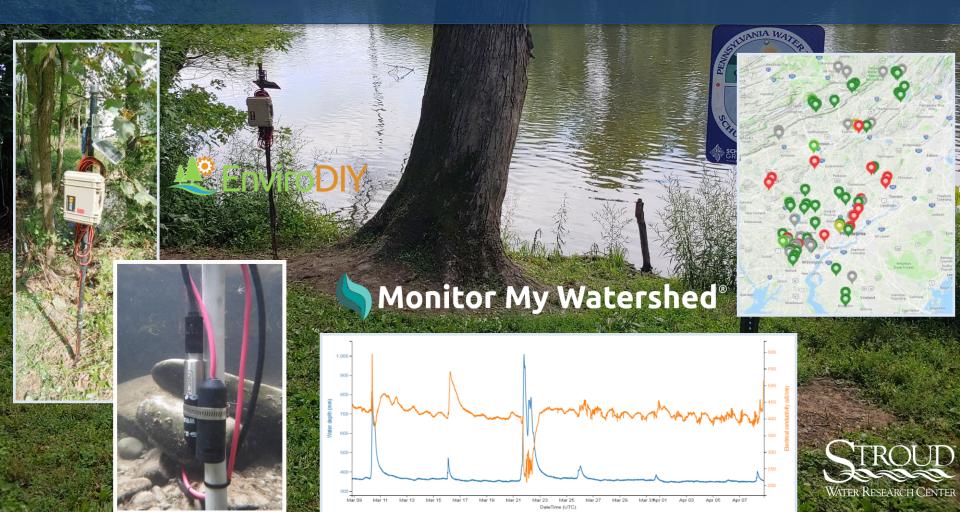
WELCOME!

Monthly EnviroDIY-DRWI User Group Meeting

Online, Thursday February 18, 2021, 2:30-3:30p



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=eUFmbXZLbmRibV cxa1dtNVhzRmNvZz09
- 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



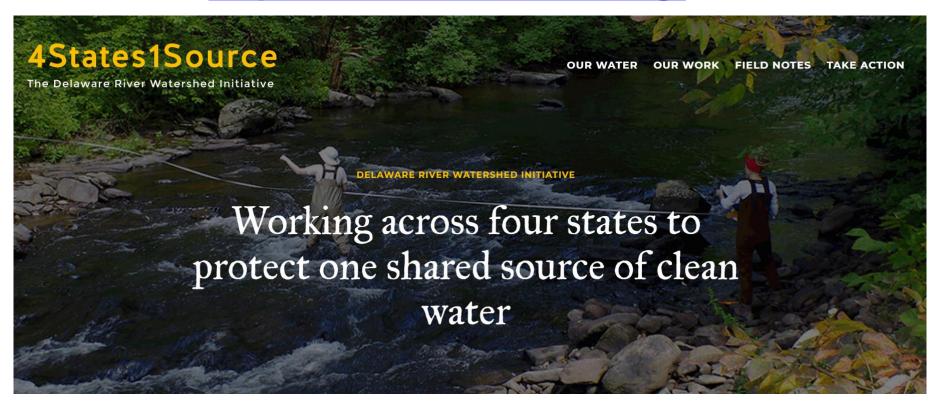
REMINDER

- Attendees include:
 - Groups working in Delaware River Watershed Initiative
 - Groups working in Delaware Basin but not DRWI
- Stroud Center support via DRWI and C-SAW



Delaware River Watershed Initiative

https://4states1source.org/





C-SAW

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



What is C-SAW?

The Consortium for Scientific Assistance to Watersheds (C-SAW) is a team of specialists who provide *free* organizational and scientific technical assistance to Pennsylvania-based watershed and conservation organizations.

C-SAW does not conduct watershed monitoring or assessments. Instead, C-SAW helps watershed organizations do a better job with their own monitoring and assessments.



