

WELCOME!

Monthly EnviroDIY in the DRB User Group Meeting

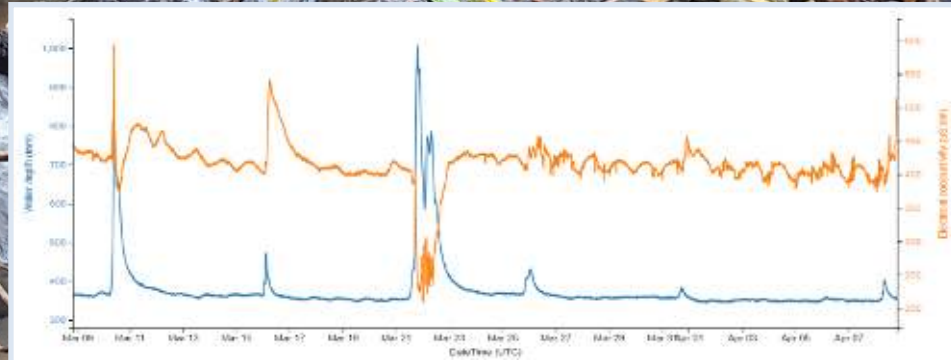
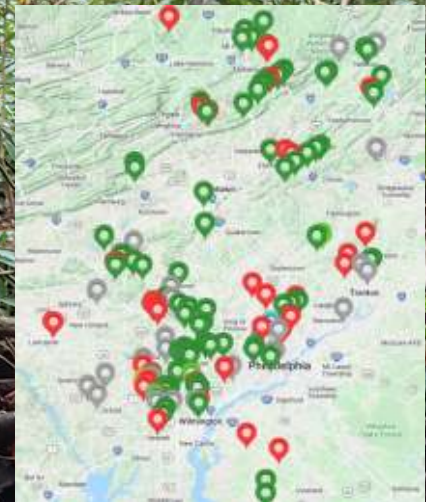
Online, Thursday, August 18, 2022, 2:30-3:30p



EnviroDIY



Monitor My Watershed®



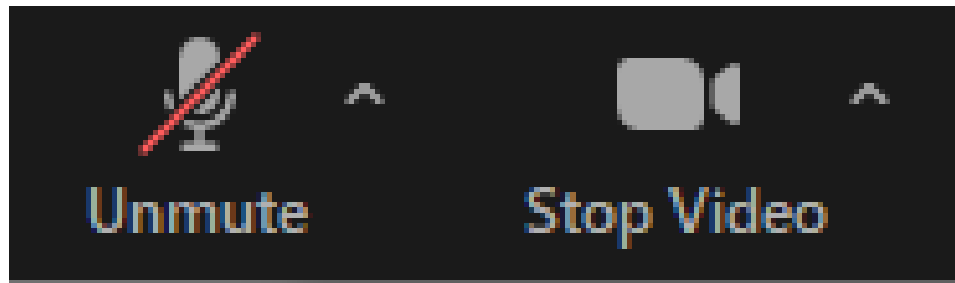
STROUD
WATER RESEARCH CENTER



Zoom Orientation



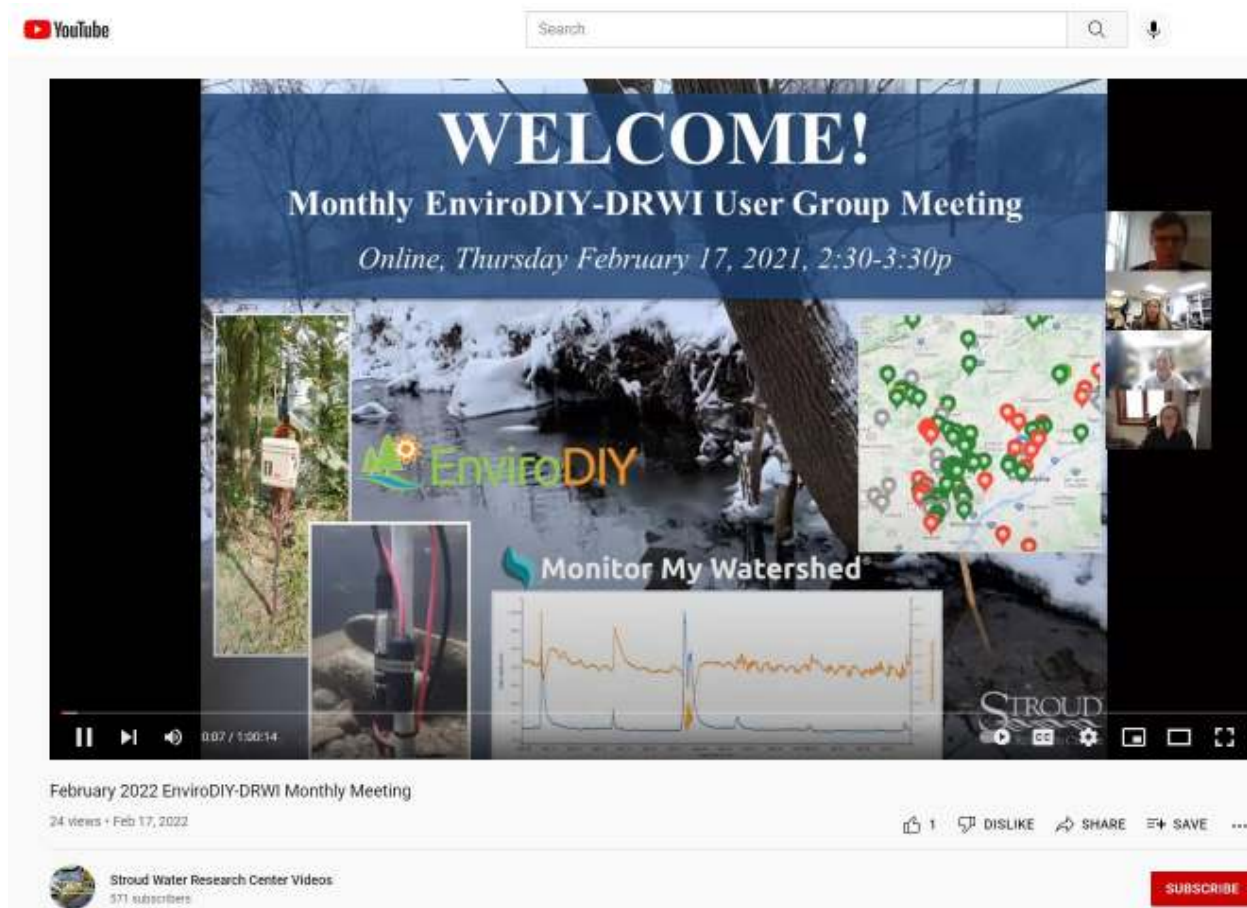
***Meeting is being recorded**



***Mute unless asking question**

These Monthly Meetings

Recordings available at: <https://wikiwatershed.org/drwi/>



These Monthly Meetings

- Every third Thursday of the month
- 2:30-3:30p
- Zoom link will remain the same:
<https://us02web.zoom.us/j/81881801310?pwd=eUFmbXZLbmRibVcxa1dtNVhzRmNvZz09>
- Reminder email one week prior to each month's meeting
 - All are welcome, please share
 - **And let us know if others should be added**

REMINDER

- Attendees include:
 - Groups working in Delaware River Watershed Initiative (DRWI)
 - Groups working in Delaware River Basin (DRB) but not DRWI
 - Folks from outside the DRB
- Stroud Center support via DRWI and C-SAW

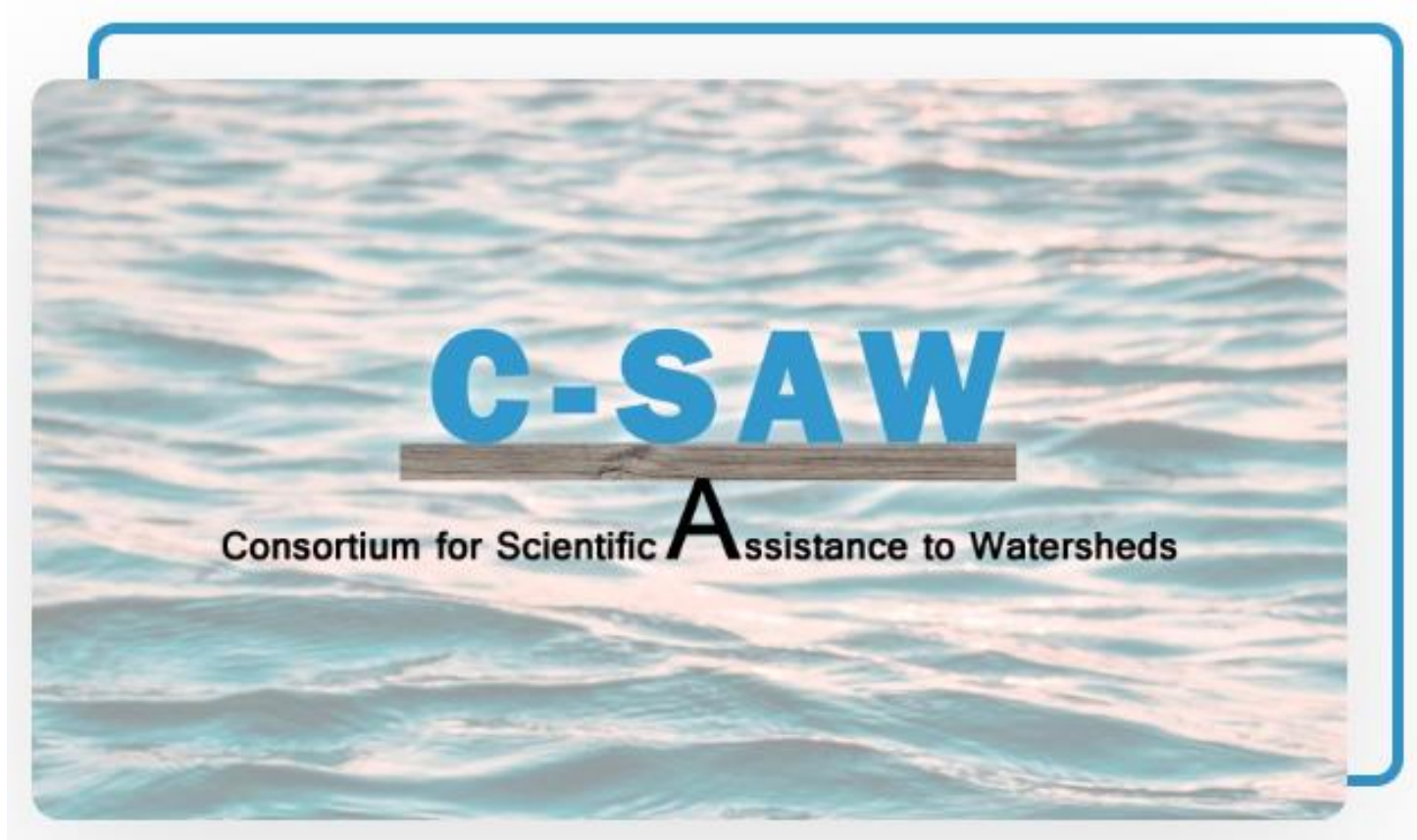
Delaware River Watershed Initiative (DRWI)

<https://4states1source.org/>



C-SAW

<https://www.c-saw.info/>



Goals for these monthly meetings

- Time to check-in, ask questions, report issues, network, etc.
- **Updates** from the Stroud Center
- **Presentations**
 - **Station Owner/Manager Presentations** – communicate about individual situations, local watershed work
 - **Focus Topic Presentations** – guest presenters talk about technical/ecological/other focus topics

**All of this to support gathering good data and using it purposefully*

Stroud Center project personnel

Stroud Center Facilitators:

David Bressler



Project facilitator

Rachel Johnson



Research Engineer
Technician

Christa Reeves



Northern DRB
technician and
organization
collaborator

Shannon Hicks



Research Engineer,
Mayfly and EnviroDIY
Inventor/Designer



Elena Hadley
Part-Time Environmental Educator
Research Technician

Stroud Center project personnel

Master Watershed Steward Facilitators:

Carol Armstrong



George Seeds



Master Watershed
Steward Program



PennState Extension

Stroud Center project personnel

Stroud Center DRWI Leads:

