Field Visit Data sheet and Quality Control

- Complete Field Visit Data Sheet for each maintenance visit or storm sampling
 - Fill out hard copy OR record in field notebook
 - Enter info into online form: https://wikiwatershed.org/drwi/;
 pass: drwi
- Complete Quality Control
 - Sensor QC <u>quarterly</u>
 - Data download
 - Every 2-4 weeks, if not online (or sporadic online)
 - Quarterly, if reliable online



Overview



EnviroDIY Field Visit Data

WATER RESEARCH CENTER Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):	
Site ID:	LoggeriD:
Stream Name:	Location:
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *EST
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amour	
General Notes/ Photo Descriptions:	
	ded frequency: weekly or biweekly; monthly if only CTD sensor)
*Cleaned Sensors? Yes/No If Yes, exact time	e: AM/PM? EST/EDT? *Clean >5 min. before grab sa
· · · · · · · · · · · · · · · · · · ·	e: AM/PM? EST/EDT? *Clean > 5 min. before grab sa for rating curves, collect when water is high/turbid or higher than normal condu
· · · · · · · · · · · · · · · · · · ·	
GRAB SAMPLES (Rec frequency: Situational;	for rating curves, collect when water is high/turbid or higher than normal condu
GRAB SAMPLES (Rec frequency: Situational;	for rating curves, collect when water is high/turbid or higher than normal condu Time collected (to minute): AM/PM? EST
GRAB SAMPLES (Recfrequency: Situational; Grab Sample Taken? Yes/No Sample Number:	for rating curves, collect when water is high/turbid or higher than normal condu Time collected (to minute): AM/PM? EST Volume:
GRAB SAMPLES (Rec frequency: Situational; Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To:	for rating curves, collect when water is high/turbid or higher than normal condu Time collected (to minute): AM/PM? EST Volume: Date Shipped:
GRAB SAMPLES (Rec frequency: Situational; Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To:	for rating curves, collect when water is high/turbid or higher than normal condu Time collected (to minute): AM/PM? EST Volume: Date Shipped: Notes:
GRAB SAMPLES (Rec frequency: Situational; Grab Sample Taken? Yes/No Sample Number: 30ttle Type: _ab Sent To: *SENSOR STATION DATA TO N	for rating curves, collect when water is high/turbid or higher than normal condu Time collected (to minute): AM/PM? EST Volume: Date Shipped: Notes: MATCH WITH GRAB SAMPLE LAB RESULTS (Complete in field or office)
GRAB SAMPLES (Rec frequency: Situational); Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO N Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chlic time nearest to grab sample collection time. Ce	for rating curves, collect when water is high/turbid or higher than normal condu Time collected (to minute): AM/PM? EST Volume: Date Shipped: Notes: MATCH WITH GRAB SAMPLE LAB RESULTS (Complete in field or office) Time (military): Not applicable Alway
GRAB SAMPLES (Rec frequency: Situational); Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO N Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chlatine nearest to grab sample collection time. Caload from microSD card). Acquire final grab sa	for rating curves, collect when water is high/turbid or higher than normal conduction of the collected (to minute): Time collected (to minute): AM/PM? EST Volume:
GRAB SAMPLES (Rec frequency: Situational); Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO N Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chlatine nearest to grab sample collection time. Caload from microSD card). Acquire final grab sa	for rating curves, collect when water is high/turbid or higher than normal conduction of the collected (to minute): Time collected (to minute): AM/PM? EST
GRAB SAMPLES (Rec frequency: Situational); Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO N Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chlatine nearest to grab sample collection time. Caload from microSD card). Acquire final grab sa QUALITY CONTROL - WATER LE	for rating curves, collect when water is high/turbid or higher than normal conduction of the collected (to minute): Time collected (to minute): AM/PM? EST

b - Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note - this depth mea-

sure may be slightly different from the sensor-measured depth but should be consistent over time.

QUALITY CO	ONTROL - CHEMISTR	Y DATA (Rec	freque	ency: quo	arterly	y and/or mo	re freque	ntly as nee	eded)
Parameter	QC Hand-held Meter Result	QC Time	QC A	M/PM?	QC	EST/EDT?		Station	Sensor Station- Time (Military, EST)
Conductivity (uS/cm):			AM	I/PM	E	ST/EDT			
Temperature (degC):			AN	1/PM	E	ST/EDT			
Turbidity (NTU):			AN	I/PM	Е	ST/EDT			
Dissolved Oxygen (mg	g/L):		ΑN	N/PM	Е	ST/EDT			
	QUALITY CONT	TROL CHEM	ISTRY	FIELD N	ИЕТЕГ	RINFORMA	TION		
Parameter	Field Meter Brand/	Model/Seria	al # or	unique	ID	Meter cali	brated?	Standar	d Calibration
Conductivity (u\$/cm):						Yes/	No		
Temperature (degC):						Yes/	No		
Turbidity (NTU):						Yes/	No		
Dissolved Oxygen (m	g/L):					Yes	'No		
	S	ENSOR STA	TION	MAINTE	NAN	CE			
Sensors Submerged? If no or partially, descr	ribe in Notes.		_			scribe spec d any othe			management
Location of Sensors C If yes, explain in notes before changing location	s. *Please consult Stro	oud Center							
Retrieved Memory Car (Rec frequency for QC: if not online)		veekly-mont	hly						
Changed Batteries? Ye	es/No								
Cleaned Solar Panel?	Yes/No								
Other sensor station in (If Yes, describe in No)	_						
ОТН	IER IN-SITU PARAMET	ERS (e.g., Ni	trate, F	hosphat	te, Ch	loride, pH, l	Dissolved	Oxygen)	
Parameter	Res	sult			Е	Brand/Model			
		ОТНЕ	R INF	ORMATI	ION				
Field Duplicate Taken	of Grab Sample? Ye	es/No	F	low Me	asure	ement w/ N	eutrally B	uoyant O	bject? Yes/No
Performed Cross Secti	ion Survey? Yes/No		F	low Mea	asure	ment w/ ar	nother me	thod? Ye	es/No
Flow Measurement w/	Flow Meter? Yes/No)	lf.	f Yes, ex	xplain	in Notes			

Name(s): All individuals on site generally crew lead listed first

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General Notes/ Photo Descriptions:

Name(s): Site ID:

Stream Name:

GPS (Lat/Long):

EnviroDIY Field Visit Data

WATER RESEARCH CENTER Enter all data online: wikiwatershed.org/drwi; password: drwi

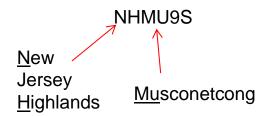
LoggerID: Location: Arrival Time: AM/PM? *EST/EDT? *EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings) Precipitation last 24 Hours? Yes/No Amount: Water Clarity (Clear, Cloudy, Muddy):

SENSOR CLEANING (Recommer	nded frequency: weekly or b	iweekly; monthly if only CTD se	ensor)
*Cleaned Sensors? Yes/No If Yes, exact tim	e: AM/PM?	EST/EDT? *Clean >5 min.	before grab samplir
GRAB SAMPLES (Rec frequency: Situational;	for rating curves, collect when	water is high/turbid or higher th	an normal conductivit
Grab Sample Taken? Yes/No	Time coll	ected (to minute):	AM/PM? EST/EDT
Sample Number:	Volume:		
Bottle Type:	Date Shi	pped:	
Lab Sent To:	Notes:		
*SENSOR STATION DATA TO I	MATCH WITH GRAB SAMP	LE LAB RESULTS (Complete in	field or office)
Sensor station Conductivity (uS/cm):	Time (military):	Not applicable	Always ES
Sensor station Turbidity (NTU):	Time (military):	Not applicable	Always ES
*For use in Turbidity/TSS and Conductivity/Chlitime nearest to grab sample collection time. Colload from microSD card). Acquire final grab sa	an be completed in field (by	accessing online data) or in o	office (online or down
QUALITY CONTROL - WATER LI	EVEL DATA (Rec frequency:	quarterly and/or more frequer	ntly as needed)
*Staff Gauge Height (m):	Time:	AM/PM?	EST/EDT?
*Sensor Station Water Depth (mm):	Time (military):	Not applicable	Always EST
^b QC Sensor Station Water Depth (mm):	Time:	AM/PM?	EST/EDT?
Offset (=Staff Gauge Height - Sensor Station	Water Depth)(mm):		
a - Staff Gauge Height and Sensor Station Water b - Use metric ruler to measure from pressure tr			

sure may be slightly different from the sensor-measured depth but should be consistent over time.



<u>SiteID</u>: Stroud-generated Site Identification – general format is DRWI cluster abbreviation/stream name abbreviation/site number







EnviroDIY Field Visit Data

WATER RESEARCH CENT

Enter all data online: wikiwatershed.org/drwi; password: drwi

Site ID:	LoggerID:
Stream Name:	Location:
GP\$ (Lat/Long):	Date: Arrival Time: AM/PM? *EST/EDT
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amoun	
General Notes/ Photo Descriptions:	
SENSOR CLEANING (Recommen Cleaned Sensors? Yes/No If Yes, exact time	ded frequency: weekly or biweekly; monthly if only CTD sensor) : AM/PM? EST/EDT? *Clean >5 min. before grab sampling
Cleaned Sensors? Yes/No If Yes, exact time	: AM/PM? EST/EDT? *Clean >5 min. before grab sampling
Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLES (Rec frequency: Situational;)	
Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLES (Rec frequency: Situational; J rab Sample Taken? Yes/No	: AM/PM? EST/EDT? *Clean >5 min. before grab sampling or rating curves, collect when water is high/turbid or higher than normal conductivity
leaned Sensors? Yes/No If Yes, exact time GRAB SAMPLES (Rec frequency: Situational;) ab Sample Taken? Yes/No mple Number:	: AM/PM? EST/EDT? *Clean >5 min. before grab sampling or rating curves, collect when water is high/turbid or higher than normal conductivity Time collected (to minute): AM/PM? EST/EDT?
Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLES (Rec frequency: Situational;) rab Sample Taken? Yes/No ample Number: ottle Type:	corrating curves, collect when water is high/turbid or higher than normal conductivity Time collected (to minute): AM/PM? EST/EDT? Volume:
Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLES (Rec frequency: Situational;) rab Sample Taken? Yes/No ample Number: ottle Type: ab Sent To:	AM/PM? EST/EDT? *Clean >5 min. before grab sampling for rating curves, collect when water is high/turbid or higher than normal conductivity Time collected (to minute): AM/PM? EST/EDT? Volume: Date Shipped:
Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLES (Rec frequency: Situational;) Grab Sample Taken? Yes/No Grapple Number: Gottle Type: ab Sent To:	AM/PM? EST/EDT? *Clean >5 min. before grab sampling for rating curves, collect when water is high/turbid or higher than normal conductivity Time collected (to minute): AM/PM? EST/EDT? Volume: Date Shipped: Notes:

QUALITY CONTROL - WATER LEVEL DATA (Rec frequency: quarterly and/or more frequently as needed)

*Staff Gauge Height (m): Time: AM/PM? EST/EDT?