Goals for these monthly meetings

- Time/space to check-in, ask questions, report issues, network, etc.
- Updates from 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



Facilitators

Stroud Center Facilitators:

David Bressler, Rachel Johnson, Christa Reeves, Shannon Hicks









Master Watershed Steward Facilitators:

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



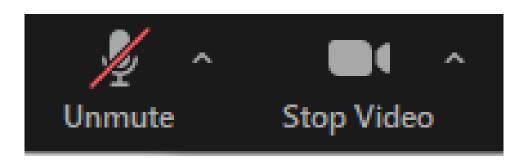








*Meeting is being recorded

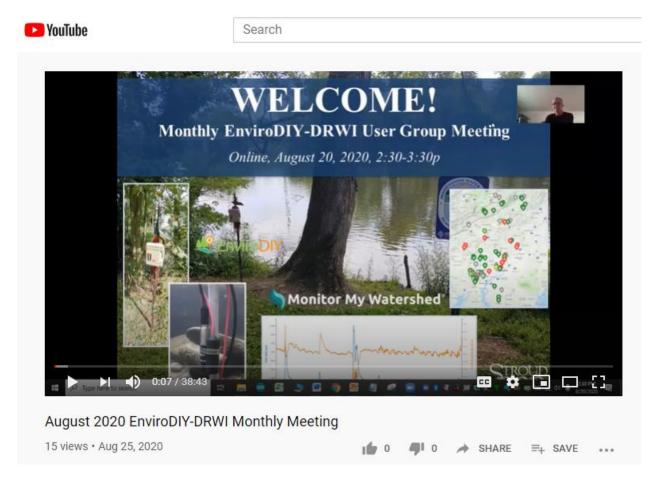


*Mute unless asking question



These Monthly Meetings

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





Monthly Meeting Agenda Format

- 1. Introduction
- Stroud Updates
- 3. Presentation(s)
- 4. Open discussion
- Conclusion

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



Today's Agenda

- 1. Introduction, review agenda, updates 5-15 min
- 2. Monthly presentation 30-35 min
 - Turbidity: What is it? Why do we measure it? How is it used to assess stream health? Dr. Scott Ensign, Stroud Water Research Center
- 3. Open discussion 10-25 min
- 4. Conclusion

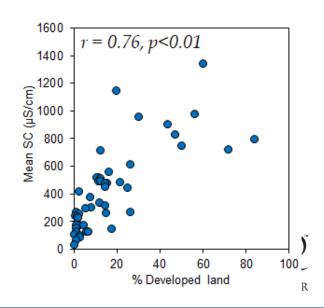


Stroud Center Perspective – EnviroDIY in DRWI

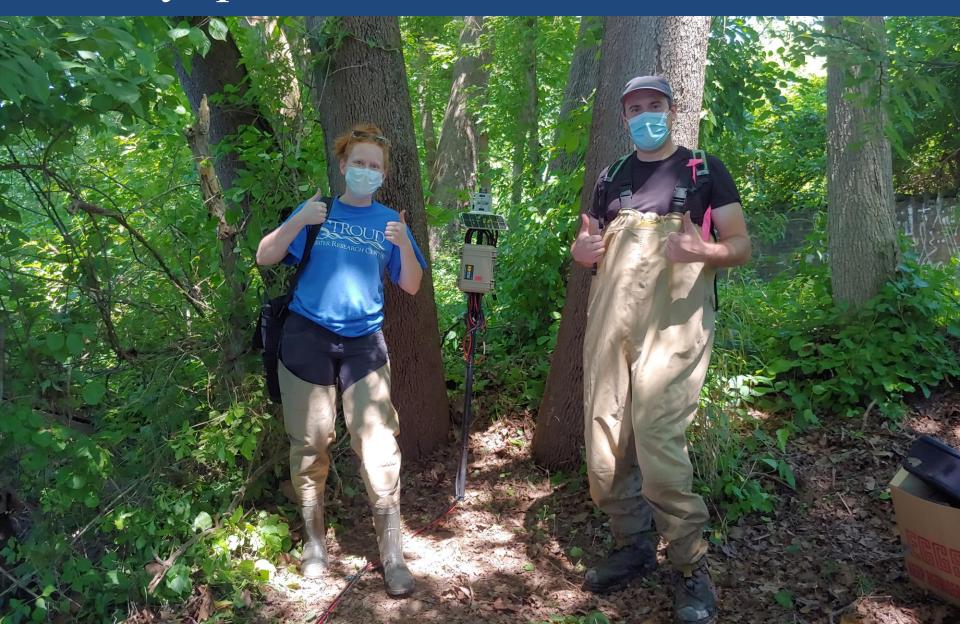
Primary Goal

- 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





Any questions before we move on?



