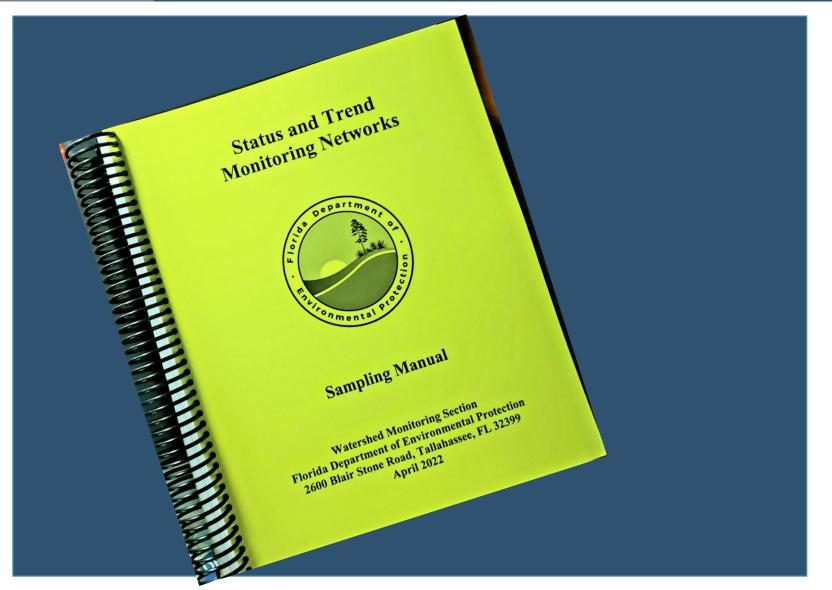




SAMPLING MANUAL



Surface Water Section Five, pages 47-57.



SURFACE WATER SAMPLING

Major Agenda Topics

- When/when not to collect samples.
- Field sheets and field data collection.
- Sample collection and documentation.





SURFACE WATER SAMPLING

When/when not to collect samples.







ALL SURFACE WATER SITES SAMPLING REQUIREMENTS

- Water at least 10 cm deep to collect samples.
- Must have ≥ 0.5 m² free of attached vegetation at sampling point.
- Collect water quality data before collecting sediment or bioassessment data.
- When wading into a water body, enter the water carefully to avoid disturbing the sediments. Allow disturbed material to settle before sample collection.



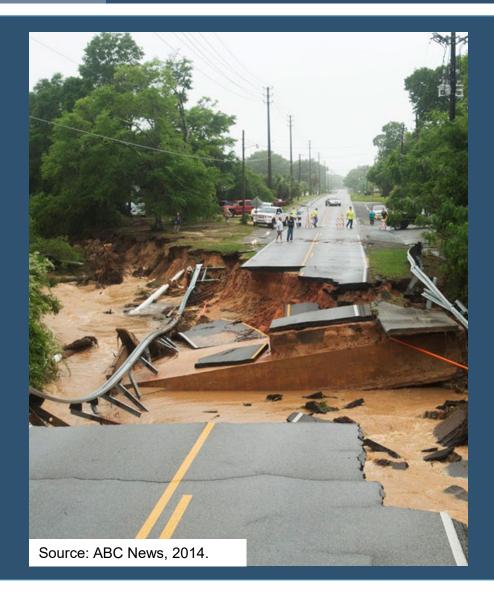
STATUS AND TRENDS SAMPLING REQUIREMENTS FOR FLOWING WATERS

- When sampling from bridge or dock, collect samples from the upstream side whenever possible. Do **not** relocate Trend sites to meet this criterion.
- Always collect water samples upstream from the sampler's body or upstream from the boat.
- If tidally influenced, sample during falling tide (approaching low tide). Tide predictions at: https://tidesandcurrents.noaa.gov/tide predictions

- All sites are Flowing Waters (Rivers/Streams/Canals).
- Sampled monthly.
 - Field Measurements and Water Samples.
- · Same location.
- Located using GNSS unit and permanent landmarks (bridge or gauge).



TREND SAMPLING LOCATIONS



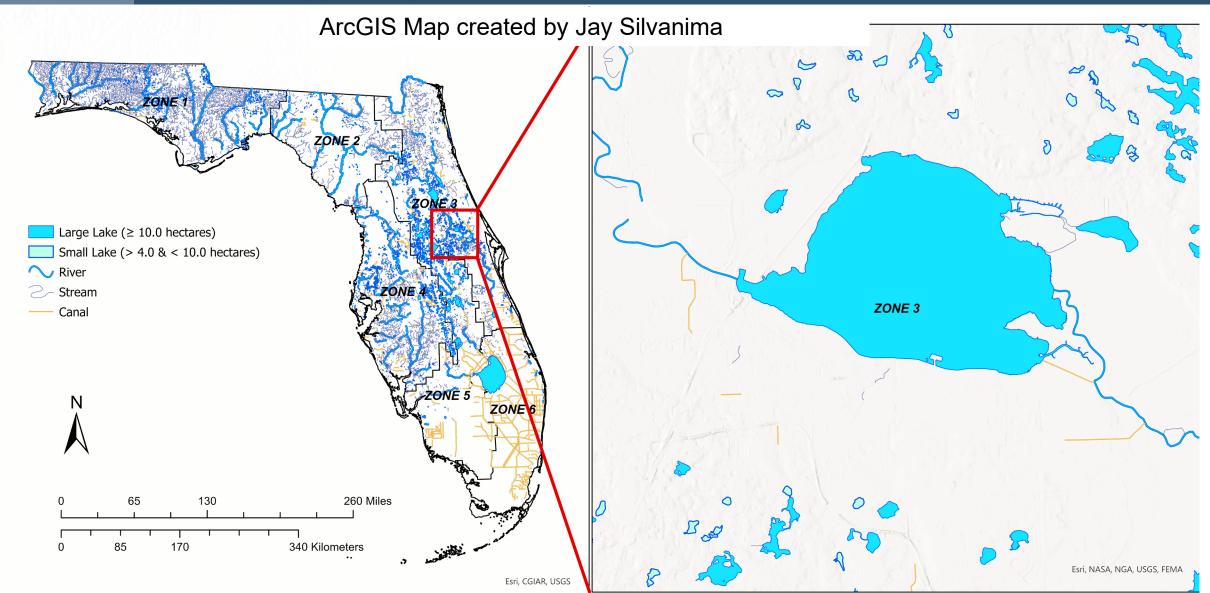
- Stick with the historic location.
- If Trend location is flooded, you can sample if safe to do so.
- Contact Quality Assurance (QA)
 Officer/Project Manager if any problems or changes with the site.

STATUS SITE SELECTION

- Random locations Maintains statistical validity.
- All 15 primary sites must be evaluated before alternate sites can be sampled.
- Alternate sites must be evaluated in order.
- **No gaps allowed** in site evaluation. All sites from the first through the site with the highest number sampled must be sampled or excluded.



STATUS RESOURCE TYPES





STATUS NETWORK DESIGNATED SAMPLING PERIODS

Table One (Page 127 in S&T Sampling Manual)

Month	Confined Aquifers	Unconfined Aquifers	Canals	Rivers	Streams	Large Lakes	Small Lake
Jan			60			, a	
Feb	120						
Mar	120						
Apr				90			
May						90	
Jun							
Jul					90		
Aug					30		
Sep							90
Oct							
Nov		120					
Dec							

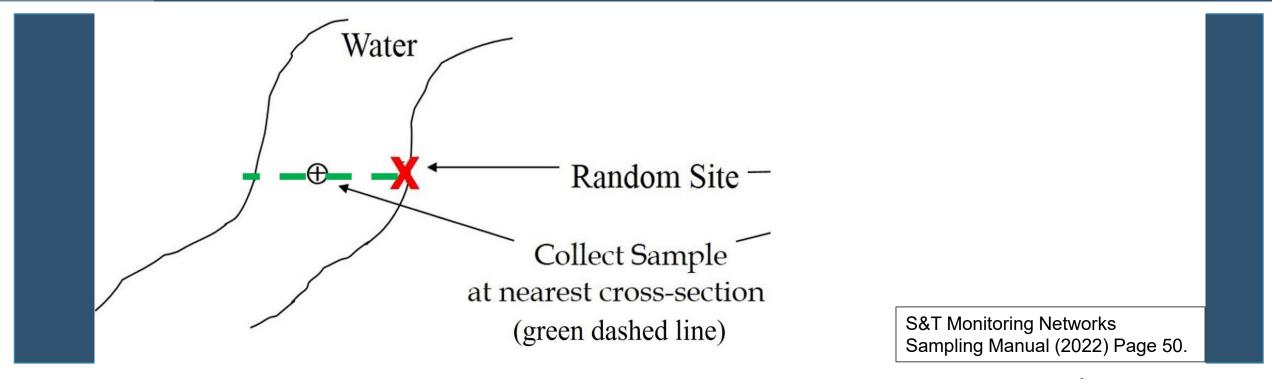
STATUS SAMPLING LOCATIONS STREAM/RIVER/CANAL

- Random location represents a cross-section of waterbody (perpendicular to the bank/flow).
- Collect in area of waterbody representative of the flow (commonly the middle).
- Do not move upstream/downstream.
- If random point falls on dry land, move ≤ 50 m toward nearest point in the water.
- Do not sample Status sites if flooded above banks.

.



