



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

A-KIT

Data Qualified?

Yes

No

WIN Station Name: Little Manatee Rvr @ SP Boat Ramp Date: 12/05/2018
(mm/dd/yyyy)

WIN/ Field ID: G2SW0037 WBID: 1742A1 Latitude: 27.67578
(Decimal Degrees)

County: MANATEE ORG ID: 21FLTPA Longitude: 82.37504
(Decimal Degrees)

Receiving Body of Water: MANATEE BAY RQ-2018- 12-03-66

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Pen Paswater					☒				
Judy Ashton									
Sarah Meyer								☒	

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with _____		
Equipment ID _____		
Collection Method		
☐ Wading	☒ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded Meter ID# Lil Jon Matrix: Fresh / Marine / DI

Photos: Yes / No Flow: No Flow / Intestinal / Flowing / NA Tide: 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 (umhos/cm)	Temp. (C°)
EST	1220	1.4	0.3	1.45	8.17	89.3	6.01	0.15	305	19.67
CEN										

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

SBIO ID Numbers: SBIO-ID: 79082 HA-ID: 15529 RPS-ID: 9176 Macrophyte-ID: < 2 m² 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 ☒ H ₂ SO ₄	SA8274050	10/01/19	☒ < 2
Metals	☒ W-ICPMS ☐ W-ICP	☒ Ice ☒ HNO ₃	NA-8080070	08/21/19	☒ < 2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-RW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
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	☐ Ice ☐ Other			

Notes: SBIO AUTHORIZED - (B) 2/13/19 Field ID/WIN G2SW0037



Site Name: Little manatee River at SP Boat Ramp

Signature: Sarah Meyer Date: 12/05/2018

Enter Field Parameters, Verify Station ID In LIMS DMT: SM 1/13/2019 QC Station ID, Field Parameters In LIMS DMT: SM 02/11/2019
(Initials/Date)

Scan/Save Field Sheets SM 03/28/2019 Migrate Data to WIN: SM 02/12/2019 Verify Data In WIN: SM 03/28/2019
(Initials/Date)

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

County:		Investigators		Date		Location	
MAINE		J. ASHON, B. PITLUK, S. MEYER		12-5-18		LITTLE MANATEE R.	
Transect (m)		Point	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	STORET Station Number: 625W0037	
		1=right 9=left					
0	1	N			60	1	N
	2					2	
	3					3	
	4					4	
	5					5	
	6					6	
	7					7	
	8					8	
	9					9	
10	1	N			70	1	N
	2					2	
	3					3	
	4					4	
	5					5	
	6					6	
	7					7	
	8					8	
	9					9	
20	1	N			80	1	N
	2					2	
	3					3	
	4					4	
	5					5	
	6					6	
	7					7	
	8					8	
	9					9	
30	1	N			90	1	N
	2					2	
	3					3	
	4					4	
	5					5	
	6					6	
	7					7	
	8					8	
	9					9	
40	1	N			100	1	N
	2					2	
	3					3	
	4					4	
	5					5	
	6					6	
	7					7	
	8					8	
	9					9	
50	1	N			50	1	N
	2					2	
	3					3	
	4					4	
	5					5	
	6					6	
	7					7	
	8					8	
	9					9	

Secchi depth: 1.4

Estimated? NO

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: 2018-12-03-66

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>FLAP</u>		STORET STATION NUMBER: <u>G2SW0037</u>	DATE (MM/DD/YY): <u>12-5-18</u>	RECEIVING BODY OF WATER: <u>TAMPA BAY</u>
REMARKS:	COUNTY: <u>MANASSA</u>	LOCATION: <u>LIL MANASSA R. IN SP</u>	FIELD ID/NAME:	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>10</u>	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed <u>10</u> 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>6</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 <u>6</u>	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>15</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 <u>15</u> 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>15</u> ----- Primary Score <u>46</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. <u>15</u> 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 Artificial Channelization <u>12</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 <u>17</u> 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. 5 4 3 <u>2</u> 1
Bank Stability Right Bank <u>8</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>7</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 9	Width of vegetation >12 to 18m 8 <u>7</u> 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>68</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

114 104 SM TOTAL SCORE

Date: <u>12/5/18</u>	Analyst: <u>Paswater, Ashton, Meyer</u>	Signature: <u>[Signature]</u>
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DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: <u>LITTLE MANATEE RIVER</u>	Date: <u>12-5-18</u>	County: <u>MANATEE CO</u>	Store Number:
Analyst: <u>LINDY ASHTON, BEN ADAMS, SARA MYER</u>		Signature: <u>[Signature]</u>	<u>625W00.37</u>
Comments: <u>2m</u>			

