

## **Session B7: Effective Communication of Water Quality Science to Stakeholders, Session 1**

Room C124  
1:30 – 3:00 pm

**0362**  
**B7-1**

### **Methods, Models and Monitoring...Mundane? Or Newsworthy!**

Kara Capelli

*US Geological Survey, Reston, Va., USA*

Communicating water quality research, assessment, and results through the media is an important way to reach the public, stakeholders, government officials and others. Media visibility raises the prominence of water quality studies and issues, and can go a long way in gaining credibility for water quality science and organizations involved in this work.

Getting through to the media can be a challenge. Unfortunately for scientists, media generally steer clear of the “3 Ms:” methods, models, and monitoring. It’s not that the information isn’t important, and it’s not that people don’t care about science. It’s not even that the information is too complicated to be understood by the average reporter or by the general public. The missing link is that the information is often not presented in terms that make it timely, relevant and easy to comprehend.

The USGS Office of Communication and Publishing has developed techniques and best practices for communicating complex water quality information to the media in a meaningful and interesting way, including topics that fundamentally encompass one or more of the 3 Ms. The strategy includes steps for (1) understanding who “the media” is and what they are looking for and (2) developing effective messages and communication products that get the attention of reporters and result in stories that leave no room for misinterpretation.

Case examples are used to demonstrate successes in communicating a wide variety of complex water quality topics to the media, including examples where communication products have directly resulted in headlines and stories in the Minneapolis Star Tribune, the Baltimore Sun, the New York Times and other prominent media outlets. These examples illustrate the types of messages and communication tactics that result in media attention and strong message pull-through from the communication products to the media story.

**0092**  
**B7-2**

### **The Data Speaks! Is it a Language I Understand?**

Cheryl Cheadle and Jean Lemmon

*Oklahoma Conservation Commission, Oklahoma City, Okla., USA*

Oklahoma’s Blue Thumb water pollution education program has supported volunteer monitoring on wadable streams since 1993. Some of our streams have data from these early days, while new streams are entering the system annually, after every Blue Thumb training session for new volunteers.

This presentation will cover data collected through the years on at least two streams that have a long history of volunteer-collected data. Information will cover primarily benthic macroinvertebrate and fish data, with some chemical data and habitat data included as well.

This presentation will lean toward prompting the participants to consider important questions to ask, just as we would if we were presenting data information to our volunteers, city and county staff members, watershed residents, or workshop attendees. Because this data is from volunteer-monitored streams, we typically have people who have not only collected quality data over the years, but who have also made observations in series of months and years - observations of precipitation, beaver activity, construction projects, etc.

Life histories of some of the stream residents will also be referred to, as it is one thing to use a species presence or absence to indicate water/habitat quality, and it is another thing to know what creatures are at home in the stream, and what creatures are not there. An attempt will be made to make those with scales and exoskeletons as warm and fuzzy as a baby bobcat or burrowing owl fledgling.

Finally, the presentation will cover the value of long-term volunteer monitoring, for the data's sake, and for the value that consistent returns to the stream has on the volunteers who participate. Suggestions as to how to engage the public, and how to encourage volunteers to share their strong feelings about environmental protection will be included.

**0025**  
**B7-3**

### **Using Video to Communicate Scientific Findings – Habitat Connections in Urban Streams**

Douglas Harned, Michelle Moorman, Faith Fitzpatrick and Gerard McMahon

*US Geological Survey, Raleigh, N.C., USA*

The U.S Geological Survey (USGS) National Water-Quality Assessment Program (NAWQA) provides information about (1) water-quality conditions and how those conditions vary locally, regionally, and nationally, (2) water-quality trends, and (3) factors that affect those conditions. As part of the NAWQA Program, the Effects of Urbanization on Stream Ecosystems (EUSE) study examined the vulnerability and resilience of streams to urbanization. Completion of the EUSE study has resulted in over 20 scientific publications. Video podcasts are being used in addition to these publications to communicate the relevance of these scientific findings to more general audiences such as resource managers, educational groups, public officials, and the general public.

An example of one of the podcasts is a film examining effects of urbanization on stream habitat. "Habitat Connections in Urban Streams" explores how urbanization changes some of the physical features that provide in-stream habitat and examines examples of stream restoration projects designed to improve stream form and function. The "connections" theme is emphasized, including the connection of in-stream habitats from the headwaters to the stream mouth; connections between stream habitat and the surrounding floodplains, wetlands and basin; and connections between streams and people – resource managers, public officials, scientists, and the general public. Examples of innovative stream restoration projects in Baltimore, Maryland; Milwaukee, Wisconsin; and Portland, Oregon are shown with interviews of managers, engineers, scientists, and others describing the projects. The film is combined with a website with links to extended film versions of the stream-restoration project interviews. The website and films are an example of USGS efforts aimed at improving science communication to a general audience.

The film is available for access from the EUSE website (<http://water.usgs.gov/nawqa/urban/html/podcasts.html>). Additional films are planned to be released in 2012 on other USGS project results and programs.

**0110**  
**B7-4**

### **Communicating Water-Quality Information – How to Get Started, and What's Most Effective**

Donna Runkle

*US Geological Survey, Columbus, Oh., USA*

Communicating water-quality information is challenging for most people, but especially for those in technical fields. How do I start? What will it cost? What do I say? How much time will this take away from my research? These questions and more swirl around, but the biggest obstacle is fear of the unknown.

Whether it's writing a fact sheet, filming a video, or organizing a press conference, everyone can be successful in communicating the relevance and results of their water-quality information by starting slowly and building expertise and confidence.

The first step in communications is to identify your audience. If it is a range of audiences, then consider what appeals to all audiences. Sixty percent of the population are visual learners, so give them something to look at such as photos, maps, graphs, or videos. Thirty-five percent are auditory learners, so provide sounds, music, or short audios of scientists describing their research.

Once the audience is identified, the next step is to find out where they get their information-from the Internet, TV, radio, newspaper, Facebook, or Twitter? According to a 2010 Pew Research Center study, the Internet is now the third most popular platform for news behind local and national TV outlets.

Getting your information on TV can be difficult, and there usually isn't time to cover the subject in detail; so, the Internet can be your best outlet. Creating and maintaining Web pages can be time consuming, so first decide how much time you or others are able to devote to the process.

The presentation shows examples of communication products and how to stretch your communications budget.