*Sensor Station Water Depth (mm): Time (military): Not applicable Always EST

*QC Sensor Station Water Depth (mm): Time: AM/PM? EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

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Species
WATER DESCRIPTION CENTER

^aSensor Station Water Depth (mm):

^bQC Sensor Station Water Depth (mm):

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

EnviroDIY Field Visit Data

WATER RESEARCH CENTER Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):			4				
Site ID:	Logg	jerID	:				
Stream Name:	Loca	Location:					
GPS (Lat/Long):	Date	Date: Arrival Time: AM/PM?		*EST/EDT?			
Photos? Yes/No			stern Standa Savings)	rd Time; ED	T=Eastern D	aylight Time	
Precipitation last 24 Hours? Yes/No Amount			ater Clarity (Clear, Cloudy, Muddy):				
General Notes/ Photo Descriptions:							
SENSOR CLEANING (Recommend	led frequency: weekly	or bi	iweekly; mont	hly if only C	TD sensor)		
*Cleaned Sensors? Yes/No If Yes, exact time:			EST/EDT?			yrab sampling	
GRAB SAMPLES (Rec frequency: Situational; fo	or rating curves, collect	when	water is high/	turbid or high	er than norma	l conductivity)	
Grab Sample Taken? Yes/No	Time	coll	ected (to mi	nute):	AM/PM?	EST/EDT?	
Sample Number:	Volu	me:					
Bottle Type:	Date	Ship	pped:				
Lab Sent To:	Note	s:					
*SENSOR STATION DATA TO M.	ATCH WITH GRAB S	MPL	LE LAB RESU	LTS (Comple	te in field or o	office)	
Sensor station Conductivity (uS/cm):	Time (milita	гу):		Not applica	able	Always EST	
Sensor station Turbidity (NTU):	Time (milita	ry):		Not applica	able	Always EST	
*For use in Turbidity/TSS and Conductivity/Chlor time nearest to grab sample collection time. Can load from microSD card). Acquire final grab sam	n be completed in fiel	d (by	accessing or	nline data) oi	r in office (on	line or down-	
QUALITY CONTROL - WATER LEV	/EL DATA (Rec freque	ncy: (quarterly and	or more fre	quently as ne	eded)	
*Staff Gauge Height (m):	Time:			AM/PM?	E	ST/EDT?	

Time (military):

a - Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
 b - Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note - this depth mea-

sure may be slightly different from the sensor-measured depth but should be consistent over time.

Not applicable

AM/PM?

Always EST

EST/EDT?

- <u>LoggerID</u>: Specific permanent ID of the particular sensor station
- The station can be moved and SiteID would change but this LoggerID will stay the same.
- Shannon Hick's tally of sensor stations built – currently at about SL175



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WATER RESEARCH CENTER

EnviroDIY Field Visit Data

Name(s):			
Site ID:	LoggerID:		
Stream Name:	Location:		
GP\$ (Lat/Long):	Date:	Arrival Time: AM	/PM? *EST/EDT
Photos? Yes/No	*EST=Eastern S (Daylight Saving	Standard Time; EDT=East	tern Daylight Time
Precipitation last 24 Hours? Yes/No Amount		Clear, Cloudy, Muddy):	
General Notes/ Photo Descriptions:		near, creaty, matay,	
SENSOR CLEANING IS	lad formania di la contra di la	and the state of t	
SENSOR CLEANING (Recommend			-
*Cleaned Sensors? Yes/No If Yes, exact time:	: AM/PM? EST/I	EDT: "Clean >5 min. be	efore grab samplin
GRAB SAMPLES (Rec frequency: Situational; fo	or rating curves, collect when water i	s high/turbid or higher than	normal conductivity
GRAB SAMPLES (Recfrequency: Situational; fo Grab Sample Taken? Yes/No	or rating curves, collect when water i		
Grab Sample Taken? Yes/No Sample Number:	Time collected		normal conductivity M/PM? EST/EDT
Grab Sample Taken? Yes/No Sample Number: Bottle Type:	Time collected		
Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To:	Time collected Volume: Date Shipped:	(to minute): AM	N/PM? EST/EDT
Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO M	Volume: Date Shipped: Notes:	(to minute): AM	N/PM? EST/EDT
Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To:	Time collected Volume: Date Shipped: Notes: ATCH WITH GRAB SAMPLE LAB	(to minute): AM	Always ES
Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO M Sensor station Conductivity (uS/cm):	Time collected Volume: Date Shipped: Notes: ATCH WITH GRAB SAMPLE LAB Time (military): Time (military): ide rating curve development. R to be completed in field (by access	(to minute): AM RESULTS (Complete in fie Not applicable Not applicable ecord sensor station Consing online data) or in office	Always ES Always ES Al und Turb data at the continue or down
Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO M Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chlor time nearest to grab sample collection time. Car	Time collected Volume: Date Shipped: Notes: ATCH WITH GRAB SAMPLE LAB Time (military): Time (military): ide rating curve development. R n be completed in field (by access ple lab results from Stroud Center	RESULTS (Complete in fie Not applicable Not applicable ecord sensor station Consing online data) or in offier (or lab that processed services and the content of the con	Always ES Always ES Always ES d and Turb data at ce (online or down cample).
Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO M Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chlor time nearest to grab sample collection time. Car load from microSD card). Acquire final grab sam	Time collected Volume: Date Shipped: Notes: ATCH WITH GRAB SAMPLE LAB Time (military): Time (military): ide rating curve development. R n be completed in field (by access ple lab results from Stroud Center	RESULTS (Complete in fie Not applicable Not applicable ecord sensor station Consing online data) or in offier (or lab that processed services and the content of the con	Always ES Always ES Always ES d and Turb data at ce (online or down cample).
Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO M Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chlor time nearest to grab sample collection time. Car load from microSD card). Acquire final grab sam QUALITY CONTROL - WATER LEV	Time collected Volume: Date Shipped: Notes: ATCH WITH GRAB SAMPLE LAB Time (military): Time (military): ide rating curve development. R n be completed in field (by accessiple lab results from Stroud Center) I/EL DATA (Rec frequency: quarter)	RESULTS (Complete in fie Not applicable Not applicable ecord sensor station Consing online data) or in office or (or lab that processed s	Always ES Always ES Always ES d and Turb data at ce (online or down sample). v as needed)

sure may be slightly different from the sensor-measured depth but should be consistent over time.

<u>Location</u>: Simple description of location of site – e.g., Woodlawn Rd, Roy-Chester Park, Upstream, Downstream, etc.



GPS (Lat/Long) – the most precise record of location; generally only needs to be recorded when station is installed, but can be recorded on other visits if site number/location is in question

- Latitude/Longitude Decimal Degrees is the most commonly used and accessible format Lat format ##.####, Long format -##.#####
- e.g., 40.680840, -75.107810



EnviroDIY Field Visit Data

Name(s):					
Site ID:	LoggerID:				
Stream Name:	Location:				
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *E\$T/				
Photos? Yes/No	 *EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings) 				
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):				
SENSOR CLEANING (Recommended) *Cleaned Sensors? Yes/No If Yes, exact time:	requency: weekly or biweekly; monthly if only CTD sensor) AM/PM? EST/EDT? *Clean >5 min. before grab sar	npling			
*Cleaned Sensors? Yes/No If Yes, exact time:					
Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLES (Rec frequency: Situational; for ra	AM/PM? EST/EDT? *Clean >5 min. before grab sar	tivity			
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLES (Rec frequency: Situational; for ra Grab Sample Taken? Yes/No	AM/PM? EST/EDT? *Clean >5 min. before grab sarting curves, collect when water is high/turbid or higher than normal conducting	tivity			
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLES (Rec frequency: Situational; for ra Grab Sample Taken? Yes/No Sample Number:	AM/PM? EST/EDT? *Clean >5 min. before grab sarting curves, collect when water is high/turbid or higher than normal conducting curves. Time collected (to minute): AM/PM? EST/	tivity			
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLES (Rec frequency: Situational; for ra Grab Sample Taken? Yes/No Sample Number: Bottle Type:	AM/PM? EST/EDT? *Clean >5 min. before grab sarting curves, collect when water is high/turbid or higher than normal conduct Time collected (to minute): AM/PM? EST/ Volume:	tivity			
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLES (Rec frequency: Situational; for ra Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To:	AM/PM? EST/EDT? *Clean >5 min. before grab sar ting curves, collect when water is high/turbid or higher than normal conduct Time collected (to minute): AM/PM? EST/ Volume: Date Shipped:	tivity			
"Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLES (Rec frequency: Situational; for ra Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO MATC	AM/PM? EST/EDT? *Clean >5 min. before grab sar ting curves, collect when water is high/turbid or higher than normal conduct Time collected (to minute): AM/PM? EST/ Volume: Date Shipped: Notes:	EDT			
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLES (Rec frequency: Situational; for ra Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To:	AM/PM? EST/EDT? *Clean >5 min. before grab sar ting curves, collect when water is high/turbid or higher than normal conduct Time collected (to minute): AM/PM? EST/ Volume: Date Shipped: Notes: H WITH GRAB SAMPLE LAB RESULTS (Complete in field or office)	EDT			

"Staff Gauge Height (m): Time: AM/PM? EST/EDT? "Sensor Station Water Depth (mm): Time (military): Not applicable Always EST "QC Sensor Station Water Depth (mm): Time: AM/PM? EST/EDT? Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes)
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.



