

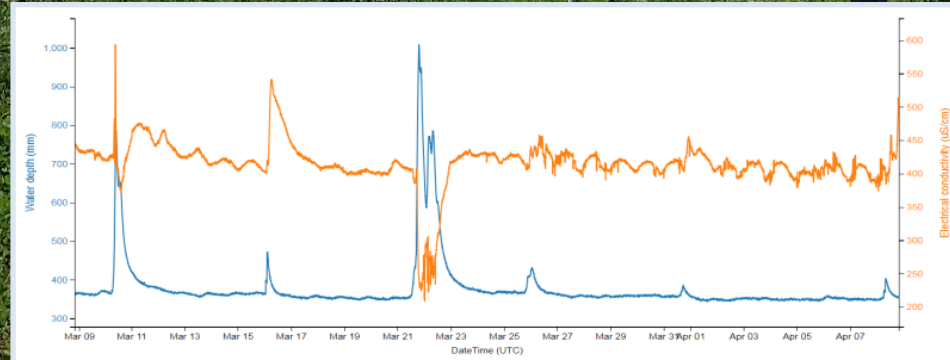
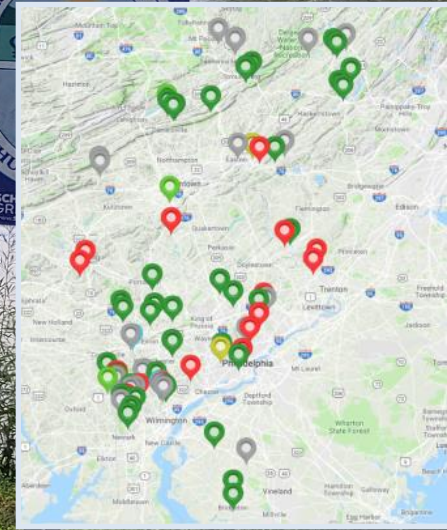
WELCOME!

Monthly EnviroDIY-DRWI User Group Meeting

Online, Thursday, September 17, 2020, 2:30-3:30p



 **Monitor My Watershed®**



STROUD
WATER RESEARCH CENTER

Monthly EnviroDIY-DRWI User Group Meeting

Second Meeting!

REMINDER

- This is a time for anyone working with EnviroDIY monitoring stations in the Delaware River Basin to check in with Stroud, ask questions of the group, bring up issues, network, and learn
- Attendees include:
 - Groups working directly in Delaware River Watershed Initiative
 - Groups working in Delaware Basin but not specifically in the context of the DRWI
- Stroud Center is able to support groups in using the stations via DRWI Funds (and also Consortium for Scientific Assistance to Watersheds, C-SAW)

Delaware River Watershed Initiative

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

Goals for these monthly meetings

- Time/space to check-in, ask questions, report issues, network, etc.
- Station owners/managers to communicate about their individual situations
- Learn about important technical/ecological/other focus topics each month.
- Updates from Stroud Center

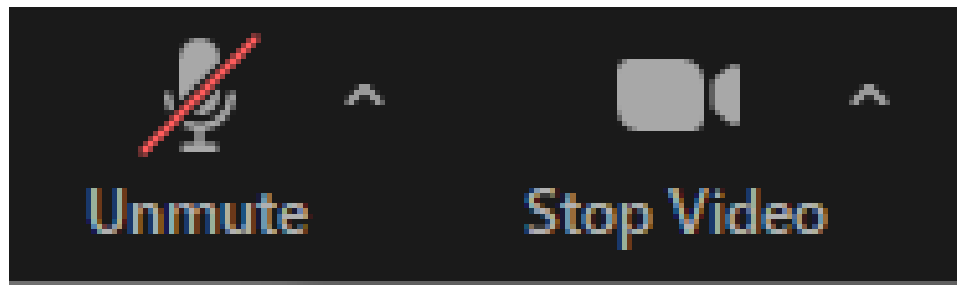
****All of this to support gathering good data and using it purposefully***



Zoom Orientation



***We WILL be recording presentations but
WILL NOT be recording the Questions
section**



***Everyone should be
muted other than current
speaker**

*Other than zoom logistics, audio, video etc. please save
questions for the question period

Facilitators

Stroud Center Facilitators:

David Bressler, Rachel Johnson, Christa Reeves, Shannon Hicks



Master Watershed Steward Facilitators:

Carol Armstrong, George Seeds (Chester & Delaware Co.)