Dr. John Jackson



Senior Research Scientist

Matt Ehrhart



Director of Watershed Restoration

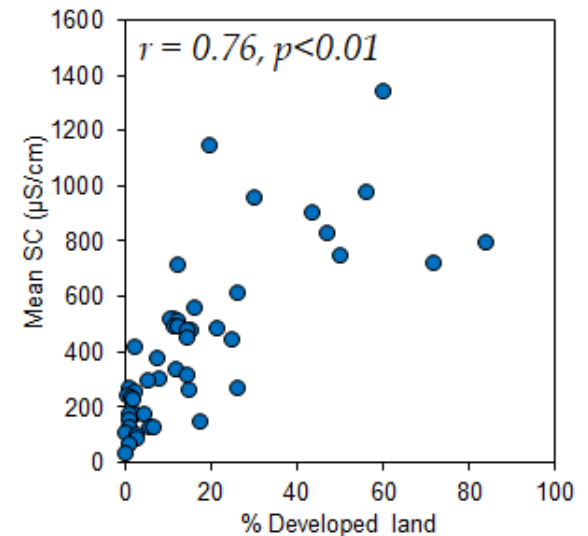
Dr. David Arscott



Executive Director, President
Research Scientist

Stroud Center Perspective – EnviroDIY in the DRB

- Primary Goal
 - Support Station owners, managers, and volunteers
 - Use stations for local purposes
- Secondary Goal
 - Analyze basin-wide data set
 - Develop tools to characterize and contextualize watersheds



Today's Agenda

1. Introduction
2. Stroud Updates
3. Presentation:
 - review some features of Monitor My Watershed that can help with tracking station function
 - revisit the pilot Salt in Tap Water Survey results and participation
 - review some statistics on EnviroDIY station visits across the DRB
 - review some summaries of the continuous data from stations throughout the DRB
4. Discussion
5. Conclusion

Stroud Center Updates

- EnviroDIY Monitoring Station Manual has been updated and has a new searchable format

The screenshot shows the EnviroDIY website interface. The top navigation bar is dark blue with the EnviroDIY logo on the left and links for About, Participate, Mayfly, Blog, Forums, Videos, Shop, Help, Register, and Log In on the right. Below the navigation bar is a light blue banner with the text "An Initiative of Stroud Water Research Center" on the left and "Subscribe" and "EnviroDIY on GitHub" on the right. The main content area is divided into three columns. The left column features a gear icon and a welcome message: "Welcome to EnviroDIY, a community for do-it-yourself citizens, conservation practitioners, municipal decision makers. Want to get involved? Join EnviroDIY? [Start here](#)". The middle column displays a dropdown menu for the "Participate" link, which includes options for "Getting Started", "Hardware", "Software", "Forum", and "Monitoring Station Manual and Appendices". The right column contains a section titled "UPCOMING EVENTS" with a green underline, listing an event for April 27-28: "Hybrid Workshop: Building an EnviroDIY Monitoring Station".

EnviroDIY

About ▾ Participate ▾ Mayfly ▾ Blog Forums ▾ Videos Shop ▾ Help Register Log In

An Initiative of Stroud Water Research Center

Subscribe EnviroDIY on GitHub

Welcome to EnviroDIY, a community for do-it-yourself citizens, conservation practitioners, municipal decision makers. Want to get involved? Join EnviroDIY? [Start here](#)

Getting Started

Hardware

Software

Forum


Monitoring Station Manual and Appendices

UPCOMING EVENTS

APR 27 April 27 - April 28 Hybrid Workshop: Building an EnviroDIY Monitoring Station


Stroud Center Updates

<https://www.envirodiy.org/knowledge-base/>

About ▾Participate ▾Mayfly ▾BlogForums ▾VideosShop ▾HelpRegisterLog InQ

An Initiative of Stroud Water Research Center

SubscribeEnviroDIY on GitHub



Welcome to EnviroDIY, a community for do-it-yourself environmental science and monitoring. EnviroDIY is part of [WikiWatershed](#), a web toolkit designed to help citizens, conservation practitioners, municipal decision-makers, researchers, educators, and students advance knowledge and stewardship of fresh water. **New to EnviroDIY?** [Start here](#)

Search the Knowledge Base

Q Search the Knowledge Base...

Help Topics

EnviroDIY Monitoring Station Manual (9 Articles)

The EnviroDIY team created this manual to help you build, program, and install an EnviroDIY Monitoring Station. Please leave feedback on the individual articles so that we can continue to improve the documentation.

- 1. Key Terms and Links
- 2. EnviroDIY Overview
- 3. EnviroDIY Monitoring Station
- 4. Preparing the Mayfly Data Logger
- 5. Programming and Activating an EnviroDIY Monitoring Station
- 6. Building an EnviroDIY Monitoring Station
- 7. Installing an EnviroDIY Monitoring Station
- 8. Monitoring Station Management
- 9. References and Acknowledgments

⊞ View all

EnviroDIY Monitoring Station Manual Appendices (8 Articles)

The EnviroDIY Monitoring Station appendices contain supplemental information to help you manage your EnviroDIY Monitoring Station. Please leave feedback on the individual articles so that we can continue to improve the documentation.

- 1. Battery and Solar Options
- 2. Example Data
- 3. Data Patterns
- 4. Troubleshooting
- 5. Commercial Sensors
- 6. Field Supplies Checklist
- 7. Maintenance Checklist
- 8. Supplemental Sampling, Rating Curves, Loads

⊞ View all

Stroud Center Updates

<https://www.envirodiy.org/envirodiy-monitoring-station-parts-list/>

EnviroDIY Monitoring Station Parts List

This is the comprehensive parts list for building an EnviroDIY Monitoring station. Detailed instructions can be found in the EnviroDIY Monitoring Station Manual and Appendices available in the [knowledge base](#).

Items with (*) in the Product Name are included in the [EnviroDIY Monitoring Kit](#).

Please email webmaster@stroudcenter.org if you have trouble viewing this table.

EnviroDIY Parts List (PUBLIC) - Dynamic List

Product Name	Section In EnviroDIY online manual	Manufacturer	Vendor	Vendor Link	Unit Cost	Quantity	Unit x Quantity	Model Description
EnviroDIY Mayfly Wireless Data Logging System								
EnviroDIY Monitoring Station Kit	Section 3.5	Stroud Water Research Center	EnviroDIY	Link	\$475.00	1	\$475.00	The EnviroDIY Monitoring Station Kit contains: Mayfly Data Logger and microUSB cable for connection with computer, EnviroDIY LTE bee, Hologram Global SIM card, 2 microSD cards and standard SD card adapter, vertical microSD clock, waterproof Pelican case with pre-cut foam and pre-drilled holes for cable glands (one for holding logger inside the Pelican case, 6-volt 3.5-watt solar panel with mounting bracket, Mayfly Data Logger, 2 waterproof cable glands: 1 small (3/8" NPT for cables 0.08" - 0.24"), 1 for mounting the waterproof box on a post, Grove cable and a Grove-to-3.5 mm jack adapter and stainless steel retaining pin for attaching sensor bundle to steel rebar (rebar not included).
EnviroDIY Mayfly Data Logger Starter Kit		Stroud Water Research Center	Amazon / EnviroDIY	Link	\$130.00	1	\$130.00	Includes waterproof enclosure with clear lid, 0.5-watt solar panel, Custom microSD connector adapter, 1-meter microUSB cable, and 2 Grove cables.
CR1220 12mm Diameter - 3V Lithium Coin Cell Battery *	Section 4.4	Panasonic - RSG	Digi-Key	Link	\$1.01	1	\$1.01	lithium batteries for the Mayfly board so they'll retain the clock time after programming
Lithium Ion Battery Pack - 3.7V 4400mAh (recommended size)	Section 6.1	Adafruit Industries LLC	Adafruit	Link	\$19.95	1	\$19.95	This lithium ion pack is made of 2 balanced 2200mAh cells for a total of 4400mAh capacity
Lithium Ion Battery Pack - 3.7V 4400mAh (recommended size)	Section 6.1	Adafruit Industries LLC	Digi-Key	Link	\$19.95	1	\$19.95	optional vendor
EnviroDIY LTE Bee *	Section 6.1	Stroud Water Research Center	EnviroDIY		\$50.00	1	\$50.00	Bluetooth, Cellular 4G LTE CAT-M1 (AT&T/Verizon) Transceiver Module Antenna Not Included
Cellular LTE antenna *	Section 6.1	Pulsar, Arsen Antennas	Digi-Key	Link	\$4.50	1	\$4.50	4G LTE cellular antenna with U.FI connector
Hologram Global SIM Card *	Section 6.1	Hologram	Hologram	Link	\$5.00	1	\$5.00	SIM card required for 2G or 3G communication
Medium 6V 2W Solar panel *	Section 6.4, 7.3	Voltaic Systems	Adafruit	Link	\$29.00	0	\$0.00	Standard for CTD sensor install
Grove 4Pin Cables 20cm (5PACK) *	Section 6.3	Sesad Technology Co., Ltd	Digi-Key	Link	\$3.20	1	\$3.20	Grove series Cable Assembly
Term Block Plug 2POS STR 2.5mm(connector for solar panel cable) *	Section 6.2	Phoenix Contact	Digi-Key	Link	\$0.96	1	\$0.96	2 Position Terminal Block Plug, Female Sockets 0.098" (2.50mm) - 180° Free Hanging (In-Line)
Grove to sensor adapter boards for CTD (Grove to 3.5mm stereo jack) 5 pack *	Section 6.2	EnviroDIY	EnviroDIY	Link	\$35.00	1	\$35.00	to connect CTD sensor to board via grove socket to headphone jack connector

Stroud Center Updates

- Reminder to request assistance via the EnviroDIY Service Request Form
 - <https://wikiwatershed.org/drwi/>



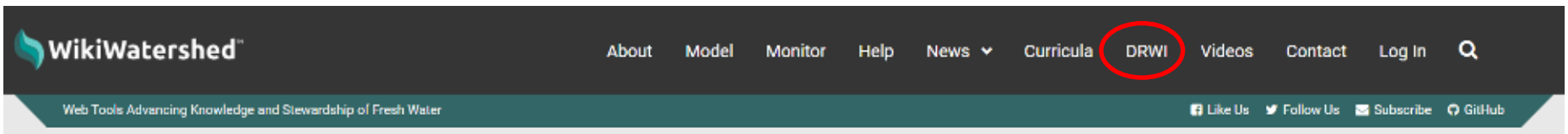
EnviroDIY Monitoring Station Service Request Form

Please complete this form with as much information as possible to assist Stroud Water Research Center technicians in troubleshooting your problem. For extremely urgent issues please contact the Stroud Center team directly (rjohnson@stroudcenter.org; shicks@stroudcenter.org; dbressler@stroudcenter.org).

*Please note, station assistance is only available to groups working within the Delaware River Basin.

Stroud Center Updates

- Reminder on resources available at <https://wikiwatershed.org/drwi/>
- <https://wikiwatershed.org>



Use the links below to jump to a specific section of this page.

