



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?
Yes / No

STORET Station Name: KSS.mnee upstream of J65C Date: 03/03/2016
(mm/dd/yyyy)

STORET Station ID: G4SE0082-78 Latitude: 27.403319
(Decimal Degrees)

WBID: 31870 RQ: 2016-0229-60 ORG ID: AIFWPR Longitude: -81.2005
(Decimal Degrees)

Receiving Body of Water: Okeechobee Field ID: G4SE0082-03032016 County: Highlands

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
Ment Sel			X			X		
Alex Hunt			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# 11605 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	1220	0.3	8.4	4.6	51	6.6	6.1	0.9	131	20.5
CEN	1222	7.9		4.5	50	6.4	6.1		132	19.6

Biological Samples Collected: None HA SCI LVS RPS LVI Other

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ TKN / TP / Nox / NH3 / TOC ☐ Other	☒ Ice ☐ H ₂ SO ₄	<u>5259020</u>	<u>9/16</u>	☐ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ <2
Filtered Nutrients	☒ OP ☒ Field Filtered 0.45 µm Filter	☐ Ice	Place Preservative Sticker(s) Here (If Available)		
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
BOD	☐ BOD-INHB ☒ BOD-UNIN	☐ Ice			
Physical/Aggregate	☒ TSS / Turbidity / Alkalinity / Color ☐ Other	☐ 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			

Notes:

Place Label Here
(If Available)

Signature: Ment Sel Date: 4/26/16

Field Parameters Entered into LIMS: FB 03/30/2016 Field Parameters QC in LIMS: MS 4/26/2016
(Initials/Date)

Date Migrated to STORET: _____ Field Sheets Scanned/Saved: _____
(Initials/Date)

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

SAMPLE ID 76029 ORG ID 21FWPB LATITUDE _____
 COUNTY Highland STORET # 6450078 LONGITUDE _____
 DATE 03/03/2016 TIME 12:20 SAMPLING AGENCY 21FWPB
 SITE NAME Kissimmee upstream of S-6SC
 FIELD ID/NAME 6450078 RECEIVING BODY OF WATER Okeechobee

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐ <u>10</u> <u>50</u> <u>40</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>80</u> m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>18</u> Right Bank: <u>36</u>				Hydrologic Modification Score (per FT 3101) ☐			
High Water Mark: <u>0.5</u> + <u>8.4</u> = <u>8.9</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 ☐
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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>0.3</u>	<u>20.5</u>	<u>6.6</u>	<u>4.6</u>	<u>51</u>	<u>131</u>	<u>0.1</u>	<u>0.9</u>
Mid:											☐ VOB
Bottom:				<u>7.9</u>	<u>19.6</u>	<u>6.8</u>	<u>4.5</u>	<u>50</u>	<u>132</u>	<u>0.1</u>	TOTAL DEPTH <u>8.4</u>
Meter ID: <u>1603</u>											
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐							
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) ☒ <u>Canal</u>											
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐				AMBIENT FIELD CONDITIONS / NOTES: <u>no flow near edge</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.							
SAMPLING TEAM <u>A. Hrbek</u> <u>M. Sewell</u>				SIGNATURE: <u>[Signature]</u>				DATE: <u>3/3/2016</u>			

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: G4 SE0078 County: Harford Date: 7/3/2016 Investigators: A Hurley ; M Sewell

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

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STORET Station Number: G4SE0078

Secchi depth 0.9
Estimated?

points ranked 4-6 0
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-2016-02-29-60

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

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 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>21PWPB</u>		STORET STATION NUMBER: <u>64SE0078</u>	DATE (MM/DD/YY): <u>3/3/16</u>	RECEIVING BODY OF WATER: <u>lake Okechuck</u>
REMARKS: <u>Entered 4/16</u>	COUNTY: <u>Hyland</u>	LOCATION: <u>Kissimmee C-38</u>	FIELD ID/NAME: <u>76029</u>	

