



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

Yes / No

WIN Station Name: Gold Head BR. In State Park @ Old Mill Site

Date: 2/11/2020

(mm/dd/yyyy)

WIN/ Field ID: 2 00 3044

WBID: 2528G

Latitude: 29.832183

(Decimal Degrees)

County: Clay

ORG ID: 21FLA

Longitude: 81.945974

(Decimal Degrees)

Receiving Body of Water: Lake Johnson

RQ-2020- 02-10-15

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Jeremy Parrish	X	X	X	X	X
Kim Appleby	X	X	X	X	X
Kelly McDonald		X		X	

Sampling Equipment	
☒ Sample Container	☐ Van Dorn
☐ Syringe	☐ Pole
☐ Dipper	☐ Other
Depth Measured with <u>meter</u>	
Equipment ID <u>Ortho L-1344</u>	
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>Desi</u>
Photos: Yes / <u>No</u>	Flow: No Flow / <u>Flowing</u> / NA
Tide: Rising/ Falling/ Slack/ <u>NA</u>	Tide Times: High Low
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:
HA-ID:	RPS-ID:
Macrophyte-ID:	LIMS#:
Notes:	

Duplicate Sample

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

Blank

Time Zone: EST CEN Time:	Field ID: (Blank Type_QDMYYYY)
DI Source:	Location:
☐ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank	Equipment ID:

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: (Initials/Date) QC Station ID, Field Parameters In LIMS DMT: (Initials/Date)

Scan/Save Field Sheets (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

WIN ID/Field ID:

20030414

Gold Head Br. In State Park @ Old Mill Site

Comments:

JLFURIC
ACID <51%
DANOS 91
7554-559
7732-16-8

Thermo Fisher Scientific
520 NORTH MAIN STREET
MADE, OH 43054
1-800-456-2711

Conc: 1:1 H2SO4

May be corrosive to metals. Causes severe skin burns and eye damage. Do not breathe dust/fume/gas/aerosol. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Wash contaminated clothing before reuse. If ON SKIN (or hair): Remove/soak off immediately all contaminated clothing. Remove skin with soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF BY INGESTION: Immediately call poison control center for medical advice. Remove contact lenses if present and easy to do. Continue rinsing. Store locked up. Store in corrosion-resistant container with a magnetic liner.

Lot No.: SA9301030
Expiry: 10/29/20
See Safety Data Sheet (SDS)

Matrix: Fresh / Marine

(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)

2/11/20 1030 8.37 93.6 20.8 5.17 0.10 0.20 0.20 21.1 0.01

EST/CST

VOB(S)

Central Lab please use top row for login purposes

EST/CST

Parameter Suite

Parameter Methods

Preservation

pH Check

Bottles
sent to Lab

Bottle
Group

Preserved Nutrients
(P-500ML)

☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TDC / ☒ W-S-A-TP

☒ Ice ☒ H2SO4

☒ <2

1

A

Lot #

SA9301030

Exp:

10/2020

Metals
(P-500ML)

☒ W-ICPMS ☒ W-ICP ☒ W-HARD

☒ Ice ☒ HNO3

☒ <2

1

A

Lot #

NA9189080

Exp:

7/2020

Filtered Nutrients
(P125ML)

☒ W-P04-F ☒ Field Filtered 0.45 µm Filter

☒ Ice

1

A

Filter

Lot #

Syringe

Lot #

R9MA87336

Chlorophyll
(BP-1L)

☒ CHLSUITE-W

☒ Ice

1

A

Physical/Aggregate (Fresh)
(P-1L)

☒ Alkalinity / ☒ W-F / ☒ W-TSS / ☒ TURBIDITY / ☒ W-CHC / ☒ 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-OLDC

☒ Formalin

2

B

Periphyton
(PT-50ML)

☐ ALGAE-ID

☐ Ice

Microbiology
(Contract Lab Bottle)

☒ E-Coli ☐ F Coll ☐ Enterococci

☒ Ice

1

A

Contract Lab

Molecular
(QPCR-P-500ML)