General Resources

- [EnviroDIY Field Visit Data](#)
- [EnviroDIY Monitoring Station Help Resources](#)
- [Salt Monitoring Resources](#)
- [Data and Data Visualization Resources](#)
- [Volunteer Management Guidance Materials](#)
- [WikiWatershed Toolkit](#)
- [Project Updates](#)

Meetings, Workshops, and Conferences

- [Monthly EnviroDIY-DRWI User Group Meetings](#)
- [User Support Workshops and Trainings](#)
- [Conference Presentations](#)
- [Watershed Ecology Workshops](#)

EnviroDIY Field Visit Data

[EnviroDIY Field Visit Data Form \(Online\)](#)

Stroud Center Updates

- Reminder on standard first step in troubleshooting station if it has gone offline:
 - Check battery power is $>3.5v$
 - If yes proceed to next step
 - If no, swap in new battery
 - Turn station off
 - Swap SD cards (if station is offline)
 - Turn station on
 - See if problem resolves
 - Send SD card file and description of key issue(s) to the Stroud Center and continue troubleshooting process



Stroud Center Updates

- New model (generation 2) of the Hydros 21 CTD sensor by Meter Group is now available

HYDROS 21
Conductivity, Temperature,
Depth Sensor



*** Need to change SDI-12
address (“channel”)
from 0 to 1**

Stroud Center Updates

- **Technology Updates**

- Bluetooth Sensor Interface, <https://www.metergroup.com/en/meter-environment/products/zsc-bluetooth>

ZSC
Bluetooth Sensor Interface








Qty	Item	Tax	Rate	Amount
1	40416 ZSC Bluetooth Sensor Interface for use with ZENTRA Utility Mobile stereo connector ZSC Bluetooth Sensor Interface, stereo		\$79.00	\$79.00
				Subtotal \$79.00
				Shipping & Handling \$14.00
				Tax Total (0%) \$0.00
				Total (USD) \$93.00

Stroud Center Updates

- Bluetooth Sensor Interface, <https://www.metergroup.com/en/meter-environment/products/zsc-bluetooth>
 - Useful functions:
 - **Viewing CTD sensor data**
 - **Changing CTD SDI-12 address (“channel”)**
 - **Other useful info**
 - **Status window that can warn of freeze damage**

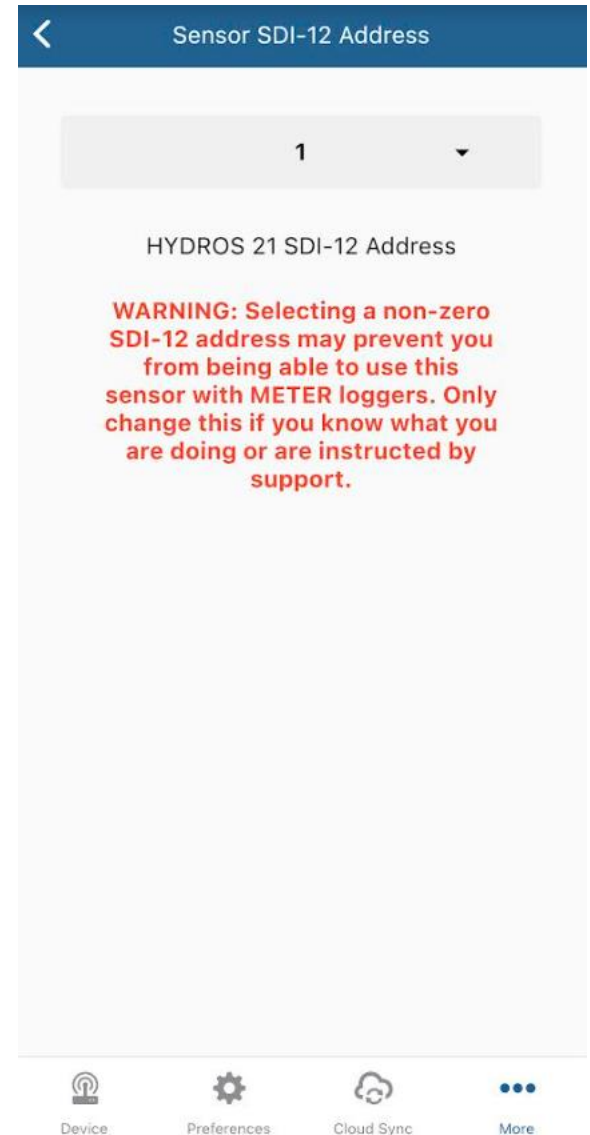
Stroud Center Updates

- Viewing sensor data

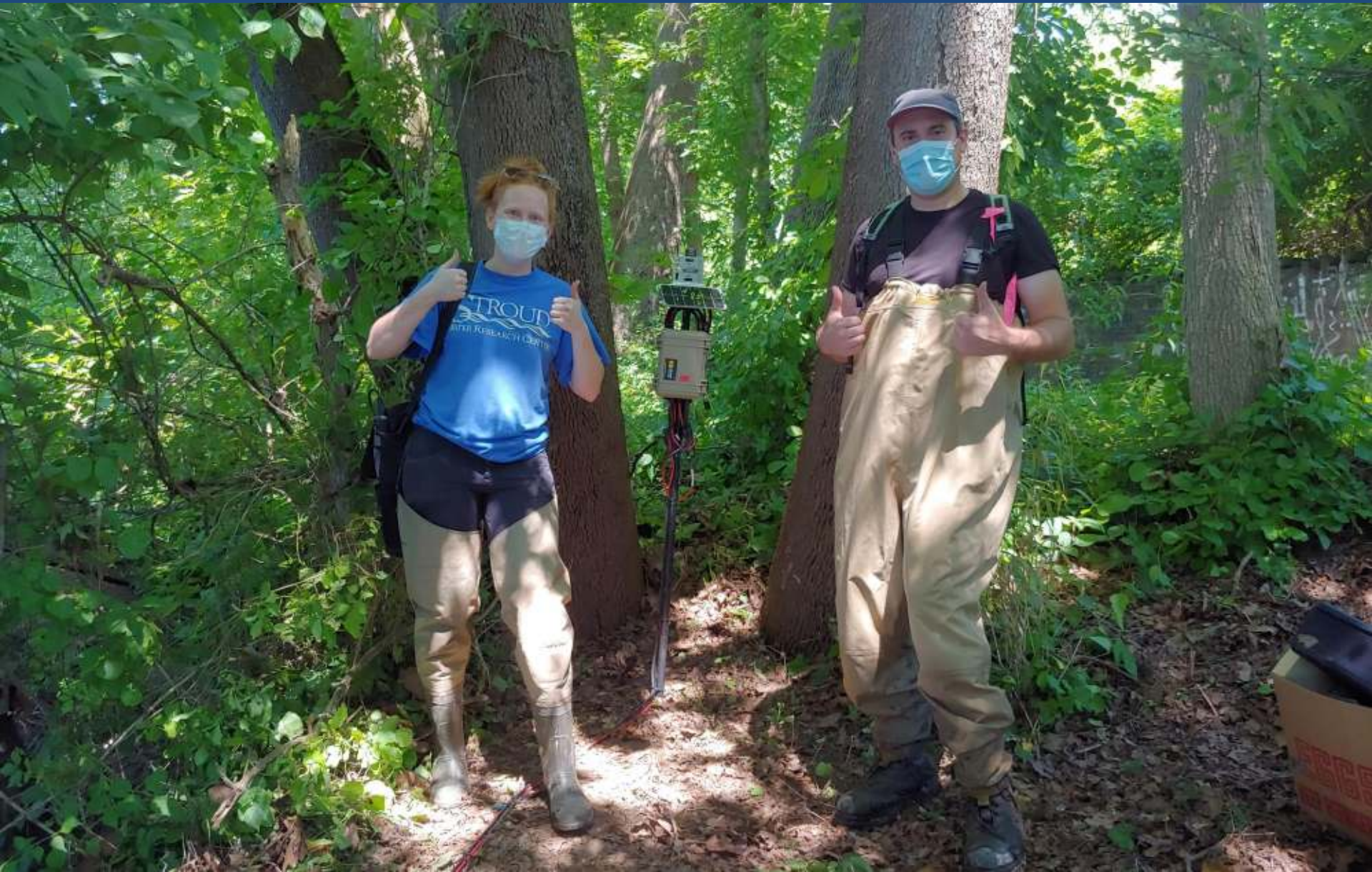
< ZSC60387 HYDROS 21	
Sensor Information	
Name	HYDROS 21
Firmware	5.04
Serial Number	H21G200000296
Status	✓
Extra Value	N/A
Measurements	
Water Level	13 mm
Water Temperature	27.8 °C
EC	0.002 mS/cm
	
 Device	 Preferences
 Cloud Sync	 More

Stroud Center Updates

- Changing sensor SDI-12 address (“channel”) - **change from 0 to 1** for Hydros21 CTD
 - Click More -> sensor tools -> Sensor SDI-12 Address ->



Any questions before we move on?



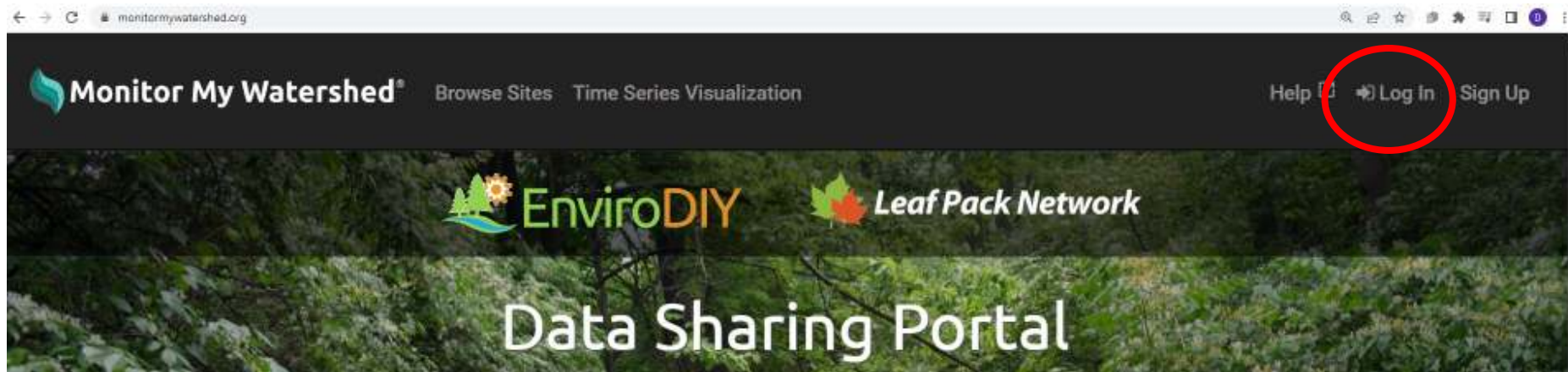
EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline
 - Station owner log in to MonitorMW
 - Go to My Sites
 - Click on site
 - Click Edit
 - Scroll to bottom of page
 - Click on “Notify me if site stops receiving sensor data.”
 - Adjust hours in “Notify after # hours of site inactivity.”
 - 2hrs is the recommended alert time

EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

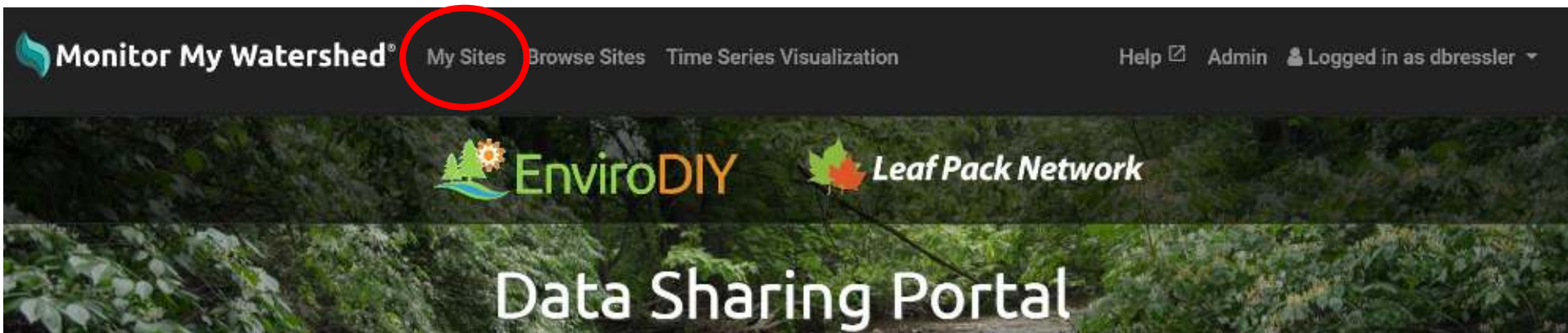
Log In



EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Go to My Sites



EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Click on one of your sites

▼ My Registered Sites **1**

ORDER ▼

PUSR4S



Sampling Feature

Schuylkill River at The Schuylkill
Center for Environmental
Education



Registration Date

July 27, 2020, 5:26 p.m.



Latest Measurement

EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Click Edit

Schuylkill River at The Schuylkill Center for Environmental Education (PUSR4S)

VIEW TOKEN UUID LIST EDIT DELETE

Deployment By	David Bressler
Organization	Stroud Water Research Center
Registration Date	July 27, 2020, 5:26 p.m.

Map Satellite

Schuylkill River

EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Scroll to bottom and click “Notify me...”

