



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

Data Qualified?

Yes / No

January 2019

WIN Station Name: Kissimmee AboveDate: 09/11/2019
(mm/dd/yyyy)WIN/ Field ID: G4SE0091WBID: 3202Latitude: 27.248488
(Decimal Degrees)County: HIGHLANDSORG ID: 21FLWPBLongitude: -80.990089
(Decimal Degrees)Receiving Body of Water: lake - ORQ: 2019-09-09-56

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis-Musson <u>SKAGGS</u>										
Blake-Spencer <u>SEWELL</u>										

Sampling Equipment	
☐ Sample Container	☐ Van Dorn ☐ Pole
☐ Carboy	☐ Syringe
☐ Dipper	☐ Other
Depth Measured with <u>YSI</u>	
Equipment ID <u>Arya</u>	

Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded				Meter ID# <u>Arya</u>		Matrix: <u>Fresh</u> / Marine / DI				
Photos: ☒ Yes / No		Flow: <u>No Flow</u> / Intertidal / Flowing / NA		Tide: <u>Rising</u> / Falling / Slack / NA		Tide Times: High <u> </u> Low <u> </u>				
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	13:15	5.6	0.3	0.5	2.88	38.7	7.94	0.07	147.8	30.8
CEN	13:14		5.1		1.93	25.6	8.27	0.07	147.2	30.1
Biological Samples Collected: None <u>HA</u> SCI <u>0</u> RPS <u>0</u> Algae ID <u>0</u> LVS <u>0</u> LVI <u>0</u> Other: <u> </u>										
SBIO ID Numbers:		SBIO-ID:		HA-ID:		RPS-ID:		Macrophyte-ID:		LIMS#:
Parameter Suite	Parameter Methods				Preservation	Lot#	Expiration	pH Check		
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☐ H2SO4	<u>SA9129100</u>	<u>05/20</u>	☒ <2		
Metals	☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3			☐ <2		
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter				☒ Ice					
Chlorophyll	☒ CHL-SUITE-W				☒ Ice					
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice					
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY				☐ Ice					
Macroinvertebrates	☐ MI-FW-QLDC				☐ Formalin					
Periphyton	☐ ALGAE-ID				☐ Ice					
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci				☐ Ice					
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD				☐ Ice					
Tracers	☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ W-E8321-MS ☐ W-CARB-AA				☐ Ice					
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				☐ Ice					

Notes:
Flow @ structure but less 0.05m

Location: Kissimmee Above

WIN ID/Field ID: G4SE0091

Signature: [Signature]

Date: 09/11/19

LIMS EVENT ID: SE-DIST-2019-09-13-01

WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: KT 09/11/19

QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets KT 09/11/19 **Migrate Data to WIN:** **Verify Data In WIN:**

Tracker 09/11 **visit ID:** 80236

Contains: 1:1 H2SO4
Lot No: SA9129100
Expires: 05/09/20
See Safety Data Sheet (SDS)SULFURIC ACID 25%
Contains: 1:1 H2SO4
Lot No: SA9129100
Expires: 05/09/20
See Safety Data Sheet (SDS)

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

Waterbody: Kissimmee Above

Date: 09/11/14

County: Highlands

Storet Number: 645E0091

Analyst: SEAGOS, SEWELL

Signature: [Signature]

Comments:

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.