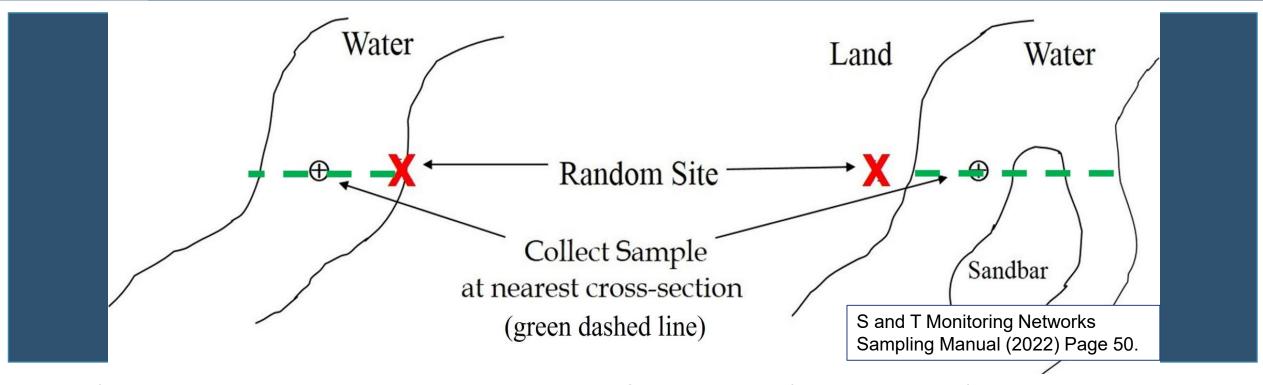
STATUS SAMPLING LOCATIONS



Left — Point is in water. Move to representative area of cross-section (no distance limit).



STATUS SAMPLING LOCATIONS



(Left) Point is in water. Move to representative area of cross-section (no distance limit).

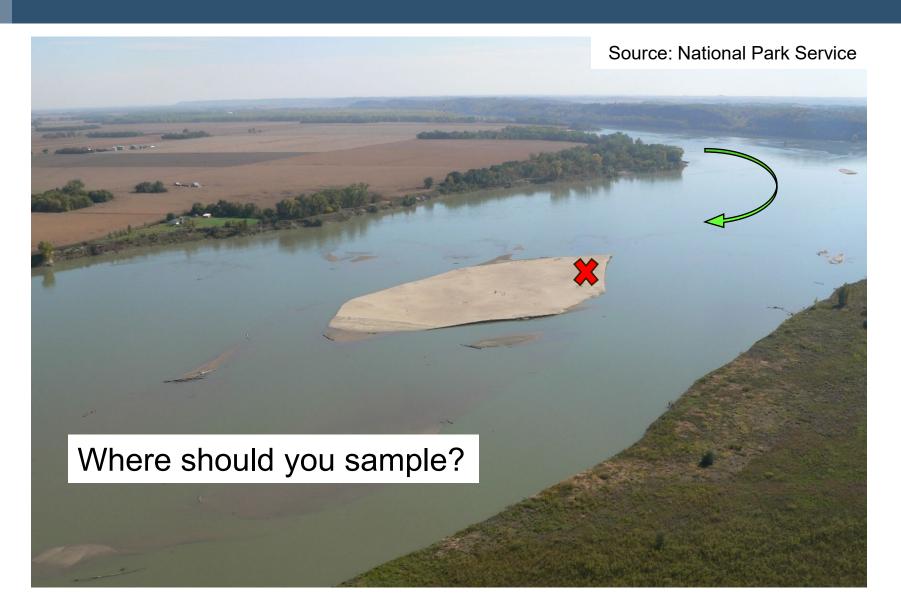
(Right) If you can reach water within 50 meters (m), site can be sampled. Move to representative area of cross-section (no distance limit).

If you can't reach water within 50 m, exclude as Wrong Resource / GIS coverage incorrect.

If sampled, where is GPS point collected?
Always collect new location data at sampling location.



STATUS NETWORK RIVER



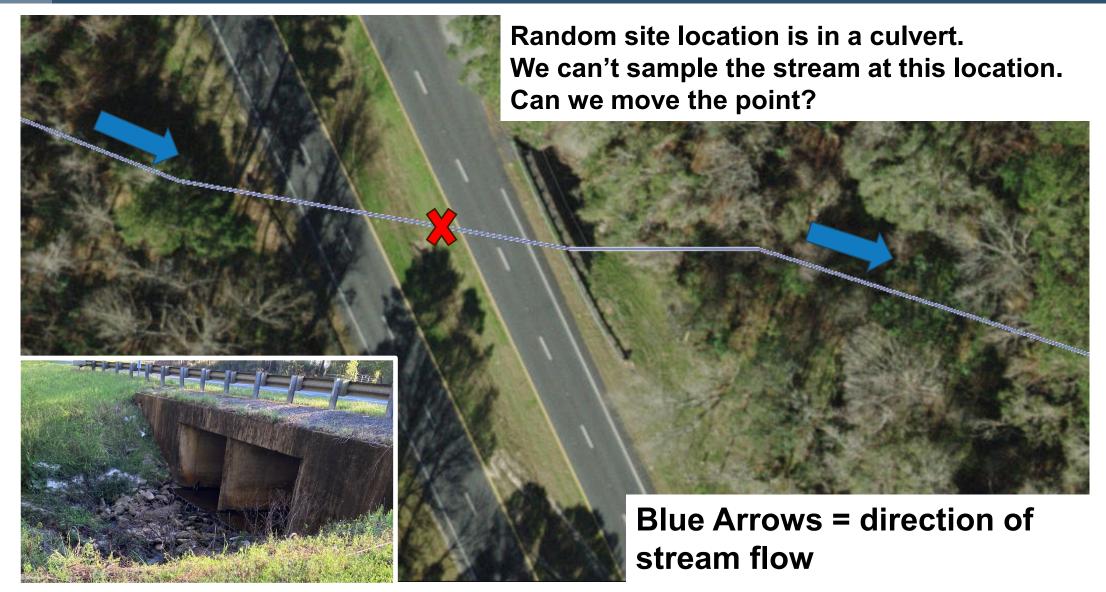


STATUS NETWORK RIVER





STATUS NETWORK STREAM





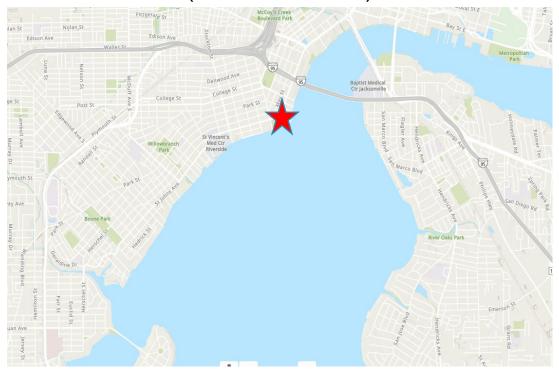
STATUS NETWORK STREAM





STATUS NETWORK FLOWING WATERS: FLOODING

Map Direct Screen grab of Memorial Park on the St. John's River (Jacksonville, FL)





Source: The Florida Times Union, 2020.

Memorial Park under normal conditions.



Memorial Park after Hurricane Nicole in 2022.

Source: News4Jax, 2022.

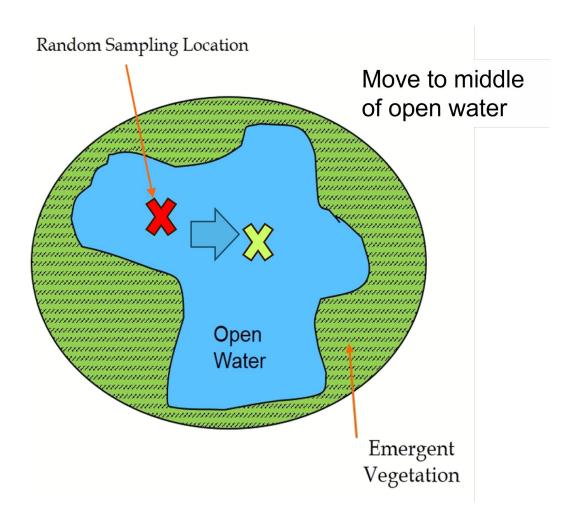
No sampling!

Do not sample Status Rivers/Streams/Canals if flooded above banks. Exclude as Otherwise Unsamplable/Flood Conditions.



STATUS SAMPLING LOCATIONS

SMALL LAKES

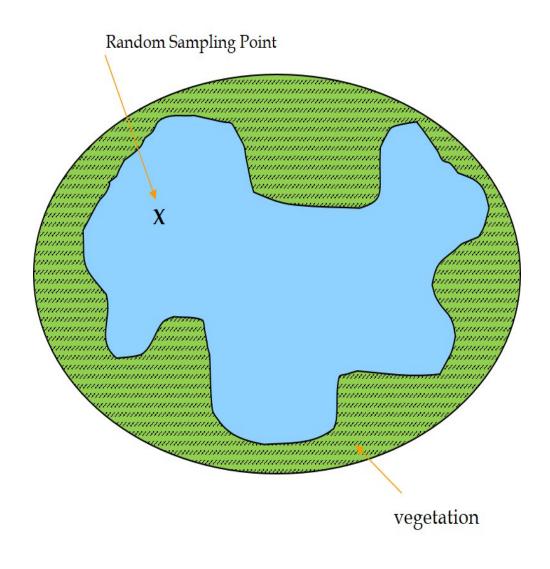


- Random location represents whole small lake.
- Must collect in the middle of the open water.
- If sampling location falls on dry land, move up to 50 m toward nearest point in the water. If water is reached, proceed to middle of open water to sample.



STATUS SAMPLING LOCATIONS

LARGE LAKES

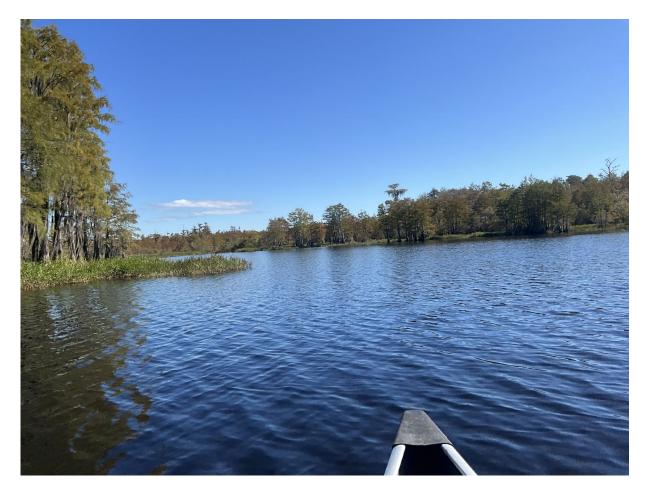


- Random location = sampling location.
- Use Bad Elf to navigate to the random site locations.
- Must collect sample at random location (lat/long).
- If random location falls on dry land, exclude site. Do not move site and do not sample.