☐ Notify me if site stops receiving sensor data.

CANCEL

SAVE EDITS

EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Adjust hours to 2 hrs

☒ Notify me if site stops receiving sensor data.

Notify after hours of site inactivity.

CANCEL

SAVE EDITS

EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Save Edits

☒ Notify me if site stops receiving sensor data.
Notify after hours of site inactivity.

CANCEL

SAVE EDITS

EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Confirmation will be given

The screenshot displays the EnviroDIY web interface for a station named "Schuylkill River at The Schuylkill Center for Environmental Education (PUSR4S)". A green notification bubble with the text "The site has been updated successfully." and a close icon is circled in red. Below the notification, the "Deployment By" field shows "David Bressler". To the right, there are buttons for "VIEW TOKEN UUID LIST", "EDIT", and "DELETE". At the bottom, there are map controls for "Map" and "Satellite" views, along with a full-screen icon.

Schuylkill River at The Schuylkill Center for Environmental Education (PUSR4S)

The site has been updated successfully. ✕

Deployment By David Bressler



VIEW TOKEN UUID LIST EDIT DELETE




Map Satellite

EnviroDIY online status updates

- Station owners can get immediate email alerts from MonitorMW if/when station(s) go offline

Email alert if station goes offline

Monitor My Watershed Notification: No data received for site Schuylkill River at The Schuylkill Center for Environmental Education in the last 9309 hours Inbox x  

EnviroDIY Site Alert monitormywatershedalerts@stroudcenter.org ... 2:00 PM (5 minutes ago)   
to me ▼

David,

This email is to notify you that your Monitor My Watershed site "Schuylkill River at The Schuylkill Center for Environmental Education" has not received any new data values in the last 9309 hours. The last update was on 2021-07-18 20:40:00. You may want to check your equipment to ensure it's working as intended.

<https://www.monitormywatershed.org/sites/PUSR4S/>

Best regards,
The Monitor My Watershed Team

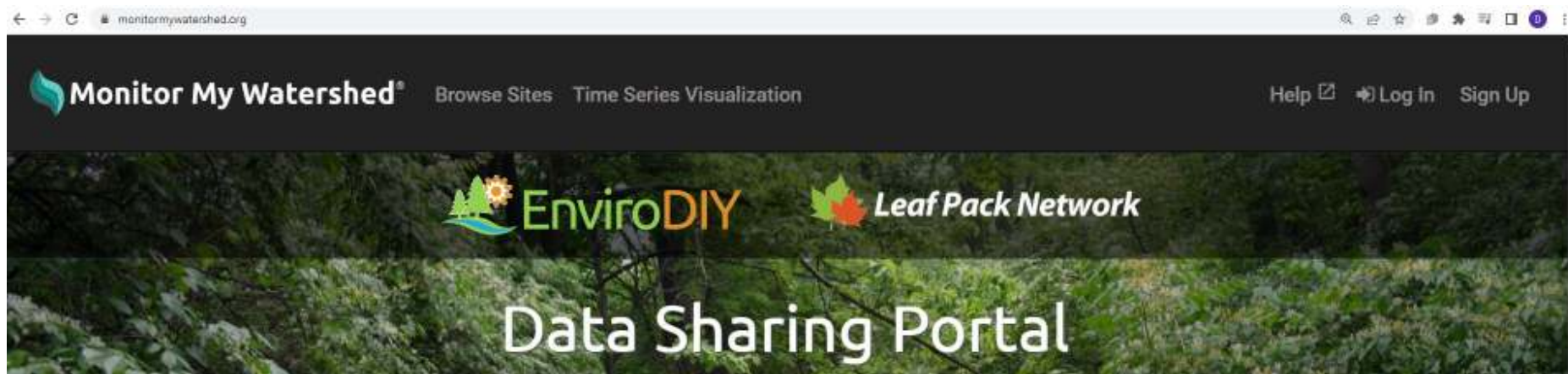
EnviroDIY online status updates

- Follow sites – people are not station owners can “follow” sites if they have a Monitor My Watershed account
 - Following a site allows you to have whatever sites you want under the My Sites tab – easier access to the sites
 - Following a site *does not* currently allow you to receive alerts when a station goes offline.

EnviroDIY online status updates

- Follow sites – people are not station owners can “follow” sites if they have a Monitor My Watershed account

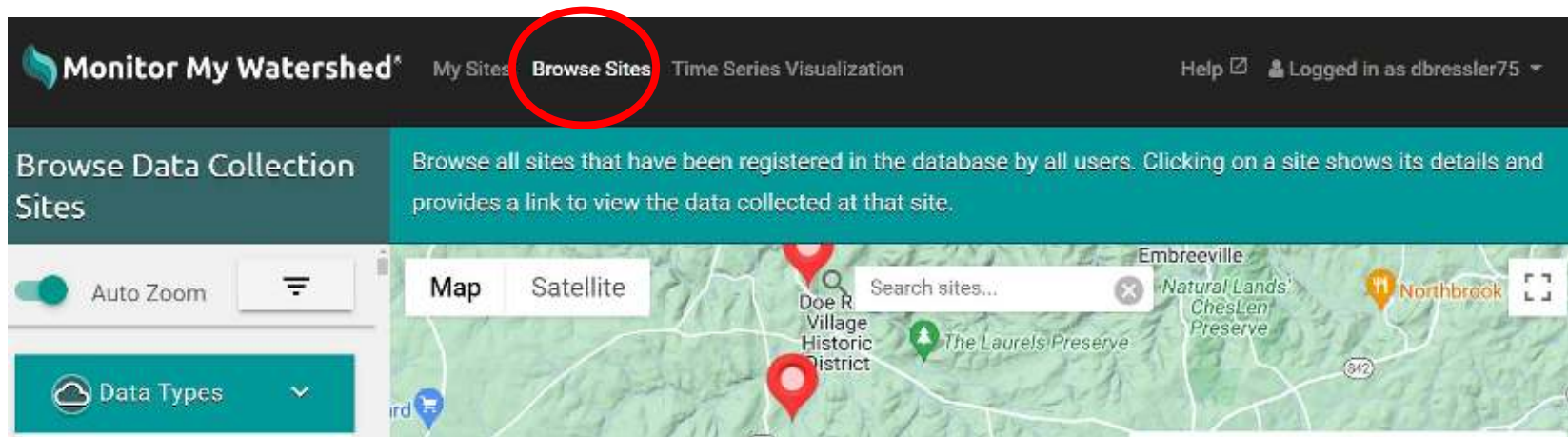
Log In



EnviroDIY online status updates

- Follow sites – people are not station owners can “follow” sites if they have a Monitor My Watershed account

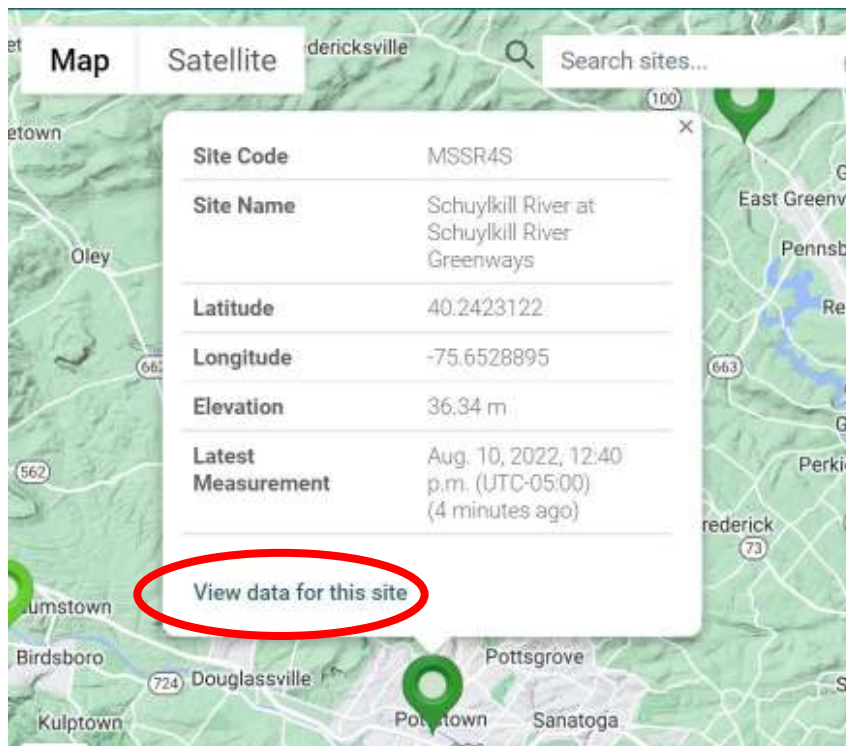
Go to Browse Sites



EnviroDIY online status updates

- Follow sites – people are not station owners can “follow” sites if they have a Monitor My Watershed account

Select a site and go to site page



EnviroDIY online status updates

- Follow sites – people are not station owners can “follow” sites if they have a Monitor My Watershed account

Click on “Follow”

The screenshot shows the 'Monitor My Watershed' website interface. At the top, there is a navigation bar with the logo and links for 'My Sites', 'Browse Sites', and 'Time Series Visualization'. On the right, it says 'Help' and 'Logged in as dbressler75'. The main content area displays the site profile for 'Schuylkill River at Schuylkill River Greenways (MSSR4S)'. A red circle highlights the 'Follow' button in the top right corner of the site profile. Below the title, there is a table with site details and a satellite map.

Deployment By	Tim Fenchel
Organization	Schuylkill River Greenways
Registration Date	Dec. 14, 2018, 6:01 p.m.

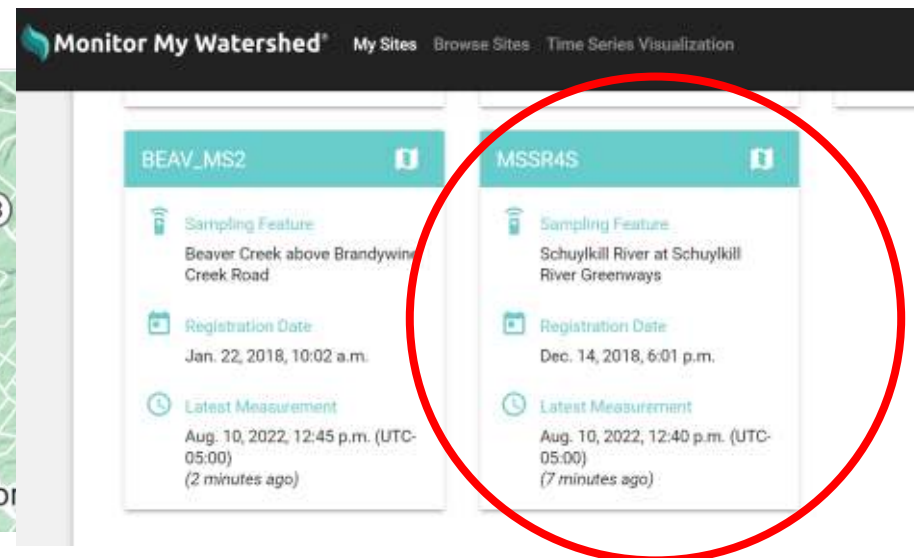
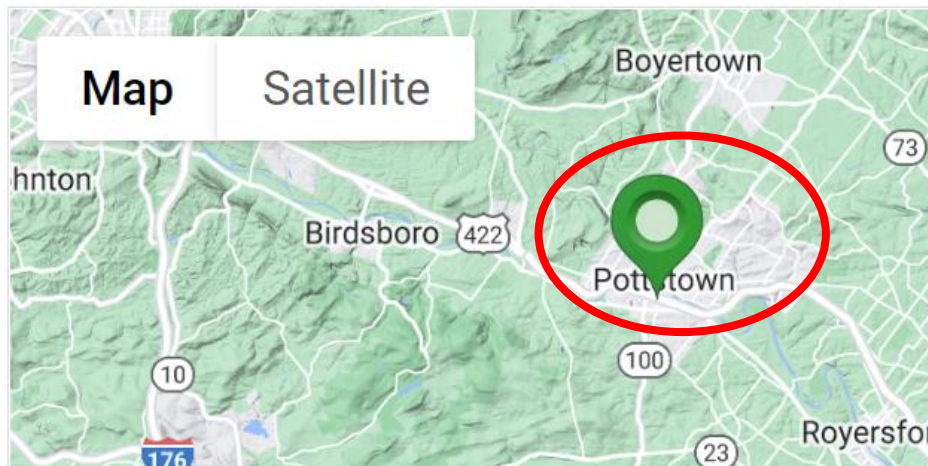
The map shows a satellite view of the Schuylkill River area with a green location pin and a 'Follow' button circled in red.