Monthly station owner/manager presentation

Turbidity: What is it? Why do we measure it? How is it used to assess stream health?



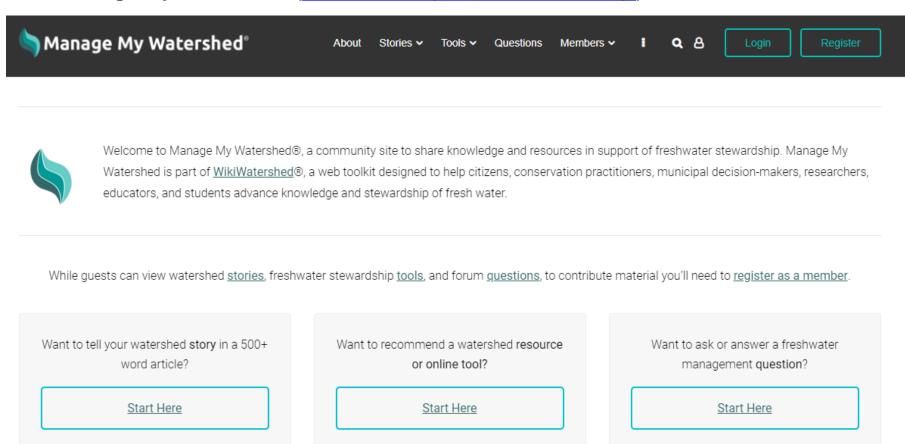
Dr. Scott Ensign, Stroud Water Research Center, ensign@stroudcenter.org



Zoom Survey



Manage My Watershed (https://managemywatershed.org/) has been launched!





SCHUYLKILL RIVER GREENWAYS – WATER QUALITY SAMPLING PROTOCOL

BERKS, CHESTER, MONTGOMERY, & PHILADEPHIA COUNTIES, PA

Contact Mike Hartshorne: mhartshorne@princetonhydro.com

SEPTEMBER 2020

PREPARED FOR:

SCHUYLKILL RIVER GREENWAYS ATTN: MR. TIM FENCHEL DEPUTY DIRECTOR 140 COLLEGE DRIVE POTTSTOWN. PA 19464

PREPARED BY:

PRINCETON HYDRO, LLC 203 EXTON COMMONS EXTON, PA 19341 908-235-5660

Looking for volunteers for visual trash assesessment of Schuylkiill River between Reading and Philly

COMMUNITY SCIENTIST GUIDE

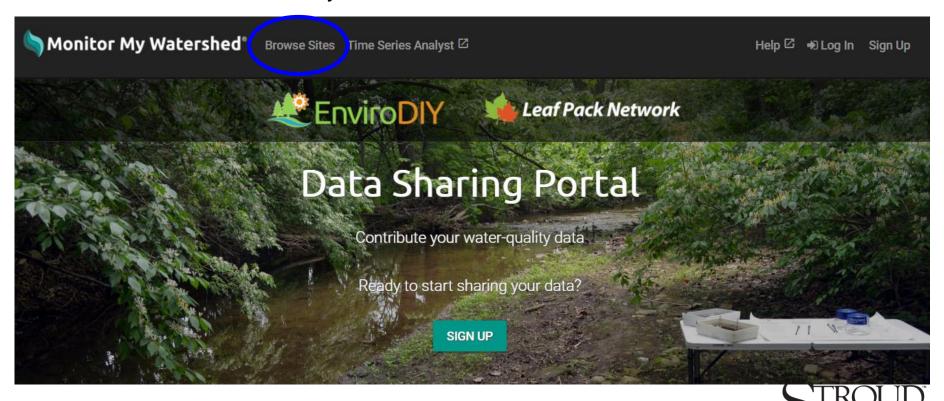
TO VISUAL MONITORING ASSESSMENTS ON THE SCHUYLKILL RIVER



USING YOUR MOBLIE DEVICE, SIMPLY RECORD THE TRASH ACCUMULATION OR DUMPING POINTS ALONG A 100-FOOT SECTION OF THE SCHUYLKILL RIVER.

