



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Gap Creek powerline South of Overbrook Drive **Date:** 8/5/2021
WIN/Field ID: G3NW0142 **WBID:** 843A **ENR:** **Latitude:** 30.431944
County: OKALOOSA **Org ID:** 21FLPNS **Longitude:** -86.648757
Receiving Body of Water: - **RQ:** 2021-07-12-52

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Nathan Mulkey			x		
☒	Myranda Butler	x	x	x	x	x
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ 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: No		Flow: FLOW		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:											
SBIO ID Numbers: SBIO Visit ID: 82890. HA ID: 16957. RPS ID: 9757											
Notes:											

Duplicate Sample

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

Blank

Time Zone:	Time:	Field ID:	(Blank Type_DDDMMYYY)
DI Source:		Location:	
DI Type:		Equipment ID:	
DI Container (Name/ID):		DI Container Type:	

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



RQ-2021-07-12-52

Customer: WQAP

Project ID: SMP

Collected By: Nathan Mulkey, Myranda Butler

Field Report Prepared By: Nathan Mulkey

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G3NW0142

Location: Gap Creek powerline South of Overbrook 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)		
	1200 CEN	5.11	61.8	25.3	5.8	0.2	0.3 ☒ VOB (S)	0.3	112.5	0.05		
8/5/2021												
	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 #	0293040	Exp:	10/19/21							
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A		
		Lot #	0344060	Exp:	1/4/22							
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A		
		Filter Lot #										
		Syringe Lot #										
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 Lot #	01234	☒ Formalin				1	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						
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI	☒ WE8321-MS	☒ W-PSNP-TQ		W-CT-CL-R	☒ Ice		3	A		
Phytoplankton/Periphyton		W-PCL-TQ-R				W-CARB-AA (5 ml of MCAA** Buffer Solution)						
						DTY-QN-C						
						PKD-QN-BV		☐ Ice				
Name: Nathan Mulkey Myranda Butler					Signature:				Date:			

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Site Name: Gay Creek

Date: 8/5/21

Storet 63NW0142 Field ID 63NW0142

Project: SMP

Visit ID 82890

RQ: 2021-07-12-52

RPS ID 9757

LIMS ID: 2267985

Macro ID N/A

WBID: 843A

HA ID 16957

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO

Initial FB 8/10/21

☒ Date and Initial QA: 8/23/2021 SS

☒ RPS entered in SBIO

Initial FB 8/18/21

☒ Date and Initial QA: _____

☐ LVS entered in SBIO

Initial _____

☐ Date and Initial QA: _____

☐ < 2 m² vegetation

☒ Plants getting verified

Date submitted: _____

☐ Plants verified

Date returned: _____

☒ RPS authorized in SBIO

☒ Date and Initial: 9/02/2021 FB

☒ RPS score: 0

☐ Macro authorized in SBIO

☐ Date and Initial: _____

☐ LVS Score: N/A

☒ SCI complete: 10/20/2021, T. Risk

SCI Score: 33

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

☐ E. coli samples shipped to Tallahassee Lab for analysis.

LVS not collected

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

SAMPLE ID 82890 ORG ID 21FLPNS LATITUDE 30.86256 30.43160
 COUNTY Okmulgee WIN ID/STORE # 63NW0491 LONGITUDE 86.61404 86.64906
 DATE 8/5/21 TIME 1200 CTZ GMT-0500 SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Danforth Creek Gas Creek RQ 2021-07-12-52
 FIELD ID/NAME Circle Bayou RECEIVING BODY OF WATER Circle Bayou WBID 888 Project: SMP

RIPARIAN ZONE / STREAM FEATURES

LIMS ID:

