



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION ING PROGRAM FIELD SHEET

Data Qualified?

Yes / No

WIN / Field ID:



G1NE0893

January 2018

Date: 6/27/2018
(mm/dd/yyyy)

Cross Creek 400m above CR325

WBID: 2754

Latitude: 29.490119
(Decimal Degrees)

County: Alachua

ORG ID: 21FLA

Longitude: 82.1655584
(Decimal Degrees)

RQ-2018-06-25-23

Receiving Body of Water:

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
P. O'Connor									
A. Kalmbacher									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☒ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with: DEP # 154181		
Equipment ID: OR # 413		

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

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

Meter ID# DEP 154181

Matrix: Fresh / Marine / DIPhotos: Yes / No Flow: No Flow / Interstitial / Flowing / NATide: Rising/ Falling/ Slack/ NA Tide Times: High Low

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	1025	0.7	0.3	0.6	0.8	10	6.19	0.03	74	29.1
CEN										

Biological Samples Collected: None HA SC RPS Algae ID LVS LVI Other:

SBIO ID Numbers:	SBIO-ID:	HA-ID:	RPS-ID:	Macrophyte-ID:	LIMS#:
Parameter Suite					
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP				
Metals	☒ W-ICPMS / ☒ W-ICP				
Filtered Nutrients	☒ W-PO4-F / ☒ Field Filtered 0.45 µm Filter				
Chlorophyll	☒ CHLSUITE-W				
Physical/Aggregate (Fresh)	☒ Alkalinity / ☒ W-F / ☒ W-TSS / ☒ TURBIDITY / ☒ W-CHC / ☒ W-COLOR / ☒ W-SO4-IC / ☒ W-TDS				
Physical/Aggregate (Marine)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY				
Macroinvertebrates	☐ MI-FW-QLDC				
Periphyton	☐ ALGAE-ID				
Microbiology	☐ E Coli / ☐ F Coli / ☐ Enterococci				
Molecular	☐ PCR-FILTER / ☐ PCR-HF183 / ☐ PCR-BacR / ☐ PCR-GULL2 / ☐ PCR-GFD				
Tracers	☐ W-SUC-AA-R / ☐ W-UHERB-AA / ☐ W-AHERB-AA				
Pesticides	☐ W-PSNP-TQ / ☐ W-UHERB-AA / ☐ W-AHERB-AA / ☐ W-CARB-AA / ☐ W-PCL-SQ-R / ☐ W-PYR-AA-R / ☐ W-GLYPH / ☐ W-SUC-AA-R				

Notes:

WIN / Field ID:



G1NE0893

Cross Creek 400m above CR325

Signature: B. P.

Date: 7/9/18

Enter Field Parameters, Verify Station ID in LIMS DMT: JP 6/29/18

QC Station ID, Field Parameters in LIMS DMT: BP 7/9/18

Scan/Save Field Sheets: BP 7/9/18

Migrate Data to WIN:

Verify Data in WIN:

(Initials/Date)

78507

SAMPLE ID _____ ORG ID 21FIA LATITUDE _____
 COUNTY AIACHUA STORET # GINE0893 LONGITUDE _____
 DATE 06-27-18 TIME 1025 SAMPLING AGENCY DEAR WED REC
 SITE NAME Cross Creek 400m Above CR 329
 FIELD ID/NAME GINE 0893 RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

Meter ID: DEP 154181

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>100</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential _____ Commercial _____ Industry _____ Other (Specify) _____								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 _____ m wide _____ m/s <u>0.03</u> m/s _____ m/s _____ m deep <u>0.9</u> m deep _____ 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) _____					
High Water Mark: <u>0.3</u> + <u>0.9</u> = <u>1.2</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>0.6</u>	
			Mid:	<u>0.3</u>	<u>29.1</u>	<u>6.19</u>	<u>0.8</u>	<u>10%</u>	<u>74</u>	<u>0.03</u>	
			Bottom:								
			System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☒ <u>CANAL</u>								
Woody Debris (Snags) _____ Undercut Banks / Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation <u>21%</u> <u>NA</u> <u>NA</u> Rock or Shell Rubble.. _____ Sand..... _____ Mud / Muck / Silt _____ Other <u>CPOM</u> <u>90+</u> _____ Other _____			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Stick ☐ Other ☐					
			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: <u>SA81C1022</u> Exp: <u>04-11-19</u>			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 ☐					

ABUNDANCE

Not Obs. Rare Common Abundant

Periphyton: ☐ ☒ ☐ ☐
 Fish: ☐ ☐ ☒ ☐
 Aquatic Plants: ☐ ☐ ☐ ☒
 Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐