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										Specime n collected (check)	HERBACEOUS SPECIES	Meter Mark										Specime n 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>												<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									
<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>											
<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>				X								<i>Pontedaria 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											<i>Sagittaria lancifolia</i>											
<i>Hygrophila polysperma</i>												<i>Sagittaria latifolia</i>											
<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>Linnophila sessiflora</i>												<i>Typha</i>											
<i>Ludwigia leptocarpa</i>												<i>Vallisneria americana</i>											
<i>Ludwigia palustris</i>												<i>Zizania aquatica</i>											
<i>Ludwigia peruviana</i>												<i>MAXIMUS</i>	X	X	X	X	X	X	X				
<i>Ludwigia repens</i>												<i>SALICATO</i>	X	X		X							
<i>Luziola fluitans</i>												<i>PAVA GUTS</i>					</						

L

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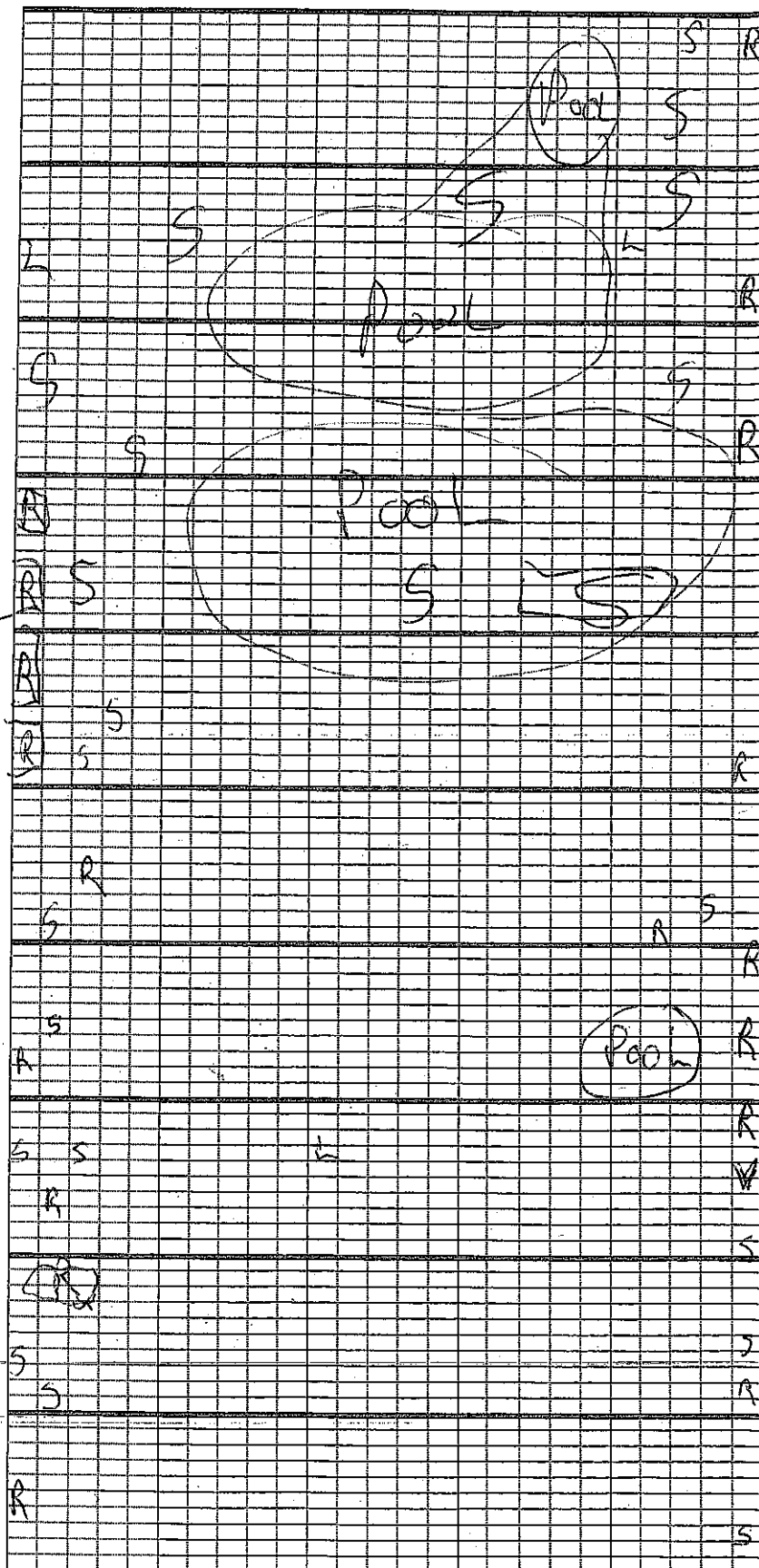
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Location: LITTLE MANATEE