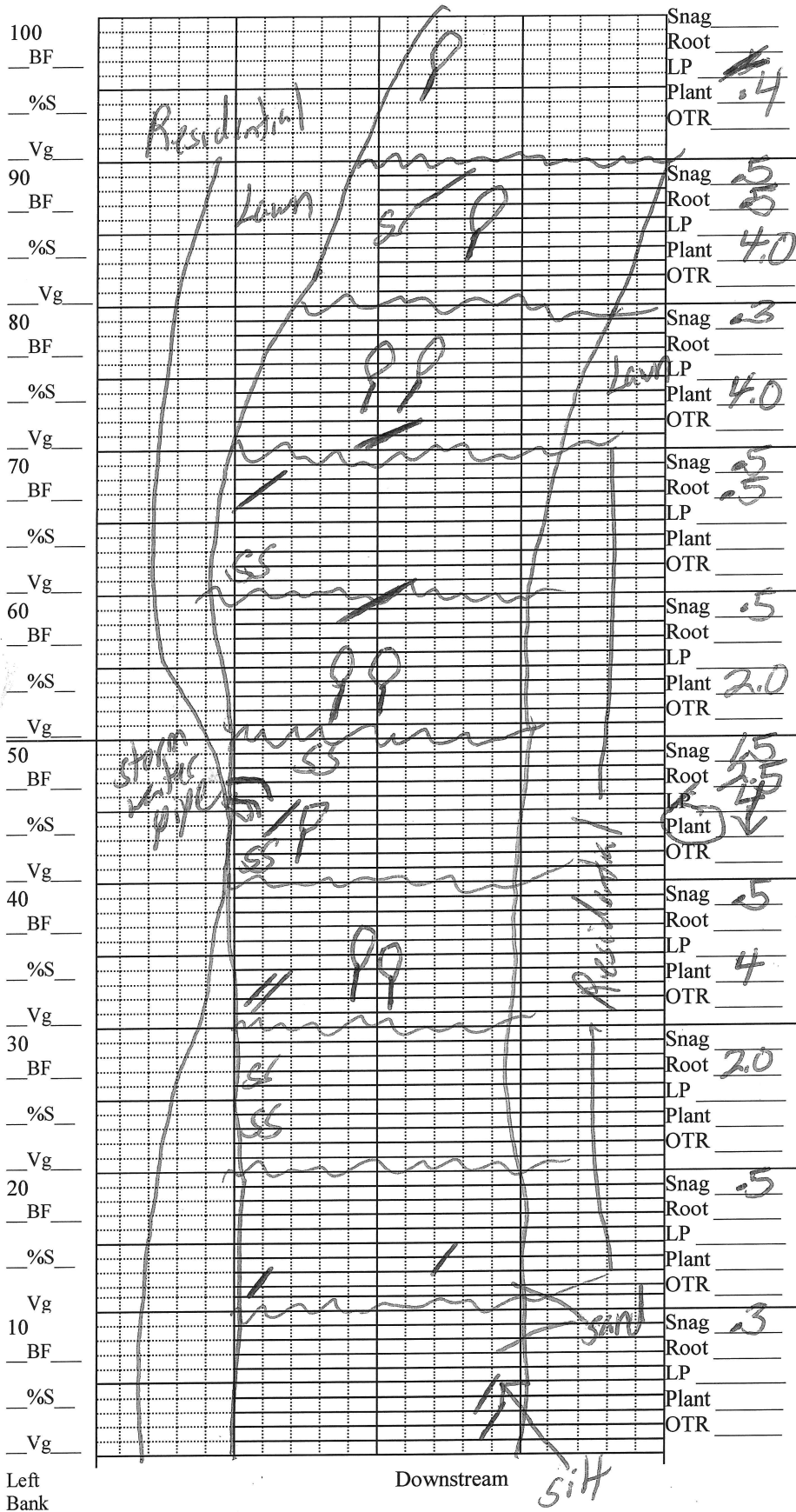
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐								Landscape Development Intensity Index (LDI) <u>N/A</u>
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy				Typical Width (m) Depth (m)/Velocity (m/sec) Transect _____ m wide _____ m/s _____ m/s _____ m/s _____ m deep _____ m deep _____ m deep				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u><6</u> Right Bank: <u><6</u>				Hydrologic Modification Score (per FT 3101) _____				
High Water Mark: _____ + _____ = _____ (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☒ Yes ☐ No				
Artificially ☐ No ☒ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☒ Moderate Shaded (46-80%)				