AMBIENT FIELD CONDITIONS / NOTES:

Hydrologic Disturbance Scoring ☐ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-10☐ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

A. Kalmbacker, POC corner

SIGNATURE:

fall d. new

76507



DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Cross Creek 400m Above CR325 County: Alachua Date: 06-27-18 Investigators: A. K. Anderson, P. O. Connors

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

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STORET Station Number: G1NE0893

Secchi depth Estimated? 0

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

I interpreted this
said as
you estimated
No algae
rather
than
said too deep

Accompanying data
same site/date
Sample
Survey
Assessment
1
le

Algal Thickness Rank
h, no algae,
l, algae up to 1mm
m - 6mm
m - 20mm
m - 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 densimeter 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

(AK) 78507

SAMPLING AGENCY: NE ROC		STORET STATION NUMBER: GNE0893	DATE (MM/DD/YYYY): 06-27-18	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Alachua	LOCATION: Cross Creek 400m Above CR 325		FIELD ID/NAME:

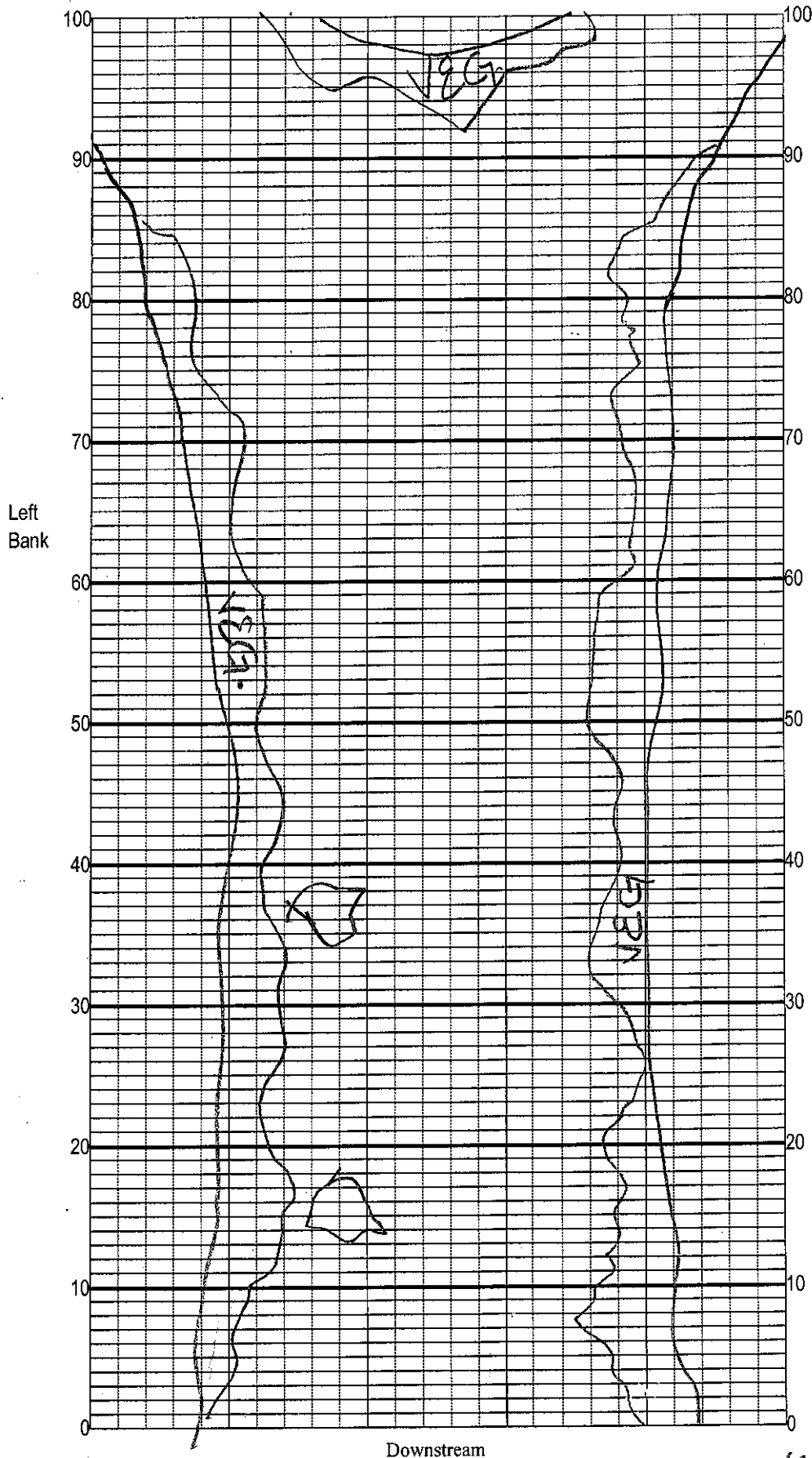
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>5</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	⑤ 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 ①
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 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>5</u> ----- Primary Score <u>17</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 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>6</u>	20 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 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 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>9</u> Left Bank <u>9</u> ----- Secondary Score <u>64</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