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	
<i>Alternanthera philoxeroides</i>	X				X			X				<i>Micranthemum glomeratum</i>											
<i>Bacopa caroliniana</i>												<i>Micranthemum umbrosum</i>											
<i>Bacopa monnieri</i>												<i>Myriophyllum aquaticum</i>											
<i>Bidens mitis</i>												<i>Najas guadelupensis</i>											
<i>Boehmeria cylindrica</i>												<i>Nuphar luteum</i>	X	X	X	X	X	X	X	X	X	X	
<i>Centella asiatica</i>												<i>Orontium aquaticum</i>											
<i>Ceratophyllum demersum</i>												<i>Panicum hemitomon</i>	X	X		X	X			X	X		
<i>Chara</i>												<i>Panicum repens</i>											
<i>Cicuta maculata</i>												<i>Panicum rigidulum</i>											
<i>Cladium jamaicense</i>												<i>Pistia stratioides</i>	X	X	X	X	X	X	X	X	X	X	
<i>Colocasia esculenta</i>	X		X	X	X	X	X	X	X	X		<i>Polygonum glabra</i>											
<i>Commelina diffusa</i>												<i>Polygonum hydropiperoides</i>											
<i>Commelina virginica</i>												<i>Polygonum punctatum</i>											
<i>Crinum americanum</i>												<i>Pontederia cordata</i>											
<i>Diodia virginiana</i>												<i>Potamogeton illinoensis</i>											
<i>Eichhornia crassipes</i>												<i>Ruellia simplex</i>											
<i>Eleocharis (wispy viviparous)</i>												<i>Sacciolepis striata</i>											
<i>Hydrilla verticillata</i>												<i>Sagittaria kurziana</i>											
<i>Hydrocotyle</i>	X		X	X	X	X	X	X	X	X		<i>Sagittaria lancifolia</i>											
<i>Hygrophila polysperma</i>												<i>Sagittaria latifolia</i>				X	X						
<i>Hymenocallis</i>												<i>Salvinia minima</i>											
<i>Lachnanthes caroliniana</i>												<i>Samolus parviflora</i>											
<i>Landoltia punctata</i>												<i>Saururus cernuus</i>											
<i>Lemna</i>												<i>Sparganium americanum</i>											
<i>Limnophila sessiflora</i>												<i>Typha</i>	X	X									
<i>Ludwigia leptocarpa</i>												<i>Vallisneria americana</i>											
<i>Ludwigia palustris</i>												<i>Zizania aquatica</i>											
<i>Ludwigia peruviana</i>			X	X								<i>Sambucus canadensis</i>	X	X	X								
<i>Ludwigia repens</i>												<i>Acer rubrum</i>	X										
<i>Luziola fluitans</i>												<i>Ipomoea sp.</i>	X	X	X	X							
<i>Annona glabra</i>	X		X									<i>Pluchea sp.</i>		X									
<i>Vitis sp.</i>	X											<i>Baccharis sp.</i>		X	X								
<i>Schoenoplectus</i>					X	X						<i>Ludwigia ligodivum</i>	X	X									
<i>Solidago</i>					X	X	X	X	X	X		<i>Myrica cerifera</i>			X	X							
<i>Andropogon sp.</i>					X	X	X	X				<i>Eupatorium capiflora</i>				X	X	X	X	X	X	X	
If no Dominant or Co-Dominant were selected, indicate with "X"												<i>Mikania</i>											
Indicate % cover macrophytes per section												<i>Myrica scandens</i>				X							
0-5% Macrophyte Coverage												<i>Sesbania</i>				X	X	X	X				
>5 and ≤10% Macrophyte Coverage												<i>Blechnum (fern)</i>				X							
>10 and ≤25% Macrophyte Coverage												<i>Schinus terebinthifolius</i>	X	X	X	X	X	X	X	X	X	X	
>25 and ≤50% Macrophyte Coverage												<i>Polygonum densifolia</i>	X	X									
>50% Macrophyte Coverage												<i>St. John's wort Egyptian</i>	X	X			X	X	X				
												<i>Urena lobata</i>										X	

Sabal palmetto → 90-100

62-160.800, F.A.C.

Schoenoplectus californicus → 90-100

80-90

70-80

Location:

Kissimmee Above

WIN ID/Field ID:



