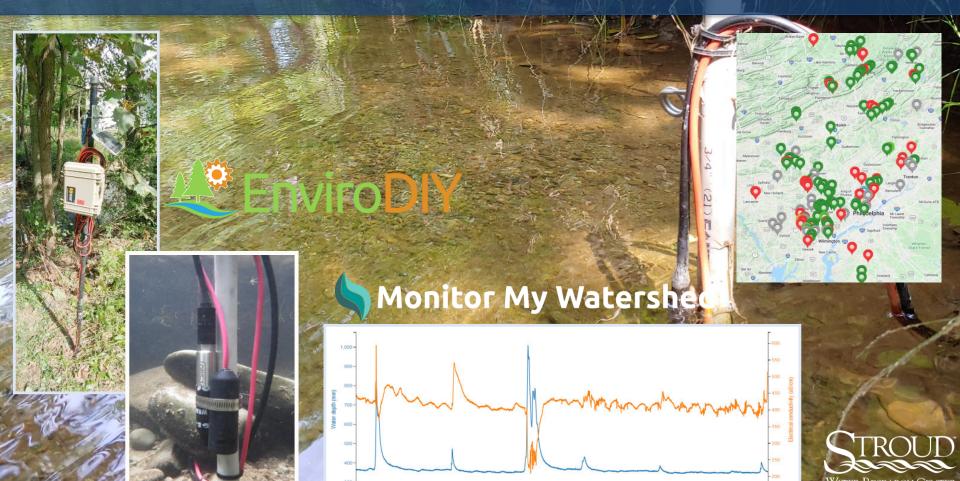
WELCOME! EnviroDIY and monitoring in the DRB monthly meeting *Online, Thursday, August 17, 2023, 2:30-3:30p*



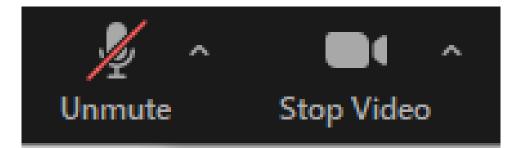
Mar 09 Mar 11 Mar 13 Mar 15 Mar 17 Mar 19 Mar 21 Mar 23 Mar 25 Mar 27 Mar 29 Mar 314pr 01 Apr 03 Apr 05 Apr 07 DateTme (UTC)

Today's Agenda

- 1. Introduction
- 2. Stroud Updates
- 3. Presentation Urban stream syndrome in Souteastern PA, Megan Fork
- 4. Discussion
- 5. Conclusion



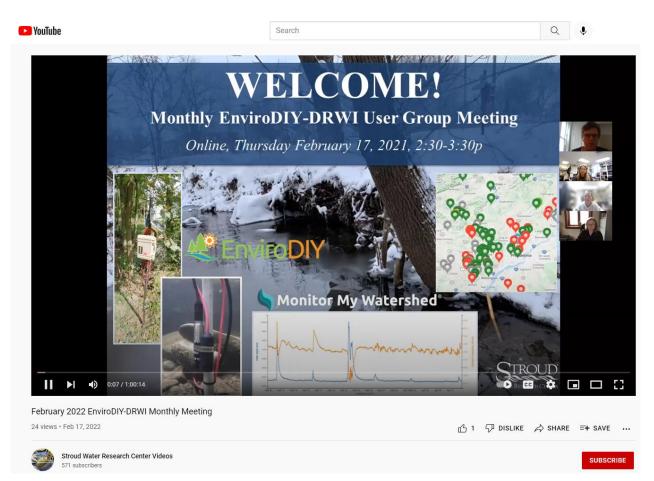
*Meeting is being recorded



*Please mute when not speaking to the group

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: <u>https://us02web.zoom.us/j/81881801310?pwd=eUFmbXZLbmRibV</u> <u>cxa1dtNVhzRmNvZz09</u>
- 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/