SAMPLING REQUIREMENTS ALL LAKES

- Consider:
 - o Size.
 - o Depth.
 - o Open water.
 - o Tidal influence.



This small lake is named Bear Hammocks Lake.



SAMPLING REQUIREMENTS ALL LAKES

- Size
 - o Large enough to sample?
 - SL = four to < 10 hectares.
 - LL = ≥ 10 hectares
 - Consider area with water present during index period.



This small lake is named Bear Hammocks Lake.

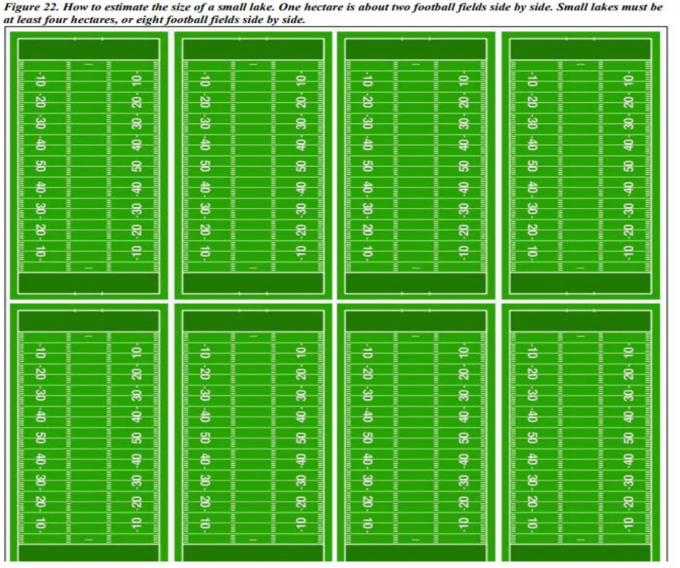


SAMPLING REQUIREMENTS

ALL LAKES

Four hectares = 9.88 acres (8 football fields).

Ten hectares = 24.71 acres (18 football fields).



Source: Watershed Monitoring Section's Status Network Reconnaissance Manual (Updated 2024). Page 33.



SAMPLING REQUIREMENTS ALL LAKES

- Size.
- Depth.
 - Lake's deepest point ≥1 m?
 - Sampling point ≥ 10 cm deep?



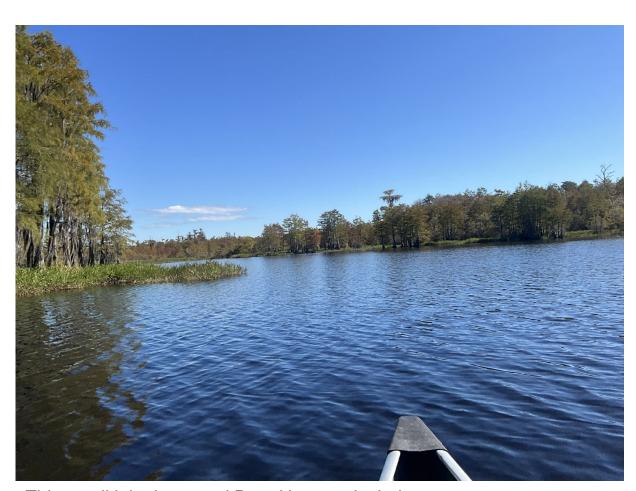
This small lake is named Bear Hammocks Lake.



SAMPLING REQUIREMENTS

ALL LAKES

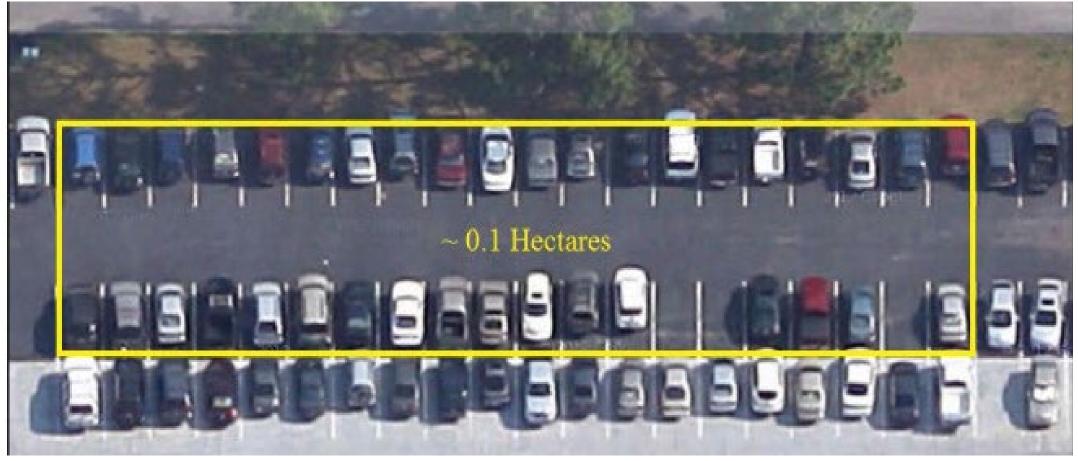
- Size.
- Depth.
- Open water.
 - Sampling point ≥ 0.5 m² free of attached vegetation?
 - (0.5 m² = height x length of two 48-quart coolers from DEP Lab).
 - ≥ **0.1** ha (0.25 acres, 1000 m²) total open water?



This small lake is named Bear Hammocks Lake.



SAMPLING REQUIREMENTS ALL LAKES

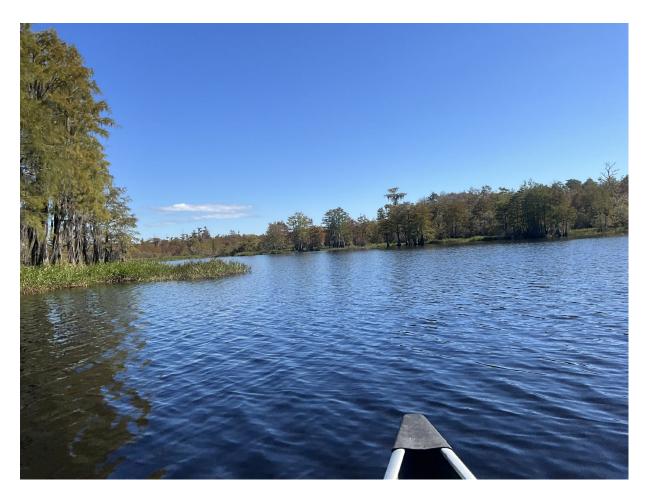


Source: Watershed Monitoring Section's Status Network Reconnaissance Manual (Updated 2024). Page 34.

0.1 hectares = Two rows of 20 parking spaces with a two-lane road between them.



- Size.
- Depth.
- Open water.
- Tidal influence?
 - Exclude as wrong resource / estuary if directly connected to oceanic waters.



This small lake is named Bear Hammocks Lake.

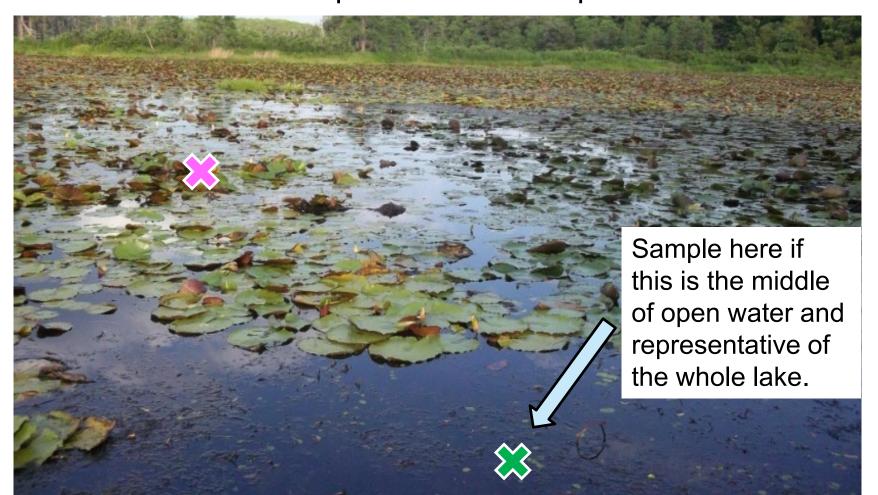


Assume that size/depth requirements are met for the small lake, and it is not tidally influenced. Could you sample this lake?





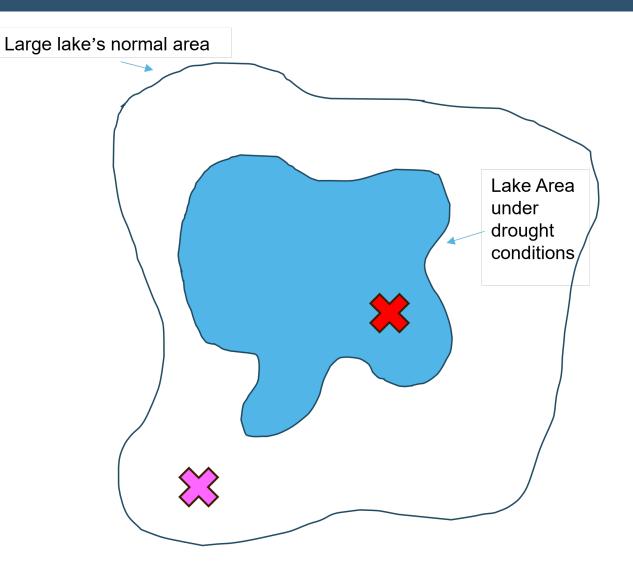
Yes - you can sample! For Small Lakes - sample in middle of open water.





