Monitoring Mutualism

How Investing in Level III Water Quality Monitoring Benefits all Partners

Julia Ela

2019 National Water Quality Monitoring Conference
Rivanna River Watershed

- 770 square miles
- Population of ~160,000
- Headwaters in Shenandoah National Park
- Outlet at James River
Virginia Department of Environmental Quality’s Citizen Monitoring Data Levels

RCA is only nonprofit in Virginia to have Level III benthic and bacteria programs
RCA Benthic Monitoring

- Volunteers sample benthic macroinvertebrates to assess long-term health
- 50 sites sampled each spring and fall

➤ Achieved Level III certification (as StreamWatch) in 2008
RCA Bacteria Monitoring

- Volunteers test for *E. Coli* bacteria levels and turbidity
- 20 urban sites sampled monthly, 2 recreation sites tested weekly in summer

- Achieved Level III certification in 2017
Monitoring Sites in VA

- Citizen monitoring sites
- Non-agency monitoring sites

Map provided by VADEQ
Impacts of Level III Certification

- Data equivalent to those collected by state agencies

- Can be used for:
  - Identifying impaired waters
  - TMDLs
  - MS4 stormwater programs
  - Water safety information
  - Water quality improvement decisions

- Added value to data and monitoring programs
Lessons Learned

- Critical to find a champion or mentor
- Important to work with local partners
- Vital to support volunteer monitors
Thank you to RCA’s partners and supporters:

Virginia Department of Environmental Quality
Albemarle County
City of Charlottesville
Fluvanna County
James River Association
The Nature Conservancy
Patagonia Foundation
Rivanna Water and Sewer Authority
Virginia Environmental Endowment
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