4States1Source

The Delaware River Watershed Initiative

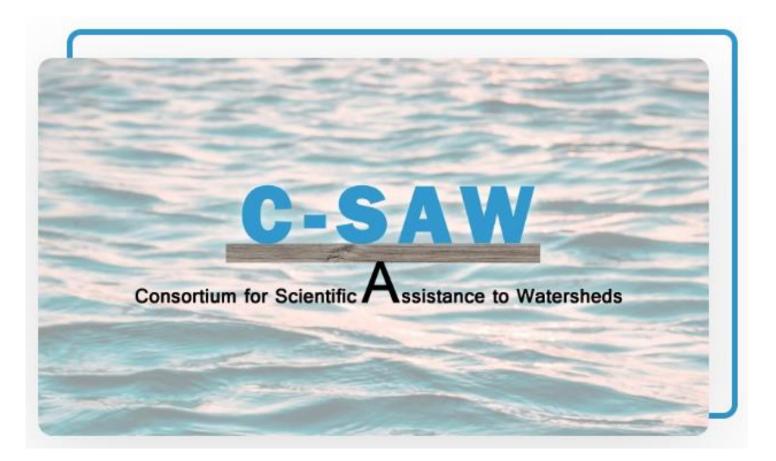
OUR WATER OUR WORK FIELD NOTES TAKE ACTION

DELAWARE RIVER WATERSHED INITIATIVE

Working across four states to protect one shared source of clean water



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
 - Science
 - Monitoring
 - Watershed management

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

Stroud Center project personnel

Stroud Center team:

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

Stroud Center project personnel

Master Watershed Steward Facilitators:





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

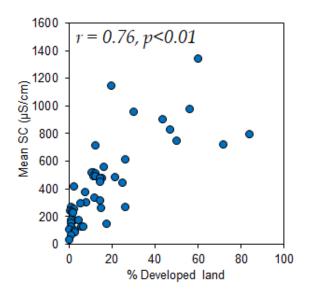


Executive Director, President Research Scientist

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





Updates

 Updates from the Stroud Center on EnviroDIY, science and monitoring, communications, etc.

Rachel Leonard

- Rachel will no longer be available for EnviroDIY support ☺
- BUT!!! She is starting a master's degree at the University of Delaware in association with the Stroud Center!!!

https://stroudcenter.org/news/rachel-johnson-takes-on-new-role/

A Dream Come True: Rachel Johnson Takes on New Role at the Stroud Center



e True: Rachel Johnson Takes on New Role at the Stroud Center



By <u>Diane Huskinson</u>

Rachel Johnson is one of Stroud Water Research Center's MVPs. She has helped train hundreds of volunteers and watershed organization staff in the Delaware River basin on how to monitor their local streams using inexpensive, open-source technology.

She not only knows her way around an <u>EnviroDIY™ Monitoring Station</u>; she offers the kind of support that makes volunteers like George Seeds sing her team's praises.

Congra<mark>ts R</mark>achel!!!!

Shannon Hicks



Shannon will continue to be the main technical/field service contact person

shicks@stroudcenter.org

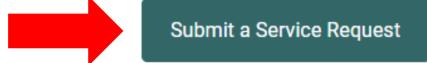
Research Engineer, Mayfly and EnviroDIY Inventor/Designer

EnviroDIY Service Request Form

https://wikiwatershed.org/drwi/

EnviroDIY Monitoring Station Service Requests

Use this form to report technical issues that require assistance from the Stroud Center team.



EnviroDIY Service Request Form

Simpler form

- Required info now is very basic – all other info is optional
- Anyone with assistance needs should complete this
 - To make internal record-keeping easier



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.