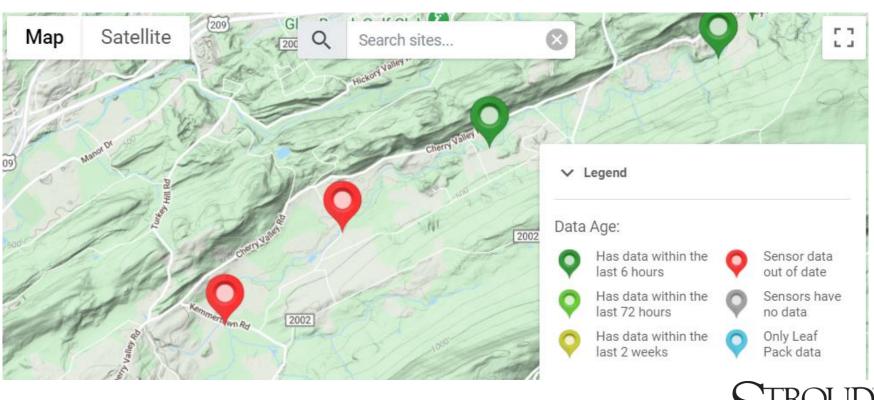
Review – Understanding why a station has gone offline

Check Monitor My Watershed – Browse Sites



Review - Understanding why a station has gone offline

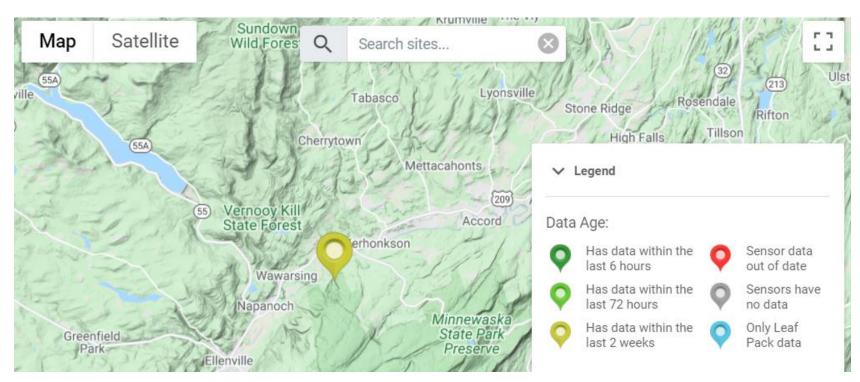
On MonitorMW – What color is the station?





Review - Understanding why a station has gone offline

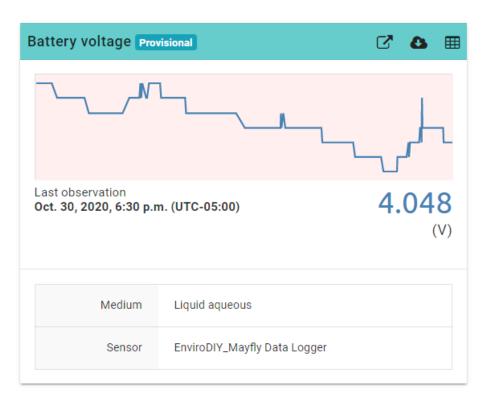
On MonitorMW – What color is the station?





Review - Understanding why a station has gone offline

On MonitorMW – What was battery level when it went offline?