Large Lake Example Number 1:

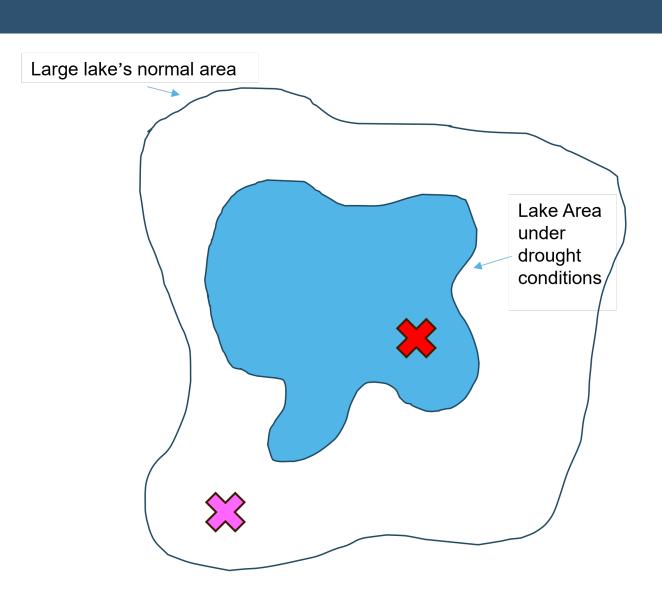
- Drought conditions are present such that the large lake is < 10 hectares.
- The pink and red 'X' are the random sample locations.
- Would you exclude both sites? If so, what is the exclusion?





Answer:

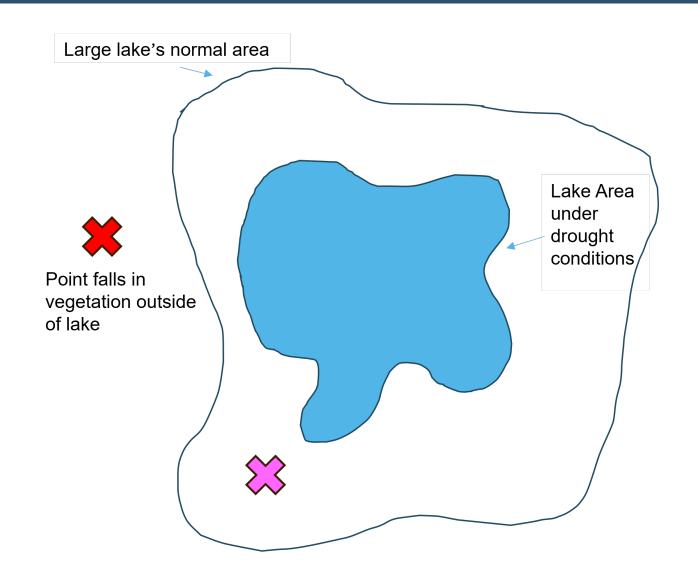
If the wetted area of the large lake is less than 10 hectares, the site should be excluded even if the random location falls in water. The appropriate exclusions in this case would be 'Dry > Random location dry during index period.'





Large Lake Example Number Two:

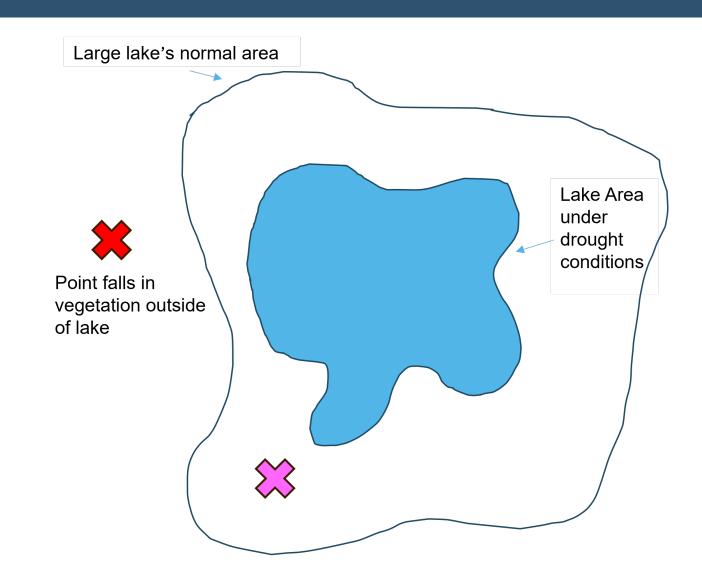
- Assume the large lake is ≥10 hectares. Can we move these sites to wetted areas?
- If not, what exclusions would apply for each?





Answer:

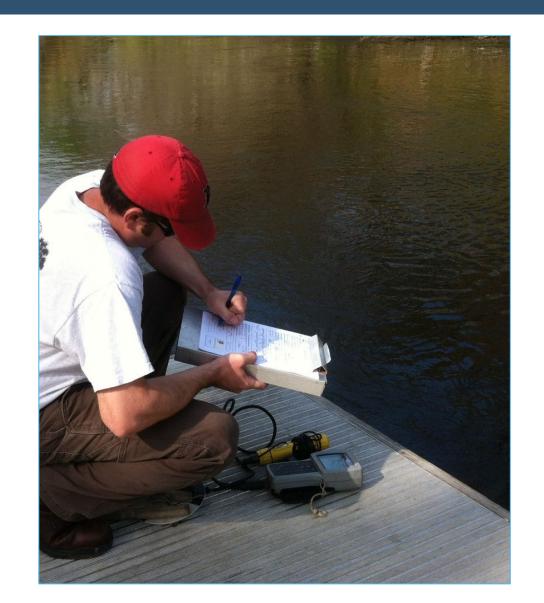
- For large lakes, you must collect sample at random location (latitude/longitude).
- If random location falls on dry land exclude site. Do not move site. Do not sample.
- Specific Exclusions.
 - Red 'X' = Wrong resource.
 - \circ Pink 'X' = Dry.





MAJOR TOPICS

- When/when not to collect samples.
- Field sheets and field data collection.
- Sample collection and documentation.





FIELD SHEETS

DO not make **ANY** assumptions while reviewing data.

Not Documented = NOT DONE.



IE.				to be added due to missing cleaning documentation		
(true)	27	J	PCU	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLE		
ic Conductance, Lab	154	J 📈	uS/cm	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE OLLE		
nity, Total (as CaCO3)	60	J	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLE		
Suspended Solids (TSS)	3	IJ	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLE		

Screen grab of the results file

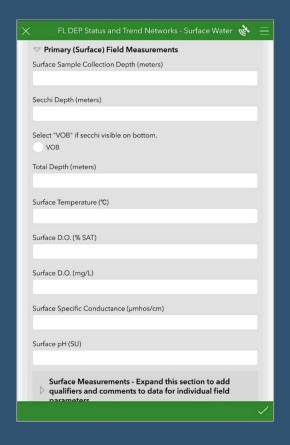
where I qualifiers / comments had

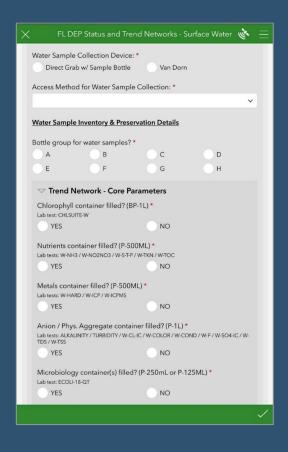
otor (true)	21 3		-00	CLEANING NOT DOCUMENTED OF VAN DOKN NO. 3 PRIOR TO SAMPLE OFFICE
pecific Conductance, Lab	154 J	L L	uS/cm	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE OLLECT
lkalinity, Total (as CaCO3)	60 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
otal Suspended Solids (TSS)	3 IJ	l n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
mmonia, Total (as N)	0.011 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
jeldahl Nitrogen, Total (as N)	0.26 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
litrate+Nitrite, Total (as N)	1 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
hosphorus, Total (as P)	0.025 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
rganic Carbon, Total	4.4 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
alcium, Total	25.5 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
lagnesium, Total	1.66 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
odium, Total	2.3 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
otassium, Total	1.4 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
hloride, Total	6.4 AJ	J n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
ulfate, Total	1.2 AJ	J n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
luoride, Total	0.03 IJ	l n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
hlorophyll-A Uncorrected, (Trichromatic)	1.6 IJ	l u	ug/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
hlorophyll-A (Monochromatic)	1.4 IJ	l u	ug/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
heophytin-A (Monochromatic)	0.9 U.	IJ u	ug/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
ardness, calculated as CACO3	70.5 J	n	mg/L	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
urbidity, Lab	7 AJ	J n	ntu	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT
scherichia Coli-Quanti-Tray	213 J	N	4PN/100 mL	CLEANING NOT DOCUMENTED OF VAN DORN NO. 3 PRIOR TO SAMPLE COLLECT



FIELD SHEETS

Use Survey123 Status and Trend Surface Water form to complete field sheets and custody sheets.





Sediment collec (Total water depth.)	tion depth (meter	rs) *	
Sediment collectors Top 3-5 cm	tion Interval: *	Other (if to	op 3-5 cm is too
Sediment collect Hand Corer		an Grab	Petite Ponar Grab
Sediment collec	tion device ID: *		
Number of sedir (minimum 3 grabs rec	ment grabs: * quired for Status Netwo	rk)	
Sample collection (e.g. near east shore;	on area descriptio	n: *	
Dominant Sedin (select only one)	nent Type *		
Clay / Silt	Sand	Gravel / SI Rubble	hell Organic Muck
Sediment Odors (select only one)	*		
Normal	Sewage	Petroleum	Hydrogen Sulfide
Other			



FIELD SHEETS

- Paper field sheets are available on the Watershed Monitoring Information Center.
- Keep copies in vehicles as back up.