SEDIMENT / SUBSTRATE

Sediment Oils ☐ Absent ☒ Slight ☐ Moderate ☐ Profuse		Sediment Odors ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Anaerobic ☐ Other (Specify): _____		Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐ Algae Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐	
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon		WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.2</u> <u>25.3</u> <u>5.8</u> <u>5.8</u> <u>6.8</u> <u>1125</u> <u>0.05</u> _____ Mid: _____ _____ _____ _____ _____ _____ _____ Bottom: _____ _____ _____ _____ _____ _____ _____ Meter ID: <u>154179</u> <u>154179</u> <u>0.3</u>			
Woody Debris (Snags) <u>1.5</u> <u>5</u> _____ Undercut Banks / Roots <u>1.8</u> <u>5</u> _____ Leaf Packs or Mat _____ _____ _____ Aquatic Vegetation _____ <u>6.1</u> <u>5</u> _____ Rock or Shell Rubble _____ _____ _____ Sand _____ <u>5</u> _____ Mud / Muck / Silt _____ _____ _____ Other _____ _____ _____ Other _____ _____ _____		Water Odors Normal ☐ Petroleum ☐ Sewage ☐ Chemical ☒ Other ☒		Water Surface Oils Normal ☐ Sheen ☒ Globs ☐ Slick ☒ Other ☐	
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐		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: <u>Nathan Mulky / Myranda Butler</u>		SIGNATURE: <u>Nathan Mulky</u>		DATE: <u>8/5/21</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).



WIN ID G3NW0142

Substrates: Code key,
draw proportionate habitat
abundance.

☒ Snags ✓ 4.6 1.5%

☒ SS Roots/undercut banks 5.5 1.8%

☐ Leaf Packs (or mats)

☒ P Macrophytes 18.4 6.1%

☐

☐

☐

(9.4%)

Velocity: 70m 1/4 m
Note where velocity
measures were taken.

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 m
Average depth 0.5 m
WQ & chemistry taken @ 78 m

~~Little Black Creek upstream
of Black Creek~~

Project. SMP / TMDL Studies
Sampled By/Date: 8/5/2021

0 m Latt. 30.43160

0 m Long. 86.64906

100 m Latt. 30.43206

100 m Long. 86.64978

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

SAMPLING AGENCY: <u>FDEP NWROC</u>		STORET STATION NUMBER: <u>631W0142</u>	DATE (MM/DD/YY): <u>08/05/21</u>	RECEIVING BODY OF WATER: <u>Cinco Bayou</u>
REMARKS: WBID <u>843A</u>	COUNTY: <u>Oklahoma</u>	LOCATION: <u>Camp Creek</u>	FIELD ID/NAME: <u>631W0142</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>11</u>	20 19 18 17 16	15 14 13 12 <u>11</u>	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 9 <u>8</u> 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>14</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 15 <u>14</u> 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>37</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	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>9</u>	20 19 18 17 16	15 14 13 12 11	10 <u>9</u> 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 <u>9</u> Left Bank <u>9</u>	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 <u>3</u> Left Bank <u>1</u>	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 <u>3</u> Left Bank <u>2</u> ----- Secondary Score <u>36</u>	10 9	8 7 6	5 4	3 2 1

73

TOTAL SCORE

Date: <u>8/5/21</u>	Analyst: <u>Nathan Mulkey</u>	Signature: <u>Nathan Mulkey</u>
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SBIO ID: 82890
62-160.800, F.A.C.

HA ID: 16957

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Cape Creek</u>					County: <u>Ocala</u>		Date: <u>8/15/21</u>		Investigators: <u>Nathan Walker</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			60	1	N			
	2					2				
	3					3				
	4					4				
	5			70		5			70	
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			72		5			70	
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			80		5			65	
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			84		5			70	
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			86		5			76	
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N				1	N			
	2					2				
	3					3				
	4					4				
	5			77		5				
	6					6				
	7					7				
	8					8				
	9					9				

STORET Station Number: GBNW0142

Secchi depth 23
 Estimated? N

points ranked 4-6 8
 total points assessed 91
 % points ranked 4-6 8

Check accompanying data collected at same site/date.
 Algal mat sample ☐
 Linear Veg Survey ☒
 Habitat Assessment ☒
 SCI/Biorecon ☒
 Water sample ☒
 RQ: 2021-07-12-52

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

SBW ID 82890
 RPS ID 9757

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: Gage Creek Date: 8/5/21 County: Okfuska Storet Number: 63110142
 Analyst: Nathan Mulky Signature: Nathan Mulky

Comments: **LVS not collected**

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES	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	
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 hemitomom											
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																							
Ludwigia repens																							
Luziola fluitans																							
If no Dominant or Co-Dominant were selected, indicate with "X"																							
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage																							
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							