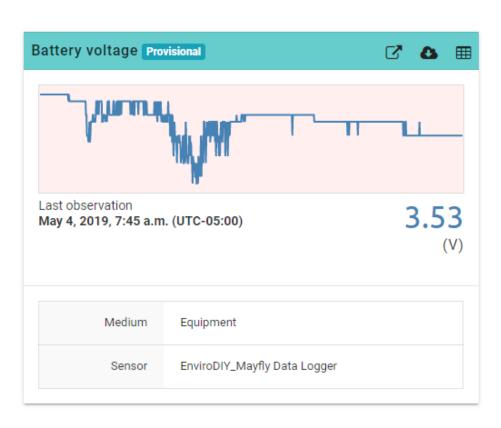
If >3.5v, then likely cell board malfunction

LTE/4G boards frequently failing –
 Stroud Center working on fix



Review – Understanding why a station has gone offline

On MonitorMW – What was battery level when it went offline?



If 3.5v or less, then likely a power issue (programming tells Mayfly to stop trying to send data when <3.5v, so that power not drained entirely)

- Not enough sun
- Poor or dropped cell signal



Review - Understanding why a station has gone offline

Check the station in person



Swap batteries (if power appeared to be an issue)

Make sure station is turned off



Review – Understanding why a station has gone offline

Check the station in person



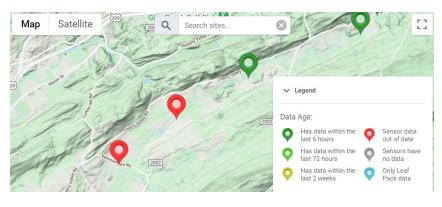
Swap SD cards and review the data, feel free email file to Stroud Center (Hicks, Johnson, Bressler) to review

- Make sure station is turned off
- If data still recording to SD card then station functional
- If data not recording to SD card then Mayfly or sensor problem



Review - Understanding why a station has gone offline







After cycling power, swapping batteries, checking SD card:

- If power was the issue, station should be transmitting (green) and battery should be >3.5v (likely ~4.0v with charged battery)
- If cell board failure was the issue, station will likely still not be online, BUT re-powering sometimes does fix the problem



Reminder: Resources to Support the Work

https://wikiwatershed.org/drwi/

General Resources

- EnviroDIY Field Visit Data
- → EnviroDIY Monitoring Station Help 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

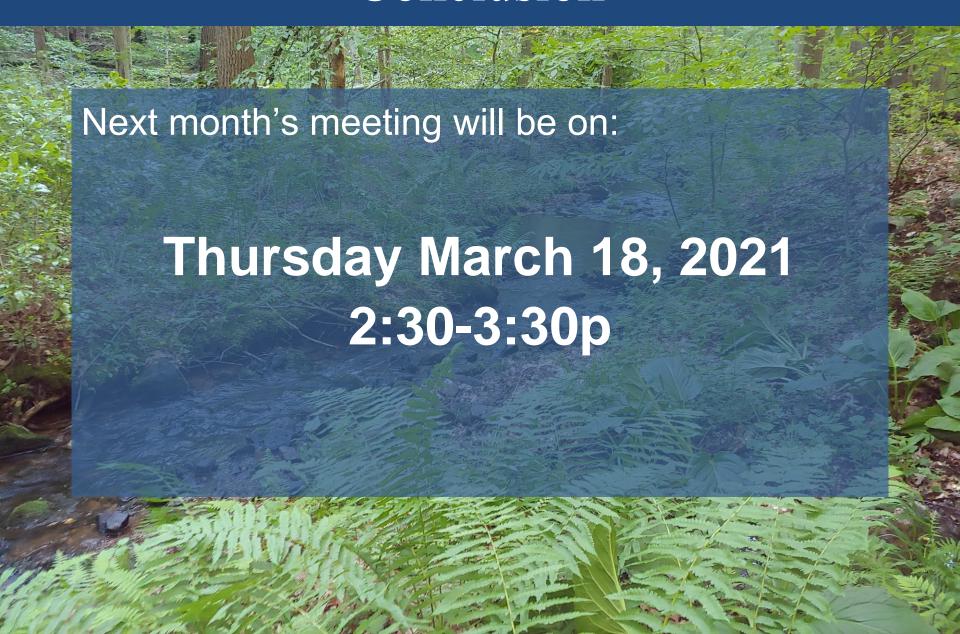


Questions/Discussion

- 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?



