ID: <u>154179</u> <u>-43.2</u>			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐																																						
			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐																																						
			Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☒ No Lot Number: _____ Exp: _____			Color Tannic ☒ Green (Algae) ☐ Clear ☒ Other (Specify) ☐																																						
			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																						
ABUNDANCE <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Fish:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☐	☐	☒	Fish:	☐	☒	☐	☐	Aquatic Plants:	☐	☐	☒	☐	Iron/Sulfur Bacteria:	☐	☒	☐	☐	AMBIENT FIELD CONDITIONS / NOTES: * LDI score from historic Storet 33040019. ☒ The antecedent hydrologic conditions have been met to my best knowledge.																
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SAMPLING TEAM: <u>MIKE KING / N. MURPHY / H. SCHMUKI</u>			SIGNATURE: 			DATE: <u>6/17/21</u>																																						

6/17/21

(Horizontal scale is double vertical scale, draw proportionately).



WIN ID

Substrates: Code key,
draw proportionate habitat
abundance.

	Snags	61 / 200	30
	Roots/undercut banks	24.5 / 13.25	
	Leaf Packs (or mats)	8.5	4.25
	Macrophytes	7 =	3.75
			50.7
			
		1	

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.

Average width 2 m

Average depth 0.3 m
WQ & chemistry taken @ 100 m

Little Black Creek upstream
of Black Creek

Project. SMP / TMDL Studies

Sampled By/Date: 06/ 13 /2021

0 m Latt. 30.87824

0 m Long. 86.63727

100 m Latt 30,87888

100 m Long 86.63776

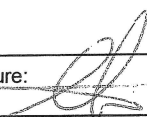
DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>FOEP NW ROC</u>		STORET STATION NUMBER: <u>G4WW0347</u>	DATE (MM/DD/YY): <u>6/17/2021</u>	RECEIVING BODY OF WATER: <u>Deadfall Creek</u>
REMARKS: <u>WBID 145B</u>	COUNTY: <u>OKALOSA</u>	LOCATION: <u>Deadfall Creek upstream of Jackson Rd</u>	FIELD ID/NAME: <u>G4WW0347</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>16</u>	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 <u>16</u>	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 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>20</u>	Greater than 30% major productive habitat present at site <u>20</u> 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 <u>17</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 <u>17</u> 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>4</u> Primary Score <u>57</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 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 <u>4</u> 3 2 1
Secondary Habitat Components Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>20</u> 19 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>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. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>10</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>9</u> Left Bank <u>9</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

135

TOTAL SCORE

Date: <u>6/17/21</u>	Analyst: <u>MIKE KING</u>	Signature: 
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SBIO ID: 82506
62-160.800, F.A.C.

HA ID: 16863

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: G4NW0347 County: OKALOOSA Date: 6/17/21 Investigators: MIKE KING

STORET Station Number: G4NW0347

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	88	60	1	N	N	96
	2	N				2	N		
	3	3				3	3		
	4	6				4	3		
	5	N				5	3		
	6	6				6	4		
	7	6				7	4		
	8	4				8	3		
	9	3				9	3		
10	1	N	N	80	70	1	N	N	88
	2	6				2	N		
	3	3				3	4		
	4	3				4	5		
	5	N				5	5		
	6	✓				6	4		
	7	6				7	3		
	8	N				8	N		
	9	3				9	N		
20	1	3	N	88	80	1	3	N	76
	2	N				2	3		
	3	6				3	4		
	4	5				4	3		
	5	3				5	4		
	6	N				6	5		
	7	2				7	2		
	8	2				8	3		
	9	3				9	3		
30	1	2	N	76	90	1	3	N	96
	2	N				2	3		
	3	6				3	4		
	4	6				4	5		
	5	5				5	6		
	6	N				6	3		
	7	3				7	3		
	8	4				8	3		
	9	N				9	3		
40	1	2	N	66	100	1	N	N	80
	2	2				2	N		
	3	5				3	3		
	4	6				4	4		
	5	4				5	4		
	6	N				6	5		
	7	6				7	3		
	8	5				8	N		
	9	3				9	3		
50	1	3	N	76	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	3			Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.				
	3	3			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.				
	4	3			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	5							
	6	6							
	7	3							
	8	3							
	9	4							

Secchi depth 0.6
Estimated? Y

points ranked 4-6 37
total points assessed 99
% points ranked 4-6 37

Check accompanying data collected at same site/date.
Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ- 2021-05-17-38

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 82506
RPS ID 9723

[illegible]