EnviroDIY online status updates

- Follow sites – people are not station owners can “follow” sites if they have a Monitor My Watershed account

Site then shows up under My Sites

My Sites



Salt in Tap Water

- Salt in Tap Water Survey – Stroud Center pilot project looking at salt levels in tap water across the DRB
 - Survey instructions: <https://wikiwatershed.org/drwi/#salt-monitoring>

Salt Monitoring Resources

- [Conductivity-Chloride Rating Curve Instructions](#) (PDF)
- [Conductivity-Chloride Rating Curve Sampling Sheet](#) (PDF)
- [Conductivity-Chloride Rating Curve Sampling Sheet](#) (Excel file)
- [Conductivity-Chloride Rating Curve Sampling Presentation](#) (PDF)
- [Instructions for Delaware River Basin Survey of Salt in Tap Water](#) (PDF)
- [Video recording](#) (conductivity-chloride rating curve presentation begins at the 10:00 mark)

Salt in Tap Water



Instructions – Delaware River Basin Survey of Salt in Tap Water

Overview

The following is a protocol for documenting salt levels in tap water as represented by the concentration of chloride ions (Cl^-). Measuring electrical conductivity is also recommended as it can provide additional explanatory information and is directly related to chloride concentration. Questions? Contact David Bressler (dbressler@stroudcenter.org)

Equipment/Supplies

- Chloride QuanTab® Test Strips, 30-600 mg/L or other chloride measurement method
- Conductivity meter (e.g., [Hanna DiST@3 Waterproof EC Tester](#))
- Conductivity meter calibration solution (e.g., [1413 \$\mu\text{S}/\text{cm}\$ Conductivity Standard](#))
- Data entry form: [Delaware River Basin Survey of Salt in Tap Water](#)

Method

The basic method:

1. Acquire some tap water from a house or building/office. *Note: if a water softener is being used, please take the sample from an outdoor tap that is not treated with the softener.
2. Measure chloride using test strip (or other method; note method below is for Hach QuanTab strips).
3. Measure conductivity (make sure to calibrate the meter beforehand).
4. Enter this information along with the address of the tap water location and water source information into the [data entry form](#) (to find the source of your water check your local water utility's website).
5. After you submit the data form you will receive a confirmation email with a record of your data and with a link for viewing all data that have been submitted, viewable as a spreadsheet. Summary graphs and maps may be available at a later date.

Chloride strip usage: Follow directions provided by the manufacturer (on back of bottle). The basic process is to stand a test strip vertically in about an inch of tap water (in any plastic or glass container), wait several minutes for the horizontal yellow line at the top of the strip to turn black, then read the test strip and use the chart to translate results into a chloride concentration (mg/L). Note that the chart conversions may vary slightly between bottles.



Black line at top indicates strip is ready to be read

Chloride level, at peak of white gradient

Quantab	ppm(mg/L)	Quantab	ppm(mg/L)
Units	mg/L Cl^-	Units	mg/L Cl^-
1.2...0.005...	20	4.6...0.034...	205
1.4...0.006...	30	4.8...0.036...	221
1.6...0.007...	40	5.0...0.038...	238
1.8...0.008...	50	5.2...0.042...	257
2.0...0.009...	60	5.4...0.045...	276
2.2...0.011...	80	5.6...0.049...	296
2.4...0.012...	100	5.8...0.052...	318
2.6...0.013...	120	6.0...0.056...	341
2.8...0.015...	150	6.2...0.060...	365
3.0...0.017...	180	6.4...0.066...	391
3.2...0.019...	210	6.6...0.069...	419
3.4...0.020...	250	6.8...0.074...	449
3.6...0.022...	300	7.0...0.079...	482
3.8...0.024...	360	7.2...0.085...	517
4.0...0.027...	420	7.4...0.092...	556
4.2...0.029...	500	7.6...0.099...	599
4.4...0.031...	600	7.8...0.107...	646



Conductivity meter usage: Calibrate the meter using conductivity calibration solution and measure conductivity.

National Recommendations

Standard	Chloride (Cl^-)(mg/L)	Notes
EPA Secondary Drinking Water Regulation	250	
EPA Drinking Water Advisory on Sodium	46-93*	30-60 mg/L Sodium (Na^+) recommendation
EPA Drinking Water Advisory on Sodium "low/no salt diets"	31*	20 mg/L Sodium (Na^+) recommendation

*Estimate based on atomic mass units of Sodium and Chloride (NaCl): $\text{Na}=23$, $\text{Cl}=35$; note other salts such as MgCl_2 , CaCl_2 , and KCl not considered.
<https://www.epa.gov/sdwa/drinking-water-regulations-and-contaminants>
https://www.epa.gov/sites/default/files/2014-09/documents/support_cc1_sodium_dwreport.pdf

Salt in Tap Water



Salt in Tap Water

A Survey in the Delaware River Basin

Delaware River Basin Survey of Salt in Tap Water

Please use Chloride Quantab® Test Strips, 30-600 mg/L (<https://www.hach.com/chloride-quantab-test-strips-30-600-mg-l-product?id=7540211602>) or another chloride measurement method and a calibrated conductivity meter (e.g., Hanna DIST30 Waterproof DC Tester, <https://www.hannainst.com/h498002-stc-3-electrode.html>) to measure the tap water in your home and/or office.

*Note: If you have a water softener in your house or office, please take your sample from an outdoor tap that is not treated with the softener.

To enter data from more than one location, submit the form and use the "Submit another response" link.

dbrs@stroudcenter.org Switch account

* Required

Email *

Your email

Your name *



Your address

Electronic data entry and access to results

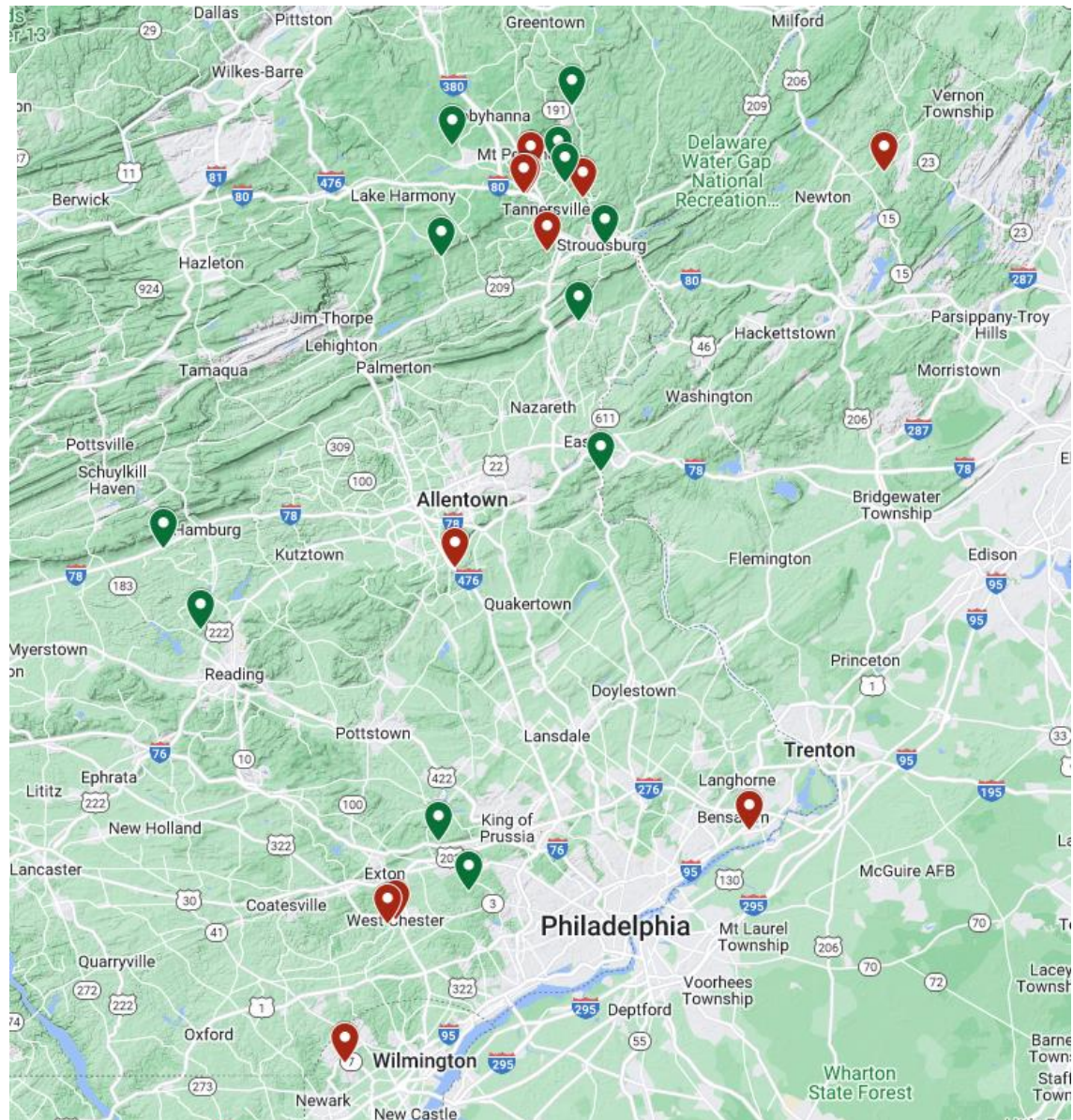
Date	Time	Conductivity (uS/cm)	Conductivity meter used	Chloride (mg/L)	Chloride method used	Type of water supply	Specific waterbody source	Street address	City/town	State	Zip code
3/1/2022	4:20:00 PM	39	Hanna DIST 3	1	Hach Chloride Quantab® Test Strips, 30-600 mg/L	Private well	water source is a spring, flowing year round	286 Jonestown Rd	Cross	PA	18326
3/1/2022	3:20:00 PM	491	Hanna Dist 3	36	Hach Chloride Quantab® Test Strips, 30-600 mg/L	Private well	shallow (100 ft) well in McMichael watershed	1181 Seltzer Road	Stroudsburg	PA	18350
3/1/2022	4:20:00 PM	953	Hanna Dist 3	99	Hach Chloride Quantab® Test Strips, 30-600 mg/L	Private well	300 foot well in Forest Hills Run watershed	110 Stony Lane	Swiftwater	PA	18370
3/2/2022	9:30:00 AM	230	Hanna DIST 3			Private well	N/A	34 Moore Rd	Liverson	PA	19520
3/3/2022	11:35:00 AM	199	Hanna DIST 3	<30 mg/L	Quantab strip	Private well	Private well to about 100' deep, MLI creek running about 150' downhill from house measured 145' less than well	519 Mill Rd	Hamburg	PA	19626
2/3/2022	2:40:00 PM	82	Hanna Dist 3	30	Hach Chloride Quantab test strips 30-600 mg/L	Public water system	Wellgroundwater	311 Crestmont Street	Pen Argyl	PA	18072
2/3/2022	6:35:00 PM	792	Hanna Dist 3	76	Hach test strips	Public water system	PAWIA LWP WATER UTILITY - LAKE MOHAWK (groundwater)	15 Dahn Drive	Sparks	NJ	07871
2/3/2022	10:20:00 AM	230	YSI Pro DSS Hanna low range H198303/LA01	40	test strips	Public water system		1202 Nancy Drive	Croydon	PA	19021
2/21/2022	10:14:00 AM	119	YSI Pro DSS Hanna low range H198303/LA01	23	Hach Quantab Chloride low-range 30-600 mg/L	Private well	Aquifer under Diamond Rock Hill, 40.07' (510' - 760' 19251)	4023 Howell Road	Malvern	PA	19354
3/3/2022	5:20:00 PM	205	YSI Pro DSS Hanna low range H198303/LA01	28	Labette test kit	Private well	acutier approximately 120 feet deep	1175 Rock Road			
3/3/2022	3:20:00 PM	110	Hanna Dist 3	Less than 30 ppm (mg/L)	Quantab Chloride Low range 30-600ppm	Private well	Private well about 160 feet from Broadhead Creek	3177 old Canadensis Hill Rd	Cross	PA	18326
3/4/2022	3:40:00 PM	920	Hanna DIST 3 serial H198303			Private well		652 Metzger Rd	East Stroudsburg	PA	18041
3/4/2022	11:20:00 AM	185	Hanna DIST 3 serial H198303	<32	Quantab low range Chloride	Public water system		325 Colwell St	Stroudsburg	PA	18350

