

York County's Water Quality Monitoring Program with U.S. Geological Survey

There were several local public meetings regarding water quality over the last few years. One of the takeaways from those meetings was the wish for real pollutant numbers, instead of modeled numbers. The York County Commissioners heard the public and committed to a partnership with the United States Geological Survey (USGS) to fund the installation and operation of six state-of-the-art, real time, water quality monitors. The monitors capture readings from about 80% of the water outflow from the County. This water quality monitoring (WQM) program continuously samples 6 different watersheds in a method that will eventually show trends and loads for sediment and nutrients.

York County's state of the art WQM Program will allow the USGS to determine pollution base loads and trends – what is in the water and how is it changing. We are monitoring mostly for sediment and nutrients (phosphorus and nitrogen). Through continuous monitoring and scientific analysis, we will know, the quality of our streams AND whether the sediment and nutrient levels are getting better or worse. Not only will water quality trends be apparent, but the Program also has the capability to conduct "hot spot" water sampling, where there is a spike in sampling data, to determine the pollutant source.

For the last 20 years, York County has been proactive in tracking and participating in water related issues of local concern by:

- involving the public and instituting recommendations received,
- advocating for and leading in the development of integrated water resource management, and
- investing for the future of its water quality and the wise/efficient management of water resources.



6

WQM Stations

80%

**Approximate amount of water
flow being monitored**

700

**Approximate miles of impaired
streams**

As York County continues to collect WQM data long-term, how will it benefit in the future when definitive pollutant levels and trends are determined? The County should see “returns” for the investment environmentally, economically, and socially. Real local data that shows a true picture of the condition of local streams and better informs management actions for York County watersheds are obvious goals. But for the County to get the most out of its efforts, we should be thinking of how this information can be used for the betterment of not only our local waters, but also for what is needed to obtain the “returns” on our investment.

Flexibility and changes within the regulatory community are considered critical to achieving the investment “returns.” Recommended changes include:

- Use of local WQM data to improve the efficiencies of the Chesapeake Bay Model
- Use of local WQM data for municipal separate storm sewer system (MS4) reporting requirements and
- Acceptance of local WQM data as proof that best management practices are operational, sound and improving water quality.

Conversations with appropriate regulatory agencies, related to flexibility and incentives, need to start now. This will ultimately allow our WQM data to replace costly surrogates for evidence of regulatory compliance.

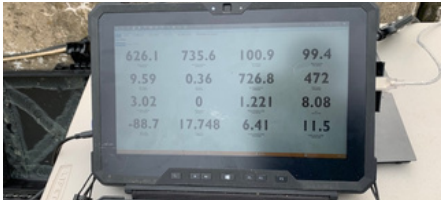
Even though our WQM Program is constantly collecting data, it will still take time to have definitive water quality pollutant trends. However, immediate benefits do exist, such as: An opportunity for York County stakeholders to be informed of the effort to utilize real data to supplement/replace modeled predictions. Unexplained pollutant spikes should be detectable and the capability to locate the source of such spikes should be achievable. York County’s data will be a part of the network that informs the Chesapeake Bay Model, thereby improving its quality and accuracy. A basis for future water resource management decisions/policies is being constructed.

Local WQM program partnerships with DEP, USGS, & SRBC makes economic, scientific, and regulatory sense. Improved models, better data for scientific analysis, improved early warning systems, better land use planning, improved source water/well head planning, etc. are just a few benefits of partnerships.



Water Quality Monitoring

- ✓ IDENTIFY ISSUES
- ✓ VALIDATE SOLUTIONS
- ✓ PROVIDE REAL DATA



For more information, visit watershedallianceofyork.org or contact Rachel Stahlman, CAP Coordinator: rstahlman@ycpc.org 717-771-9870