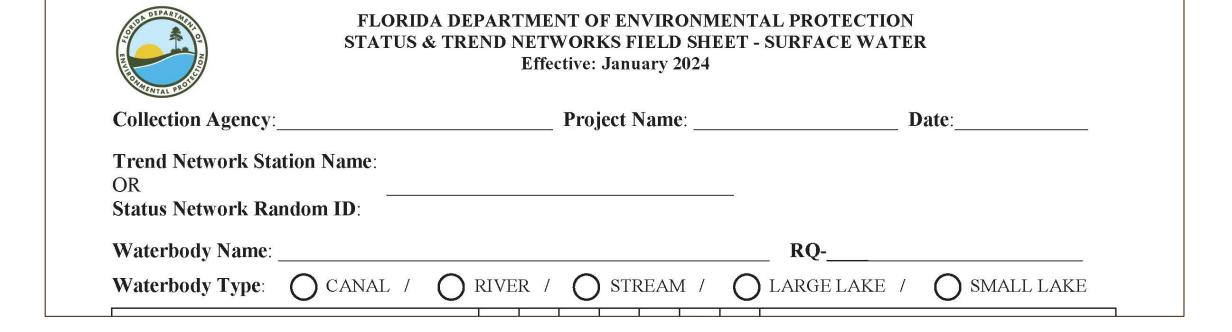
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STATUS & TREND NETWORKS FIELD SHEET - SURFACE WATER Effective: January 2024

Collection Agency:			Pro	ject 1	vame	::		Date:
Frend Network Station Name: OR Status Network Random ID:								
Waterbody Name:								RQ-
Waterbody Type: CANAL / C	RIVE	R /	0	STI	REAN	1 /	0	LARGELAKE / SMALLLAKE
Sampling Team Member Names	Field Measurements Water Sample Pield / Equip. Blank Collection Bioassessment Data Collection						Signatures	
Additional Personnel / Visitors On-site: _ Weather Conditions: Photos Taken: Yes / No (Rec						s. Req	uired	annually for all Trend stations.)
Flow: O No Flow / O Flowing /	C	O H) NA ck /	_) NA		ooded	Abov	we Banks (<u>DO NOT</u> sample for Status CN / LR / SS)
QA/QC Blank Collected at this station?	O,	lone		Field	l Blar	nk / (\sum_{E}	quip. Blank
QA/QC Blank Field ID:			_	Coll	ection	1 Tim	e (24)	hr): □ ETZ / □ CTZ
Van Dorn Equip. ID / Name:			_	Cl	canir	ıg: (Lab-Cleaned / O Field-Cleaned
Bioassessment Data Collected: None / HA / SCI / RPS / LVS / LVI								
Sediment Sample Collected: NO / YES Sed. Collection Time (24hr): ETZ / □ CTZ Sed. Collection Depth (m): (total water depth)								
•								



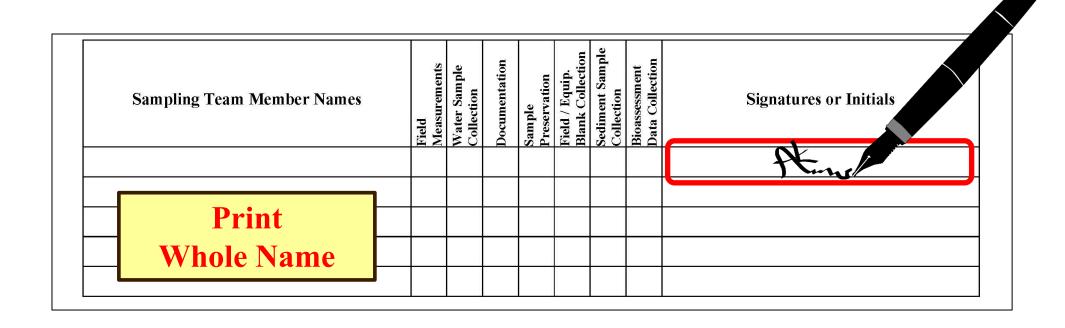
GENERAL STATION INFORMATION

- Use the most recent version (January 2024).
- Station name.
- Sampling date.
- Waterbody name and type.





GENERAL STATION INFORMATION



Record names/signatures of all samplers on the paper form.
 (Survey123 Signature – use initials).



PHOTO DOCUMENTATION

ALL STATUS AND TREND SITES

Additional Personnel / Visitors On-site:					
Weather Conditions:					
Photos Taken: Yes / No (Required for all Status stations. Required annually for all Trend stations.)					
Water Level: O Low / O Normal / O High / O Flooded Above Banks (DO NOT sample for Status CN / LR / SS)					
Flow: O No Flow / O Flowing / O NA					
Tide: ORising / OFalling / OSlack / ONA					

- Recommend taking photos with Survey123.
- Photos will be stamped with station ID, date, and direction (North (N), East (E), South (S) and West (W)) in lower-left corner.
- Photo files will be automatically named and transferred to DEP SharePoint.



PHOTO DOCUMENTATION ALL STATUS AND TREND SITES









- Photos at all Status and annually at Trend sites (more frequently if changes have occurred).
- Four photos required at all sites: North (N), East (E), South (S) and West (W).
- Additional photo of sample location required if sampling from shore or on a structure.
- Upstream/downstream photos are helpful.



PHOTO DOCUMENTATION

- Sampling point on the structure.
- **Not** view from the structure.







WATER CHARACTERISTICS

SAMPLING POINT MEASUREMENTS

Photos Taken: O Yes / O No (Required for all Status	s stations. Required annually for all Trend stations.)
Water Level: O Low / O Normal / O High /	Flooded Above Banks (<u>DO NOT</u> sample for Status CN / LR / SS)
Flow: O No Flow / O Flowing / O NA	
Tide: ORising / OFalling / OSlack / OT	NA
QA/QC Blank Collected at this station? O None / O Fig.	eld Blank / OEquip. Blank

- Qualitative Water Level.
- Qualitative Water Flow (flowing waters only).
- Qualitative Tide (note the NA).



QUALITY ASSURANCE/CONTROL

QA/QC Blank Collected at this station? O None / O Field Blank / O Equip. Blank				
QA/QC Blank ID:	Collection Time (24 hr):OETZ / OCTZ			
Van Dorn Equip. ID / Name:	Cleaning: O Lab-Cleaned / O Field-Cleaned			

- Equipment Blanks.
- Field Blanks.





FIELD SHEET

Complete bioassessment & sediment info

Bioassessment Data Collected: None / HA / SCI / RPS / LVS / LVI
Sediment Sample Collected: O NO / O YES Sed. Collection Time (24hr): □ ETZ / □ CTZ
Sed. Collection Depth (m): (total water depth) Number of Grabs: (minimum 3)
Sed. Collection Interval: O Top 3-5 cm / Other (if top 3-5 cm is too flocculent)
Sed. Collection Area Description (e.g. near east shore; central):
Sed. Collection Device: O Corer / O Ekman / O Petite Ponar Device ID:
Dominant Sed. Type (select one): O Clay/Silt / O Sand / O Gravel/Shell Rubble / Organic Muck (very fine grained, flocculent)
Sediment Odors (select one): Normal / Sewage / Petroleum / Hydrogen Sulfide / Other
Sediment Color:
Sediment Sample Comments:



When collecting any bioassessment, a Phys-Chem and Habitat Assessment should **always** be completed.



FIELD MEASUREMENTS



Field ID	:		Project Name: _		oate:
		ent: O Direct			
				Per Attended property	Equipment ID
Collection Method				Canoe or Kayak /	
	O Boat - Gas	oline Motor /	Boat - Electri	c Motor / Other	
Field Meter ID:					
Depth Measureme	nt Device:	Field Meter Listed A	bove / O	ther	
				0.1m and < 0.6m \rightarrow surf meas. & eas. & sample at 0.3m, bottom mea	
PRIMARY (SURFA			2.0		ETZ / CTZ
☐ Check here if Se			6 -		
☐ Check here if bo	ttom measureme	nts not collected be	cause total depth	< 1.5 m.	
PARAMETER	VALUE	QUALIFIER(S)	RESULT COM	MENT	
D.O. (mg/L)					
D.O. (% SAT)					
Temp (°C)					
pH (SU)					
Sample Collection Depth (m)					
Secchi Depth (m)					
Total Depth (m)					
Sp. Cond. (umhos/cm)					
BOTTOM SAMPLE	(FIELD MEAS	. ONLY) Collect	ion Time (24 hr):		□ ETZ / □ CTZ
PARAMETER	VALUE	QUALIFIER(S)	RESULT COM	MENT	
D.O. (mg/L)					
D.O. (% SAT)					
Temp (°C)					
pH (SU)					
Sample Collection Depth (m)					
Sp. Cond. (umhos/cm)					
SAMPLE COMME	NTS		ı		
PRIMARY (SURFAC					
воттом:					
		OFFI	CE USE ONLY	·	
Reviewed By: WIN ID:	SBIO-Visit:	HA-ID:			e: cro-ID:

RECORD MEASUREMENT DEVICE INFORMATION

ı			
ı	Field Meter ID: Depth Measurement Device:	Field Meter Listed Above /	Other
t	•		

- Field Meter Name.
- Measurement Device.
- Compare this info with the calibration logs.

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)					
Meter ID:	RQ-	Project:			

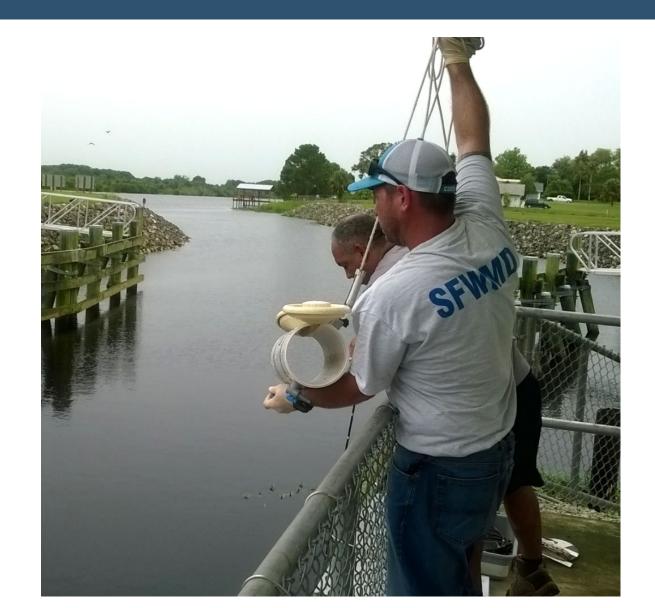
Notes: (1) Always wait for meter to stabilize before recording any readings. (2) Report all digits displayed. <u>Do not</u> round before reporting measurements. (See spec

Same Meter IDs must be used on Field Sheet **and** Calibration Log.



