

## THE CATALYST

### SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

**NEXT MEETING:** 7 pm on 11/13/14 at Jennings Environmental Education Center, pizza and pop provided.  
**10/9/14 meeting attendance:** H. Boylan, T. Danehy, C. Denholm, D. Guy, V. Kefeli, B. Lupold, R. Mahony, B. Neely, J. Puskas, R. Welesko, W. Taylor, D. DiSanti, B. Gibbons, R. Bradnam, C. Kostishack, S. Springer, J. Monts, K. Kilbane, S. Reed, C. Michaels and B. Landis

### **SRWC Participant Teaches Class at Slippy Rock University**

Cliff Denholm of **Stream Restoration Incorporated** recently taught a one-day class at **Slippy Rock University's Institute for Learning** in Retirement program. The class, held on September 19<sup>th</sup> and entitled "Restoring the Headwaters of Slippy Rock Creek", began at the Institute's classroom. Cliff provided an overview of mining, the formation and causes of abandoned mine drainage, techniques to prevent AMD from occurring, chemical and passive treatment technologies, as well as specific examples of the efforts being conducted by the Slippy Rock Watershed Coalition. Following the classroom portion, the class went to the **Jennings Environmental Education Center** where they were joined by **Wil Taylor** who gave an overview of the history and treatment efforts of for the mine discharge at Jennings. Participants in the class were very interested in the topic at hand and asked really great questions. Thanks to the SRU ILR program for inviting us and Wil Taylor for hosting the tour!



### **Join Us for the Annual Student Symposium on the Environment!** **Save the Date: December 4th at 5:30 PM!**

Come one, come all! Come to the Annual Student Symposium on December 4th at **Westminster College!** Join the Slippy Rock Watershed Coalition, environmental professionals, educators and watershed organizations for an evening at Westminster College showcasing student research and creative works. The Student Symposium on the Environment is held each December to highlight environmental study, research, artistic expression, and service work being done by students in the region. Students from all disciplines, ranging from high school through graduate school, are encouraged to participate. Research posters, art work, oral presentations, and even performances will be showcased for all interested in learning about and celebrating students' accomplishments in our area.

The Symposium will begin at **5:30 PM on Thursday, December 4th in the Witherspoon Rooms of the McKelvey Campus Center.** The schedule will be as follows:

5:30 to 6:30 PM: Networking and Poster Session

6:30 to 8:30 PM: Oral Presentations

8:30 to 9:00 PM: Special presentation, followed by Award Ceremony

We hope to see you there!



**Russ Stutzman** presents on Unmanned Aerial Vehicles (UAV), also known as drones, at the Northwest PA GIS Conference. He brought along several working drones to show the attendees. More to come about this conference in the December issue of the Catalyst...

### Westminster College Students Complete Another De Sale Sampling Project

**Westminster College** students from **Dr. Helen Boylan's** Advanced Chemistry class have once again completed another service learning sampling project at the De Sale Phase 1 and 2 passive treatment systems. On September 22<sup>nd</sup>, the students made the trek to the sites where **Wil Taylor** of **Jennings Environmental Education Center** and **Cliff Denholm** of **Stream Restoration Incorporated** provided a tour of the sites and explanations regarding the function of the various passive treatment components. Following the tour, the students collected samples from the treatment systems at various locations. Students then took the samples to Westminster College where they teamed-up in pairs to perform a variety of laboratory water quality analyses.



At the October 9<sup>th</sup> SRWC meeting, the students presented their findings from the water sampling events. While the data from the sampling events indicated that De Sale Phase 1 is performing well, the data also indicated that maintenance is needed at the De Sale Phase 2 system. A giant "Thank You" goes out to all who attended the meeting to support the students as well as to Dr. Boylan and her students for conducting the sampling and presenting their data! Monitoring of the systems helps us to understand how well the systems are treating the mine water. Students who participated included: **Domenic DiSanti, Brad Gibbons, Rebecca Bradnam, Caroline Kostishack, Sarah Springer, Josh Monts, Kelsey Kilbane, Sean Reed, Cody Michaels and Brianna Landis.**