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 will be sent one week prior to each month's meeting
 - Station owners/managers organize volunteers/others to attend and share Zoom link

These Monthly Meetings

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



August 2020 EnviroDIY-DRWI Monthly Meeting

15 views • Aug 25, 2020

0 0 SHARE SAVE ...

Monthly Meeting Agenda Format

1. Introduction – 5-10 min
2. Monthly station owner/manager presentation – 10 min
3. Monthly focus topic – 10 min
4. Open discussion – 20-25 min
5. **Fail topic of the month! – 5-10 min**
6. Conclusion – 5-10 min

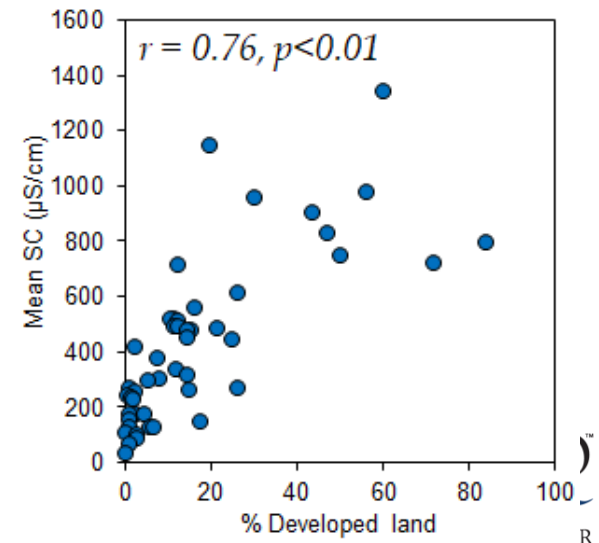
****Adjust this format according to natural progression/development/needs of meetings***

Today's Agenda

1. Introduction, review agenda, updates – 5-10 min
2. Monthly station owner/manager presentation – 10 min
 - Pickering Creek Watershed, Connecting Observed Sediment Loads with Sediment Sources – Mike Bullard, Green Valleys Watershed Association
3. Monthly focus topic – 10-15 min
 - CTD Depth questions, issues, and recommendations – Shannon Hicks and Rachel Johnson, Stroud Water Research Center
4. Open discussion – 25 min
 - Discuss questions from attendees, address technical issues, review projects, goals, logistics
 - Fail of the Month! Staff Gauge Mortality!
 - New Depth QC method – transitioning from staff gauges to stream bottom rebar
5. Conclusion – 5-10 min

Stroud Center Perspective – EnviroDIY in DRWI

- **Primary Goal**
 - Support Station owners, managers, and volunteers
 - Maintaining stations
 - Using stations for their own purposes
- **Secondary Goal**
 - Analyze basin-wide data set
 - Develop tools for station owners to characterize and contextualize watersheds



Stroud Center Updates

- Passing of William A. Lemmerman III, January 10, 1961 - September 02, 2020 (update from Jody Carrara, South Jersey Land and Water Trust)
 - In 2020 he had become a major support for the South Jersey Land & Water Trust monitoring station on UT to Muddy Run
 - Mathis Funeral Home in Glassboro, NJ,
<https://www.mathisfuneral.com/obituary/william-lemmerman>



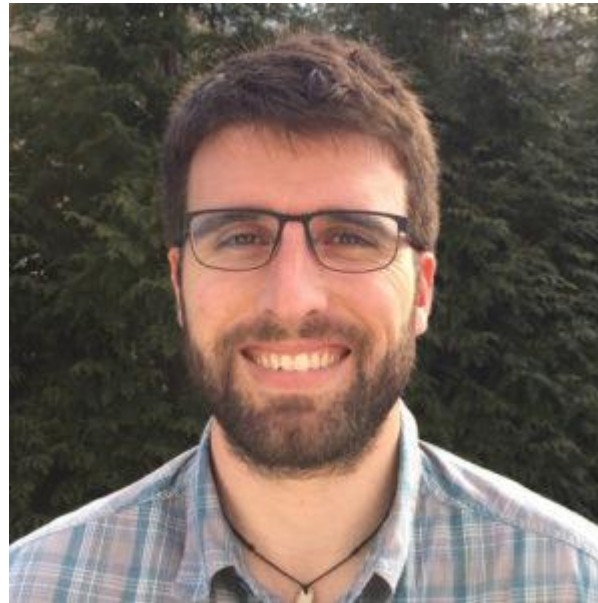
Thank you William

Stroud Center Updates

- Watershed Congress presentation, September 23, 2020, 1:30-2:30
 - Spatio-Temporal Patterns of Stream Conductivity and Temperature in the Delaware Basin – Oviedo-Vargas, Peipoch, and Bressler