WSP RPT RPT

Date: 12-5-18

Samplers: J. Asher, B. M. S. Meyer

62500037

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 3.3 7.5

R Roots/undercut banks 2.6 2.5

L Leaf Packs (or mats) few

V Macrophytes few

Total observed 3

3 Pools Range expected 1

Velocity measured at 0.50, 1.0 meter mark.

WQ & chemistry taken at 100 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.

1 sec per 1 m	1m/s	sec	m/s
2	0.5	12	0.08
3	0.33	13	0.076
4	0.25	14	0.071
5	0.2	15	0.066
6	0.16	16	0.062
7	0.14	17	0.058
8	0.12	18	0.055
9	0.11	19	0.052
10	0.1	20	0.052
11	0.09	21	0.047
22	0.045	NO	FLOW

Prod. hab	1	2	3	4	5
Sweeps (Maj)	10	7	5	4	3
Sweeps (Min)	10	6	5	4	5

R = 65 Downstream 14m
S = 84 = 3.3



☐	<u>Gainesville:</u> 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
☐	<u>Jacksonville:</u> 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☐	<u>Miramar:</u> 10200 USA Today Way • Miramar, FL 33025 • 954.889.2268 • Fax 954.889.2281
☐	<u>Tallahassee:</u> 2639 North Monroe Street, Suite D • Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275
☒	<u>Tampa:</u> 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327

[illegible]

Request Number: 2018-12-03-66
~~RQ-2018-06-18-04~~

Florida Department of Environmental Protection

Page 1 of 2

C-kit Dup&Blank w/Tracer

216 MANATEE R. @ BOAT RAMP

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: SW-DIST

Requester: Judy Ashton

Field Report Prepared By: S Meyer

Project ID: SMP

Collected By: J Ashton, B Paswater, S Meyer

Sampling Agency: FDEP SW ROC

Location		☐ Comp ☒ Grab		Collection (comp begin or grab) Date <u>12/05/2018</u> Time <u>12:20</u>		☒ Eastern ☐ Central		Composite end Date _____ Time _____		Bottle Group(s) (See pg 2)	
Field ID/WIN G2SW0037		Matrix (type, e.g., Salt, Fresh, etc.)		Diss. Oxygen <u>8.17</u>		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L) _____		A	
Site Name: <u>Little manatee River at SP Boat Ramp</u>		Temp (C) <u>19.67</u>		pH <u>6.01</u>		Sample Depth <u>0.3</u>		Sp. Conductance (umho/cm) <u>305</u>			
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt) <u>0.15</u>		Comments <u>E. COLI MOVED OUT 2 ALL</u>					

Location		☐ Comp ☐ Grab		Collection (comp begin or grab) Date _____ Time _____		☐ Eastern ☐ Central		Composite end Date _____ Time _____		Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc.)		Diss. Oxygen		☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)			
WIN/STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Comments					

Location		☐ Comp ☐ Grab		Collection (comp begin or grab) Date _____ Time _____		☐ Eastern ☐ Central		Composite end Date _____ Time _____		Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc.)		Diss. Oxygen		☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)			
WIN/STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Comments					

Location		☐ Comp ☐ Grab		Collection (comp begin or grab) Date _____ Time _____		☐ Eastern ☐ Central		Composite end Date _____ Time _____		Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc.)		Diss. Oxygen		☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)			
WIN/STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude ☐ dd ☐ dms		Longitude ☐ dd ☐ dms		Salinity (ppt)		Comments					

Relinquished By: <u>Ana Meyer</u>	Date/Time <u>12/05/2018</u>	Shipping Method <u>FedEx</u>	Number of Coolers Shipped: <u>1</u>	Received By:	Date/Time
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Group: A	Bottle Type:	P-1L	# of Bottles: 2	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: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
	W-ICP W-ICPMS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	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: 2	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
	W-PO4-F						
Group: B	Bottle Type:	BG-500ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	W-E8321-DI W-E8321-MS						

GROUP A P-250ML
SND-TEL-EC

DROPPED OUT 2 TEL

1