EnviroDIY Field Visit Data

Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):	
Site ID:	LoggerID:
Stream Name:	Location:
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *EST/EDT
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):
General Notes/ Photo Descriptions:	

SENSOR CLEANING (Recommend	rea frequency. Weekly or biweek	ny, montiny ij omy c i b sch	301)
*Cleaned Sensors? Yes/No If Yes, exact time:	: AM/PM? EST	T/EDT? *Clean >5 min. b	efore grab sampling
GRAB SAMPLES (Rec frequency: Situational; fo	or rating curves, collect when wate	r is high/turbid or higher than	normal conductivity
Grab Sample Taken? Yes/No	Time collected	d (to minute): Al	M/PM? EST/EDT
Sample Number:	Volume:		
Bottle Type:	Date Shipped	:	
ab Sent To:	Notes:		
*SENSOR STATION DATA TO M	IATCH WITH GRAB SAMPLE LA	B RESULTS (Complete in fi	eld or office)
Sensor station Conductivity (uS/cm):	Time (military):	Not applicable	Always ES
Sensor station Turbidity (NTU):	Time (military):	Not applicable	Always ES

load from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample)

QUALITY CONTROL - WATER LE	EVEL DATA (Rec frequency: qua	arterly and/or more frequent	tly as needed)
*Staff Gauge Height (m):	Time:	AM/PM?	EST/EDT?
^a Sensor Station Water Depth (mm):	Time (military):	Not applicable	Always EST
^b QC Sensor Station Water Depth (mm):	Time:	AM/PM?	EST/EDT?
Offset (=Staff Gauge Height - Sensor Station	Water Depth)(mm):		

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

Date: Date of site visit

Arrival Time: Time when crew arrived at

site

AM/PM: Circle one EST/EDT: Circle one

- EST = Eastern Standard Time for 2017/2018 EST was from November 5, 2017 to March 11, 2018
- EDT = Eastern Daylight Time for 2018 EST is from Sunday, March 11, 2:00am to Sunday, November 4, 2:00am
- "Spring Forward, Fall Back" During EDT (Daylight Savings, "Spring Forward") current time will be 1 hour ahead of sensor station data, which are always in EST



<u>Photos</u>: Clear photos very useful for documenting station and site conditions, documenting occurrences, showing stormflow, seasonal changes, damage to station, use for educational/instructional purposes













EnviroDIY Field Visit Data

VATER RESEARCH CENTER

Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):					
Site ID:	LoggeriD:				
Stream Name:	Location:				
GP\$ (Lat/Long):	Date: Arrival Time: AM/PM? *EST/EDT?				
*EST=Eastern Standard Time; EDT=Eastern Da (Daylight Savings)					
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):				
Ganaral Notes/ Photo Descriptions:	— I —————				

SENSOR CLEANING (Recomme	nded frequency: weekly or biweekly; monthly if only CTD sensor)
--------------------------	-----------------------------------------------------------------

*Cleaned Sensors? Yes/No If Yes, exact time: AM/PM? EST/EDT? *Clean >5 min. before grab sampling

GRAB SAMPLES (Rec frequency: Situational; for rating curves, collect when water is high/turbid or higher than normal conductivity)

Grab Sample Taken? Yes/No

Sample Number:

Bottle Type:
Lab Sent To:

Time collected (to minute):

AM/PM? EST/EDT?

Volume:

Date Shipped:
Notes:

*SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE LAB RESULTS (Complete in field or office)

 Sensor station Conductivity (uS/cm):
 Time (military):
 Not applicable
 Always EST

 Sensor station Turbidity (NTU):
 Time (military):
 Not applicable
 Always EST

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

QUALITY CONTROL - WATER LEVEL DATA (Rec frequency: quarterly and/or more frequently as needed)

aStaff Gauge Height (m):	Time:	AM/PM?	EST/EDT?
aSensor Station Water Depth (mm):	Time (military):	Not applicable	Always EST
^b QC Sensor Station Water Depth (mm):	Time:	AM/PM?	EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

<u>Precipitation</u> and <u>Water Clarity</u>: for general context when reviewing data. Can help to have this type of info when trying to recall site activities from the past



EnviroDIY Field Visit Data

VATER RESEARCH CENTE

Enter all data online: wikiwatershed.org/drwi; password: drwi

Site ID:	LoggerID:
Stream Name:	Location:
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *EST/EDT?
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):
General Notes/ Photo Descriptions:	

SENSOR CLEANING (Recommende	d frequency: weekly or biweekly; monthly if only C	TD sensor)
*Cleaned Sensors? Yes/No If Yes, exact time:	AM/PM? E\$T/EDT? *Clean >5	min. before grab samplin
GRAB SAMPLES (Rec frequency: Situational; for	rating curves, collect when water is high/turbid or high	er than normal conductivity
Grab Sample Taken? Yes/No	Time collected (to minute):	AM/PM? EST/EDT
Sample Number:	Volume:	
Bottle Type:	Date Shipped:	
Lab Sent To:	Notes:	
*SENSOR STATION DATA TO MA	TCH WITH GRAB SAMPLE LAB RESULTS (Comple	te in field or office)
Sensor station Conductivity (u\$/cm):	Time (military): Not applica	ble Always ES
Sensor station Turbidity (NTU):	Time (military): Not applica	able Always ES
*For use in Turbidity/TSS and Conductivity/Chloric	de rating curve development. Record sensor statio	on Cond and Turb data at

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

QUALITY CONTROL - WATER LEVEL DATA (Rec frequency: quarterly and/or more frequently as needed) *Staff Gauge Height (m): Time: AM/PM? EST/EDT? *Sensor Station Water Depth (mm): Time (military): Not applicable Always EST *QC Sensor Station Water Depth (mm): Time: AM/PM? EST/EDT?

- Offset (=Staff Gauge Height Sensor Station Water Depth)(mm):
- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

General Notes/Photo Descriptions: Space to describe what was done at the site, mention anything outstanding, intent of visit (e.g., cleaning station, storm sampling, troubleshooting, etc.). Again, this type of info can be helpful when going back in time and trying to recall specific site visits



EnviroDIY Field Visit Data

RERERARCH CENTER Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):					
Site ID:	LoggerID:				
Stream Name:	Location:				
GP\$ (Lat/Long):	Date:	Arrival Time:	AM/PM?	*EST/EDT	
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Tim (Daylight Savings)			aylight Time	
Precipitation last 24 Hours? Yes/No Amount:	Water Clar	ity (Clear, Cloudy, M	uddy):		
General Notes/ Photo Descriptions:	<u> </u>				

SENSOR CLEANING (Recommen	ded frequency: weekly or b	iweekly; mont	hly if only CTD sens	or)	
*Cleaned Sensors? Yes/No If Yes, exact time	: AM/PM?	EST/EDT?	*Clean >5 min. be	fore grab	samplin
GRAB SAMPLES (Rec frequency: Situational;)	for rating curves, collect when	water is high/t	urbid or higher than i	normal cor	nductivity
Grab Sample Taken? Yes/No	Time coll	ected (to min	nute): AN	VPM? E	ST/EDT
Sample Number:	Volume:				
Bottle Type:	Date Shi	pped:			
Lab Sent To:	Notes:				
*SENSOR STATION DATA TO N	MATCH WITH GRAB SAMP	LE LAB RESUL	TS (Complete in fie	ld or offic	e)
Sensor station Conductivity (uS/cm):	Time (military):		Not applicable	Alv	vays ES
Sensor station Turbidity (NTU):	Time (military):		Not applicable	Alv	ways ES
*C		D		d and Total	

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

QUALITY CONTROL - WATER LEVEL DATA (Rec frequency: quarterly and/or more frequently as needed) *Staff Gauge Height (m): Time: AM/PM? EST/EDT? *Sensor Station Water Depth (mm): Time (military): Not applicable Always EST *QC Sensor Station Water Depth (mm): Time: AM/PM? EST/EDT? Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (while disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

SENSOR STATION – SENSOR CLEANING

Cleaned Sensors?: Yes/No

- Monitor data and understand patterns to know when to clean
- Record exact time of sensor cleaning
- To clean use a brush or fingertips. Clean slot of CTD sensor and Turbidity sensor window
- *If grab sample is being taken, make sure to clean sensors at least 5 minutes before grab sampling – this ensures that sensor data are good at the time the grab sample is collected.









EnviroDIY Field Visit Data

TER RESEARCH CENTER Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):	
Site ID:	LoggeriD:
Stream Name:	Location:
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *E\$T/EDT?
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):
General Notes/ Photo Descriptions:	— I —

SEMISOD CLEANING	Recommended frequency	· weekly or hiweekly	monthly if only CTD a	cencor

*Cleaned Sensors? Yes/No If Yes, exact time: AM/PM? EST/EDT? *Clean >5 min. before grab sampling

GRAB SAMPLES (Rec frequency: Situational; for rating curves, collect when water is high/turbid or higher than normal conductivity

Grab Sample Taken? Yes/No

Sample Number:

Bottle Type:

Lab Sent To:

Time collected (to minute): AM/PM? EST/EDT?

Volume:

Date Shipped:

Notes:

*SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE LAB RESULTS (Complete in field or office)

Sensor station Conductivity (uS/cm): Time (military): Not applicable Always EST
Sensor station Turbidity (NTU): Time (military): Not applicable Always EST

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

QUALITY CONTROL - WATER LEVEL DATA (Rec frequency: quarterly and/or more frequently as needed)

*Staff Gauge Height (m):	Time:	AM/PM?	EST/EDT?
*Sensor Station Water Depth (mm):	Time (military):	Not applicable	Always EST
^b QC Sensor Station Water Depth (mm):	Time:	AM/PM?	EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

GRAB SAMPLE INFORMATION

GRAB SAMPLE INFORMATION: Grab samples for developing turbidity/TSS and cond/CI rating curves





EnviroDIY Field Visit Data

Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):	
Site ID:	LoggerID:
Stream Name:	Location:
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *EST/EDT?
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):
General Notes/ Photo Descriptions	<u> </u>

SENSOR CLEANING (Recommended frequency: weekly or biweekly; monthly if only CTD sensor)

Cleaned Sensors? Yes/No If Yes, exact time:

AM/PM? EST/EDT? *Clean >5 min. before grab sampling

GRAB SAMPLES (Rec frequency: Situational; for rating curves, collect when water is high/turbid or higher than normal conductivity)

Grab Sample Taken? Yes/No

Sample Number: 1700189

Bottle Type: Lab Sent To:

Square Nalgene Stroud (or other)

Time collected (to minute): 9.47 (AMPM? (EST)EDT?

