

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:		NORTH CREEK BY OAKS CREEK CT				Sample Date:		11/30/2023	
WIN / Field ID:	G3SD0064	ORG ID:	21FLFTM	ENR:	-	Latitude:	27.20517		
County:	SARASOTA	WBID:	1984AB	STREAM	3F	Longitude:	-82.47518		
Receiving Body of Water:		Little Sarasota Bay				RQ-	2023-11-27-63		

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Nicole Reistad		x		x	
Samantha Gelinas	x		x		x

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
	Syringe		Pole
Syringe Lot# 3087881		Filter Lot# 17589311	
Secchi Equipment ID:		Slippery Disk	
Collection Method			
	Wading		Canoe/Kayak
x	From Shore		Electric Motor
			Gasoline Motor
Depth Measured With		Secchi	

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	No
Meter ID:	The One
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1025	0.2	0.1	4.76	50.2	17	7.38	0.2	1871	0.96
								VOB (s)		

Biological Samples Collected: HA LVS RPS SCI LVISBIO Visit ID: HA ID: RPS ID: Macrophyte ID: LIMS Sample ID
In The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation				
				Type		Lot#	Expiration Date	pH Check
Microbiology	E. coli			ICE				
	Contract Lab	Benchmark						
Chlorophyll	CHLSUITE-W			ICE				
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE				
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE				
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE		Syring Lot#:3087881; Filter Lot#:17589311		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3193140	07/31/2024	H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA3123030	05/10/2024	HNO3 pH<2
Organics (LC)	W-E8321-DI	W-E8321-MS		Ice				
Macroinvertebrates	MI-FW-QLDC			Formalin		9990517CS		
Organics (GC)				Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise			
Molecular	W-PSNP-TQ	W-TR-SQ-R		Ice				
	PCR-HF183	PCR-BacR	PCR-DG3					
Periphyton								
Phytoplankton								
BOD								
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Field Comments: / SCI Collection Time: 1025**Comments on COC:** Microbiology sample(s) submitted to contract laboratory.

Relinquish Date:	11/30/2023	Signature:	
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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)

Save Field Sheets on Network: Migrate Data to WIN:

(Initials/Date)

(Initials/Date)

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

SAMPLE ID _____ ORG ID 21FLFTM LATITUDE 27.2049076
 COUNTY Sarasota STORET # G3SD001A LONGITUDE -82.4742268
 DATE 11/30/2023 TIME _____ SAMPLING AGENCY FDEP-SROC
 SITE NAME North Creek by Oaks Creek Ct
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Gulf of Mexico

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>10</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>50</u> Commercial <u>5</u> Industry _____ Other (Specify) <u>Golf Course</u>							Landscape Development Intensity Index (LDI) _____
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>1.5</u> m wide _____ m/s <u>0.1</u> m/s _____ m/s _____ m deep <u>0.3</u> m deep _____ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>15</u> Right Bank: <u>10</u>				Hydrologic Modification Score (per FT 3101) <u>5-6</u>			
High Water Mark: <u>0.5</u> + <u>0.3</u> = <u>0.8</u> (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>0.1</u> <u>17.0</u> <u>7.38</u> <u>4.76</u> <u>502</u> <u>1871</u> <u>0.96</u> <u>0.2</u> Mid: _____ _____ _____ _____ _____ _____ _____ Bottom: _____ _____ _____ _____ _____ _____ _____ Meter ID: <u>The One</u> TOTAL DEPTH: <u>0.2</u>		
Woody Debris (Snags) <u>8.06</u> <u>4</u> <u>—</u> Undercut Banks / Roots <u>4.33</u> <u>4</u> <u>—</u> Leaf Packs or Mat <u>1.60</u> <u>4</u> <u>—</u> Aquatic Vegetation <u>10.733</u> <u>4</u> <u>—</u> Rock or Shell Rubble.. _____ _____ _____ Sand..... _____ <u>4</u> <u>—</u> Mud / Muck / Silt _____ _____ _____ Other _____ _____ _____ Other _____ _____ _____			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____ Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☒ No Lot Number: _____ Exp: _____		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☐ ☒ ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ 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

Nicole Reistad, Samantha Gelinas

SIGNATURE:

[Signature]

DATE:

11/30/2023

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

Waterbody: North Creek	Date: 11/30/23	County: San Jose	Store Number: G3SD0004
Analyst: Nicole Reistad	Signature: [Signature]		
Comments:			

Comments:

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.

		Meter Mark											Meter Mark												
HERBACEOUS SPECIES		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)	HERBACEOUS SPECIES		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides				X									Micranthemum glomeratum												
Bacopa caroliniana													Micranthemum umbrosum												
Bacopa monneri													Myriophyllum aquaticum												
Bidens mitis													Najas guadelupensis												
Boehmeria cylindrica													Nuphar luteum				X					XXXXX			
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										XX		
Eleocharis (wispy viviparus)													Sacciolepis striata												
Hydrilla verticillata													Sagittaria kurziana												
Hydrocotyle		XXXXXXXXXXXXXXX											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								X					Sagittaria macrophyllum				XXXXV					XXXX			
Luziola fluitans													Wetzelia triblata									XXXX			

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>North Creek</u>					County: <u>Sarasota</u>		Date: <u>11/30/23</u>		Investigators: <u>SG BUR</u>	
					STORET Station Number: <u>673500064</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			96		5				96
	6					6				
	7					7				
	8					8				
	9	N				9	N			
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			96		5				80
	6					6				
	7					7				
	8					8				
	9	N				9	N			
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			96		5				72
	6					6				
	7					7				
	8					8				
	9	N				9	N			
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			96		5				96
	6					6				
	7					7				
	8					8				
	9	N				9	N			
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			96		5				76
	6					6				
	7					7				
	8					8				
	9	N				9	N			
50	1	X			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%.					
	2									
	3									
	4			NOT ACCESSABLE						
	5									
	6									
	7									
	8									
	9	X								