Salt in Tap Water

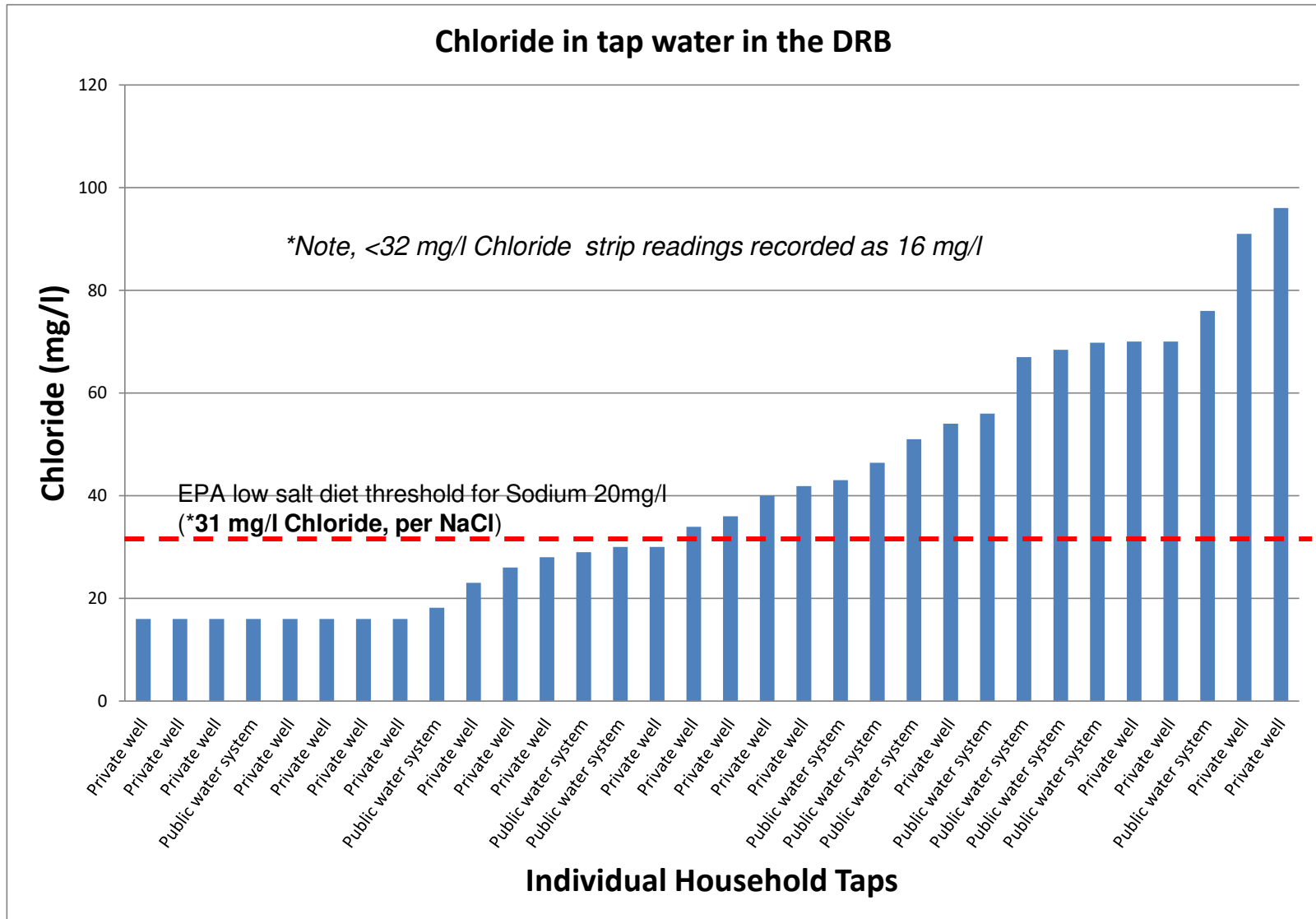
Salt in Tap Water

-  Exceeds low/no-salt dietary guideline
-  Meets low/no-salt dietary guideline

EPA low/no salt dietary guideline = 31 mg/l Chloride (per 20 mg/l Sodium)



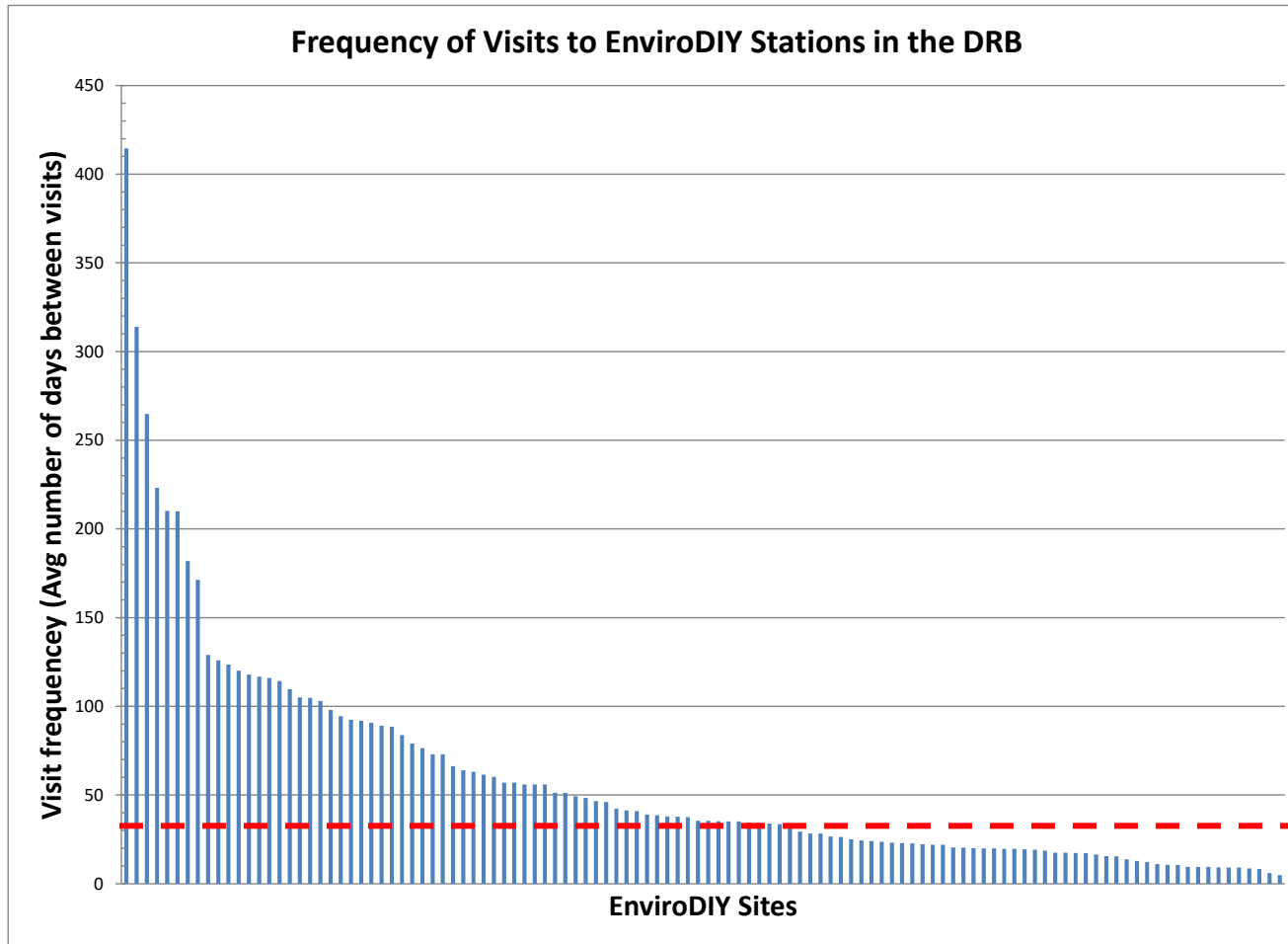
Salt in Tap Water



Salt in Tap Water

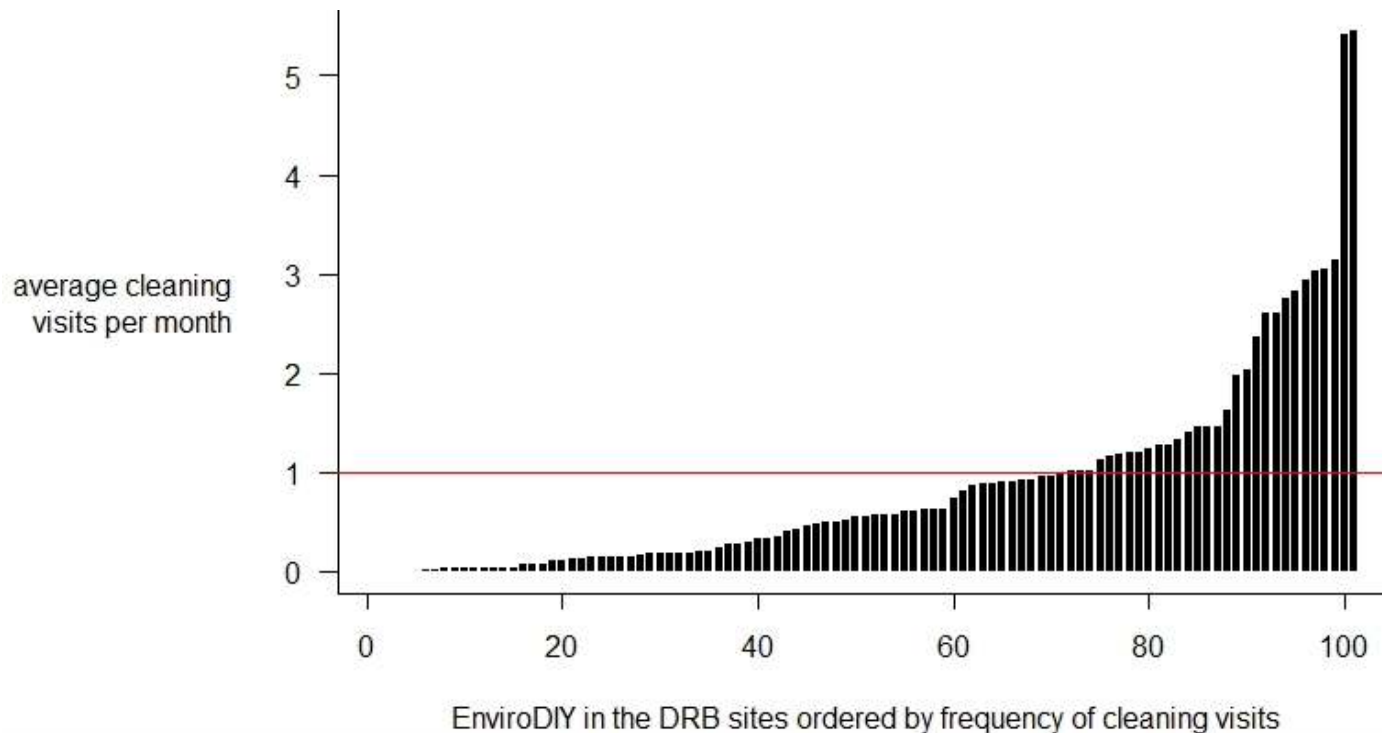
- Salt in Tap Water protocol at <https://wikiwatershed.org/drwi/#salt-monitoring>
- Yes, do multiple measurements – see about variability in salt at your home/office
- If you'd like Chloride strips be in touch with the Stroud Center – we can send you a few

Site visit statistics



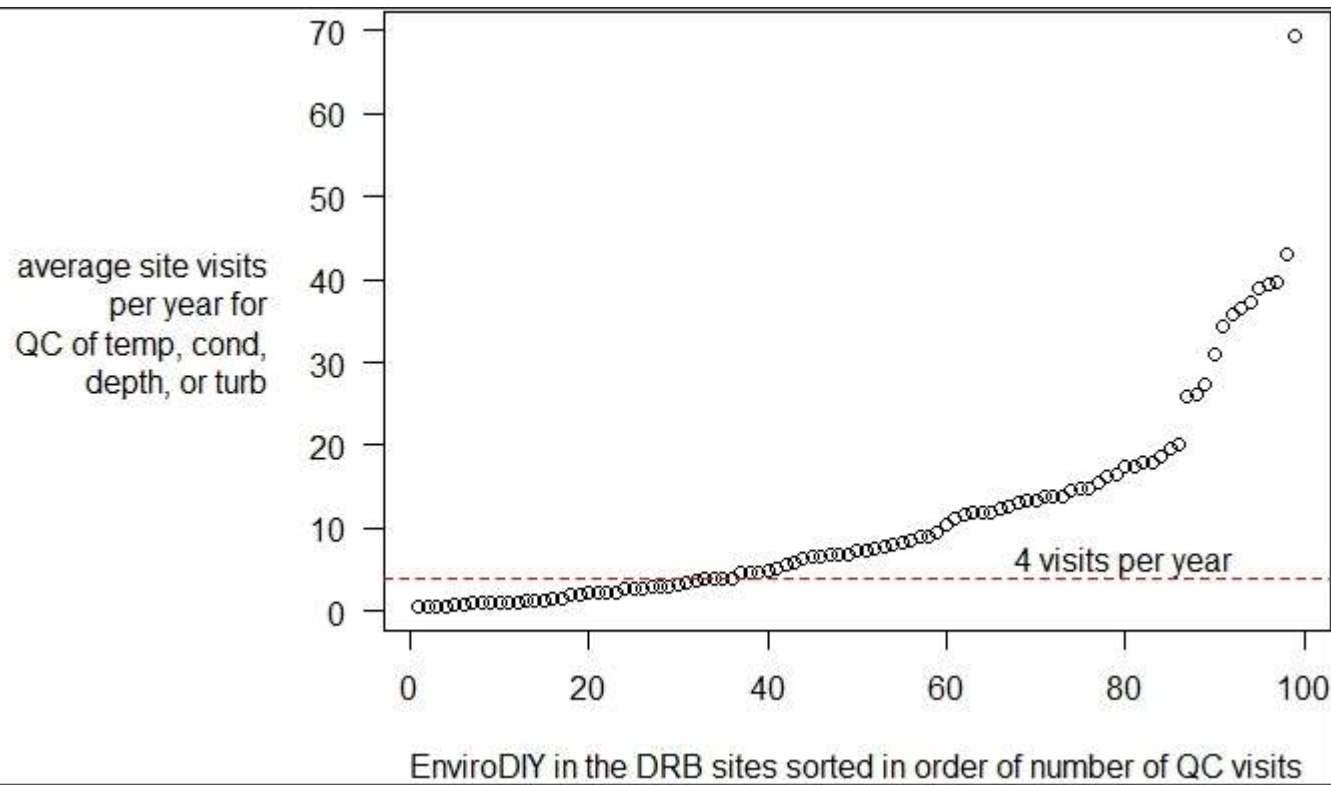
*Note – more visits may have been made, but if data are not entered then the Stroud Center has no way to track it.

Site visit statistics



*Note – more cleanings may have been done, but if data are not entered then the Stroud Center has no way to track it.

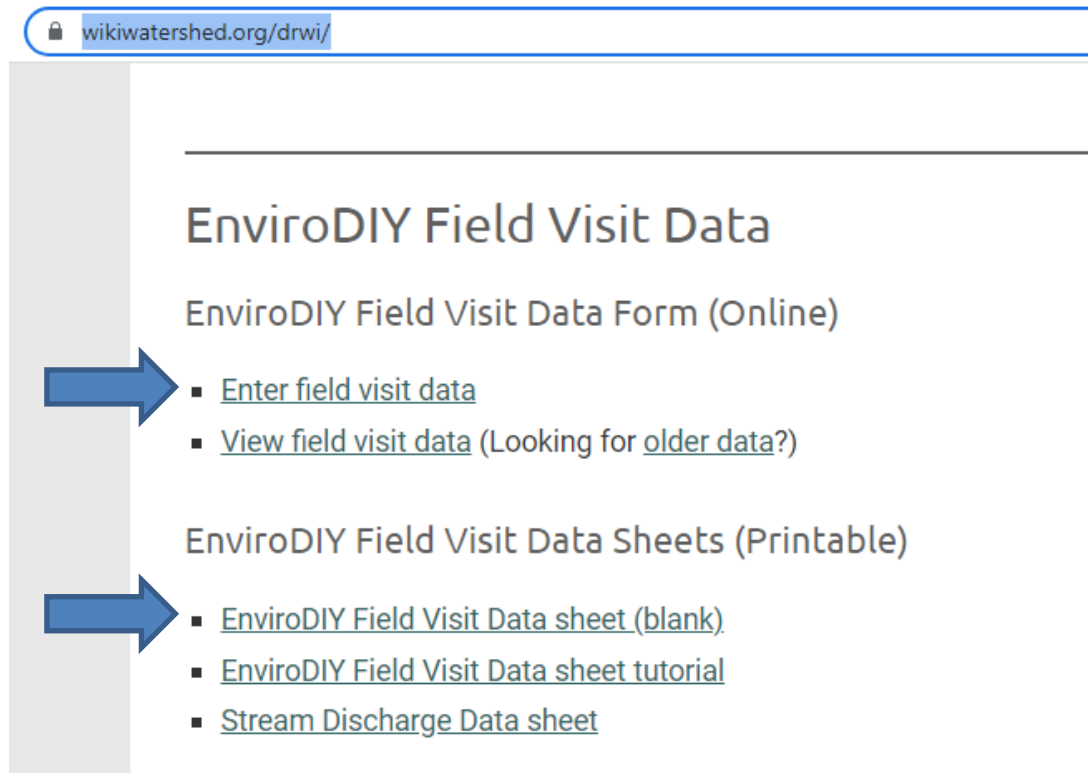
Site visit statistics



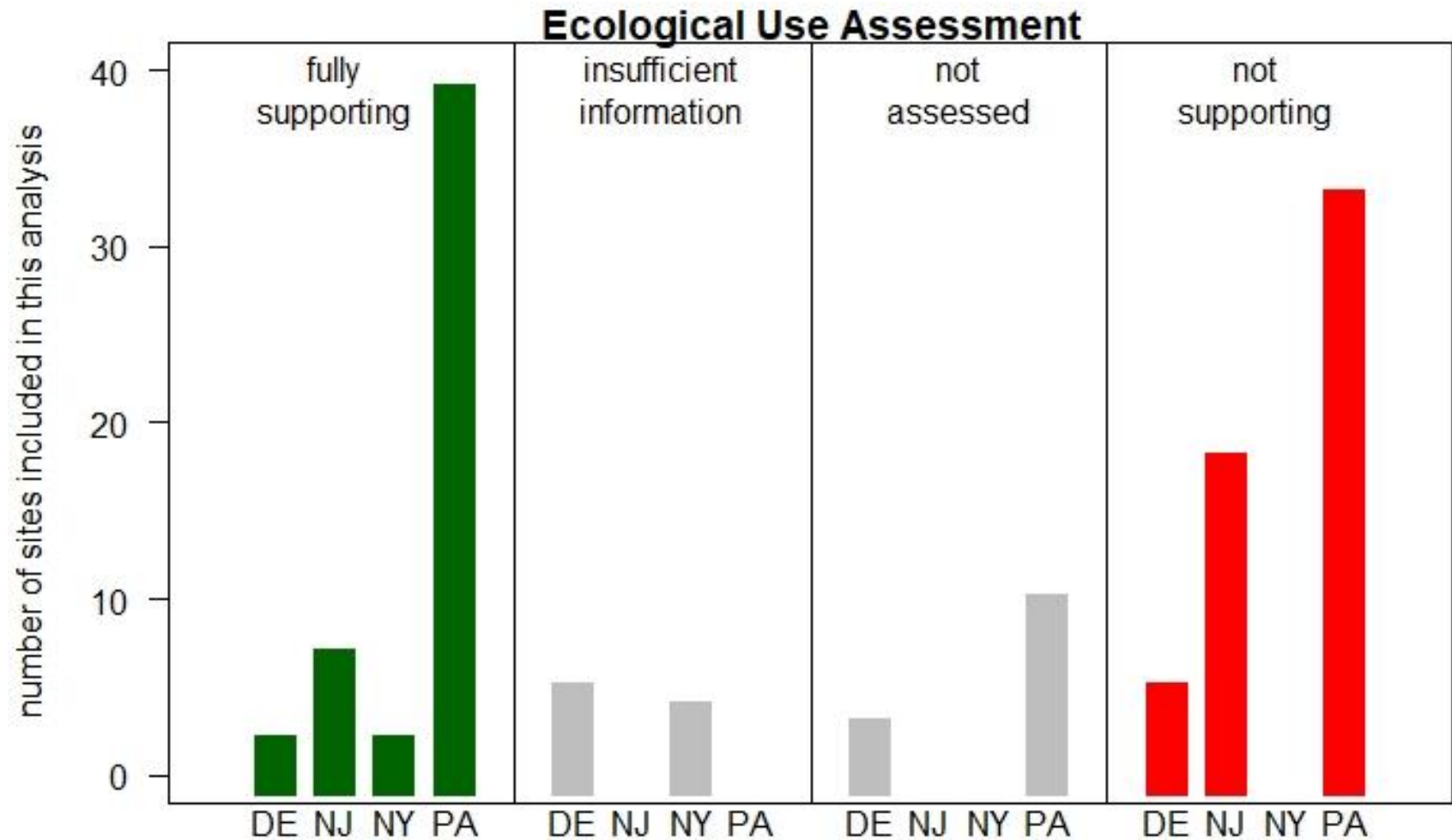
*Note – more QC events may have been completed, but if data are not entered then the Stroud Center has no way to track it.