☒ PCR-HF183 ☒ PCR-BacR ☒ PCR-DG3

☒ Ice

1

A

PCR-GULL2

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

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

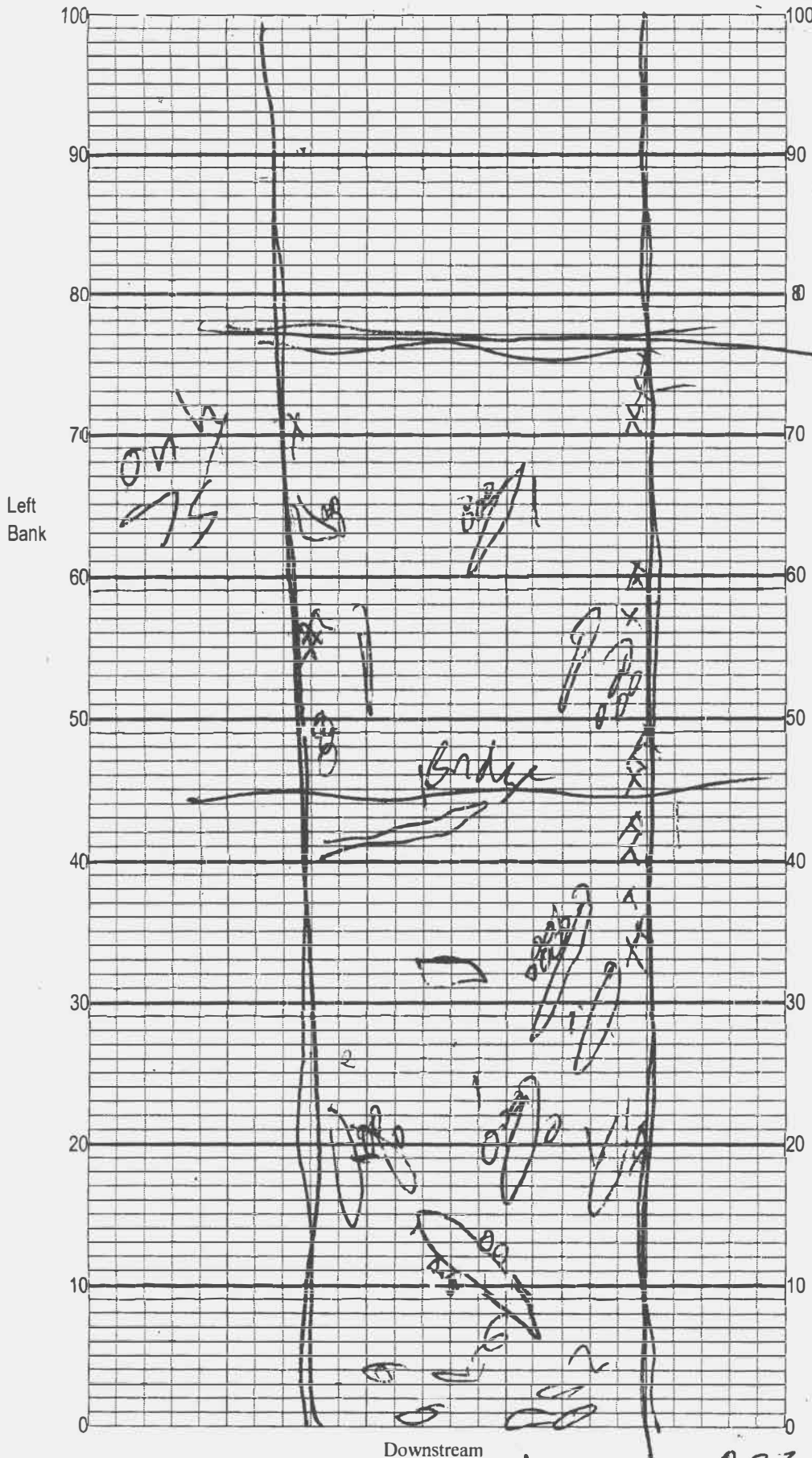
SAMPLING AGENCY:		STORET STATION NUMBER: <u>20030414</u>	DATE (MM/DD/YY): <u>2/11/20</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Clay</u>	LOCATION: <u>Goldhead @ oldmill site</u>	FIELD ID/NAME:	

