Session C1: Expanding the Use of Volunteer Monitoring Information

Room A105
3:30 – 5:00 pm

0335
C1-1

Incorporating and Validating Citizen and Non-Agency Data for 305(b)/303(d) Assessment

James Beckley

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The Virginia Department of Environmental Quality (VADEQ) has long recognized the water quality monitoring efforts by citizen volunteer and other organizations. For the 2010 305(b)/303(d) Water Quality Assessment Report, non-VADEQ monitoring organizations supplied over 4,100 stream miles worth of water quality data. In addition, with the increased emphasis on Total Maximum Daily Loads (TMDL), VADEQ includes such qualified data to identify sources of pollutants and help keep track of implementation efforts.

In order to incorporate such a large volume of data, VADEQ had to develop a three tiered system to sort and validate submitted data. Such a tiered system allows VADEQ to assess and include qualified data while allowing flexibility to data submitter monitoring programs based on their capabilities. In addition, such submitted data is uploaded into an online database to allow contributing organizations and public to view data submitted to the agency.

This approach has allowed VADEQ to develop a positive working relationship with groups and individuals who are concerned about the environment. At the same time, VADEQ has access to a diverse assortment of additional data to enhance the agency's monitoring and assessment program. This partnership has been increasingly helpful during lean budget years to allow the agency to continue to assess water quality over a significant portion of the state.

0427
C1-2

Collaboration Between New Jersey's Volunteer Monitoring Community and the State Agency

Danielle Donkersloot

New Jersey Dept. of Environmental Protection, Trenton, N.J., USA

Volunteer water quality monitoring programs often serve as a first step that engages the public in water resource management and protection. Volunteer monitoring programs help promote a sense of stewardship through improving the publics understanding of local water resources, encourage individual and community involvement in water quality protection and restoration efforts, and helping communities make informed decisions that improve water quality.

Throughout the decades, volunteer water quality monitoring programs have enhanced their monitoring methods, improved their data credibility, and developed ways to exchange data with each other and government agencies. As state agency budgets shrink and the complexity of water protection and restoration efforts increases, the need for partnership between volunteer monitoring programs and agencies is more apparent. In this discussion, participates will learn how the New Jersey Department of Environmental Protection is working with the NJ volunteer monitoring community. We will discuss real examples of collaboration between the volunteer monitoring community and the agency and highlight data uses that not only benefited the agency but the local community as well.

0345
C1-3

Integration of Volunteer Monitoring in the Myrtle Beach Urbanized Area's NPDES Phase II Stormwater Management Programs

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Over the past five years, three volunteer water quality monitoring programs have been implemented in northeastern South Carolina to meet regulatory requirements under the NPDES Phase II Stormwater Program. This region, which encompasses two counties and is entitled the Myrtle Beach Urbanized Area (UA), contains eight small municipal separate storm sewer systems (SMS4s), each of which is required to develop and implement their own stormwater management program. Each monitoring program focuses on a watershed that crosses jurisdictional boundaries, requiring collaboration of several SMS4s to provide funding and coordinate management responses to reports of water quality problems. The longest running of the programs is based in the Waccamaw River, with 12 sites in SC and 6 in NC.

These programs are also integrated with the Coastal Waccamaw Stormwater Education Consortium (http://cwsec-sc.org/), a group of professional educators and the SMS4s, who support the public outreach and public involvement components of the Phase II stormwater programs.

Stability for the monitoring programs is provided by its five tier structure. Funding is provided via allocations from municipal stormwater utility fees collected annually by the SMS4s from private property owners. Management of the monitoring is overseen by a field leader and Coastal Carolina University's Environmental Quality Lab. The field leaders are staff within local civic organizations that have environmental interests, such as the Waccamaw Riverkeeper™. The volunteers work in teams led by a master sampler. The team approach ensures coverage for biweekly sampling year round.

South Carolina does not have a centralized volunteer monitoring program, so the efforts in the Myrtle Beach UA are free standing. They are implemented through a QAPP and SOPs available at: http://www.coastal.edu/wwa/vm along with the program's data which are presented in a customizable format, including tables, graphs, and csv file downloads.

The SMS4's stormwater managers play a central role in the monitoring programs. They respond to rapid reports of potential illicit discharges enabled by an online data entry system used by the volunteers. They also participate in biannual public meetings to discuss findings. To facilitate management follow through, the data have been used to develop percentile-based site specific water quality "standards."

0167
C1-4

Insuring Quality Volunteer Data

Chris Riggert

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Data submitted by Level 2 and 3 Stream Team Volunteer Monitors are utilized at a higher degree because we have increased confidence in the volunteers' methods, techniques, and commitment. These data are elevated and are often used to supplement agency data. They may be utilized to evaluate best management practices and as supplemental data for planning and permitting. These data are also included in DNR's semi-annual 305b report to EPA. We wanted to ensure we are providing the highest quality data to the sponsoring agencies and all other data users. To reach this goal and to increase confidence in the data, the Program is now requiring individuals to complete additional steps prior to qualifying to attend the next level of training, and to additionally have their equipment checked at least once every three years in order to maintain quality assurance and confidence in data collected by Level 2 and 3 volunteers. We are confident this will also increase the volunteers' confidence in their own abilities by providing additional opportunities to practice the chemical monitoring techniques, receive mentoring, receive new reagents, and ensure their kits are functioning properly.