Volume: 1L or 500mL Date Shipped: Mm/dd/yy

*SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE LAB RESULTS (Complete in field or office)

Not applicable Sensor station Conductivity (uS/cm): Time (military): Always EST Sensor station Turbidity (NTU): Time (military): Not applicable Always EST

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample)

QUALITY CONTROL - WATER LEVEL DATA (Rec frequency: quarterly and/or more frequently as needed)

Time: EST/EDT? *Staff Gauge Height (m): Time (military): Sensor Station Water Depth (mm): Not applicable Always EST ^bQC Sensor Station Water Depth (mm): AM/PM? EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

GRAB SAMPLE INFORMATION



EnviroDIY Field Visit Data

WATER RESEARCH CENTER

Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):	
Site ID:	LoggerID:
Stream Name:	Location:
GP\$ (Lat/Long):	Date: Arrival Time: AM/PM? *EST/ED
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight T (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):
General Notes/ Photo Descriptions:	— I —

SENSOR CLEANING (Recommended frequency: weekly or biweekly; monthly if only CTD; AM/PM? EST/EDT? *Clean >5 II *Cleaned Sensors? Yes/No If Yes, exact time: before grab sampling GRAB SAMPLES (Rec frequency: Situational; for rating curves, collect when water is high/turbid or high Time collected (to minute): 12:33 AM/PM? EST EDT Grab Sample Taken Yes No Sample Number: ###### 500mL Volume: Mm/dd/yy Bottle Type: Square Nalgene Date Shipped: Lab Sent To: Stroud (or other) Notes: *SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE LAB RESULTS (Complete in field or office)

Sensor station Conductivity (uS/cm): Time (military): Not applicable Always EST
Sensor station Turbidity (NTU): Time (military): Not applicable Always EST

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

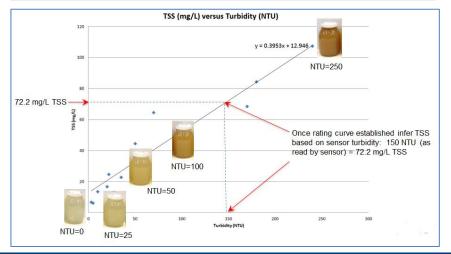
QUALITY CONTROL - WATER LEVEL DATA (Rec frequency: quarterly and/or more frequently as needed)					
*Staff Gauge Height (m):	Time:	AM/PM?	EST/EDT?		
^a Sensor Station Water Depth (mm):	Time (military):	Not applicable	Always EST		
^b QC Sensor Station Water Depth (mm):	Time:	AM/PM?	EST/EDT?		
Offset (=Staff Gauge Height - Sensor Station	Water Depth)(mm):				

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

<u>Time collected (to minute):</u> Exact time when grab sample collected. Need it to the minute so that grab results can be matched up with sensor data from the same time

Grab sample analyzed to get this number

Sensor reading Date/Time	Grab Date/Time	Sensor Turbidity (NTU)	Grab sample TSS (mg/L)
8/1/##, 12:35pm	8/1/##, 12:33pm	3	7
7/5/##, 2:50pm	7/5/##, 2:50pm	5	6
3/2/##, 11:00am	3/2/##, 11:01am	240	107
3/2/##, 10:10am	3/2/##, 10:11am	50	45
3/2/##, 10:40am	3/2/##, 10:40am	70	65
3/2/##, 9:45am	3/2/##, 9:45am	22	25
4/5/##, 10:10am	4/5/##, 10:10am	10	14
4/5/##, 10:40am	4/5/##, 10:40am	20	17
4/5/##, 12:05pm	4/5/##, 12:04pm	180	84
4/5/##, 10:55pm	4/5/##, 10:55pm	35	23
4/5/##, 11:50am	4/5/##, 11:50am	170	69



SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE LAB RESULTS

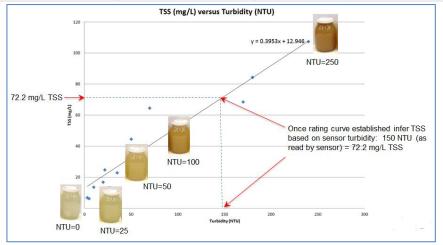
WATER RESEARCH CENTER Enter all data	8 1 1
WWW. Constitution of	
Name(s):	
Site ID:	LoggerID:
Stream Name:	Location:
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *F//EI
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Day ight Tin (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amour	
General Notes/ Photo Descriptions:	made starts (closely steady) madely).
	OR STATION - SENSOR CLEANIN
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC	e: AM/PM? 1 (IEDT? *Clean >5 min. before grab samp
*Cleaned Sensors? Yes/No If Yes, exact time	e: AM/PM? FOREDT? *Clean >5 min. before grab samp T IF WATER IS HIGH/TU/SID OR HIGHER THAN NORMAL CONDUCTIVITY Tips collected (to minute): 12:33 AM/PM) ES EE
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes/No Sample Number: 1700189	THE COLLECTED COLLECTION OF THE COLLECTION OF TH
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes No Sample Number: 1700189 Bottle Type: Square Nalgene	e: AM/PM? FOREDT? *Clean >5 min. before grab samp T IF WATER IS HIGH/TU/SID OR HIGHER THAN NORMAL CONDUCTIVITY Tips collected (to minute): 12:33 AM/PM) ES EE
"Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes)No Sample Number: 1700189 Bottle Type: Square Nalgene	THE WATER IS HIGH/TUM SID OR HIGHER THAN NORMAL CONDUCTIVITY The collected (to minute): 12:33 AM(PM) ES (ET Volume: 1L or 500mL Date Shipped: Mm/dd/yy Notes:
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken (Yes) No Sample Number: 1700189 Bottle Type: Square Nalgene Lab Sent To: Stroud (or other) *SENSOR STATION DATA TO MAT	T IF WATER IS HIGH/TU SID OR HIGHER THAN NORMAL CONDUCTIVITY TIP Collected (to minute): 12:33 AMPM) ES (EE Volume: 1L or 500mL Date Shipped: Mm/dd/yy Notes: CHAITH GRAB SAMPLE LAB RESULTS (COMPLETE IN FIELD OR OFFICE)
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes No Sample Number: 1700189 Bottle Type: Square Nalgene Lab Sent To: Stroud (or other)	T IF WATER IS HIGH/TU SID OR HIGHER THAN NORMAL CONDUCTIVITY TIP collected (to minute): 12:33 AMPM) ES (EE Volume: 1L or 500mL Date Shipped: Mm/dd/yy Notes: CHAITH GRAB SAMPLE LAB RESULTS (COMPLETE IN FIELD OR OFFICE)
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes No Sample Number: 1700189 Bottle Type: Square Nalgene Lab Sent To: Stroud (or other) *SENSOR STATION DATA TO MAT Sensor station Conductivity (us/cm): Sensor station Turbidity (NTU): 3 *For use in Turbidity/TSS and Conductivity/Chiletime nearest to grab sample collection time. Calload from microSD card). Acquire final grab sa	TIF WATER IS HIGH/TU SID OR HIGHER THAN NORMAL CONDUCTIVITY TIP Collected (to minute): 12:33 AM/PM ES (ED Volume: 1L or 500mL Date Shipped: Mm/dd/yy Notes: CHAITH GRAB SAMPLE LAB RESULTS (COMPLETE IN FIELD OR OFFICE) Time (military): Not applicable Always E Time (military): 11:35 Not applicable Always E oride rating curve development. Record sensor station Cond and Turb data and be completed in field (by accessing online data) or in office (online or downpile lab results from Stroud Center (or lab that processed sample).
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes No Sample Number: 1700189 Bottle Type: Square Nalgene Lab Sent To: Stroud (or other) *SENSOR STATION DATA TO MAT Sensor station Conductivity (us/cm): Sensor station Turbidity (NTU): 3 *For use in Turbidity/TSS and Conductivity/Chile time nearest to grab sample collection time. Ca load from microSD card). Acquire final grab sa QUALITY CONTROL	TIF WATER IS HIGH/TU SID OR HIGHER THAN NORMAL CONDUCTIVITY Tip collected (to minute): 12:33 AM/PM ES (ED Volume: 1L or 500mL Date Shipped: Mm/dd/yy Notes: CHAITH GRAB SAMPLE LAB RESULTS (COMPLETE IN FIELD OR OFFICE) Time (military): Not applicable Always E Time (military): 11:35 Not applicable Always E oride rating curve development. Record sensor station Cond and Turb data an be completed in field (by accessing online data) or in office (online or downple lab results from Stroud Center (or lab that processed sample). WATER LEVEL DATA (STAFF GAUGE AND SENSOR DEPTH)
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes No Sample Number: 1700189 Bottle Type: Square Nalgene Lab Sent To: Stroud (or other) *SENSOR STATION DATA TO MAT Sensor station Conductivity (us/cm): Sensor station Turbidity (NTU): 3 *For use in Turbidity/TSS and Conductivity/Chiletime nearest to grab sample collection time. Calload from microSD card). Acquire final grab sa QUALITY CONTROL Staff Gauge Height (m):	TIF WATER IS HIGH/TU SID OR HIGHER THAN NORMAL CONDUCTIVITY TIP Collected (to minute): 12:33 AM/PM ES (ED Volume: 1L or 500mL Date Shipped: Mm/dd/yy Notes: CHAITH GRAB SAMPLE LAB RESULTS (COMPLETE IN FIELD OR OFFICE) Time (military): Not applicable Always E Time (military): 11:35 Not applicable Always E oride rating curve development. Record sensor station Cond and Turb data and be completed in field (by accessing online data) or in office (online or down maple lab results from Stroud Center (or lab that processed sample). WATER LEVEL DATA (STAFF GAUGE AND SENSOR DEPTH) Time: AM/PM? EST/EDT?
*Cleaned Sensors? Yes/No If Yes, exact time GRAB SAMPLE INFORMATION (COLLEC Grab Sample Taken Yes No Sample Number: 1700189 Bottle Type: Square Nalgene Lab Sent To: Stroud (or other) *SENSOR STATION DATA TO MAT Sensor station Conductivity (us/cm): Sensor station Turbidity (NTU): 3 *For use in Turbidity/TSS and Conductivity/Chile time nearest to grab sample collection time. Ca load from microSD card). Acquire final grab sa QUALITY CONTROL	TIF WATER IS HIGH/TU SID OR HIGHER THAN NORMAL CONDUCTIVITY Tip collected (to minute): 12:33 AM/PM ES (ED Volume: 1L or 500mL Date Shipped: Mm/dd/yy Notes: CHAITH GRAB SAMPLE LAB RESULTS (COMPLETE IN FIELD OR OFFICE) Time (military): Not applicable Always E Time (military): 11:35 Not applicable Always E oride rating curve development. Record sensor station Cond and Turb data an be completed in field (by accessing online data) or in office (online or downple lab results from Stroud Center (or lab that processed sample). WATER LEVEL DATA (STAFF GAUGE AND SENSOR DEPTH)

SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE

LAB RESULTS: Turbidity and Conductivity sensor data from same approximate time when grab sample collected – to be used along with grab sample lab results to develop rating curves

This number comes from sensor and is matched up with grab sample taken at this time

Sensor reading Date/Time (24hr)	Grab Date/Time	Sensor Turbidity (NTU)	Grab sample TSS (mg/L)
8/1/##, 11:35 EST	8/1/## 12:33pm ED	3	7
7/5/##, 13:50 (1:50pm EST)	7/5/##, 2:50pm EDT	5	6
3/2/##, 11:00 EST	3/2/##, 11:01am EST	240	107
3/2/##, 10:10 EST	3/2/##, 10:11am EST	50	45
3/2/##, 10:40 EST	3/2/##, 10:40am EST	70	65
3/2/##, 09:45 EST	3/2/##, 9:45am EST	22	25
4/5/##, 09:10 EST	4/5/##, 10:10am EDT	10	14
4/5/##, 09:40 EST	4/5/##, 10:40am EDT	20	17
4/5/##, 11:05 EST	4/5/##, 12:04pm EDT	180	84
4/5/##, 21:55 EST (9:55pm EST)	4/5/##, 10:55pm EDT	35	23
4/5/##, 10:50 EST	4/5/##, 11:50am EDT	170	69



QUALITY CONTROL WATER LEVEL DATA



Staff Gauge Height:

On-site visual measure of water depth; this is used for QC of sensor depth and also used for discharge/depth rating curve



12.5cm = 0.125m

12.0cm = 0.120m 11.5cm = 0.115m

11.0cm = 0.110m

10.5cm = 0.105m 10.0cm = 0.100m

STROUD WATER RESEARCH CENTER

EnviroDIY Field Visit Data

Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s):	
Site ID:	LoggerID:
Stream Name:	Location:
GPS (Lat/Long):	Date: Arrival Time: AM/PM? *E\$T/EDT?
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):
General Notes/ Photo Descriptions:	

SENS	OR STATION - SENSOR CL	EANING			
*Cleaned Sensors? Yes/No If Yes, exact time	: AM/PM?	EST/EDT?	*Clean >5 min.	before gr	ab sampling
GRAB SAMPLE INFORMATION (COLLECT	T IF WATER IS HIGH/TURE	BID OR HIGHE	R THAN NORMA	AL COND	UCTIVITY)
Grab Sample Taken? Yes/No	Time col	lected (to mir	nute):	AM/PM?	EST/EDT?
Sample Number:	Volume:				
Bottle Type:	Date Shi	pped:			
Lab Sent To:	Notes:				
*SENSOR STATION DATA TO MATO	CH WITH GRAB SAMPLE I	AB RESULTS	COMPLETE IN F	IELD OR	OFFICE)
Sensor station Conductivity (uS/cm):	Time (military):		Not applicable	L	Always FST

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or down-load from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

QUALITY CONTROL WATER LEVEL DATA (STAFF GAUGE AND SENSOR DEPTH)

Time (military):

Not applicable

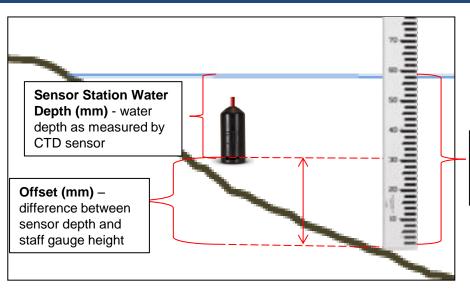
*Staff Gauge Height (m):	Time:	AM/PM?	EST/EDT?
*Sensor Station Water Depth (mm):	Time (military):	Not applicable	Always EST
^b QC Sensor Station Water Depth (mm):	Time:	AM/PM?	EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

Sensor station Turbidity (NTU):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

QUALITY CONTROL WATER LEVEL DATA



<u>Staff Gauge Height</u> – on-site visual measure of water depth; this is used for QC of sensor depth and also used for discharge/depth rating curve

<u>Sensor Station Water Depth</u> – water depth as measured by the CTD sensor

<u>Offset</u> – difference between water depth as measured by staff gauge and water depth as measured by CTD sensor (see above diagram)

*NOTE - RECOMMENDATION IS TO DO QUALITY CONTROL ON AT LEAST A QUARTERLY BASIS (EVERY 3 MONTHS)

	STROUI WATER RESEARCH CEN www.itroudcenter.org	,	Y Field Visit Data kiwatershed.org/drwi; password: drwi			
			. Lawrella			
	Site ID:	-	LoggerID:			
Staff	Gauge Height		Location:			
Staff Gauge Height (m) - water depth as measured by staff			Date: Arrival Time: AM/PM? *EST/EDT? *EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)			
		rs? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):			
gaug	ge (m)	escriptions:				
		-				

SENSOR	STATION - SENSOR CLEAN	NING		
*Cleaned Sensors? Yes/No If Yes, exact time:	AM/PM? ES	ST/EDT? *Clean >	5 min. before gr	ab sampling
GRAB SAMPLE INFORMATION (COLLECT IF	WATER IS HIGH/TURBID	OR HIGHER THAN N	ORMAL COND	JCTIVITY)
Grab Sample Taken? Yes/No	Time collect	ted (to minute):	AM/PM?	EST/EDT?
Sample Number:	Volume:			
Bottle Type:	Date Shippe	ed:		
Lab Sent To:	Notes:			
*SENSOR STATION DATA TO MATCH	WITH GRAB SAMPLE LAB	RESULTS (COMPLET	TE IN FIELD OR	OFFICE)
Soneor station Conductivity (uS/cm):	Time (military):	Not appli	cable /	Uwaya EST

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

QUALITY CONTROL WATER LEVEL DATA (STAFF GAUGE AND SENSOR DEPTH)

Time (military):

Not applicable

Always EST

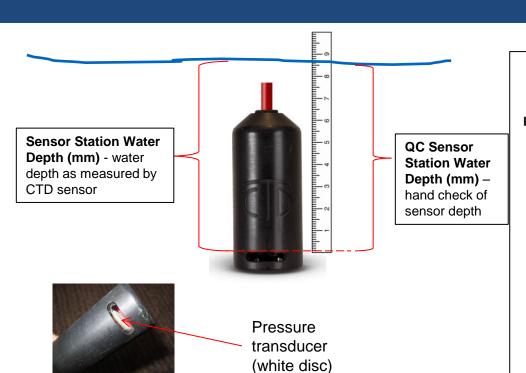
^a Staff Gauge Height (m):	Time:	AM/PM?	EST/EDT?
Sensor Station Water Depth (mm):	Time (military):	Not applicable	Always EST
^b QC Sensor Station Water Depth (mm):	Time:	AM/PM?	EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

Sensor station Turbidity (NTU):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

QUALITY CONTROL WATER LEVEL DATA



QC Sensor Station Water Depth – hand check of sensor depth – use metric ruler to measure from top of sensor window (where pressure transducer [white disc] is located) to water surface. Compare this number to the depth produced by CTD sensor.

This is intended as a coarse check of sensor function and also is a calibration to the individual sensor function (i.e., it may not be exactly the same as the ruler measurement but the difference should be consistent over time).



EnviroDIY Field Visit Data

RESEARCH CENTER Enter all data online: wikiwatershed.org/drwi; password: drwi

Name(s): Site ID: Stream Name: GPS (Lat/Long): Photos? Yes/No Precipitation last 24 Hours? Yes/No Amount: General Notes/ Photo Descriptions: LoggerID: Location: Date: Arrival Time: AM/PM? *EST/EDT? *EST=Eastem Standard Time; EDT=Eastem Daylight Time (Daylight Savings) Water Clarity (Clear, Cloudy, Muddy):

SENSOR STATION - SENSOR CLEANING						
*Cleaned Sensors? Yes/No If Yes, exact time: AM/PM? EST/EDT? *Clean > 5 min. before grab sampling						
GRAB SAMPLE INFORMATION (COLLECT IF WATER IS HIGH/TURBID OR HIGHER THAN NORMAL CONDUCTIVITY)						
Grab Sample Taken? Yes/No Time collected (to minute): AM/PM? EST/EDT					EST/EDT?	
Sample Number:	Volume:					
Bottle Type:	Date Shi	Date Shipped:				
Lab Sent To:	Notes:					
*SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE LAB RESULTS (COMPLETE IN FIELD OR OFFICE)						
Sensor station Conductivity (uS/cm):	Time (military):		Not applicable		Always EST	

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab that processed sample).