# The KIDS Catalyst

## SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY



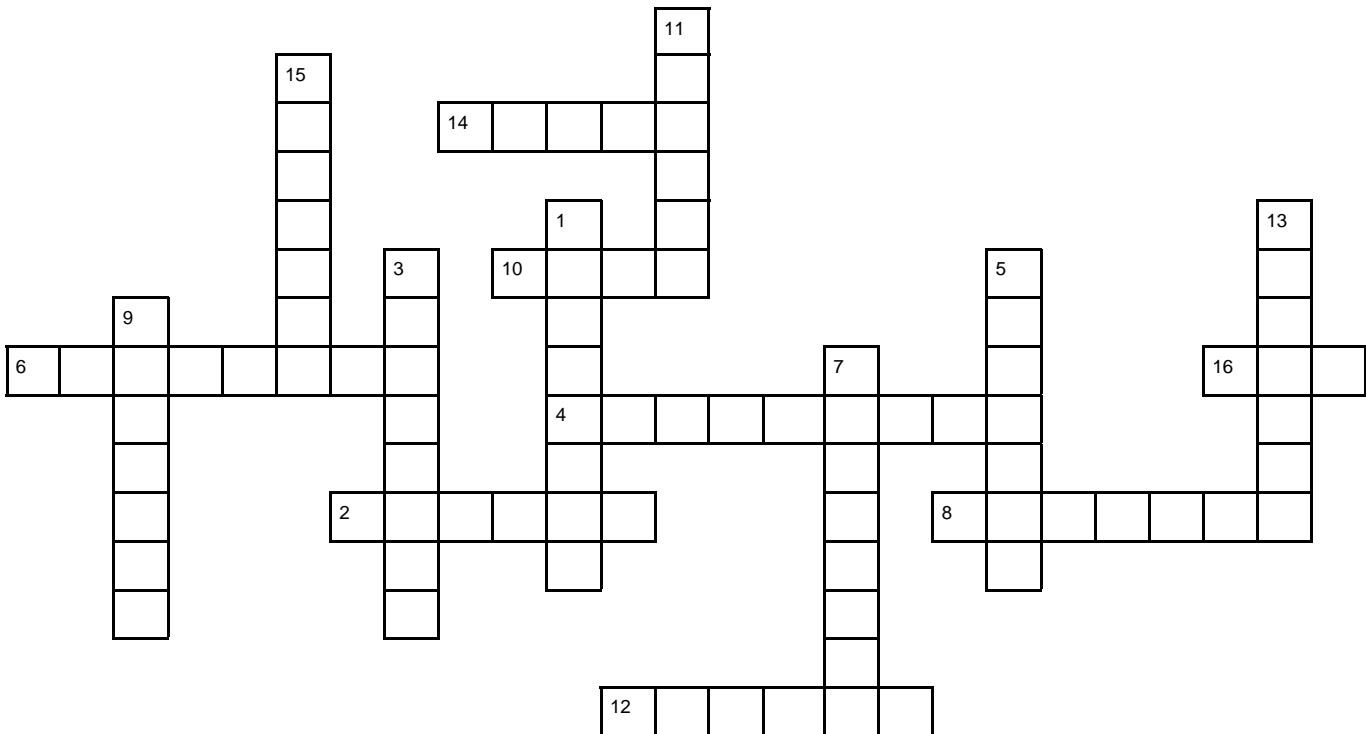
### Thanksgiving Crossword Puzzle

#### Down

1. Thanksgiving is celebrated in this month
3. What Rock did the Pilgrims land on?
5. What is it called when you give some of what you have to someone else?
7. This sport is watched by millions of Americans on Thanksgiving
9. \_\_\_\_\_ pie is enjoyed as a dessert by many people on Thanksgiving
11. Thanksgiving occurs during this season of the year
13. Floats and bands march in big \_\_\_\_\_ on Thanksgiving Day
15. The Pilgrims sailed to America from this country

#### Across

2. What bird is associated with this holiday (and is often eaten)?
4. What was the name of the ship the settlers came over on?
6. What day of the week does Thanksgiving occur?
8. Who shared the feast with the pilgrims?
10. \_\_\_\_\_ was an important vegetable at the first Thanksgiving
12. The sound turkeys make
14. When you "\_\_\_\_\_ your blessings" you are saying what you are thankful for
16. Many stuffed, sleepy people like to take a \_\_\_\_\_ after the big Thanksgiving meal



Name \_\_\_\_\_ Age \_\_\_\_\_ Address \_\_\_\_\_

\_\_\_\_\_



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## Smithsonian Institute & Penn State Conduct Research at De Sale Passive Systems

On October 2<sup>nd</sup> **Cliff Denholm** of **Stream Restoration Inc.** had an awesome opportunity to spend the day with research scientists **Dr. Cara Santelli** and **Dr. Carla Rosenfeld** from the **Smithsonian Institute** and **Dr. Bill Burgos** from **Penn State**. The researcher scientists were continuing a project to further understand the role that microorganisms such as bacteria, fungi, and algae have in the removal of manganese from mine water within passive treatment systems. This is particularly interesting and important research because normally under pure chemical conditions, the manganese would not be removed at the pH levels generated by passive treatment. Due, however, to various biogeochemical processes the manganese can be removed by passive treatment systems. This research is trying to better understand the processes involved so that we can continually improve system designs. The project was especially fun as the group conducted both sampling during the day and at night to investigate the role that photosynthesis may play. Cliff said that in all of his years of experience sampling mine water, he had never had the opportunity to conduct a sampling event at night before and that it was extremely rewarding working with the researchers.

