Abstracts

Tuesday, April 29

Session E2: Successful Collaborative Monitoring Approaches

3:30 – 5:00 pm | Room 262

Rural Action Watershed Restoration Program: Partnering to Improve the Future

Nathan Schlater
Rural Action, The Plains, Oh.

Abstract
Rural Action has been working to restore Appalachian Ohio's watersheds for over 15 years. Primarily working to restore streams that have been impacted by our regions vast history of coal mining, Rural Action and many partners have improved water quality for local communities allowing fish and insects to return to streams where they could not live before because of pollution.

The Rural Action Watershed Restoration Program is committed to restoring and preserving water quality through collaboration, community engagement, conservation, and education in pursuit of a healthy ecosystem capable of supporting people and nature. Currently, four watersheds are being restored: Monday Creek, Sunday Creek, Huff Run and Mud Run. These watersheds are located in six Ohio counties: Athens, Hocking, Perry, Morgan, Tuscarawas and Carroll.

Collaboration with local residents, history groups, universities and state and federal agencies has led to the installation of twenty-six treatment systems, over 110 subsidence hole closures and 55 acres of gob piles reclaimed throughout the four watersheds. Over 23 million dollars has been leveraged by the Rural Action Watershed Restoration Program to improve watershed health and provide educational opportunities within the watershed communities.

Water quality monitoring is necessary to determine impacts on the watersheds as a result of the restoration efforts and to plan for the installation of treatment systems and reclamation projects in the future. Numerous chemical and biological samples are collected annually. These samples are collected through a partnership between Rural Action Watershed Restoration Program, Ohio Department of Natural Resources (ODNR), Ohio Environmental Protection Agency (OEPA), Ohio University and volunteers. The samples are collected and analyzed by Rural Action, ODNR and OEPA. The monitoring results are housed in a public database (watersheddata.com) that is managed by Ohio University Voinovich School of Leadership and Public Affairs.

More than 20 partners are involved with the Rural Action Watershed Restoration Program. This partnership has resulted in: 26 native species of fish now living in Monday Creek, a stream that was once considered dead; prevention of more than 455 tons of acid from entering our streams annually; improvement of 72 stream miles within the four Rural Action Watersheds.

The Role of Collaborations in Volunteer Monitoring for Shale Gas Impacts

Kathryn Tomsho
Dickinson College/Alliance for Aquatic Resource Monitoring, Carlisle, Pa.

Abstract
In 2010, the Alliance for Aquatic Resource Monitoring (ALLARM) developed a volunteer based protocol with the goal of monitoring streams and their watersheds for early detection of the impacts from Marcellus and Utica Shale

gas extraction in Pennsylvania. To date, ALLARM has conducted 55 workshops – training over 1,100 individuals, which has resulted in a network of over 500 volunteer monitors spread throughout Pennsylvania, New York, and West Virginia.

The success of this program is rooted in collaboration. The shale gas monitoring program has matured over the past three years through unique collaborations among diverse parties, including county conservation districts, service providers, governmental agencies, and nonprofit entities. With an issue as complex and geographically expansive as shale gas extraction, no one organization can do it all. ALLARM works with a variety of players to coordinate pollution event response, data management, and dissemination of information.

Attendees will learn about the volunteer shale gas monitoring program, and the integral role that collaboration has played in its success. Stories will be shared about the coordinated efforts that have helped bolster and maintain the success of this program.

Butler County Stream Team: A Unique and Effective Partnership

Donna McCollum[1], Lynn White[2], Robert Lentz[3], Alex Del Valle[1] and Kevin Zacharyasz[1]
[1]Miami University, Oxford, Oh., [2]Butler County Storm Water District, Hamilton, Oh., [3]Butler Soil and Water Conservation District, Hamilton, Oh.

Abstract
The Butler County Stream Team, in Butler County, Ohio, was founded in May of 2006 as a partnership of Butler County Storm Water District, Butler Soil and Water Conservation District, and the Institute for the Environment and Sustainability at Miami University (IES). It is a vibrant and evolving effort, currently involving 40+ community volunteers each month in sampling or analyzing county stream samples. Growth of the program has been relatively steady, rising from ~25 samples/month to ~140. The Stream Team was initiated as an effort to meet NPDES permit minimum control measures of 1) public education and outreach and 2) public participation/involvement in a meaningful way by combining the strengths of three organizations interested in clean streams. Each organization gives to and gets from the program according to its abilities and needs. Among other things, the IES provides a laboratory for monthly use and gains opportunities for research and training its environmental science graduate students. Butler Storm Water provides consumable supplies and incentives for volunteers while meeting its NPDES permitting goals. Butler Soil and Water provides public outreach and the Stream Team's website and gains opportunities for community residents to participate and learn about steams and their issues. Volunteers are helping to provide a database of fairly reliable information about the state of Butler County Streams that could be helpful in regulatory or restoration actions, while learning about and becoming advocates for individual behaviors that can help protect their local streams. This report will outline the progress of the Stream Team and the challenges it has faced in making this volunteer water monitoring partnership work.

Incorporating Citizen Volunteer Monitoring into Regional Water Quality Management

Thomas Herron[1] and Janet Conlin[2]
[1]Idaho Dept. of Environmental Quality, Coeur d'Alene, Id., [2]Idaho Farm Bureau, Sandpoint, Id.

Abstract
With the increased importance of Quality Assurance Program Planning, what are the challenges of continued use of volunteer monitoring, and how can this monitoring be facilitated to provide relevant data while continuing to meet quality assurance needs, and support interstate legal and environmental needs. An important aspect of Citizen's Voluntary Monitoring is to gain public awareness and involvement to preserve water quality and to guide water quality decisions involving implementation, restoration, effectiveness monitoring, and long term trend detection. In the face of declining budgets for monitoring and project implementation, how does the Department of Environmental Quality maintain the basic flow of data to characterize rivers, streams, and lakes and identify needed investigations to protect and assess water quality? Partnerships with citizen's groups including Lake

Associations, Conservation Groups, Land Management Agencies, Soil Conservation Commissions, Idaho Farm Bureau, Municipal Dischargers, University of Idaho, Watershed Advisory Groups, and local government provide critical monitoring and communication pathways to stimulate awareness of water quality conditions and innovative solutions to water quality challenges. In managing Idaho's highest density and volume of high quality waters, the waters of Northern Idaho, it has become essential to prioritize monitoring resources to meet the need for basic trend identification to augment TMDL development and watershed characterization as well as water body assessments. Data is used to characterize directed monitoring needed to develop load allocations, provide water quality certification parameters and NPDES permit conditions. Also to assess effectiveness of implementation efforts on waters that were not previously supporting beneficial uses.