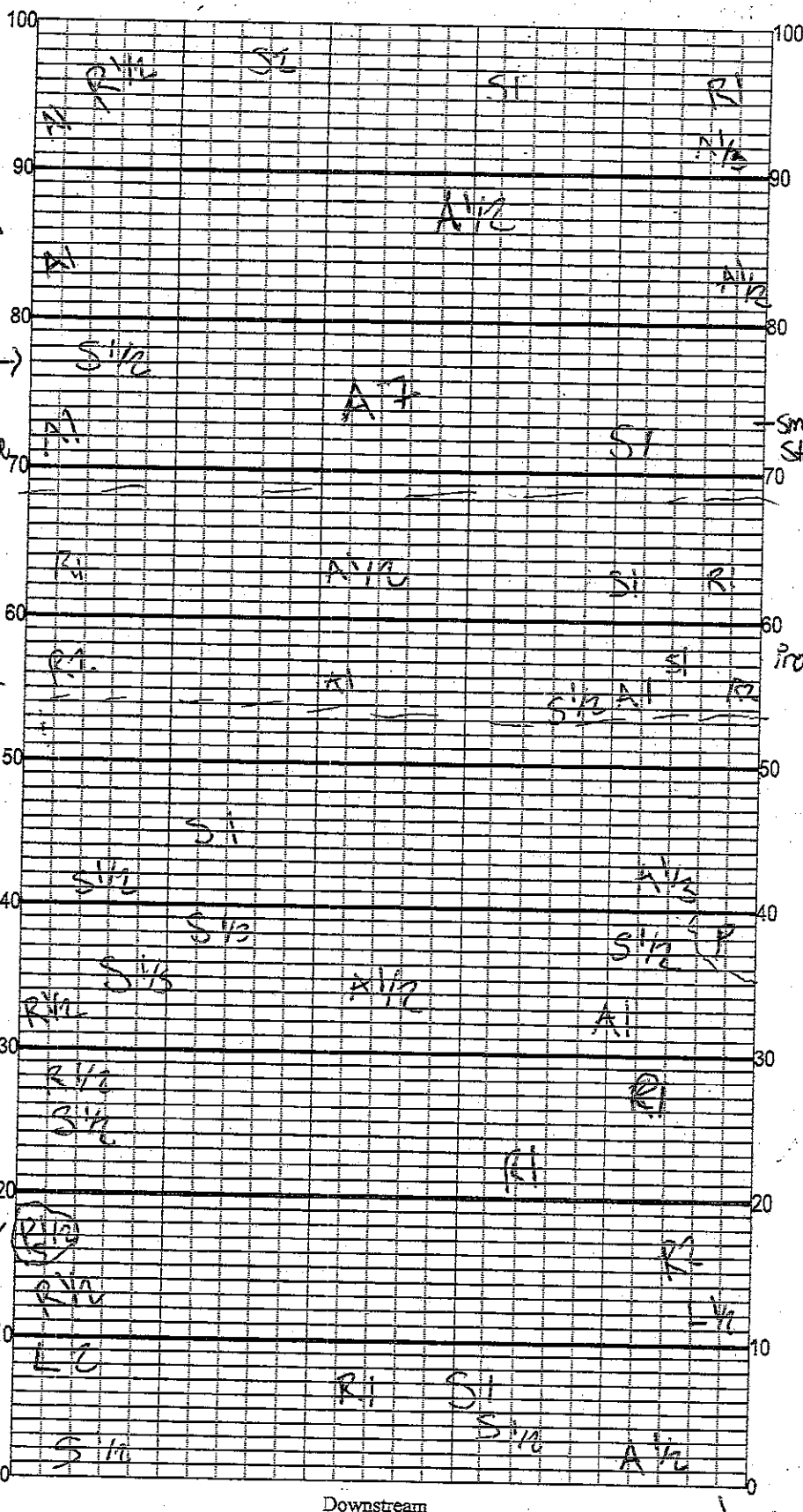
Secchi depth 0.2
Estimated?

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

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey
Habitat Assessment
SCI/Biorecon
Water sample
RQ-2023-11-27-63

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

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).

Location: North Creek

Date: 11/30/23

Sampler: SG, NR

100 m: Latitude 27.2019076
Longitude -82.4742268

0 m: Latitude 27.2051879
Longitude 82.4749298

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 8.06

R Roots/undercut banks 9.33

L Leaf Packs (or mats) 10.66

A Aquatic Macrophytes 10.733

P Pools total # observed = 2
range expected = 6

Average width 1.5 m

Average depth m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering 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.

Plants observed / other notes:

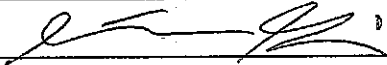
R: 14
S: 12.1
L: 20.5
A: 16.1
P: #2/15/1P

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

SAMPLING AGENCY: FDEP-SOROC		STORET STATION NUMBER: G3SD0064	DATE (MM/DD/YY): 11/30/23	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Sarasota	LOCATION: North Creek by Oak Creek	FIELD ID/NAME: C+	

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 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 15	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 10	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 10 7 ----- Primary Score 48	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). 3 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 Artificial Channelization 17	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening 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 85 Left Bank 87	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody 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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 5 Left Bank 6	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 4 Left Bank 4 ----- Secondary Score 48	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

TOTAL SCORE

Date: 11/30/23	Analyst: Samantha Gelinas	Signature: 
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