81

TOTAL SCORE

Date: 6-27-2018	Analyst: P.O'Connor/A. Kalmbacher	Signature: <i>A. Kalmbacher</i>
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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).

~ 40-50 m

Location: Cross Creek 400m
above CR 325
Date: 6-27-2018
Sampler: O'Connor/Kalmbacher

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</u>
☐ Pools	total # observed = _____ # range expected = _____
Average width <u>45</u> m	
Average depth <u>21</u> m	
Velocity measured at <u>50</u> meter mark.	
WQ & chemistry taken at <u>50</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:

< 2 M of Macrophytes was observed while doing the LVS? YES or NO

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

78507 (K)

Waterbody: Cross Creek 400 m Date: 06-27-18 County: Alachua Storet Number: GINED81

Analyst: PO'Connor, A. Kalmbacher Signature: [Signature]

Comments: Limnolobium and Hydrocotyle are Co Dominant in all sections

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	
Alternanthera philoxeroides	X		X		X	X	X	X	X	X		Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum	X	X	X	X	X	X	X				
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum											
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum	X	X	X	X			X	X	X	X		Panicum hemitomon			X		X						
Chara												Panicum repens											
Cicuta maculata	X					X				XX		Panicum rigidulum											
Cladium jamaicense												Pistia stratioides	X			X	X	X	X				
Colocasia esculenta	X			XX	X	XX	X			X		Polygonum glabra	X	X	X	X	X	X	X	X			
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum	X	X	X	X	X	X	X	X			
Crinum americanum												Pontederia cordata	X	X	X	X	X	X	X				
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes	X	X	X	X	X			XX	X			Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata	X	X	X	X	X	X	X				
Hydrilla verticillata	X	X			X							Sagittaria kurziana											
Hydrocotyle Co D	X	X	X	X	X	X	X	X	X	X		Sagittaria lancifolia				X	X	X					
Hygrophila polysperma												Sagittaria latifolia	X				X	X					
Hymenocallis												Salvinia minima	X	X	X	X	X	X	X				
Lachnanthes caroliniana												Samolus parviflora											
Landoltia punctata												Saururus cernuus											
Lemna												Sparganium americanum											
Limnophila sessiflora												Typha								X			
Ludwigia leptocarpa												Vallisneria americana											
Ludwigia palustris												Zizania aquatica											
Ludwigia peruviana												Utricularia foliosa	X	X	X	X	X	X	X				
Ludwigia repens												Myriophyllum sp	X	X	X	X	X	X	X			PO	
Luziola fluitans												Spirodella polyrrhiza	X	X	X	X	X	X	X				
Limnolobium Co D	X	X	X	X	X	X	X	X	X	X		Polygonum sp	X	X	X	X	X	X	X			PO	
Catomba												Sagittaria											
Cuban bulrush	X											Bidens laevis	X	X		X	X	X					
Cyperus pectoratus												Water hyacinth										PO	
												Echinocystis											
												Glycerhiza tuberosa											
												Latifolia lookalike	X										
												Myriophyllum aquaticum										PO	
												Amaranthus tuberosus					X	X	X	X			

SPECIES Updated 06-27-18 1725
1725
Revision Date: March 1, 2014

Group: A	Bottle Type: P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-SO4-IC					
	W-TDS					
	W-TSS					
Group: A	Bottle Type: BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W					
Group: A	Bottle Type: BG-500ML	# of Bottles: 1	Preservative: CH2ClCOOH Pre-Preserved		Enter Number of Bottles Sent to Lab	1
	W-CARB-AA					
Group: A	Bottle Type: BG-500ML	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	W-CT-Cl-R					
	W-PCL-SQ-R					
Group: A	Bottle Type: BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	W-E8321-DI					
	W-E8321-MS					
Group: A	Bottle Type: P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
	W-ICP					
	W-ICPMS					
Group: A	Bottle Type: P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab	1
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: A	Bottle Type: P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
	W-PO4-F					
Group: A	Bottle Type: BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	W-PSNP-TQ					