G4SE0091

Phragmites australis → 20-30

Revision Date: March 1, 2014

Visit: 80236

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

WIN

SAMPLING AGENCY: <u>21FLWPB</u>		STORE STATION NUMBER: <u>G4SE0091</u>	DATE (MM/DD/YY): <u>09/11/19</u>	RECEIVING BODY OF WATER: <u>Lake Okeechobee</u>
REMARKS:	COUNTY: <u>Highlands</u>	LOCATION: <u>Kissimmee Above</u>	FIELD ID/NAME: <u>G4SE0091</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>5</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	<u>5</u> 4 3 2 1
Substrate Availability <u>1</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 8 7 6	Less than 5% major productive habitat 5 4 3 2 <u>1</u>
Water Velocity <u>3</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 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 <u>3</u> 2 1
Habitat Smothering <u>16</u> ----- Primary Score <u>25</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 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>1</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u>
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 <u>9</u>	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>1</u> Left Bank <u>1</u>	10 9	8 7 6	5 4	3 2 <u>1</u>
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>2</u> Left Bank <u>2</u> ----- Secondary Score <u>25</u>	10 9	8 7 6	5 4	3 <u>2</u> 1

50

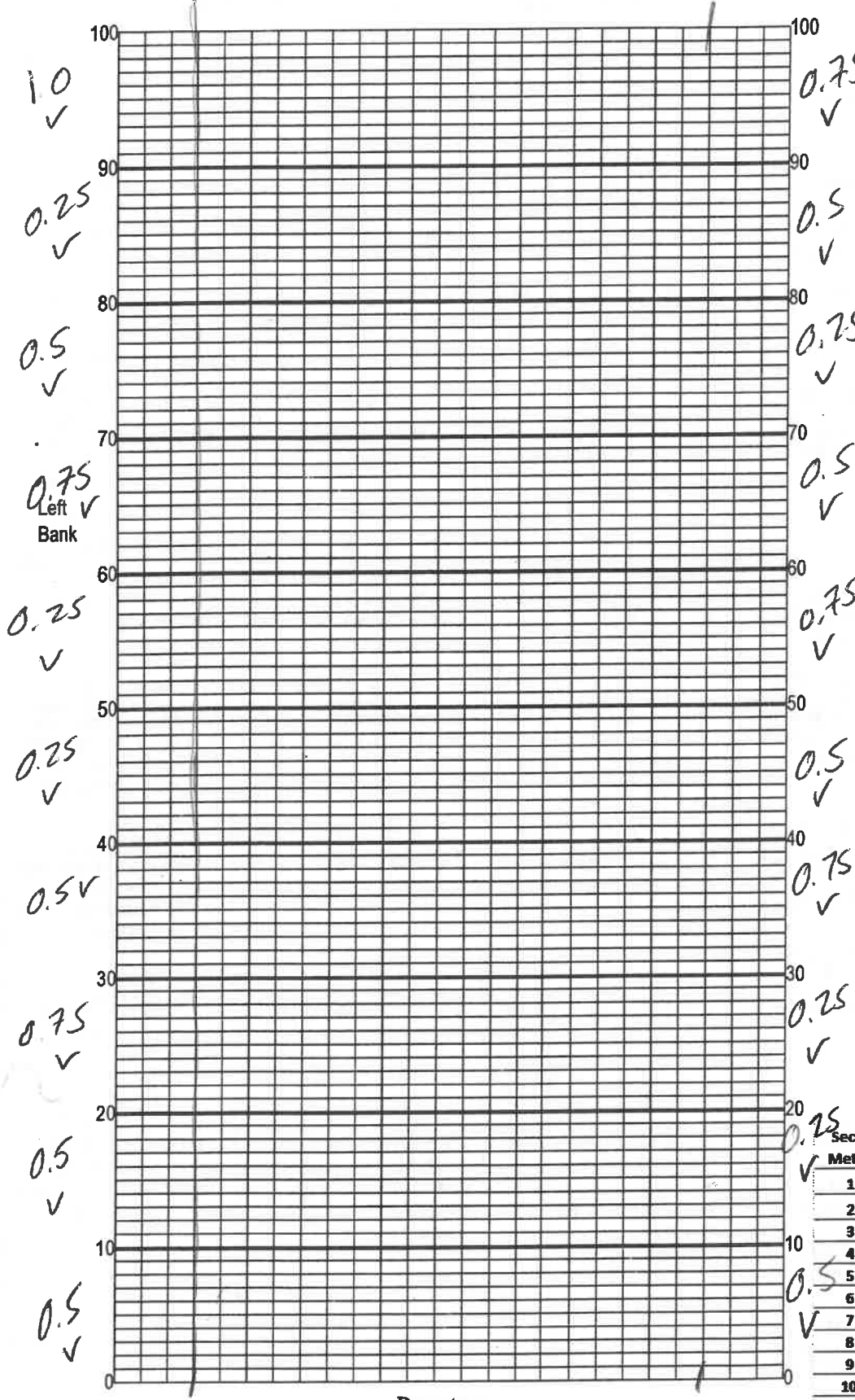
TOTAL SCORE

Date: <u>09/11/2019</u>	Analyst: <u>SEWELL</u>	Signature: <u>[Signature]</u>
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Location: Kissimmee Above



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



Location: _____
 Date: 09/11/2019
 Sampler: Matt Sewell

100 m: Latitude _____
 Longitude _____
 0 m: Latitude _____
 Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☐	Snags	_____
☐	Roots/undercut banks	_____
☐	Leaf Packs (or mats)	_____
☐	Aquatic Macrophytes	_____
☐	_____	_____
☐	_____	_____
☐	Pools	total # observed = <u>0</u> # range expected = <u>0</u>