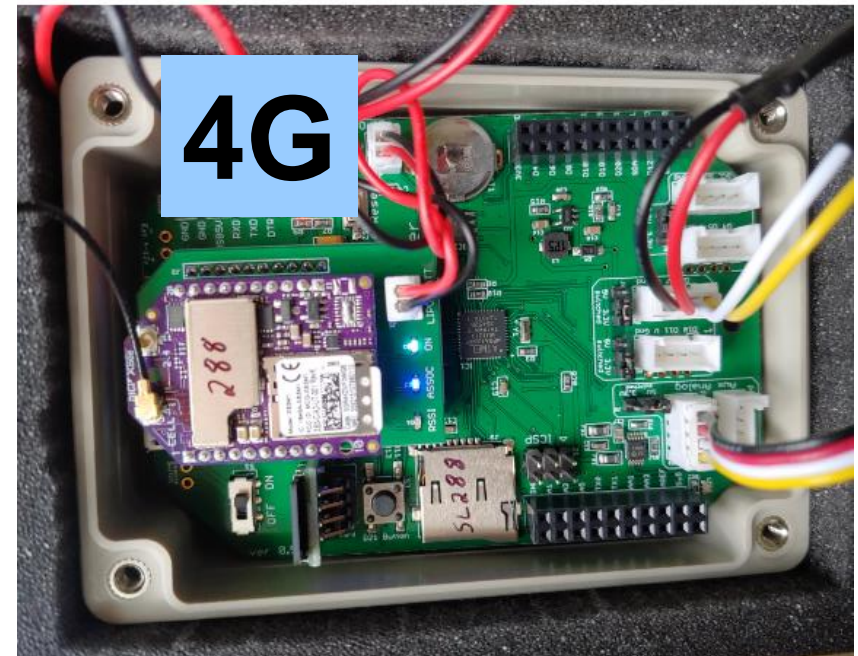
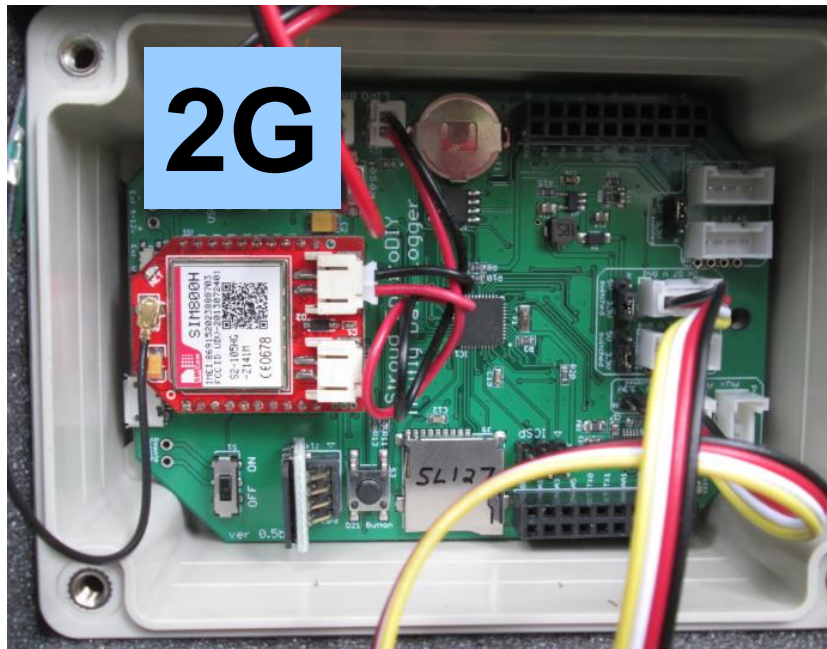
**Diana Oviedo-Vargas, PhD,
Assistant Research Scientist,
Stroud Water Research Center**