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>13</u>	20 19 18 17 16	15 14 <u>13</u> 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>10</u> <u>98</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>18</u> <u>23</u> <u>34</u> <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 20 19 <u>18</u> 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>16</u> Primary Score <u>56</u> <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 <u>16</u>	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 or straightening 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 woody 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 woody 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 18 m 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> <u>78</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 <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. 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: <u>2/11/20</u>	Analyst: <u>Jerry Pann</u>	Signature: <u>Jerry Pann</u>
----------------------	----------------------------	------------------------------

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



Location: Old head c. old m. r.
 Date: 2/11/20
 Sampler: BP

100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☒ Snags	11
☒ Roots/undercut banks	1.5-1.8
☒ Leaf Packs (or mats)	1.0-1.8
☐ Aquatic Macrophytes	
☐	
☐	
☐ Pools	total # observed = _____ # range expected = _____
Average width _____ m	
Average depth _____ m	
Velocity measured at _____ meter mark.	
WQ & chemistry taken at _____ 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:

leaf = 1.5-2.5 =
 Root = 1.5-2.5 =
 Snags = 1.5-2.5 =
 1.5-2.5 =

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

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

SAMPLE ID _____ ORG ID: 21FLA LATITUDE 29.832183
 COUNTY Elam STORET # _____ LONGITUDE 81.945974
 DATE 2/11/20 TIME 1030 SAMPLING AGENCY FDEP NE ROL
 SITE NAME Gold Head Br. In State Park Old Mill Site
 FIELD ID/NAME 20030414 RECEIVING BODY OF WATER Lake Johnson

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>90</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential _____ Commercial _____ Industry _____ <u>Park</u> Other (Specify) <u>10</u>								Landscape Development Intensity Index (LDI) _____
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy				Typical Width (m) Depth (m) Velocity (m/sec) Transect _____				
Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy				_____ <u>1.5</u> m wide				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) <u>1</u>				
High Water Mark: <u>0.2</u> + <u>0.2</u> = <u>0.4</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					
Invert <u>11</u> % Coverage <u>5</u> # Times Sampled Woody Debris (Snags) <u>1.8</u> <u>5</u> Undercut Banks / Roots <u>1.8</u> <u>15</u> Leaf Packs or Mat Aquatic Vegetation Rock or Shell Rubble..... Sand..... <u>85</u> <u>15</u> Mud / Muck / Silt Other Other			Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.10</u> <u>20.8</u> <u>5.17</u> <u>8.37</u> <u>93.6</u> <u>21.1</u> <u>0.01</u> <u>0.20</u> Mid: _____ Bottom: _____ Meter ID: <u>DCS</u> TOTAL DEPTH: <u>0.20</u>					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			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: _____ System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) _____					
Water Surface Oils: Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) _____ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐			AMBIENT FIELD CONDITIONS / NOTES: ☐ The antecedent hydrologic conditions have been met to my best knowledge.					

SAMPLING TEAM

SIGNATURE:

DATE:

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Goddhead bric old mill site</u>					County: <u>Clay</u>		Date: <u>2/11/20</u>		Investigators:	
					STORET Station Number: <u>20030414</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	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5			85		5				60
	6			95		6				
	7					7				
	8					8				
	9					9				
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4					4				
	5			85		5				60
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4					4				
	5			85		5				60
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N	N		90	1				
	2					2				
	3					3				
	4					4				
	5			85		5				
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N	N		100	1				
	2					2				
	3					3				
	4					4				
	5			85		5				
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N	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. 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			85						
	5									
	6									
	7									
	8									
	9									

Secchi depth	
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-	

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

[illegible]