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.

Secs/ Meter	Flow m/s	Secs/ Meter	Flow m/s
1	1	12	0.08
2	0.5	13	0.076
3	0.33	14	0.071
4	0.25	15	0.066
5	0.2	16	0.062
6	0.16	17	0.058
7	0.14	18	0.055
8	0.12	19	0.052
9	0.11	20	0.052
10	0.1	21	0.047
11	0.09	22	No Flow

Plants observed /
 other notes:

Prod. Habitat	1	2	3	4	5
Sweeps Major	10	7	5	4	3
Sweeps Minor	10	6	5	4	5

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

visig : 80236

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Kissimmee Above County: Highlands Date: 09/11/19 Investigators: SKRGS, SEWELL

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

STORE Station Number: WIN G4SE0091

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	X		60	1	N	X	
	2	N	X			2	N	X	
	3	N	X			3	N	X	
	4	N	X			4	N	X	
	5	N	X			5	N	X	
	6	N	X			6	N	X	
	7	N	X			7	N	X	
	8	N	X			8	N	X	
	9	N	X			9	N	X	
10	1	N	X		70	1	N	X	
	2	N	X			2	N	X	
	3	N	X			3	N	X	
	4	N	X			4	N	X	
	5	N	X			5	N	X	
	6	N	X			6	N	X	
	7	N	X			7	N	X	
	8	N	X			8	N	X	
	9	N	X			9	N	X	
20	1	N	X		80	1	N	X	
	2	N	X			2	N	X	
	3	N	X			3	N	X	
	4	N	X			4	N	X	
	5	N	X			5	N	X	
	6	N	X			6	N	X	
	7	N	X			7	N	X	
	8	N	X			8	N	X	
	9	N	X			9	N	X	
30	1	N	X		90	1	N	X	
	2	N	X			2	N	X	
	3	N	X			3	N	X	
	4	N	X			4	N	X	
	5	N	X			5	N	X	
	6	N	X			6	N	X	
	7	N	X			7	N	X	
	8	N	X			8	N	X	
	9	N	X			9	N	X	
40	1	N	X		100	1	N	X	
	2	N	X			2	N	X	
	3	N	X			3	N	X	
	4	N	X			4	N	X	
	5	N	X			5	N	X	
	6	N	X			6	N	X	
	7	N	X			7	N	X	
	8	N	X			8	N	X	
	9	N	X			9	N	X	
50	1	N	X			1	N	X	
	2	N	X			2	N	X	
	3	N	X			3	N	X	
	4	N	X			4	N	X	
	5	N	X			5	N	X	
	6	N	X			6	N	X	
	7	N	X			7	N	X	
	8	N	X			8	N	X	
	9	N	X			9	N	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%.

Secchi depth 0.5
Estimated?

points ranked 4-6 0
total points assessed 99
% points ranked 4-6 0

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon
Water sample ☒
RQ: 09-09-56

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

Kissimmee Above



Location: WIN ID/Field ID: