



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

PAGE ____ OF ____

Data Qualified?
Yes / No

STORET Station Name: Blanket Bay Slough @ 0.9mi. Upstream of Kissimmee River

Date: 03/14/2016 03/15/16
(mm/dd/yyyy)

STORET Station ID: 26011350

Latitude: 27.76331661

(Decimal Degrees)

WBID: 3186G

RQ - 2016-03-14-64

ORG ID: 21FLCEN

Longitude: -81.17172465

(Decimal Degrees)

Receiving Body of Water: Kissimmee River

Field ID: G4CE0105

County: Osceola

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Natalie Ayala					X		X		
Terry Riordan					X	X		X	X

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Equipment ID		

Collection Method	
☐ Wading	☐ Via Boat
☐ From Shore	☐ Canoe/Kayak
☐ Other (note below)	☐ Electric Motor
	☒ Gasoline Motor

Water Level: Dry / Low / Normal / High / Flooded

Matrix: Fresh Marine / DI

Meter ID# Betty Boop - Photos: Yes / No

Tide Falling: Yes / No / NA

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1228	0.3	0.9	6.2	76	7.3	0.11	0.4	240	25.8
CEN	N/A	N/A		N/A	N/A	N/A	N/A		N/A	N/A

Biological Samples Collected: None HA SCI LVS RPS LVI Other

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☐ H2SO4			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <2
Filtered Nutrients	☒ W-P04-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☒ BOD-UNIN	☐ Ice			
Physical/Aggregate (Kit A/C)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Contains 1:1 Sulfuric Acid SA-5259020 EXP: 09/16/16 Warning! See MSDS

Relative Sticker(s) Here (Available)

Notes:	RQ-2016-03-14-64 Date: 3/14/2016 Time: 15:15	G4CE0105 Field ID STORET 26011350
Signature: <i>Natalie Ayala</i>	Date: 3/14/2016 03/15/2016	

Field Parameters Entered into LIMS: CMD 4/22/16

Field Parameters QC in LIMS: KMW 4/22/16

Date Migrated to STORET: RL 4-27-16

Field Sheets Scanned/Saved:

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

SAMPLE ID _____ ORG ID 2IFLCEN LATITUDE 27.76331661
 COUNTY Oscoda STORET # 26011350 LONGITUDE -81.17172465
 DATE 3/15/2016 TIME 1228 SAMPLING AGENCY CEROL
 SITE NAME Blanket Bay Slough @ 0.9 mi.
 FIELD ID/NAME Blanket Bay RECEIVING BODY OF WATER Lissimnee River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>10</u> Silviculture <u>0</u> Field/Pasture <u>0</u> Agriculture <u>90</u> Residential <u>0</u> Commercial <u>0</u> Industry <u>0</u> Other (Specify) <u>0</u>							Landscape Development Intensity Index (LDI) <u>0</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 <u>9</u> m wide <u><0.01</u> m/s <u><0.01</u> m/s <u><0.01</u> m/s <u>0.3</u> m deep <u>0.9</u> m deep <u>0.3</u> m deep			
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>0</u>					
High Water Mark: <u>0</u> + <u>0.9</u> = <u>0.9</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 <table border="1"> <thead> <tr> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</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: <u>0.3</u></td> <td><u>25.8</u></td> <td><u>7.3</u></td> <td><u>6.2</u></td> <td><u>76</u></td> <td><u>240</u></td> <td><u>0.11</u></td> <td><u>0.4</u></td> </tr> <tr> <td>Mid:</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>TOTAL DEPTH <u>0.9</u></td> </tr> </tbody> </table>				Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top: <u>0.3</u>	<u>25.8</u>	<u>7.3</u>	<u>6.2</u>	<u>76</u>	<u>240</u>	<u>0.11</u>	<u>0.4</u>	Mid:							☐ VOB	Bottom:							TOTAL DEPTH <u>0.9</u>
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Bottom:							TOTAL DEPTH <u>0.9</u>																														
Woody Debris (Snags) <u>0</u> Undercut Banks / Roots <u>0</u> Leaf Packs or Mat <u>0</u> Aquatic Vegetation <u>1.4</u> Rock or Shell Rubble.. <u>0</u> Sand..... <u>0</u> Mud / Muck / Silt <u>0</u> Other <u>0</u> Other <u>0</u>		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: _____		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ 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:	☒	☐	☐	☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ AMBIENT FIELD CONDITIONS / NOTES: Cows present, stream impacted, partly cloudy. * Agriculture land use: unimproved/improved pastures; lots of cows ☒ The antecedent hydrologic conditions have been met to my best knowledge.										
	Not Obs	Rare	Common	Abundant																																	
Periphyton:	☒	☐	☐	☐																																	
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Iron/Sulfur Bacteria:	☒	☐	☐	☐																																	
SAMPLING TEAM <u>Natalie Ayala</u>		SIGNATURE: <u>Natalie Ayala</u>		DATE: <u>03/15/2016</u>																																	

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

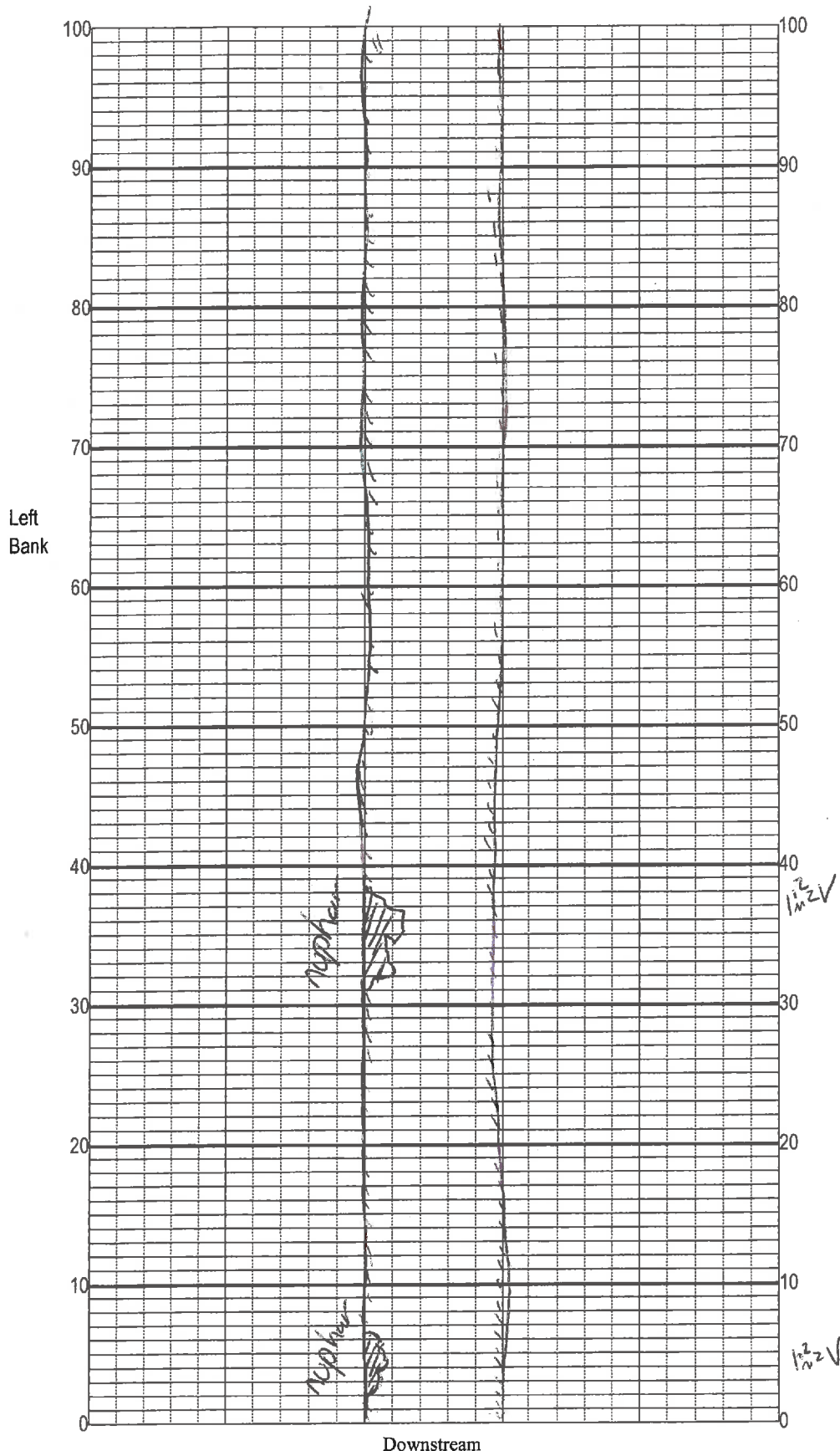
SAMPLING AGENCY: <u>21FLCEN</u>		STORET STATION NUMBER: <u>26011350</u>	DATE (MM/DD/YY): <u>03/15/16</u>	RECEIVING BODY OF WATER: <u>Kissimmee Rvr</u>
REMARKS:	COUNTY: <u>Osceola</u>	LOCATION: <u>Blanket Bay Slough 0.9 mi US of Kiss R.</u>		FIELD ID/NAME: <u>G4CE0105</u>

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>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 <u>2</u> 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>1</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 3 2 <u>1</u>
Habitat Smothering <u>6</u> ----- Primary Score <u>10</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 <u>6</u>	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>10</u>	20 19 18 17 16	15 14 13 12 11	<u>10</u> 9 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>5</u> Left Bank <u>5</u>	10 9	8 7 6	<u>5</u> 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>10</u> Left Bank <u>10</u>	<u>10</u> 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>5</u> Left Bank <u>5</u> ----- Secondary Score <u>50</u>	10 9	8 7 6	<u>5</u> 4	3 2 1

60 TOTAL SCORE

Date: <u>03/15/16</u>	Analyst: <u>N. Ayala (T. Rinden)</u>	Signature: <u>[Signature]</u>
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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: Blanket Bay Slough
Date: 03/15/2016
Sampler: N. Ayala/T. Riordan

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 <u>1.4%</u>
☐	_____
☐	_____
☐	Pools total # observed = _____ # range expected = _____
Average width <u>9</u> m	
Average depth <u>0.9</u> m	
Velocity measured at _____ meter mark.	
WQ & chemistry taken at <u>40</u> 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:

$0.1 \times 100 = 10\% \text{ AL} - 20\%$
 10
 2.4
 12.4

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Blanket Bay Slough County: Osceola Date: 3/14/16 Investigators: N. Ayala / T. Riordan

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover STORET Station Number: 26011350

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	✓	0	60	1	N	✓	0
	2	N	✓						
	3	N	✓						
	4	N	✓						
	5	N	✓						
	6	N	✓						
	7	N	✓						
	8	N	✓						
	9	N	✓						
10	1	N	✓	0	70	1	N	✓	0
	2	N	✓						
	3	N	✓						
	4	N	✓						
	5	N	✓						
	6	N	✓						
	7	N	✓						
	8	N	✓						
	9	N	✓						
20	1	N	✓	0	80	1	N	✓	0
	2	N	✓						
	3	N	✓						
	4	N	✓						
	5	N	✓						
	6	N	✓						
	7	N	✓						
	8	N	✓						
	9	N	✓						
30	1	N	✓	0	90	1	N	✓	0
	2	N	✓						
	3	N	✓						
	4	N	✓						
	5	N	✓						
	6	N	✓						
	7	N	✓						
	8	N	✓						
	9	N	✓						
40	1	N	✓	0	100	1	N	✓	0
	2	N	✓						
	3	N	✓						
	4	N	✓						
	5	N	✓						
	6	N	✓						
	7	N	✓						
	8	N	✓						
	9	N	✓						
50	1	N	✓	0		1	N	✓	
	2	N	✓						
	3	N	✓						
	4	N	✓						
	5	N	✓						
	6	N	✓						
	7	N	✓						
	8	N	✓						
	9	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%.

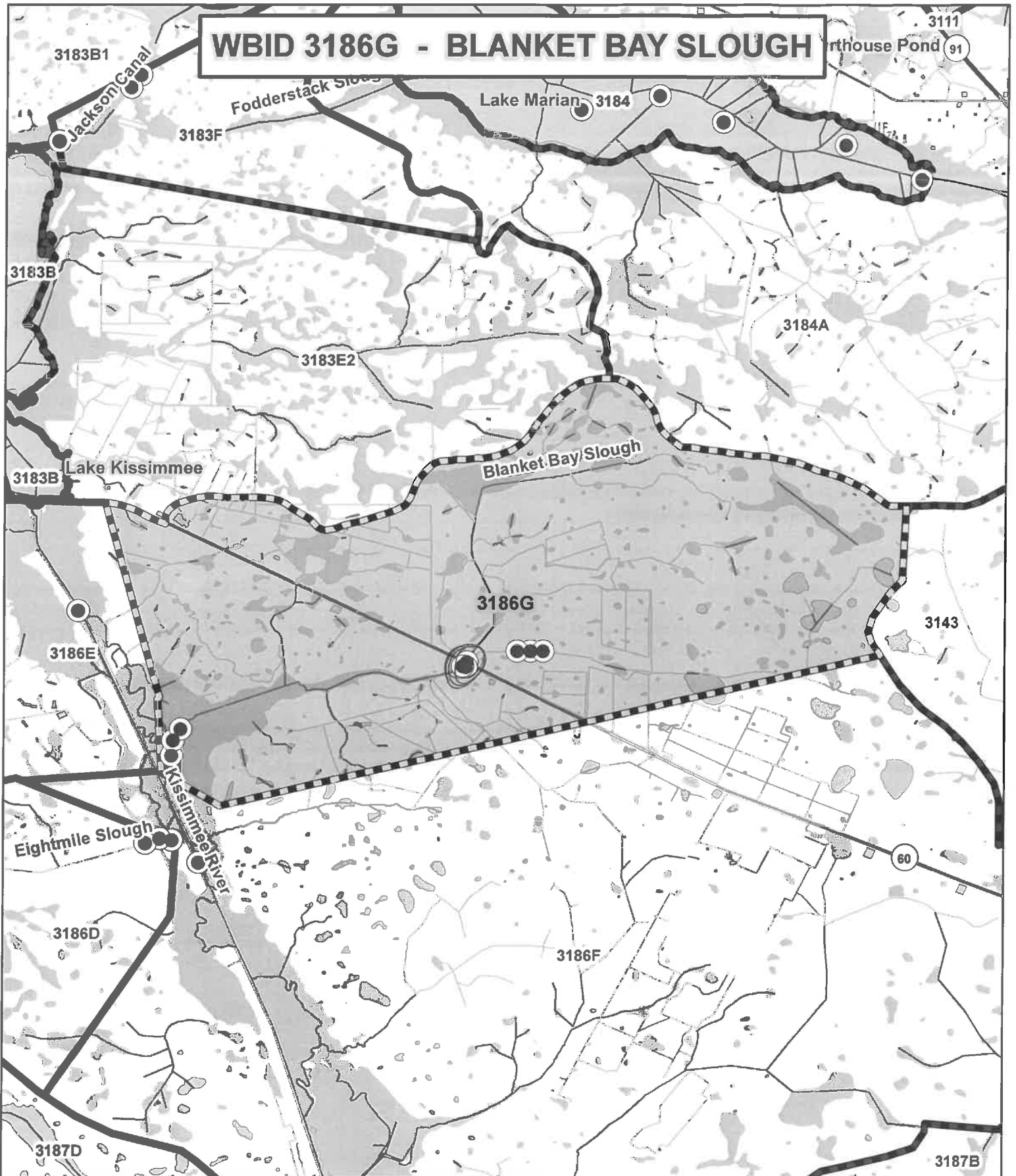
Secchi depth 2.4
Estimated?

points ranked 4-6 9
total points assessed 99
% points ranked 4-6 9

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey ✓
Habitat Assessment ✓
SCI/Biorecon
Water sample ✓
RQ- 2016-03-14-64

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

WBID 3186G - BLANKET BAY SLOUGH



SMP WBID Border



Other WBID Borders



ROC Stations

- Biology Only
- Water Quality Only
- Water Quality and Biology