**Marc Peipoch, PhD,
Assistant Research Scientist,
Stroud Water Research Center**

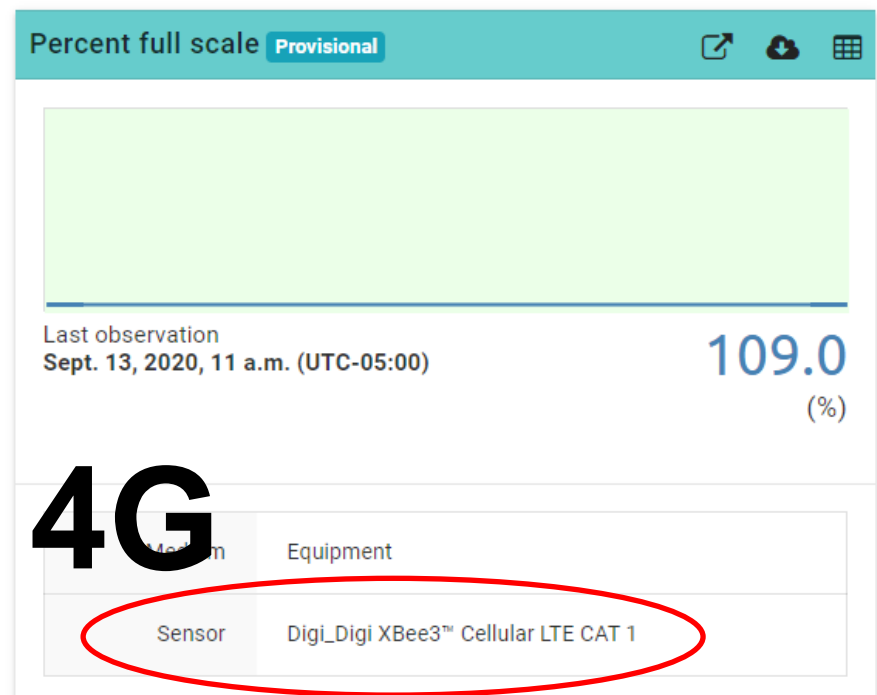
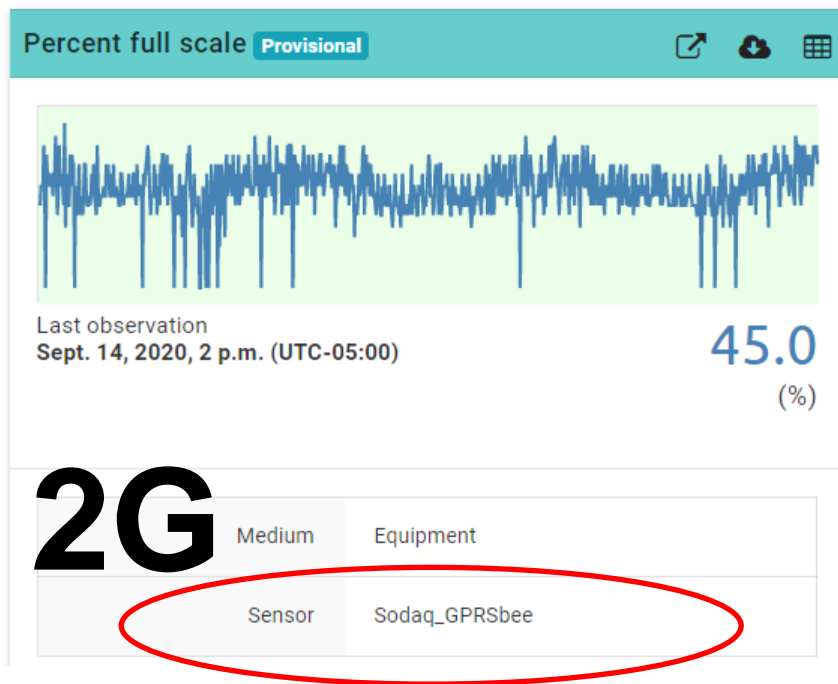
Stroud Center Updates

- 2G to 4G in 2020
 - 2G cell coverage phased out entirely by end of 2020
 - Stroud Center upgrading all Delaware Basin stations to 4G (with approval from station owners)



Stroud Center Updates

- 2G to 4G in 2020
 - To confirm your station's 2G or 4G status check MonitorMW, "Percent full scale" panel
 - 2G = Sodaq_GPRSbee (*a few have been upgraded but have not been changed on MonitorMW)
 - 4G = Digi_Digi XBee3™ Cellular LTE CAT 1



Any questions before we move on?