Time (military):

Not applicable

Always FST

*Staff Gauge Height (m): Time: AM/PM? EST/EDT? *Sensor Station Water Depth (mm): Time (military): Not applicable Always EST *QC Sensor Station Water Depth (mm): Time: AM/PM? EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

Sensor station Turbidity (NTU):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes)
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

*24 hr time stamp on sensor station data

Mamadah			
Name(s):			
Site ID:	LoggerID		
Stream Name:	Location:		
GP\$ (Lat/Long):	Date:		M/PM? *EST/ED
Photos? Yes/No	*EST=Ea (Daylight	stern Standard Time; EDT=Ea Savings)	istern Daylight Time
Precipitation last 24 Hours? Yes/No Amount:	Water Cla	rity (Clear, Cloudy, Muddy):	
General Notes/ Photo Descriptions:			
SENSOR			
*Cleaned Sensors? Yes/No If Yes, exact time:	STATION - SENSOR CLE AM/PM?		before grap samplii
	AM/PM? WATER IS HIGH/TURB	EST/EDT? *Clean >5 min.	AL CONDUCTIVITY)
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF	AM/PM? WATER IS HIGH/TURB	EST/EDT? *Clean >5 min.	AL CONDUCTIVITY)
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No	AM/PM? WATER IS HIGH/TURB	EST/EDT? *Clean >5 min.	AL CONDUCTIVITY)
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number:	AM/PM? WATER IS HIGH/TURB	EST/EDT? *Clean >5 min. D OR HIGHER THAN NORMA ected (to minute):	AL CONDUCTIVITY)
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type:	AM/PM? WATER IS HIGH/TURB Time colle Volume:	EST/EDT? *Clean >5 min. D OR HIGHER THAN NORMA ected (to minute):	AL CONDUCTIVITY)
"Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type:	AM/PM? WATER IS HIGH/TURB Time coll Volume: Date Ship Notes:	EST/EDT? *Clean >5 min. ID OR HIGHER THAN NORMA acted (to minute): A apped:	ALCONDUCTIVITY)
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO MATCH	AM/PM? WATER IS HIGH/TURB Time coll Volume: Date Ship Notes:	EST/EDT? *Clean >5 min. ID OR HIGHER THAN NORMA acted (to minute): A apped:	AL CONDUCTIVITY) AM/PM? EST/ED1
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO MATCH Sensor station Conductivity (uS/cm):	AM/PM? WATER IS HIGH/TURB Time colle Volume: Date Ship Notes:	EST/EDT? *Clean >5 min. ID OR HIGHER THAN NORMA ected (to minute): pped:	AL CONDUCTIVITY) AM/PM? EST/ED1 ALCONDUCTIVITY) AM/PM? EST/ED1 ALCONDUCTIVITY)
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO MATCH Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chloride time nearest to grab sample collection time. Can b	AM/PM? WATER IS HIGH/TURB Time colle Volume: Date Ship Notes: WITH GRAP SHAFE CO Time (military): Time (military): e rating curve developme e completed in field (by	EST/EDT? *Clean >5 min. ID OR HIGHER THAN NORMA acted (to minute): APPENDED NOT applicable Not applicable ent. Record sensor station Co accessing online data) or in oil	AL CONDUCTIVITY) AMIPM? EST/ED? Always Est Always Est and and Turb data a affice (online or dow)
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO MATCH Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chloride time nearest to grab sample collection time. Can b load from microSD card). Acquire final grab sample	AM/PM? WATER IS HIGH/TURB Time colle Volume: Date Ship Notes: WITH GRASS SAME CE TIME (military): Frating curve developme e completed in field (by e lab results from Strouge	EST/EDT? *Clean >5 min. ID OR HIGHER THAN NORMA acted (to minute): APPENDED NOT applicable Not applicable ent. Record sensor station Co accessing online data) or in oil	AL CONDUCTIVITY) AMPM? EST/ED1 Always ES Always Est and and Turb data at ffice (online or down at sample).
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO MATCH Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chloride time nearest to grab sample collection time. Can b load from microSD card). Acquire final grab sample QUALITY CONTROL WA	AM/PM? WATER IS HIGH/TURB Time colle Volume: Date Ship Notes: WITH GRASS SAME CE TIME (military): Frating curve developme e completed in field (by e lab results from Strouge	EST/EDT? *Clean >5 min. ID OR HIGHER THAN NORMA acted (to minute): AB RESULTS (COMPLETE IN * Not applicable Not applicable accessing online data) or in oil Center (or lab that processed	AM/PM? EST/EDT Always ES Always Es and and Turb data a ffice (online or down a sample).
*Cleaned Sensors? Yes/No If Yes, exact time: GRAB SAMPLE INFORMATION (COLLECT IF Grab Sample Taken? Yes/No Sample Number: Bottle Type: Lab Sent To: *SENSOR STATION DATA TO MATCH Sensor station Conductivity (uS/cm): Sensor station Turbidity (NTU): *For use in Turbidity/TSS and Conductivity/Chloride time nearest to grab sample collection time. Can b load from microSD card). Acquire final grab sample	AM/PM? WATER IS HIGH/TURB Time colle Volume: Date Ship Notes: WITH GRASS SAME CE Time (military): Frating curve developme e completed in field (by lab results from Strouter Completed Strouter Completed (STAF)	EST/EDT? *Clean >5 min. ID OR HIGHER THAN NORMA acted (to minute): AB RESULTS (COMPLETE IN THE NORMA APPLICABLE Not applicable Not applicable Ent. Record sensor station Co accessing online data) or in oil Center (or lab that processed	AL CONDUCTIVITY: AMIPM? EST/ED' Always Est Always Es

a - Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
 b - Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note - this depth mea-

sure may be slightly different from the sensor-measured depth but should be consistent over time.

EnviroDIY Field Visit Data

Time for Sensor Station data is always in 24hr time (aka military)(0:00-24:00) and always EST online (dreamhoster.com) and on microSD card

* Note that the data.wikiwatershed.org
 (data.envirodiy.org) site currently lists time
 in UTC (Coordinated Universal Time =
 4hrs ahead of EDT, 5hrs ahead of EST) –
 this may be changed in the future

	/	/										
		Α /	В	С	D	E	F	G	Н	1	J	
- 1	SL	.081 - Mayfly CTI	D & Turbidit	y Logger								
/2	Da	ateTime_EST	TZ-Offset	Loggertime	BoardTemp	Battery_V	CTD_Depth_mm	CTD_temp_DegC	CTD_cond_dS/m	Turb_low_NTU	Turb_high_NTU	
/ 3		6/7/2017 15:55	-5	550166100	22.8	4.03	120.3	16.4	447.3	7.2	7.1	
4		6/7/2017 16:00	-5	550166400	20.8	4.03	119.7	16.4	449	8.3	8.3	
/ 5		6/7/2017 16:05	-5	550166700	20.3	4.03	120.7	16.4	447.7	7.6	7.7	
6		6/7/2017 16:10	-5	550167000	19.8	4.03	120.7	16.4	450.3	6.8	6.8	
7		6/7/2017 16:15	-5	550167300	19.8	4.03	120.3	16.4	452	7	7	
8		6/7/2017 16:20	-5	550167600	19.5	4.03	120	16.4	449.3	4.6	4.5	
9		6/7/2017 16:25	-5	550167900	19.5	4.03	119	16.4	450.7	5.5	5.4	
1	D	6/7/2017 16:30	-5	550168200	19.3	4.03	118.3	16.4	449	6.4	6.4	
1	1	6/7/2017 16:35	-5	550168500	19.3	4.03	119.7	16.4	448.7	6.3	6.2	
1	2	6/7/2017 16:40	-5	550168800	19.3	4.03	119.7	16.4	449.7	3.7	3.7	
1	3	6/7/2017 16:45	-5	550169100	19	4.03	120	16.4	449.7	2.4	2.2	
1	4	6/7/2017 16:50	-5	550169400	18.8	4.03	118.3	16.4	447.7	3.8	3.6	
1	5	6/7/2017 16:55	-5	550169700	18.8	4.03	119	16.4	448.3	3.1	3	
1	5	6/7/2017 17:00	-5	550170000	18.5	4.03	118	16.4	449.3	3.4	3.3	
1	7	6/7/2017 17:05	-5	550170317	19.8	4.47	116.3	16.4	448.7	1.1	0.9	
1	В	6/7/2017 17:10	-5	550170600	19	4.05	116.3	16.4	449	1	0.8	
1	9	6/7/2017 17:15	-5	550170900	18.5	4.05	116	16.3	449	0.9	0.7	
2	O	6/7/2017 17:20	-5	550171200	18.5	4.05	117	16.3	449	0.9	0.7	
2	1	6/7/2017 17:25	-5	550171500	18.3	4.05	116.3	16.3	449.3	0.9	0.7	
2	2	6/7/2017 17:30	-5	550171800	18.3	4.05	116.3	16.3	448.3	0.9	0.7	
2	3	6/7/2017 17:35	-5	550172100	18	4.05	117	16.3	449.3	1	0.7	
2	4	6/7/2017 17:40	-5	550172400	18	4.05	116.7	16.3	450	0.9	0.7	
2	5	6/7/2017 17:45	-5	550172700	18	4.05	117.7	16.3	448.3	0.9	0.7	
2	5	6/7/2017 17:50	-5	550173000	17.8	4.05	117.3	16.3	448.7	0.9	0.7	
2	7	6/7/2017 17:55	-5	550173300	17.8	4.05	116	16.3	447.7	0.9	0.7	
-	0	c/7/2047 40 00	-	FF0473600	47.0	4.05	447	40.0	450.7	•	4.0	



QUALITY CONTROL CHEMISTRY DATA

Use calibrated hand held field meter to measure the same parameters as are measured by the sensor station. Sensor station data and field meter data should be from the same time (+/- 5 minutes)

This type of QC is *very* important for confirming validity of sensor station data

*See Appendix D in manual for list of meters

(https://docs.google.com/document/d/17iWKFOjD6tSFT6-a5mltXlgO8uhXjsA_voGDVRxEBTI/edit?usp=sharing)

*NOTE RECOMMENDATION IS
TO DO QUALITY
CONTROL ON AT LEAST
A QUARTERLY BASIS
(EVERY 3 MONTHS)