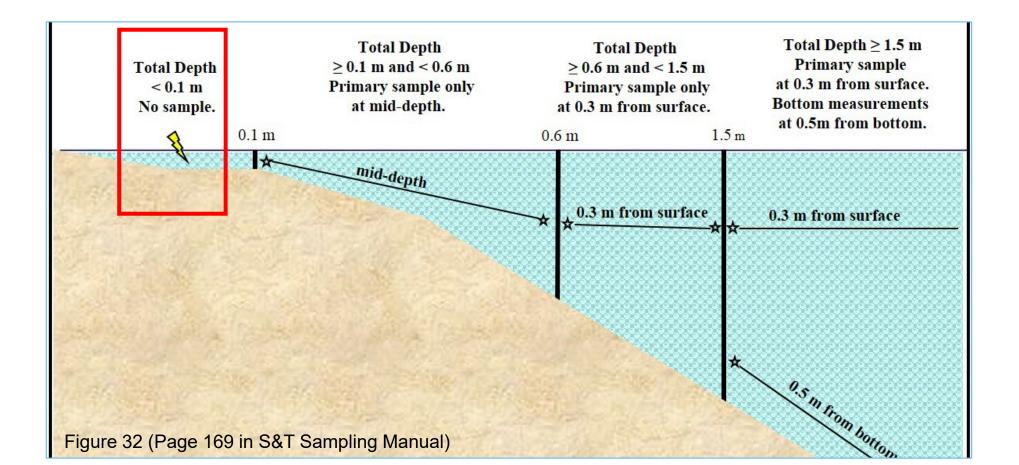
MAJOR TOPICS

- When/when not to collect samples.
- Field sheets and field data collection.
- Sample collection and documentation.





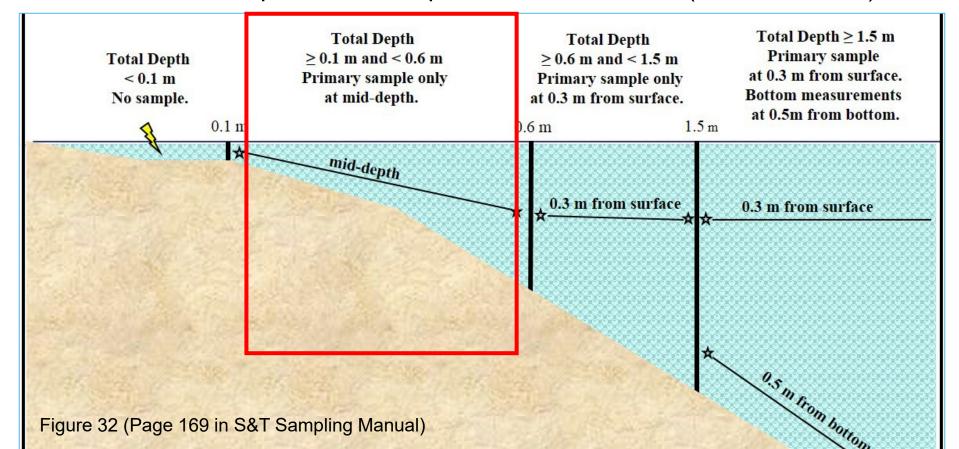
No Sampling if Total Depth is < 0.1 m.





When Depth \geq 0.1 m and < 0.6 m:

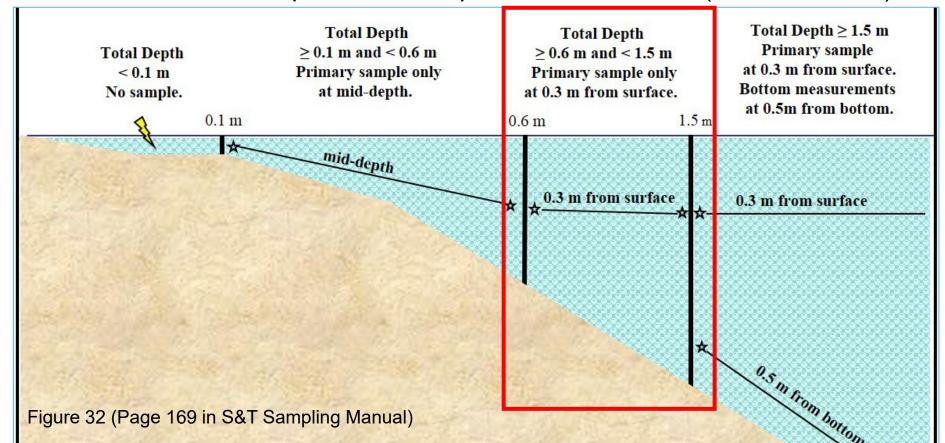
- Primary samples taken at mid-depth.
- No bottom sample.
- Record Total, Sample, Secchi depth to nearest 0.01 m (measure twice).





When Depth \geq 0.6 m and < 1.5 m:

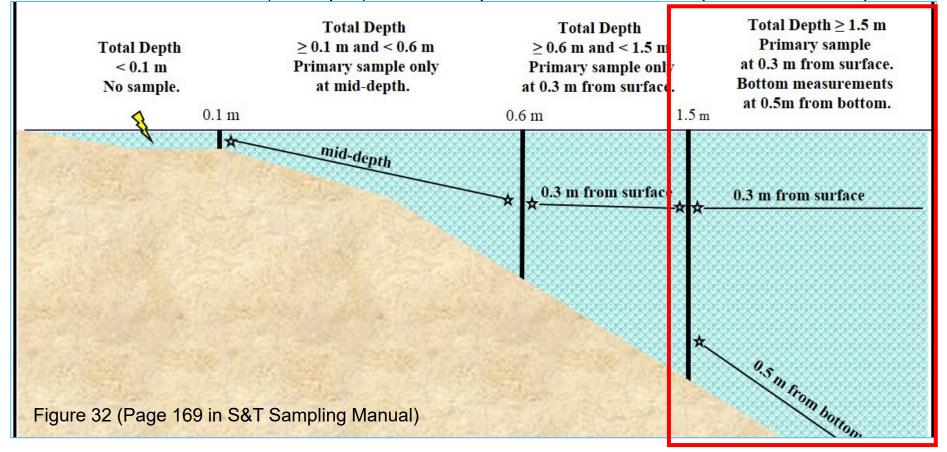
- Primary sample 0.3 m below the surface.
- No bottom sample.
- Record Total, Sample, Secchi depth to nearest 0.1 m (measure twice).





When Depth ≥ 1.5 m:

- Primary sample 0.3 m below the surface.
- Bottom field measurements 0.5 m from the bottom.
- Record Total, Sample, Secchi depth to nearest 0.1 m (measure twice).





FIELD MEASUREMENTS

- Record field
 measurements to the
 number of decimal places
 indicated in **Table 6** (Page
 133 in Status and Trend
 Sampling Manual).
- Notice that all digits are displayed for all field parameters except depth.
- Pay attention to field measured depth to determine decimal places.

Parameter	Number of Decimal Places to Record	Calibration / Verification Frequency	Acceptance Criteria
pH (FT 1100)	All Digits Displayed	Daily: IC, ICV, CCV.	± 0.2 SU
Specific Conductance (FT 1200)	All Digits Displayed	<u>Daily</u> : IC, ICV, CCV.	± 5%
Dissolved Oxygen (mg/L and % Saturation) (FT 1500)	All Digits Displayed	<u>Daily</u> : IC, ICV, CCV.	± 0.3 mg/L
Temperature (FT 1400)	All Digits Displayed	Quarterly: CCV.	± 0.5 °C
Turbidity (FT 1600)	All Digits Displayed	Daily: CCV. Quarterly: IC, ICV, secondary standard verification.	0.1 – 10 NTU: ± 10%; 11 – 40 NTU: ± 8%; 41 – 100 NTU: ± 6.5%; > 100 NTU: ± 5%
Depth	Calibrations & Verifications: 2 for electronic devices; 1 for manual devices. Field Measurements: 2 if total depth < 0.6 m; 1 if total depth > 0.6 m	Daily: IC, ICV for Sondes. Quarterly: Verify Sondes & Electronic Devices. Every 6 months: Inspect Manual Devices.	ICV: ± 5% or ± 0.05 m, whichever is greater. Electronic Device Verification: ± 10%. Line Increments: ± 10%. Total Length of Lines: ± 5%.



TOTAL, SAMPLE, AND SECCHI DEPTH

- Total and sample depths.
 - Measure using manual/electronic device.
- Secchi depth.
 - Measure on shady side of boat/body.
 - Remove sunglasses.
 - Record the depth at which disk disappears.
 - Lower the disk slightly further. Raise the disk till it reappears and record that depth.
 - Average these two depths.
 - O Visible on bottom?
 - Add "S" Qualifier and result comment.
 - Swift currents/choppy water affect the accuracy?
 - Add "J" Qualifier and result comment.



FIELD INDICATORS

INFO ABOUT THE DATA COLLECTION

Collection Time:

The times must be the same on:

- 1. Primary collection on field sheet.
- 2. Sample container.
- 3. Custody sheet.

PRIMARY (SURFA	CE) SAMPLE	Collection Time (24 hr): PRIMARY	DETZ / DCTZ
☐ Check here if Se	7			BEIZ/BCIZ
			cause total depth < 1.5 m.	
PARAMETER	VALUE	QUALIFIER(S)	RESULT COMMENT	
	VALUE	QUALIFIER(S)	RESULT COMMENT	
D.O. (mg/L)				
D.O. (% SAT)				
Temp (°C)				
pH (SU)				
Sample Collection Depth (m)				
Secchi Depth (m)				
Total Depth (m)				
Sp. Cond. (umhos/cm)				
BOTTOM SAMPLE	(FIELD MEAS.	ONLY) Collect	ion Time (24 hr):	□ ETZ / □ CTZ
PARAMETER	VALUE	QUALIFIER(S)	RESULT COMMENT	
D.O. (mg/L)				
D.O. (% SAT)				
Temp (°C)				
pH (SU)				
Sample Collection Depth (m)				
Sp. Cond. (umhos/cm)				



FIELD INDICATORS

INFO ABOUT THE DATA COLLECTION

 Bottom field measurements should have a unique sample collection time compared to the primary sample time.

PRIMARY (SURFA	CE) SAMPLE	Collection Time (24 hr):	DETZ / DCTZ
☐ Check here if Se	cchi depth visible	e on bottom (S qual	ifier needed).	
☐ Check here if bo	ttom measureme	nts not collected be	cause total depth < 1.5 m.	
PARAMETER	VALUE	QUALIFIER(S)	RESULT COMMENT	
D.O. (mg/L)				
D.O. (% SAT)				
Temp (°C)				
pH (SU)				
Sample Collection Depth (m)				
Secchi Depth (m)				
Total Depth (m)				
Sp. Cond. (umhos/cm)				
BOTTOM SAMPLE	(FIELD MEAS	. ONLY) Collect	ion Time (24 hr):uniqu	e etz / etz
PARAMETER	VALUE	QUALIFIER(S)	RESULT COMMENT	
D.O. (mg/L)				
D.O. (% SAT)				
Temp (°C)				
pH (SU)				
Sample Collection Depth (m)				
Sp. Cond. (umhos/cm)				



We love comments! Be specific!

Remember Qualifiers!

		245				
PRIMARY (SURFA	CE) SAMPLE	Collection Time (2	24 hr):	□ ETZ / □ CTZ		
☐ Check here if Secchi depth visible on bottom (S qualifier needed).						
☐ Check here if bo	\square Check here if bottom measurements not collected because total depth < 1.5 m.					
PARAMETER	VALUE	QUALIFIER(S)	RESULT COMMENT			
D.O. (mg/L)						
D.O. (% SAT)						
Temp (°C)			- ant	\$		
pH (SU)			Result Comments			
Sample Collection Depth (m)			•			
Secchi Depth (m)						
Total Depth (m)						
Sp. Cond. (umhos/cm)						
BOTTOM SAMPLE	(FIELD MEAS	ONLY) Collect	ion Time (24 hr):	□ETZ / □CTZ		
PARAMETER	VALUE	QUALIFIER(S)	RESULT COMMENT			
D.O. (mg/L)						
D.O. (% SAT)			ment	.S		
Temp (°C)			Result Comment			
pH (SU)						
Sample Collection Depth (m)						
Sp. Cond. (umhos/cm)	3					
SAMPLE COMMEN	NTS			-		
PRIMARY (SURFACE): BOTTOM: Sample Comments						
BOTTOM:		Sample				



SAMPLE BOTTLES/CONTAINERS



- All containers provided by lab are new/certified clean.
- Do not pre-rinse containers.
- Do not touch inside of containers or the threads on the neck.



SAMPLE CONTAINER LABELS

- Place Station ID Label vertically on all sample containers.
- Record date, time, and sampler initials on Lab ID label.
- Date/Time on sample bottle must match primary field measurement date/time.

Container Type: BP-1L 12024

PRIMARY (SURFACE) SAMPLE Collection Time (24 hr): PRIMARY DETZ / DETZ /



Station ID barcodes on sample details page.

Place Station			Comme	nts:				
ID			Sulfuric .	Acid I	Lot#:			
			Nitric Ac	id Lo	t #:			
Matrix: ○ W-SURF-FRESH / ○ W-SURF-SALT				Grab				
Date Collected	Time Collected	D.O. (% SAT)	Temp (°C)		pH (SU)	Sample Depth		Cond. os/cm)
	OETZ OCTZ							
	xes for Each Container Test Codes Lab Te		b h Test Codes		Preservation	-	# Bottles	Bottle

Barcodes auto-generated on field sheets produced by submitting data with Survey123.



SAMPLE COLLECTION

GENERAL





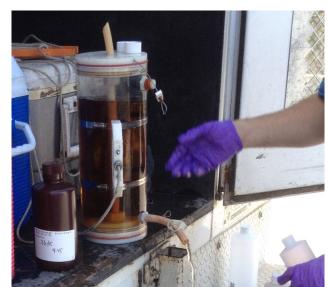
- Always wear gloves when handling sample containers and equipment.
- Collect water samples on upstream side of boat/body.
- Avoid disturbing the sediments or wait for sediments to settle.
- Collect water samples before collecting sediments or performing bioassessment.

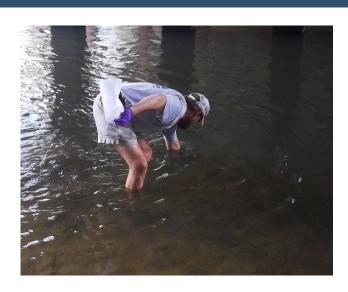


SAMPLE COLLECTION METHODS

Direct Grab (preferable)





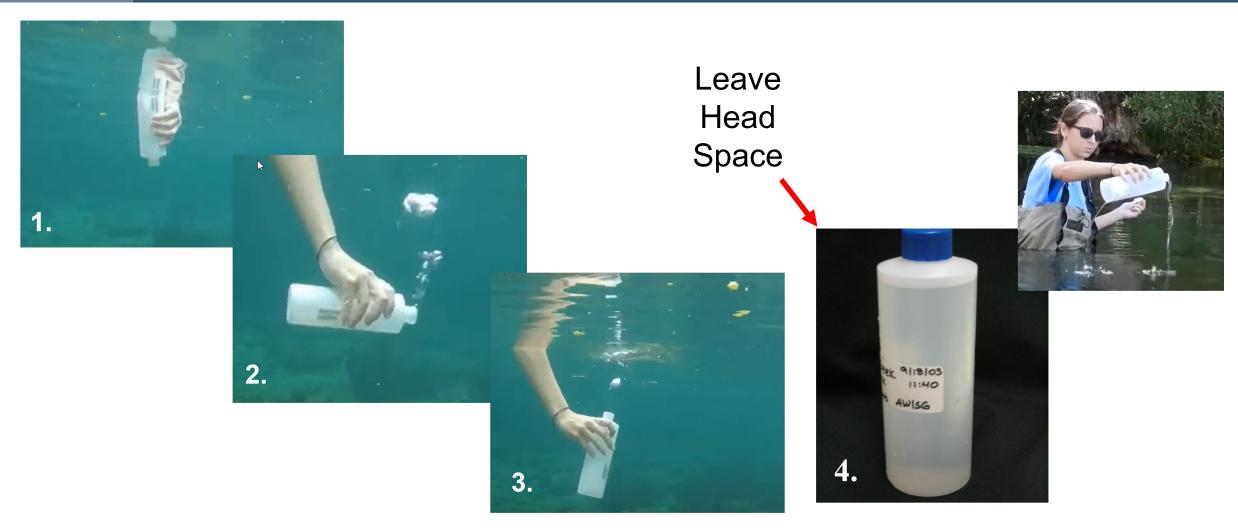




Van Dorn

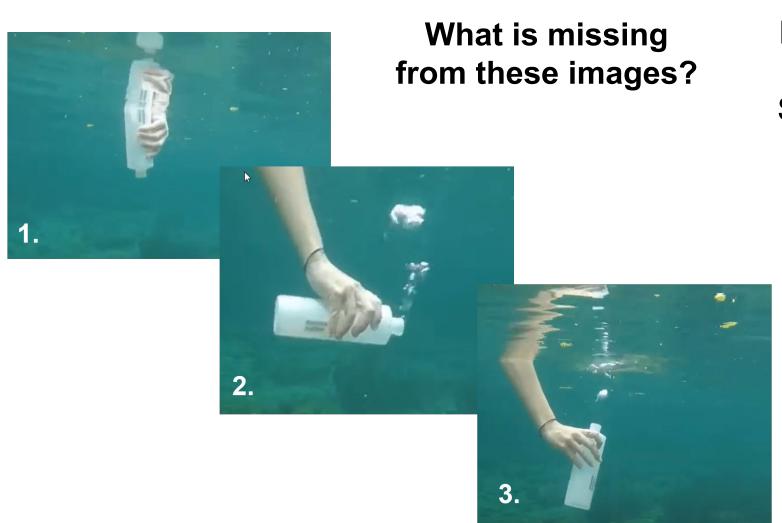


GRAB SAMPLES





GRAB SAMPLES

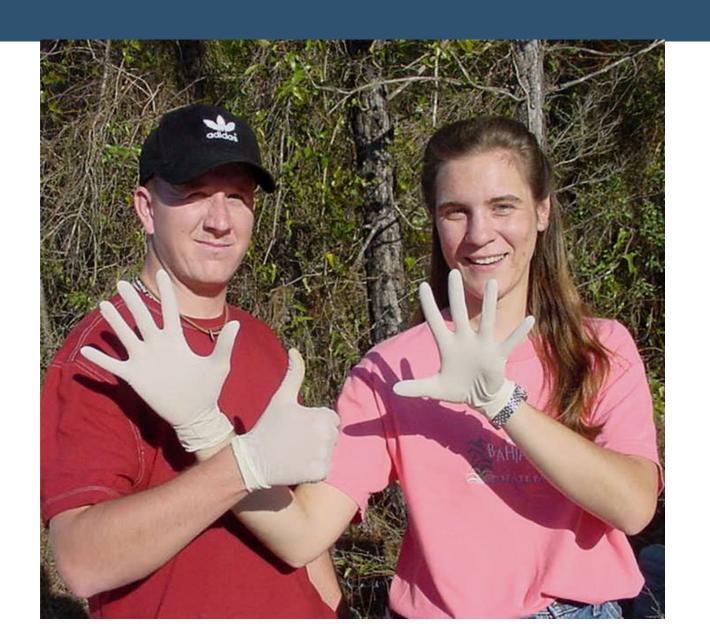


Leave Head Space





WEAR GLOVES WHILE COLLECTING SAMPLES





VAN DORN COMPONENTS

- Body.
- End caps.
- Trip mechanism.
- Rope.
- Messenger.
- Drain valves.





VAN DORN SAMPLING

DEPLOYMENT PREP

- Consider the depth of the water body and if deployment at 0.3 m will disturb sediments.
- Place a mark on the line at the appropriate sampling depth.
- Rinse first.
 - o Flush open device for good velocity systems.
 - Or capture device and rinse/release away/downstream from the sample location.
 - Remember to flush water through spigot/stopcock.





VAN DORN SAMPLING DEPLOYMENT PREP

- Once rinsed, lower the open device into the water referencing the marked line.
- Send messenger down to close.
- Retrieve the device.





VAN DORN SAMPLING FILLING SAMPLING BOTTLES

- Agitate to minimize settling of particulates.
- Release some water through spigot before filling containers.
- Fill Containers leaving headspace.
 - Allow water to flow continuously and fill in rapid succession.

OR

 Stop/start flow between each container after agitating Van Dorn to uniformly mix contents.





VAN DORN SAMPLING FILLING SAMPLING BOTTLES

- Fill microbiology containers last.
- When filling microbiology containers do not stop flow before or during the filling process.
- Take care to avoid touching the inside of the containers or the threads.
- Secure container lids.





DOCUMENTATION

Deports	Field ID:		Proiect Name:	Date:
	Water Sampling F	Equipment: ODirec	t Grab with Sample Conta	ainer
Amental Broth		O Van Dorn:	# of Grabs;	Equipment ID
Collection	on Method: O W	ading / O From Shore	e or Structure / O Cand	oe or Kayak / Air Boat /
	O 1	Boat - Gasoline Motor /	O Boat - Electric Motor	/ Other

- Select water sample collection device type on field sheet.
- Record Equipment ID and number of grabs collected with the Van Dorn.
 - Same Equipment IDs must be used on Field Sheets and in Cleaning Log.



SW SAMPLE DETAILS PAGE

	I		1	1
Check Boxes for Each Container Submitted to Lab				Preservation
Parameter Suite	Lab Test Codes Trend Core	Lab Test Codes Status Core	Lab Test Codes Special Projects	(Must be completed within 15 min of sample collection)
Chlorophyll (BP-1L)	CHLSUITE-W	CHLSUITE-W		☐ Ice
Nutrients (P-500ML)	W-NH3 / W-NO2NO3 / W-S-T-P / W-TKN / W-TOC	W-NH3 / W-NO2NO3 / W-S-T-P / W-TKN / W-TOC		\square 2ML H ₂ SO ₄ \square pH < 2 \square Ice
Metals (P-500ML)	W-HARD / W-ICP / W-ICPMS	W-HARD / W-ICP / W-ICPMS		\square 2ML HNO ₃ \square pH < 2 \square Ice
Anion / Phys. Aggregate (P-1L)	ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F/ W-SO4-IC / W-TDS / W-TSS	ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F/ W-SO4-IC / W-TDS / W-TSS		☐ Ice

All sample containers filled/preserved (including on ice) within **15 min** of first grab collection.

Preserve nutrients with sulfuric acid (H₂SO₄) before preserving metals with nitric acid (HNO₃) to avoid contamination.



SW SAMPLE DETAILS PAGE

	<u> </u>		-	<u> </u>
Cl	heck Boxes for Each (Preservation		
Parameter Suite	Lab Test Codes Trend Core	Lab Test Codes Status Core	Lab Test Codes ial Projects	(Must be completed within 15 min of sample collection)
Chlorophyll (BP-1L)	CHLSUITE-W	CHLSUITE-W		☐ Ice
Nutrients (P-500ML)	W-NH3 / W-NO2NO3 / W-S-T-P / W-TKN / W-TOC	W-NH3 / W-NO2NO3 / W-S-T- W-TKN / W-TOC		\square 2ML H ₂ SO ₄ \square pH < 2 \square Ice
Metals (P-500ML)	W-HARD / W-ICP / W-ICPMS	W-HARD / W-ICP / W-ICPMS	Sta	ML HNO ₃ pH < 2 lce
Anion / Phys. Aggregate (P-1L)	ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F/ W-SO4-IC / W-TDS / W-TSS	ALKALINITY / TURBIDITY / W-CL-IC / W-COLOR / W-COND / W-F/ W-SO4-IC / W-TDS / W-TSS	mistake	☐ Ice

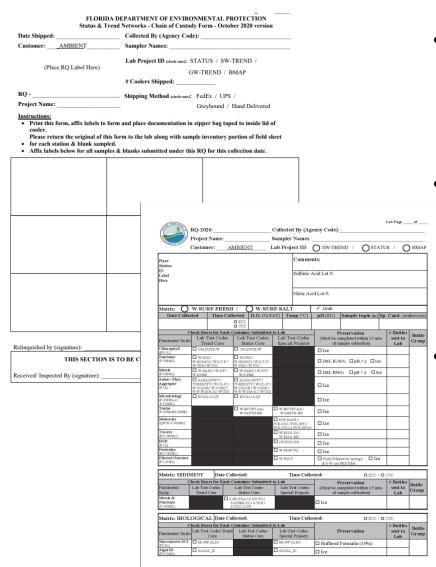
If you make a mistake, document what occurred.

- Helps lab staff determine how to prepare and analyze samples.
- Helps data users understand if data are appropriate for inclusion in reporting/statistical analyses.



AFTER COLLECTING SAMPLES





- Doublecheck
 paperwork to note if it
 is filled out
 completely/correctly.
- Ensure ice and samples are in trash bags inside the coolers to prevent leaks.
- Using paper copies of the field sheets?
 - Insert Chain of Custody forms in a ziptop bag and tape to the inside lid of the cooler.



AFTER COLLECTING SAMPLES

SURVEY123 USERS

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION Status & Trend Networks - Chain of Custody Form - July 2024 version

16_AMBIENT_COC_EDD_2024_07_08_C		/2024-07-08-		
Date Collected: 07/08/2024	Collected By (Agency Code):	8034		
Customer: AMBIENT	Sampler Names: Sample	er Names		
RQ- RQ-2024-07-08-16	Lab Project ID: SW-TREN	TD		
Project Name: TRST2407	# Coolers Shipped: 2	Shipping Metho	d: Hand Delivered	
Instructions: Please return the ori sheet for each station sampled. Load digital labels into fields belo- Email completed documentation to: OR Print completed documentation	w for all samples & blanks s lab.receiving@floridadep.gov	ubmitted under this	RQ for this collecti	
Site Location	Field I	D		
6978	STN030			
6976	ECN01			
3526	AUC10			
		Date: 07/08/2024	Time: 16:00 ETZ	
Relinquished By Si				
THIS SECTI	ON IS TO BE COMPLETE	D BY THE LABORA	TORY	
Received/Inspected By:		Date:	Time:	ETZ

Lab Page ____ of ___ RO-2020-Collected By (Agency Code): Project Name: Sampler Names: Lab Project ID: O SW-TREND / OSTATUS / OBMAP Sulfuric Acid Lot # Nitric Acid Lot #: Matrix: () W-SURF-FRESH / () W-SURF-SALT Date Collected Time Collected D.O. (% SAT) Temp (°C) pH (SU) Sample Depth (m) Sp. Cond. (umhos/ Check Boxes for Each Container Submitted to Lab Bottle Lab Test Codes Lab Test Codes Lab Test Codes (Must be completed within 15 min Status Core Special Projects of sample collection) Trend Core CHLSUITE-W ☐ Ice □ W-NH3 / □2MLH2SO4 □pH<2 □Ice W-NO2NO3/W-S-T-P/ -TKN / W-TOC □ W-HARD/W-ICP/ □ W-HARD/W-ICP/ □ 2ML HNO₃ □ pH < 2 □ Ice W-ICPMS ☐ ALKALINITY □ Ice ECOLI-18-QT □ Ice Toxins (P-125ML/BG-250ML W-MCYST-AA □ W-MCYST-AA/ ☐ Ice PCR-BACE / □ Ice □ W-E8321-DI/ □ Ice □ Ice ☐ Field Filtered w/ syringe ☐ Ice Filtered Nutrien Matrix: SEDIMENT Date Collected: Time Collected: Lab Test Codes (Must be completed within 15 min Suite Metals & Status Core Special Projects of sample collection) Matrix: BIOLOGICAL Date Collected: □ ETZ / □ CTZ Bottle Lab Test Codes sent to Preservation

Special Projects

☐ Buffered Formalin (10%)

☐ MI-FW-QLDC

ALGAL_ID

☐ MI-FW-QLDC

ALGAL ID

Group

- Submit your field sheets with Survey123.
- Email the Chain of Custody to the lab at lab.receiving@florid adep.gov.



AFTER COLLECTING SAMPLES

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION Status & Trend Networks - Chain of Custody Form - July 2024 version

Status & Tre	
EDD File: https://floridadep.sharepoin 16_AMBIENT_COC_EDD_2024_07_00	t.com/dear/Sample%i20Receiving/2024/2024-07-08-
Date Collected: 07/08/2024	Collected By (Agency Code): 8034
Customer: AMBIENT	Sampler Names: Sampler Names

RQ. 2024-07-08-16

Project Name: TRST2407

Lab Project ID: SW-TREND

Coolers Shipped: 2

Shippi

<u>Instructions</u>: Please return the original of this form to the lab along with s sheet for each station sampled.

Load digital labels into fields below for all samples & blanks submitted un Email completed documentation to: lab.receiving@floridadep.gov.

OR Print completed documentation and place in zipper bag taped to inside lice

Electronic Data
Deliverable (EDD) link
is at the top of your
Chain of Custody.

Site Location	Field ID		
6978	STN030		
6976	ECN010		
3526	AUC100		
	Date: 07/08/2024	Time: 16:00 ETZ	
R-V			
R			
THIS SECTION IS TO	BE COMPLETED BY THE LABORA	TORY	
Received/Inspected By:	Date:	Time:	ETZ

- Beginning July 2024, Status and Trends Custody sheets include a link to the Electronic Data Deliverable (EDD) that the lab uses during sample login.
- Need to make a correction?
 - Do NOT make the edit on the PDF.
 - Instead, please submit a corrected Survey123 response.

If the data is no longer in your Survey123 sent box, email Stephanie and Tommy A. the corrections.

- Survey123 Field Sheets.
- Owner info discrepancies not noted on Survey123 (Status).
- Photos.
- QA Report.

- All logs:
 - Calibration.
 - o Depth.
 - o Temperature.
 - Cleaning logs.

Let the project manager know when all files are complete and available for review.