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

W dbressler@stroudcenter.org (not shared) Switch account

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```
* Required
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Name (first and last) *

Your answer

Organization *

Your answer

EnviroDIY Field Visit Data Form entry

https://wikiwatershed.org/drwi/

EnviroDIY Field Visit Data



Enter Field Visit Data

- <u>View field visit data</u>
- View older data (7/18/2017 to 7/24/2018)

EnviroDIY Field Visit Data Sheets (Printable)

- EnviroDIY Field Visit Data sheet (blank)
- EnviroDIY Field Visit Data sheet tutorial

EnviroDIY Field Visit Data Form entry

https://wikiwatershed.org/drwi/

Fill out any time a station is visited



EnviroDIY Field Visit Data

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

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N	a	m	e	(S)	•

Site ID: Stream Name: GPS (Lat/Long): Photos? Yes/No

Precipitation last 24 Hours? Yes/No Amount:

General Notes/ Photo Descriptions:

Location:			
Date:	Arrival Time:	AM/PM?	*EST/EDT?
*EST=Eas (Daylight S	tern Standard Time; El Savings)	DT=Eastern Da	aylight Time

SENSOR CLEANING (Recommended frequency: weekly or biweekly; monthly if only CTD sensor)									
leaned Sensors? Yes/No If Yes, exact time:	AM/PM?	EST/EDT?	*Clean >5 min. before grab sampling						



EnviroDIY Field Visit Data

If you have trouble with this form, please contact webmaster@stroudcenter.org.

Please enter your email so we can send you a copy of your submitted data and a link for editing

dbressler@stroudcenter.org Switch account

B

* Required

Email *

Your email

Name(s)

Your answer

Site ID *

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

EnviroDIY and monitoring resources

Guidance materials - <u>https://wikiwatershed.org/drwi/</u>

SwikiWatershed [®]	About	Model	Monitor	Help	News ~	Curricula	DRWI	Videos	Contact	Log in	Q	
Web Tools Advancing Knowledge and Stewardship of Fresh Water								f Like Us	🎔 Follow Us	🖂 Subscribe	🗘 GitHub	

Y WikiWatershed is an initiative of Stroud[™] Water Research Center. The Stroud Center seeks to advance knowledge and stewardship of freshwater systems through global research, education, and watershed restoration.

Home » Delaware River Watershed Initiative Resources

Delaware River Watershed Initiative Resources

The Delaware River Watershed Initiative (DRWI) is a cross-cutting collaboration that is working to <u>conserve and restore</u> the streams that supply drinking water to 15 million people in New York, New Jersey, Pennsylvania, and Delaware. In direct support of this initiative, <u>Stroud Water Research Center</u> is facilitating efforts to improve the capacity of watershed groups to conduct scientific investigations associated with DRWI projects, as well as to build general knowledge on the ecology of their watersheds and the broader basin.

These resources were created by the Stroud Center to assist DRWI efforts *specifically focused on stream monitoring using <u>EnviroDIY Monitoring Stations</u>. They may also be of interest to community scientists and watershed groups working in other locations.*

Shortcuts to General Resources

- EnviroDIY Field Visit Data
- EnviroDIY Monitoring Station Help Resources
- <u>Salt Monitoring Resources</u>
- <u>Data and Data Visualization Resources</u>

Shortcuts to Meetings, Workshops, Conferences

- Monthly EnviroDIY-DRWI User Group Meetings
- User Support Workshops and Trainings
- Conference Presentations
- Watershed Ecology Workshops

Support on Snapshots

 Stroud Center support on synoptic sampling events (aka snapshots and blitzes)

• Salt (chloride and conductivity)

- Water temperature
- *Please be in touch if you would like support in doing this type of monitoring

If you want, send your photos and stories



Stroud Water Research Center @StroudCenter

Master Watershed Stewards George Seeds and Joe Debes are gearing up for #WorldWaterDay by volunteering to maintain #EnviroDIY Monitoring Stations. The stations collect continuous #waterquality #data. @WaterDataCollab #monitorwater #4states1source #DelawareRiver #DelRiverWatershed



9:02 AM · Mar 21, 2023 · 710 Views

Email or Text to:



Stroud Water Research Center @StroudCenter

#CommunityScience is helping to save our streams from #RoadSalt! Learn how at #WatershedCongress with @StroudCenter @WillistownCT @MuskyWatershed and Valley Forge Trout Unlimited. Register at classy.org/event/2023-wat... #citizenscience @DelRiverkeeper



Musconetcong Watershed Association will present

"Community Science Approaches to Our Salty Stream Problem."