QUALITY CON	ITROL - CHEMISTRY	DATA (Red	freque	ncy: qua	arterly ai	nd/or mo	re freque	ntly as nee	eded)
Parameter	QC Hand-held Meter Result	QC Time	OC A	M/DM2	OC ES	T/EDT2	Sensor Result	Station	Sensor Statio
Conductivity (uS/cm):	motor recent			/PM	EST/		resuit		EST)
Temperature (degC):				/PM		EDT	-		
				/PM		FDT	-		
Turbidity (NTU): Dissolved Oxygen (mg/l);			/PM		EDT	-		
Dissolved Oxygen (mg/i	, .	DOL CHEM					LION		
	QUALITY CONT								
	Field Meter Brand/N	nodel/Seria	al # or u	unique	ID M	eter calil		Standar	d Calibratio
Conductivity (u\$/cm):						Yes/I			
Temperature (degC):						Yes/I	•••		
Turbidity (NTU):	13-								
Dissolved Oxygen (mg/	L):					Yes/l	NO		
	SE	ENSOR STA	TION N	MAINTE	NANCE				
If no or partially, describ Location of Sensors Ch If yes, explain in notes. before changing location Retrieved Memory Card' (Rec frequency for QC: qui if not online) Changed Batteries? Yes Cleaned Solar Panel? Yes Other sensor station ma (If Yes, describe in Note	anged? Yes/No *Please consult Stro of sensors. ? Yes/No uarterly if online; biw //No es/No intenance? Yes/No	eekly-mont	 hly 				issues):		
OTHE	R IN-SITU PARAMETE	RS (e.g., Ni	trate, P	hosphat	te, Chlor	ide, pH, [Dissolved	Oxygen)	
Parameter	Res	ult			Brand	d/Model			
		ОТНЕ	ER INFO	DRMATI	ON				
Field Duplicate Taken of	Grab Sample? Ye	s/No	FI	low Me	asureme	ent w/ Ne	eutrally B	uoyant O	bject? Yes/No
Performed Cross Section	n Survey? Yes/No		FI	low Me	asureme	ent w/ an	other me	ethod? Ye	es/No

Sensor station data from online or from microSD card.
Access data while on-site if possible (via cell phone access to websites or via microSD card [bring replacement card, adaptor, and computer])

All sensor station data recorded here from same time



QUALITY CONTROL CHEMISTRY FIELD METER INFO

Field meter calibration information. This is metadata associated with the QC measurements (previous section)

QUALITY CON	NTROL - CHEMISTR	Y DATA (Rec	freque	ncy: qua	rterly and/or mo	re freque	ntly as nee			
Parameter	QC Hand-held Meter Result	QC Time	QC A	M/PM?	QC EST/EDT?	Sensor Result	Station	Sensor Statio Time (Military EST)		
Conductivity (uS/cm):			AM	/PM	EST/EDT					
Temperature (degC):			AM	/PM	EST/EDT					
Turbidity (NTU):			AM	/PM	EST/EDT					
Dissolveu rgen (mg/l	L):		AN	I/PM	EST/EDT					
	QUALITY CON	TROL CHEM	ISTRY	FIELD M	ETER INFORMA	TION	L			
Parameter I	Field Meter Brand/	Model/Seria	al#or	unique l	D Meter cali	brated?	Standar	d Calibratio		
Conductivity (uS/cm):					Yes/	No				
Temperature (degC):					Yes/	No				
Turbidity (NTU):					Yes/	No				
Dissolved Oxygen (mg/	/L):				Yes/	No				
	5	ENSOR STA	TION N	MAINTEN	IANCE					
Sensors Submerged? Y					(Describe spec s and any othe			management		
Location of Sensors Ch If yes, explain in notes. before changing location Retrieved Memory Card (Rec frequency for QC: ql	*Please consult Str of sensors. ? Yes/No		- hlv							
if not online)		roomy mona	-							
Changed Batteries? Yes	5/NO		_							
Cleaned Solar Panel? Ye	es/No									
Other sensor station ma	aintenance? Yes/N	0	_							
(If Yes, describe in Note	es)									
OTHE	R IN-SITU PARAMET	ERS (e.g., Nit	trate, P	hosphate	e, Chloride, pH, I	Dissolved	Oxvgen)			
Parameter	Res	sult			Brand/Model		,,,,,			
didifictor										
		OTHE	D INFO	ORMATIO	ON					
Field Duplicate Taken of	f Grab Sample? Yo				surement w/ Ne	eutrally B	uovant O	biect? Yes/No		
o.a Supriouto Tuken O								•		
Dorformed Cross Section	Performed Cross Section Survey? Yes/No				Flow Measurement w/ another method? Yes/No If Yes, explain in Notes					

Standard used for performing calibration (e.g., conductivity 1413 uS/cm)

Reading from the meter after calibration – serves as a confirmation that calibration worked



OTHER SENSOR STATION MAINTENANCE AND QUALITY CONTROL

<u>Sensors Submerged?</u> Sensors need to be submerged to work properly and may need to be repositioned if they are not fully submerged.

<u>Location of Sensors Changed?</u> This may be necessary if channel changes or water levels change dramatically. Offset can be affected if sensors are changed so this needs to be done carefully and before and after staff gauge and sensor depths need to be recorded.

Retrieved Memory Card? Quality Control procedure (download data from SD card every 2-4 weeks if not online, quarterly if online). Turn Mayfly logger off, remove microSD card, insert new blank microSD card, turn logger back on. Acquire data from memory card when online data are missing or unavailable.

<u>Changed Batteries?</u> Battery level should be >3.7v – below this sensor station function may be impaired. In high shade areas or areas where cell signal is low (and repeated attempts to send data occur) battery may not be fully charged by solar and changing batteries may be required to sustain proper power.

<u>Cleaned Solar Panel?</u> Clean solar panel of dust, debris, etc.

Parameter	QC Hand-held Meter Result	QC Time	QC AM/PM?	QC EST/EDT?	Sensor S	Station	Sensor Station Time (Military, EST)
Conductivity (u\$/cm):			AM/PM	EST/EDT			-
Temperature (degC):			AM/PM	EST/EDT			
Turbidity (NTU):			AM/PM	EST/EDT			
Dissolved Oxygen (mg	/L):		AM/PM	EST/EDT			
	QUALITY CONTR	OL CHEMIS	STRY FIELD ME	TER INFORMA	TION		
Parameter	Field Meter Brand/M	odel/Serial	# or unique ID	Meter cali	brated?	Standard	Calibration
Conductivity (uS/cm):				Yes/l	No		
Temperature (degC):				Yes/I	No		
Turbidity (NTU):				Yes/	No		
Dissolved Oxygen (mg	η/L):			Yes/	No		
\ <u></u>	SE	NSOR STATI	ION MAINTEN	ANCE			
Sensors Submerged? If no or partially, described for or partially, described for or partially, described for explain in notes before changing location. Retrieved Memory Carc (Rec frequency for QC: of not online) Changed Batteries? Ye Cleaned Solar Panel? You other sensor station modifies, describe in Note.	ibe in Notes. hanged? Yes/No . *Please consult Strou of sensors. d? Yes/No quarterly if online; biwe s/No //es/No laintenance? Yes/No		actions	Describe spec and any other		r station (management
ОТНІ	ER IN-SITU PARAMETEI	RS (e.g., Nitr	ate, Phosphate,	Chloride, pH, [Dissolved ()xygen)	
Parameter	Resu	ılt		Brand/Model			
Parameter	Resu		RINFORMATIO				
	of Grab Sample 2 Vee			urement w/ Ne	eutrally Ri	iovant Oh	iect? Yes/No
Field Duplicate Taken of						/	,
Field Duplicate Taken of Performed Cross Section	•		Flow Mass	urement w/ an	other m	hada V-	·/No

OTHER IN-SITU PARAMETERS

Record any other chemistry measurements here including meters, test strips, etc.

Parameter	QC Hand-held Meter Result	QC Time	QC A	M/PM?	QC EST/EDT?		Station	Sensor Station Time (Military, EST)
Conductivity (uS/cm):			AM	/PM	EST/EDT			
Temperature (degC):			AM	I/PM	EST/EDT			
Furbidity (NTU):			AM	/PM	EST/EDT			
Dissolved Oxygen (mg/	/L):		AM	I/PM	EST/EDT			
	QUALITY CONT	TROL CHEM	1ISTRY I	FIELD N	IETER INFORMA	TION		
Parameter	Field Meter Brand/	Model/Seria	al#oru	unique	ID Meter cali	brated?	Standa	d Calibration
Conductivity (uS/cm):					Yes/	No		
Temperature (degC):					Yes/	No		
Turbidity (NTU):					Yes/	No		
Dissolved Oxygen (mg	/L):				Yes	No		
	S	ENSOR STA	TION N	AINTE	NANCE			
Sensors Submerged? \ If no or partially, descri					(Describe species and any othe			n management
Location of Sensors Ch If yes, explain in notes. before changing location	*Please consult Stro	oud Center						
Retrieved Memory Card Rec frequency for QC: q f not online)		veekly-mont	thly					
Changed Batteries? Yes	s/No		_					
Cleaned Solar Panel? Y	'es/No		_					
Other sensor station madescribe in Note		0						
ОТНЕ	R IN-SITU PARAMET	ERS (e.g., Ni	itrate, P	hosphat	e, Chloride, pH,	Dissolved	Oxygen)	
Parameter	Res	sult			Brand/Model			
		OTHE	ER INFO	DRMATI	ON			
Field Duplicate Taken o	f Grab Sample? Ye	es/No	FI	low Mea	asurement w/ N	eutrally E	uoyant C	bject? Yes/No
Performed Cross Section	on Survey? Yes/No		FI	low Mea	surement w/ ar	nother me	ethod? Y	es/No
low Measurement w/ F	- If	If Yes, explain in Notes						

OTHER INFORMATION

Field duplicates taken for QC purposes – work with Stroud Center on this

Cross section survey – usually done at time of installation – allows prediction of cross sectional wetted area for discharge calculations during unwadeable conditions. This info goes into the StagetoAreaPredictor spreadsheet (see manual)

Discharge measurements using a flow meter – see Stream Discharge Data form (see manual)