Monthly station owner/manager presentation

Pickering Creek Watershed, Connecting Observed Sediment Loads with Sediment Sources



**Mike Bullard, Science Coordinator,
Green Valleys Watershed Association**

Monthly Focus Topic

CTD Depth questions, issues, and recommendations

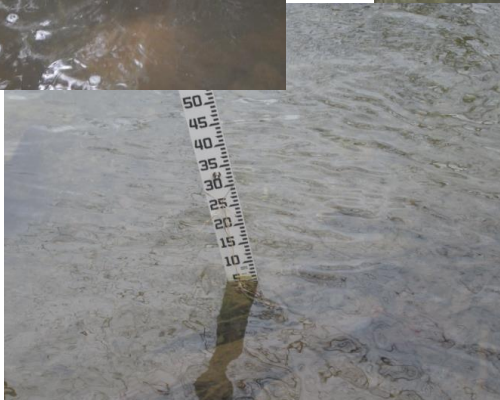


**Shannon Hicks,
Research Engineer,
Stroud Water Research Center**



**Rachel Johnson,
Research Engineer Technician,
Stroud Water Research Center**

Fail of the Month! Staff Gauge Mortality



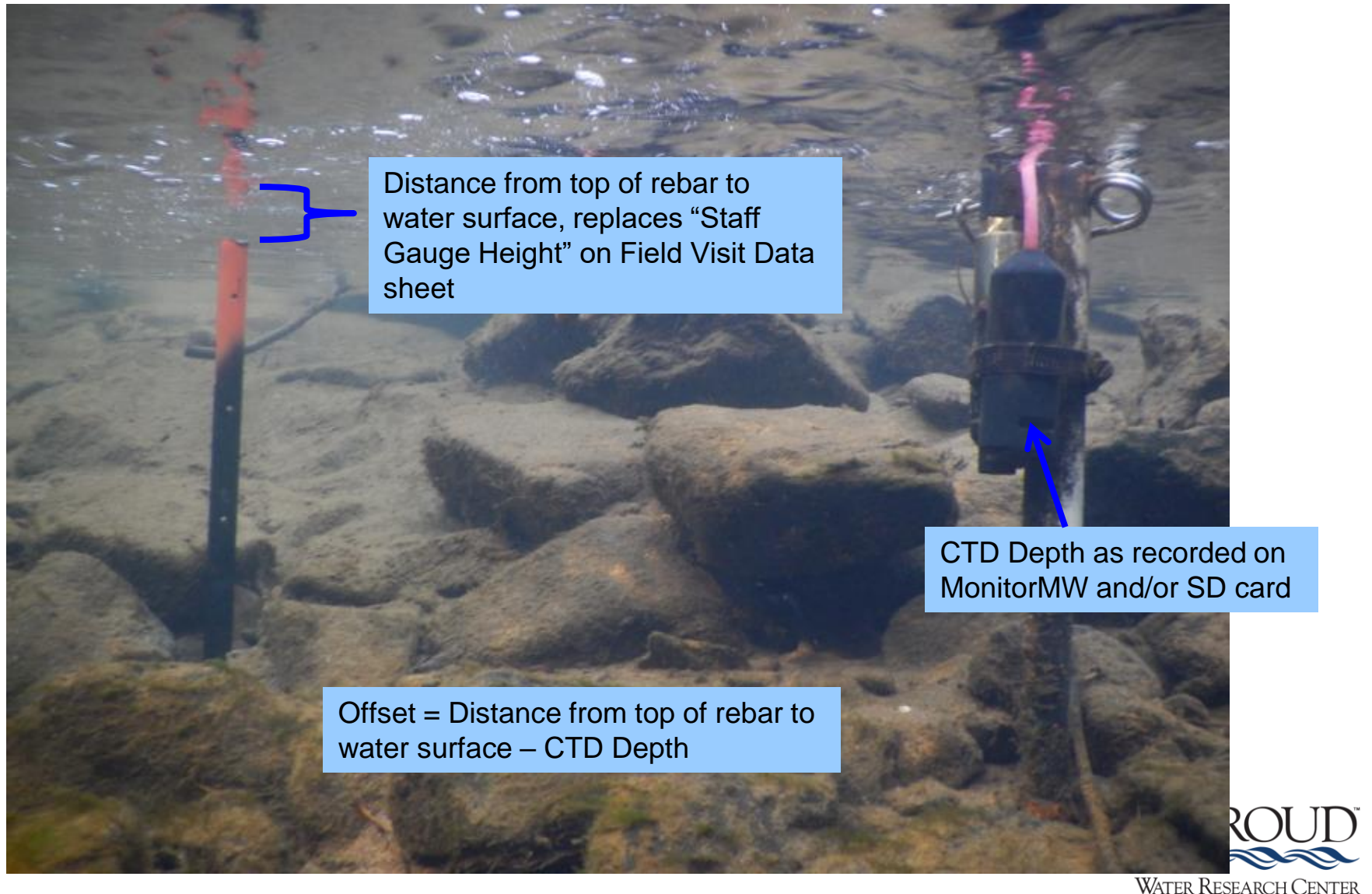
Staff Gauge Mortality

- Partial solution: **Stream bottom rebar depth reference QC**
 - Quality Control – fairly stable depth reference, but no on-site visual depth reference as with staff gauge



***Paul Wilson and his students at East Stroudsburg U started this method**

Stream Bottom Rebar QC



Stream Bottom Rebar QC

Stream Bottom Rebar QC (Distance from top of rebar to water surface)

- Replaces Staff Gauge Height on Field Visit Data sheet
- Replaces Staff Gauge Height in Offset calculation

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

***Make sure to note on the data sheet that the stream bottom rebar method was used instead of staff gauge**

Stream Bottom Rebar QC

**TNC Stream Stewards,
The Nature Conservancy, DE**



***Six recent stream bottom
rebar installations**



Questions/Discussion

- Questions for today's presenters?
- Questions about your station(s)?
- Questions about field visits and Quality Control?
- Questions about Monitor My Watershed?
- Questions about data patterns, ecology?
- Questions about troubleshooting?

Back up discussion topics

- Covid-19 issues
- 4G upgrades by end of 2020
- Recent storm issues
 - Checking stations in person
 - Importance of latching logger boxes
 - **Importance of checking stations even if data look good, e.g., Reeves recent turbidity sensor burying situation**
 - Channel changes, e.g, Valley Creek at Valley Creek Park
 - Importance of QC depth, e.g., Taylor Run
- Temperature data in ecological context, coldwater fish, etc.
- Getting into fall leaves will start piling up on the sensors, keep an eye on your turbidity data