Saturdau, March 25 Montgomery County Community College, Pottstown, PA

5:01 PM · Feb 20, 2023 · 264 Views

Tweet



Stroud Water Research Center @StroudCenter

Months after the icy conditions that brought the spreading of #deicer & #salt spikes in Tookany Creek that were saltier than seawater, an army of volunteers descended upon dozens of sites in small streams that feed the #DelawareRiver. Read why: stroudcenter.org/news/why-volun... #roadsalt



11:04 AM · Feb 17, 2023 · 284 Views

- Diane Huskinson (dhuskinson@stroudcenter.org; 717-383-1179)
- Dave Bressler (<u>dbressler@stroudcenter.org</u>; 410-456-1071)

Next month's presentation (Sept 21)

Sept 21 – Science of salt pollution and recent advances



Dr. John Jackson, Stroud Water Research Center

Coming months

- Sept 21 John Jackson (Stroud), science of salt pollution and recent advances
- Oct 19 Dave Bressler (Stroud), monitoring of salt pollution and what to do with the data (tie in guidance from local policy/practice workgroup)
- Nov 16 Student presentations
- Dec 14 Dave Bressler (Stroud), Others??? End of year summary and planning for 2024
 - *Meeting is currently Dec 21 suggestion to move it to Dec 14

Local Policy/Practice Workgroup

<u>Current leadership:</u>

- Ian Brastow, Lopatcong Creek Initiative/New Jersey Highlands Coalition (NJ)
- Dave Manning, PA Master Watershed Steward and Schuylkill Water Steward with Green Valleys Watershed Association (PA)
- Steve Tricarico, Tulpehocken Creek Watershed Association, member Bern Township planning committee (PA)
- Christa Reeves, Musconetcong Watershed Association (NJ)
- Alex Jackson, Brodhead Watershed Association (PA)
- Joe Debes, PA Master Watershed Steward and Stroud Center volunteer (PA)
- Carol Armstrong, PA Master Watershed Steward (PA)
- Tali MacArthur, PA Environmental Council (PEC)/PA Organization for Watersheds and Rivers (POWR)(PA)

• Support:

- David Bressler, Stroud Water Research Center (PA)
- *Meetings:* 1st Thursdays, 11:00a 12:30p (Zoom, <u>https://zoom.us/j/5889670619</u>)

Local Policy/Practice Work Group

Short Term Charge:

To develop the most effective way of employing stream monitor data – conductivity, temperature, depth, and sometimes turbidity – and related measures to advise and otherwise influence municipal entities. The charge includes an emphasis on stream quality in relation to land use and development.

Updates from Local Policy/Practice Workgroup

Deliverable Updates

- Temperature
 - Guidance Document Putting Stream Temperature Data To Work (Internal Review)
 One-pager
- Municipal Interactions
 - "Document 5" Municipal Engagement (External Review)

Updates from Local Policy/Practice Workgroup

Review Process Update

Consulting Local Leaders:

- Beth Uhler (PA Director, Center for Watershed Protection)
- Ross Snook (Township Supervisor New Hanover Twp, PA)
- Betsy Kerlin (London Britain Township conservation and recreation boards)
- Eilleen (last name?)(Township Supervisor, London Britain Township)
- Susan Bristol (Municipal Policy Specialist at The Watershed Institute)

Any questions before we move on?

Today's Presentation

Urban Stream Syndrome in Southeastern PA



Megan Fork, PhD West Chester University

Mentors currently available

- Carol Armstrong (MWS), <u>mnem.np@gmail.com</u>, 610-659-7477
- George Seeds (MWS), <u>geoseeds@verizon.net</u>, 484-886-9586
- Rachel Johnson (Stroud Center), rjohnson@stroudcenter.org, 973-557-8995
- Christa Reeves (Musconetcong Watershed Association/Stroud Center), <u>christa@musconetcong.org</u>, 727-520-5849

Conclusion

Next month's meeting will be on:

Thursday September 21, 2023 2:30-3:30p

Onward!

Stroud Water Research Center contacts:

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

Master Watershed Stewards contacts:

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