Parameter	QC Hand-held Meter Result	QC Time	QC A	M/PM?	QC EST/EDT?		Station	Sensor Station Time (Military, EST)
Conductivity (uS/cm):			AM	I/PM	EST/EDT			
Temperature (degC):			AN	I/PM	EST/EDT			
Turbidity (NTU):			AN	I/PM	EST/EDT			
Dissolved Oxygen (mg.	/L):		ΑN	M/PM	EST/EDT			
	QUALITY CONT	TROL CHEM	IISTRY	FIELD M	ETER INFORMA	TION		
Parameter	Field Meter Brand/l	Model/Seria	al # or	unique	D Meter cali	brated?	Standard	d Calibration
Conductivity (u\$/cm):					Yes/	No		
Temperature (degC):					Yes/	No		
Turbidity (NTU):					Yes	No		
Dissolved Oxygen (mg	ı/L):				Yes	No		
	S	ENSOR STA	TION	MAINTE	NANCE			
Sensors Submerged? ' If no or partially, descri					(Describe species and any othe			management
Location of Sensors CI If yes, explain in notes. before changing location	. *Please consult Stro	oud Center						
Retrieved Memory Card (Rec frequency for QC: q if not online)		veekly-mont	hly					
Changed Batteries? Ye	s/No							
Cleaned Solar Panel? Y	/es/No		_					
Other sensor station m (If Yes, describe in Not		0	-					/
ОТНЕ	ER IN-SITU PARAMETI	ERS (e.g., Ni	trate, F	hosphat	e, Chloride, pH,	Dissolved	Oxygen)	
Parameter	Res	sult			Brand/Model			
							/	
		OTHE	R INF	ORMATI	NC	K	-	
Field Duplicate Taken o	of Grab Sample? Ye	es/No	F	low Mea	surement w/ N	eutrally E	Buoyant Ol	bject? Yes/No
Performed Cross Section	on Survey? Yes/No	1	 F	low Mea	surement w/ ar	nother me	Anod? Ye	s/No
	-		_		plain in Notes			-

Discharge measurements using a timed neutral buoyant object – see Stream Discharge Data form (see manual)

Discharge measurements using a another method, e.g., timed fill (see manual)



Data entry: Wikiwatershed.org/drwi

STROUD	
Spring	

*Cleaned Sensors? Yes/No If Yes, exact time:

Name(s):

EnviroDIY Field Visit Data

LoggerID:

WATER RESEARCH CENTER Enter all data online: wikiwatershed.org/drwi; password: drwi

Stream Name:	Location:
GP\$ (Lat/Long):	Date: Arrival Time: AM/PM? *E\$T/EDT?
Photos? Yes/No	*EST=Eastern Standard Time; EDT=Eastern Daylight Time (Daylight Savings)
Precipitation last 24 Hours? Yes/No Amount:	Water Clarity (Clear, Cloudy, Muddy):
General Notes/ Photo Descriptions:	
SENSOR CLEANING (Recommended freque	encv: weekly or biweekly: monthly if only CTD sensor)

GRAB SAMPLES (Rec frequency: Situational; for rating curves, collect when water is high/turbid or higher than normal conductivity)

Grab Sample Taken? Yes/No

Sample Number:

Bottle Type:

Lab Sent To:

Time collected (to minute):

AM/PM? EST/EDT?

Volume:

Date Shipped:

Notes:

*SENSOR STATION DATA TO MATCH WITH GRAB SAMPLE LAB RESULTS (Complete in field or office)

AM/PM? EST/EDT? *Clean >5 min. before grab sampling

Sensor station Conductivity (uS/cm): Time (military): Not applicable Always EST
Sensor station Turbidity (NTU): Time (military): Not applicable Always EST

*For use in Turbidity/TSS and Conductivity/Chloride rating curve development. Record sensor station Cond and Turb data at time nearest to grab sample collection time. Can be completed in field (by accessing online data) or in office (online or download from microSD card). Acquire final grab sample lab results from Stroud Center (or lab processed sample).

*Staff Gauge Height (m): Time: AM/PM? EST/EDT?

*Sensor Station Water Depth (mm): Time: Not applicable Always EST

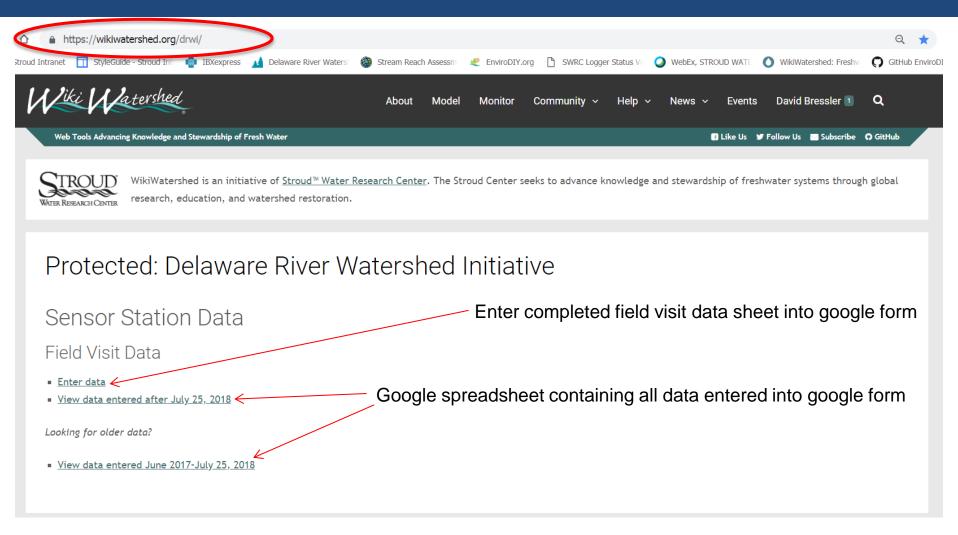
*QC Sensor Station Water Depth (mm): Time: AM/PM? EST/EDT?

Offset (=Staff Gauge Height - Sensor Station Water Depth)(mm):

- a Staff Gauge Height and Sensor Station Water Depth readings should be from about the same time (+/- 5 minutes).
- b Use metric ruler to measure from pressure transducer (white disc in CTD sensor) to water surface. Note this depth measure may be slightly different from the sensor-measured depth but should be consistent over time.

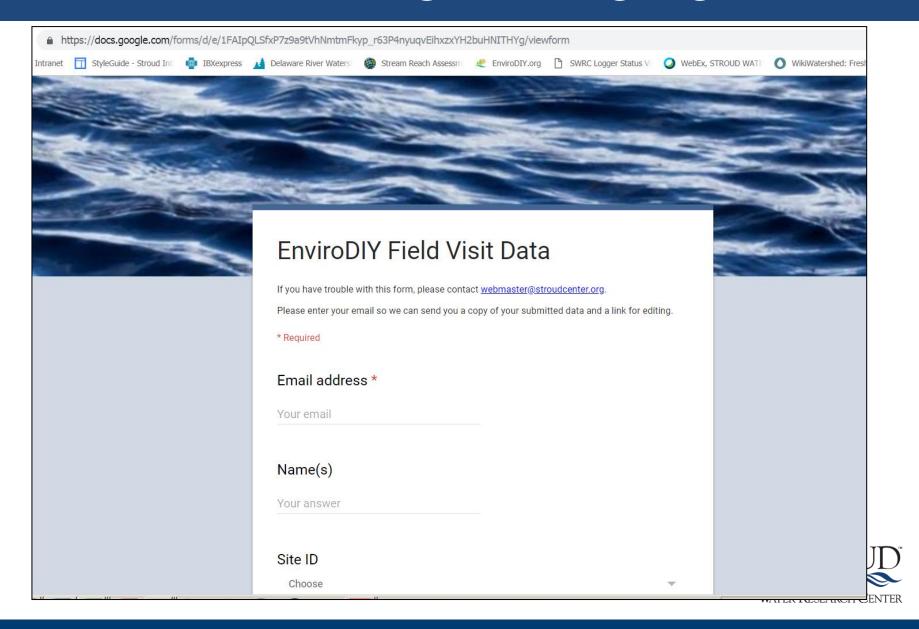
QUALITY	CONTROL - CHEMISTRY	DATA (Rec	frequer	ncy: quo	rterly and/or mo	ore freque	ntly as ne	eded)
Parameter	QC Hand-held Meter Result	QC Time	QC AI	M/PM?	QC EST/EDT?		Station	Sensor Station- Time (Military, EST)
Conductivity (u\$/cm):		AM/	PM	EST/EDT			
Temperature (degC)	:		AM/	/PM	EST/EDT			
Turbidity (NTU):			AM/	/PM	EST/EDT			
Dissolved Oxygen (I	mg/L):		AM	/PM	EST/EDT			
	QUALITY CONT	ROL CHEM	IISTRY F	IELD N	ETER INFORMA	ATION		
Parameter	Field Meter Brand/M	lodel/Seria	al#oru	ınique	ID Meter cal	ibrated?	Standa	rd Calibration
Conductivity (uS/cn	n):				Yes	No		
Temperature (degC)	:				Yes	No		
Turbidity (NTU):					Yes	/No		
Dissolved Oxygen (mg/L):				Yes	/No		
	SE	NSOR STA	TION M	IAINTE	NANCE			
Sensors Submerged If no or partially, des					(Describe spe			n management
Location of Sensors If yes, explain in not before changing local	tes. *Please consult Stro	ud Center	_					
Retrieved Memory C (Rec frequency for QC if not online)	ard? Yes/No C: quarterly if online; biwe	eekly-monti	hly					
Changed Batteries?	Yes/No		_					
Cleaned Solar Panel	? Yes/No		-					
Other sensor station (If Yes, describe in N	n maintenance? Yes/No Notes)		-					
0.	THER IN-SITU PARAMETE	RS (e.g., Nit	trate, Pl	hosphat	e, Chloride, pH,	Dissolved	Oxygen)	
Parameter	Resu	ılt			Brand/Model			
		ОТНЕ	R INFO	RMATI	ON			
Field Duplicate Take	n of Grab Sample? Yes	/No	FI	ow Me	asurement w/ N	eutrally E	Buoyant (Object? Yes/No
Performed Cross Se	ction Survey? Yes/No		FI	ow Me	surement w/ a	nother m	ethod? Y	es/No
Flow Measurement w/ Flow Meter? Yes/No				If Yes, explain in Notes				

Data entry: Wikiwatershed.org/drwi





Wikiwatershed.org/drwi – google form



Wikiwatershed.org/drwi – google summary spreadsheet