Conclusion

Next month's meeting will be on:

**Thursday October 15, 2020,
2:30-3:30p**

Monthly Meetings

- Every third Thursday of the month
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- Zoom link will remain the same:
<https://us02web.zoom.us/j/81881801310?pwd=eUFmbXZLbmRibVcxa1dtNVhzRmNvZz09>
- Reminder email will be sent one week prior to each month's meeting
 - Station owners/managers organize volunteers/others to attend and share Zoom link

Future meeting presenters

- Monthly station owner/manager presentations
 - Oct 15 – Robert Sarnoski, Angelica Creek Watershed Assoc.
 - Nov 19 – Derron LaBrake, Darby Creek Valley Assoc.
 - Dec 17 – Francis Collins, Primrose Creek Watershed Assoc.
 - Jan 21 – Juniper Leifer and Kristine Rogers, Lopatcong Creek Initiative and Wallkill River Watershed Management Group
- Monthly focus topics
 - Oct 15 – Water Temperature
 - Nov 19 – Conductivity

***Please be in touch if you'd like to do an owner/manager presentation or a focus topic presentation**

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***

Resources to Support the Work

<https://wikiwatershed.org/drwi/>

Delaware River Watershed Initiative Resources

General Resources

- ▼ EnviroDIY Field Visit Data
- ▼ EnviroDIY Monitoring Station Help Resources
- ▼ Data and Data Visualization Resources
- ▼ Project Updates and Station User Monthly Meetings
- ▼ Volunteer Management Guidance Materials
- ▼ WikiWatershed Toolkit

Workshop Resources

- ▼ Delaware Watershed Research Conference
- ▼ EnviroDIY Monitoring Station Management Workshop
- ▼ EnviroDIY Monitoring Station User Group Gatherings
- ▼ Master Watershed Steward Workshops
- ▼ Teacher Workshops
- ▼ Watershed 101, 102, and 201

Resources to Support the Work

- **Delaware Basin EnviroDIY Monitoring Stations**, private online group (<https://wikiwatershed.org/groups/delaware-basin-sensor-stations/>)

Delaware Basin EnviroDIY Monitoring Stations



- Pose questions to the user group community
- Check for updates and new posts
- Set it for daily or weekly email updates

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