Site visit statistics

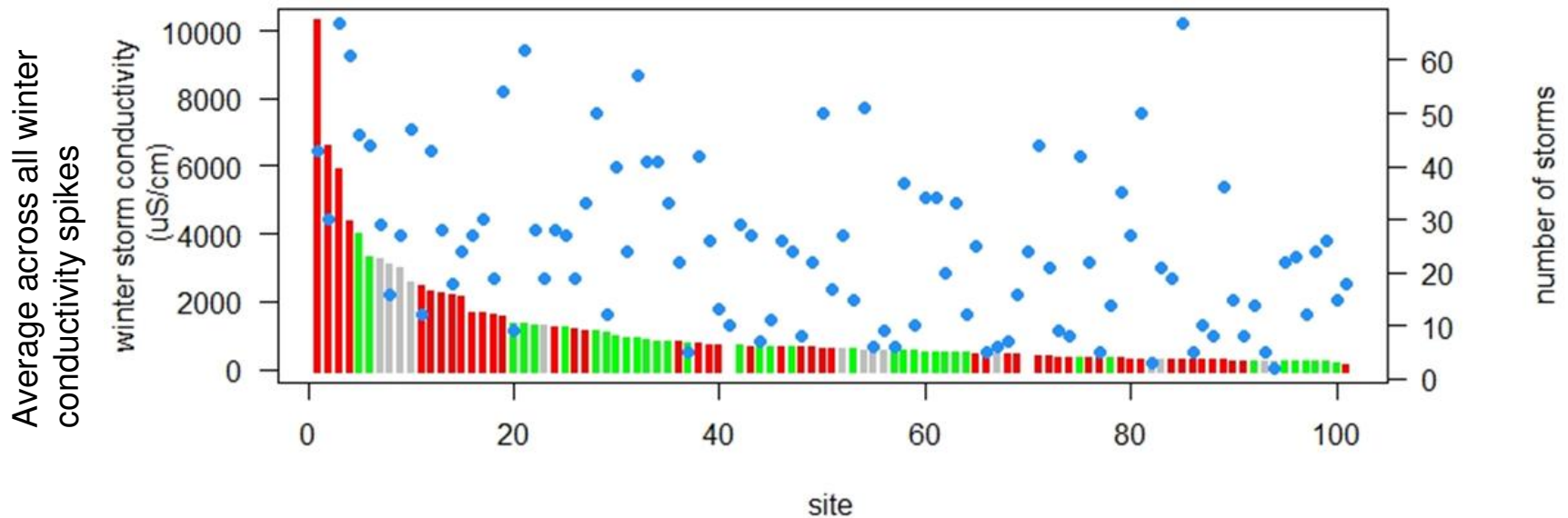
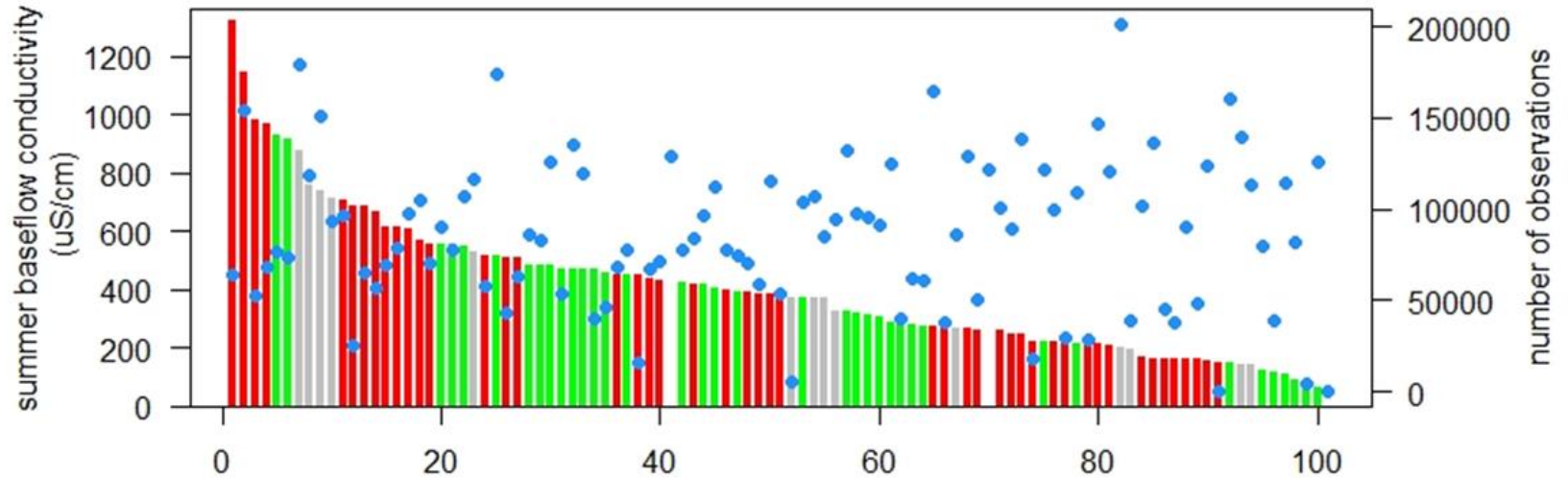
- After every site visit, please complete an EnviroDIY Field Visit Data form and enter the info into the online form
 - Online entry and blank forms for printing are here:
<https://wikiwatershed.org/drwi/>



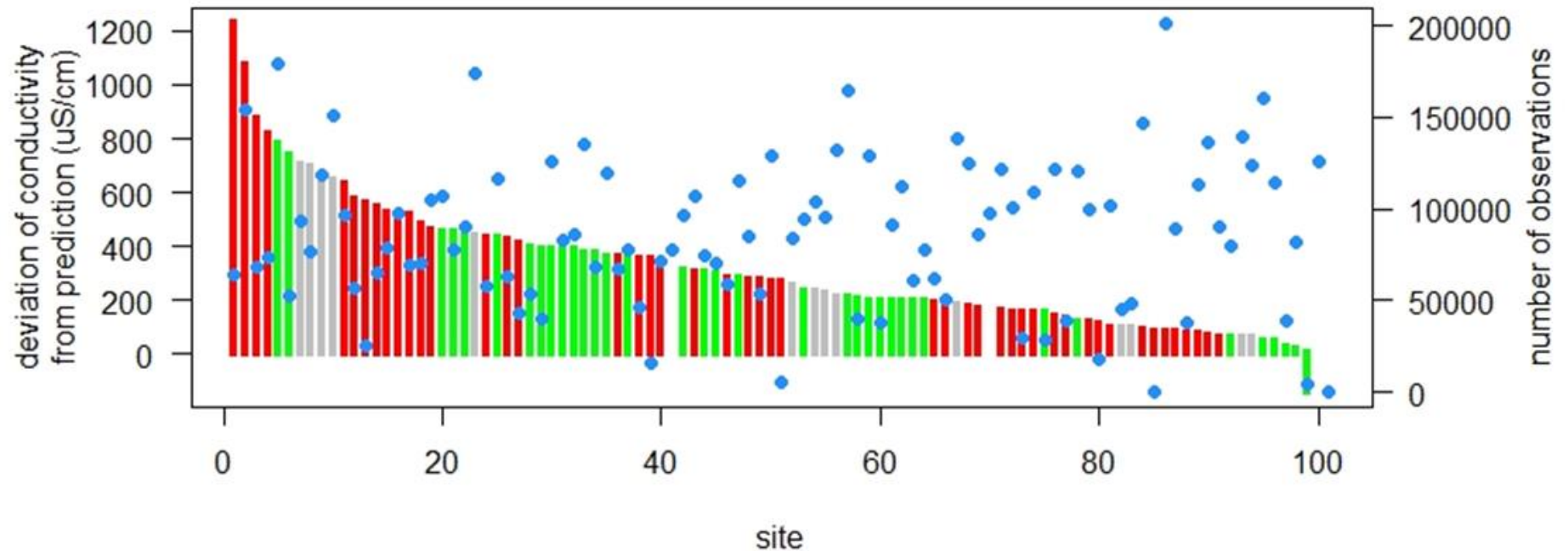
Continuous data statistics from across the DRB



Continuous data statistics from across the DRB

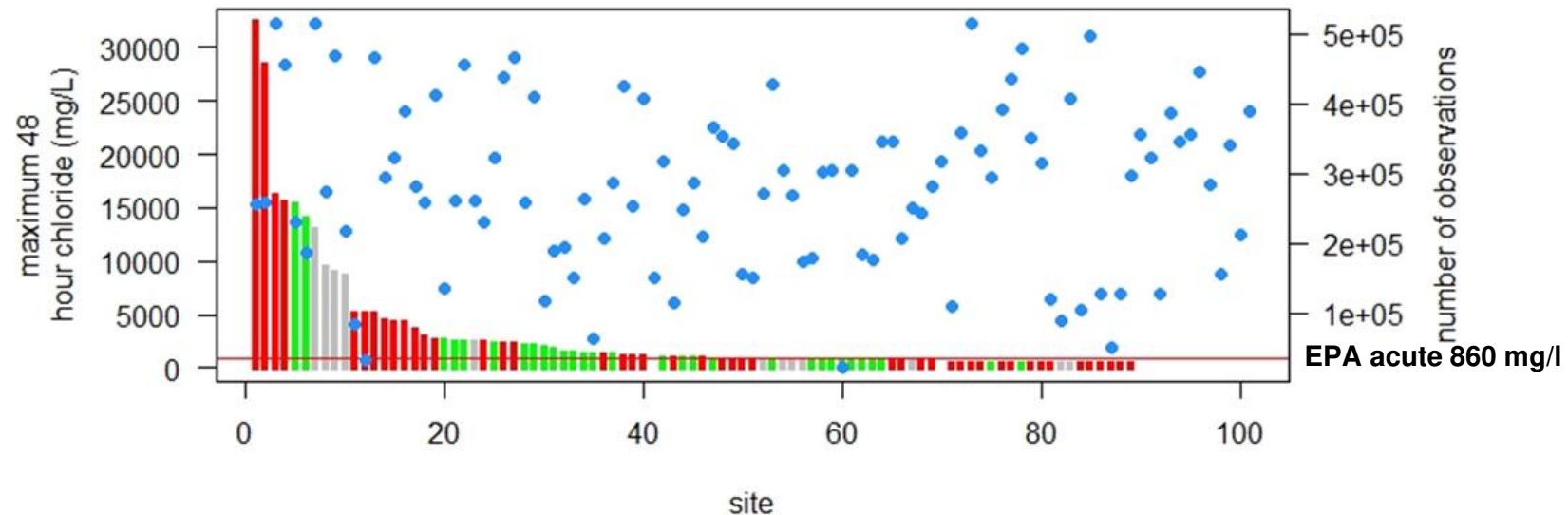
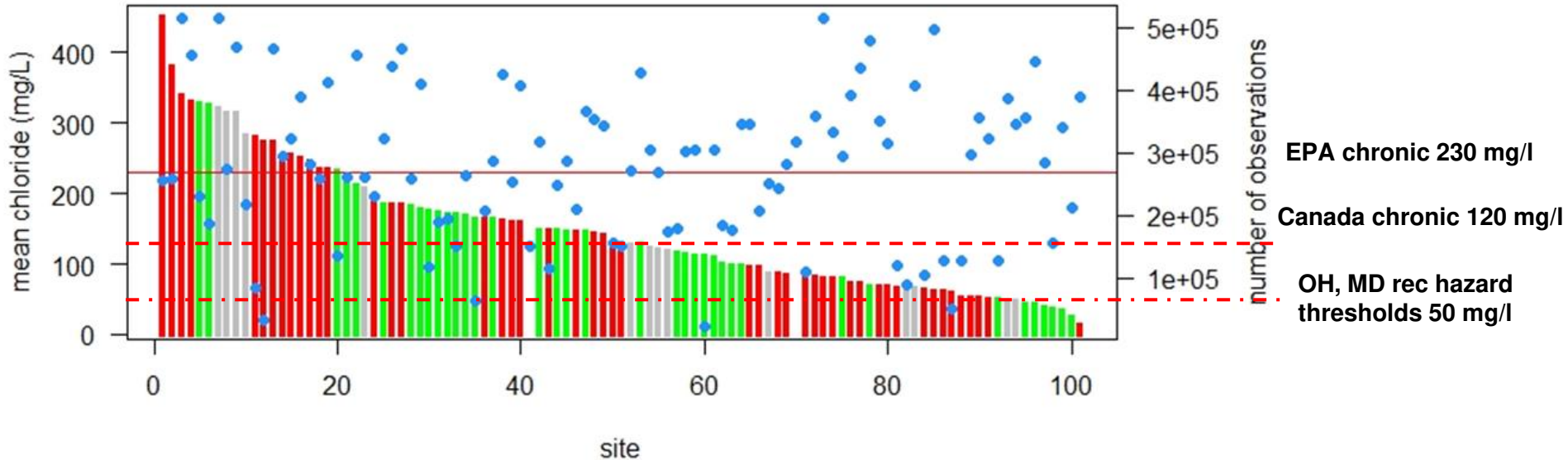


Continuous data statistics from across the DRB



Deviation from Olson/Cormier 2019 predicted natural conductivity levels

Continuous data statistics from across the DRB



Mentors currently available

- Carol Armstrong (MWS), mnem.np@gmail.com, 610-659-7477
- George Seeds (MWS), geoseeds@verizon.net, 484-886-9586
- Rachel Johnson (Stroud Center), rjohnson@stroudcenter.org, 973-557-8995
- Christa Reeves (Stroud Center)(in the north, situational), christa@musconetcong.org, 727-520-5849

****Anyone else interested? If so get in touch with Stroud Center or Carol or George***

Conclusion

Next month's meeting will be on:

Thursday September 15, 2021
2:30-3:30p

Onward!

Stroud Water Research Center, EnviroDIY-DRWI contacts:

- David Bressler, dbressler@stroudcenter.org, 410-456-1071
- Shannon Hicks, shicks@stroudcenter.org, 610-268-2153 x267
- Rachel Johnson, rjohnson@stroudcenter.org, 973-557-8995
- Christa Reeves, christa@musconetcong.org, 908-537-7060

Master Watershed Stewards, EnviroDIY-DRWI contacts:

- Carol Armstrong, mnem.np@gmail.com, 610-659-7477
- George Seeds, geoseeds@verizon.net, 484-886-9586