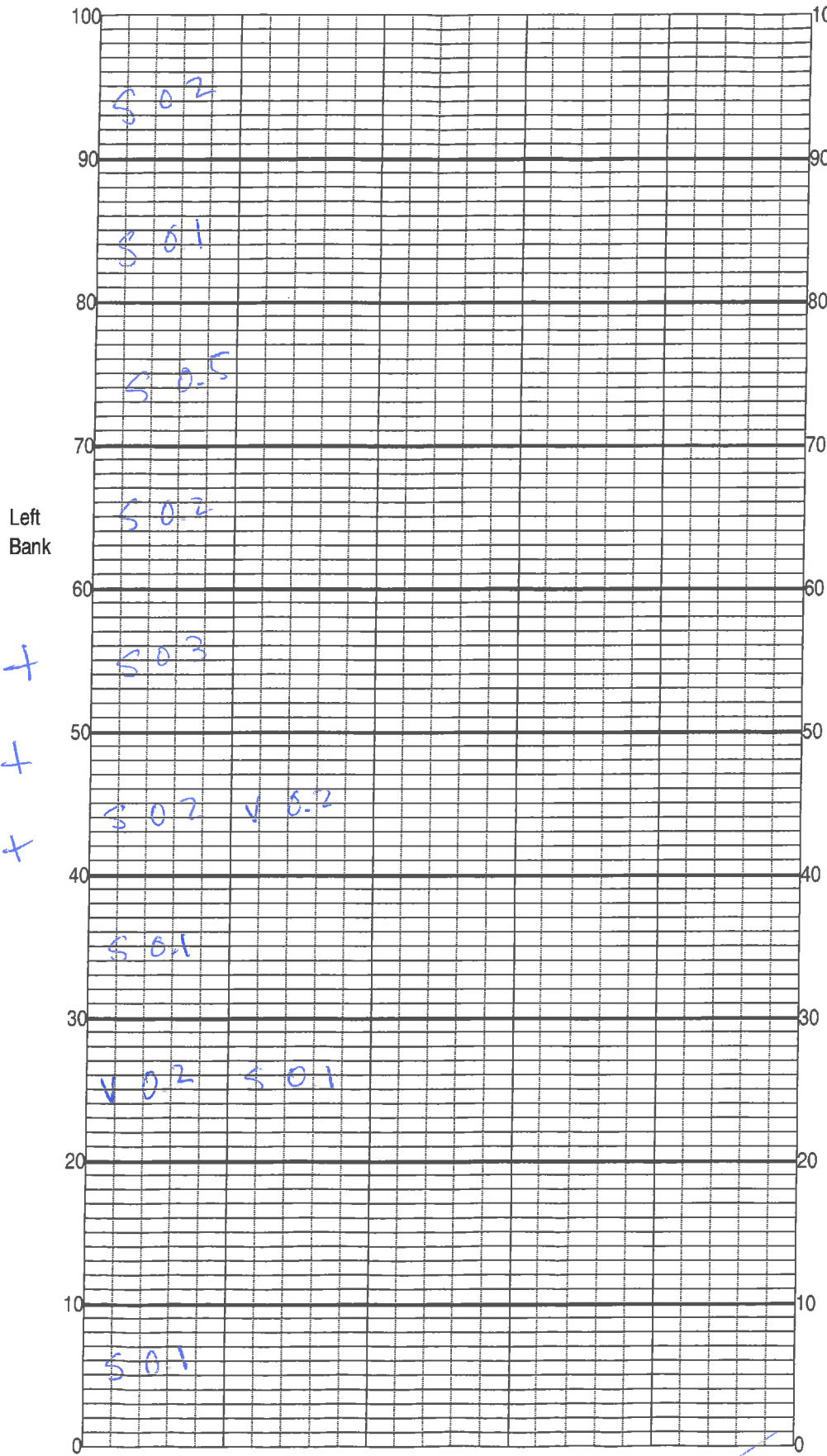
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>1</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u>
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>6</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 <u>6</u>	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>12</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 Artificial Channelization <u>5</u>	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 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. <u>5</u> 4 3 2 1
Bank Stability Right Bank <u>10</u> Left Bank <u>8</u>	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. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. <u>8</u> 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 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 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 <u>8</u> Left Bank <u>9</u> ----- Secondary Score <u>59</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 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

71

Date: <u>3/3/16</u>	Analyst: <u>A Hurley / M. Sewell</u>	Signature: <u>[Signature]</u>
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GH 5E0078



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

45 m

Location: Kissimmee
Date: 3/3/16
Sampler: Hurley / Sewell

100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☒ S	Snags _____
☐	Roots/undercut banks _____
☐	Leaf Packs (or mats) _____
☒ V	Aquatic Macrophytes _____
☐	_____
☐	_____
☐	total # observed = _____
☐	# range expected = _____
Average width <u>45</u> m	
Average depth <u>8</u> m	
Velocity measured at <u>0</u> meter mark. <u>0.05 m/s</u>	
WQ & chemistry taken at <u>0</u> meter mark.	
Habitat Smothering: <u>Very</u>	
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:

no flow at river edges.

S - 1.8 / 4500
V - 1.4 / 4500

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

Waterbody: Kissimmee C-38 Date: 3/5/16 County: Hughes Storet Number: GPSE0078
Analyst: Ashley Huber Signature: Michael Scott
Comments: less than 2.0 sq/m

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	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						
<i>Centella asiatica</i>													<i>Orontium aquaticum</i>												
<i>Ceratophyllum demersum</i>													<i>Panicum hemitomon</i>												
<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					
<i>Colocasia esculenta</i>													<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>Pontedaria cordata</i>												
<i>Diodia virginiana</i>													<i>Potamogeton illinoensis</i>												
<i>Eichhornia crassipes</i>	X							X					<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				<i>Sagittaria lancifolia</i>						X		X				
<i>Hygrophila polysperma</i>													<i>Sagittaria latifolia</i>												
<i>Hymenocallis</i>													<i>Salvinia minima</i>						X	X	X				
<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>																									
<i>Ludwigia repens</i>													<i>Sagittaria</i>	X	X	X		X	X						
<i>Luziola fluitans</i>													<i>Sagittaria</i>												
<i>Quercus</i>								X					<i>Sagittaria</i>						X	X	X	X			
<i>Acer</i>								X	X				<i>Sagittaria</i>						X	X					
<i>wax myrtle</i>								X	X				<i>Sagittaria</i>						X	X					
If no Dominant or Co-Dominant were selected, indicate with "X"																									
Indicate % cover macrophytes per section																									
0-5% Macrophyte Coverage	X	X	X	X	X	X	X	X	X	X															
>5 and ≤10% Macrophyte Coverage																									
>10 and ≤25% Macrophyte Coverage																									
>25 and ≤50% Macrophyte Coverage																									
> 50% Macrophyte Coverage																									