Conclusion



Future meeting presenters

- Mar 18 Sara Damiano, Stroud Center, Turbidity data across the Delaware Basin, Part 2
- April 15 Patty Haug, West Chester University, Continuous monitoring of five streams draining the borough of West Chester, PA
- May 20 ???

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



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- Station owners/managers organize volunteers/others to attend and share Zoom link



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), <u>rjohnson@stroudcenter.org</u>, 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

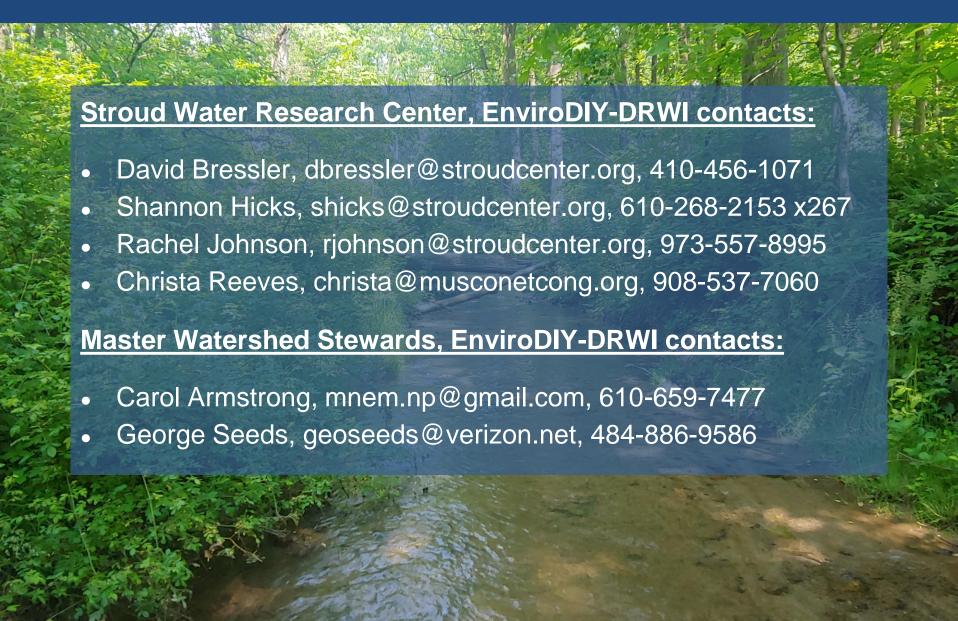
 Delaware Basin EnviroDIY Monitoring Stations, private online group (https://wikiwatershed.org/groups/delaware-basin-sensor-stations/)



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



Onward!



Rachel Becker-Klein 2:24 PM (20 minutes ago) to me, Mary

Dave, so the deal is that you have to creat the Zoom polls within your own Zoom account (or whichever will be the host). You should have the info you need to do so with (1) and (2) below...

- (1) How was the depth of information provided? Too deep, Just right, Not deep enough
- (2) How useful was the presentation?

 Not very useful, Somewhat useful, Quite useful, Very useful

For the two open-ended/word cloud questions through Poll Everywhere (or another platform if you have a preference):

- Please describe the most useful things you learned from this meeting
- What other resources/information would you need in order to apply what you learned in this meeting? You provide a link (I created this one that you can use: **PollEv.com/rachelbecker341**)in the chat window and when people navigate to that, they get those two questions. As they respond, a Word Cloud is generated and you can share that word cloud with the group, and then we can download their responses to do more analysis if we want.

I should be able to join the monthly meeting for the last 1/2 hour (if that's not too disruptive), but I have an Advisory meeting for an NSF grant from 1-3 that day.

I do have some time next Tuesday, Dec 15 (anytime except for 2-3 pm) if you want to try any of this out...

Rachel

