



Regional Finance and Governance Models for (Source Water) Watershed Management

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Webinar Objectives

- What is watershed management?
- How do small systems benefit from watershed management?
- How can small systems participate in watershed management?



Polling question

- Which best describes where your water utility gets its source water (Click all that apply)?
 - Purchase surface water
 - Purchase groundwater
 - Groundwater
 - Surface water
 - Not a utility



Polling question

Does your utility experience water quality challenges in your source water?

- Yes
- No
- I don't know
- Not a utility



Polling question

Select all the ways your utility has acted to protect your source water.

- Education
- Partnership
- Land conservation
- Project implementation
- Watershed planning



What is watershed management?

“...any program or collection of strategies that positively influence activities and land characteristics within a drainage basin.”



Source water protection

“Watershed management for the purpose of preserving the water quality of a drinking water supply.”



Unique challenges facing small systems in the area of source water protection

- Often rely on other sources of water (purchase)
- Limited technical and financial resources
- Limited ability to impact land use in entire watershed

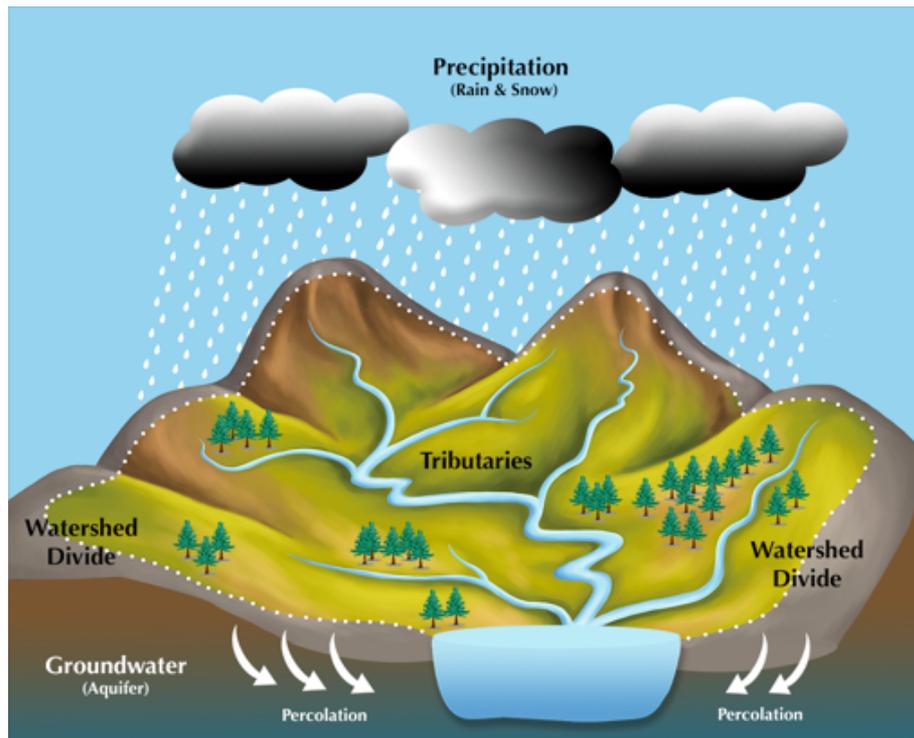


Steps of source water protection

- Delineate source water protection area
- Inventory known and potential sources of contamination
- Determine the susceptibility of the PWS to contaminant sources
- Notify the public about threats
- Implement management measures to prevent, reduce, or eliminate risks to source water
- Develop contingency planning strategies

Delineate source water protection area

- What is the watershed boundary or groundwater recharge area of your drinking water source?



Inventory known and potential sources of contamination





Determine the susceptibility of the PWS to contaminant sources

- Nature of threat
- Severity of potential contamination
- Likelihood of contamination

Notify the public of threats



Implement management measures

- Measures are specific to each threat and watershed





Develop contingency planning strategies

- Backup water supply for short or long-term disruptions
- May include utility-owned sources and interconnectivity with neighboring systems



How do small systems benefit from watershed management?



Avoided costs

- Water treatment
- Capital improvements
- Violations
- Cost to earn customer trust back

Headline:

Murky waters: North Carolina residents unaware of possible water contamination

Ancillary benefits

- Recreation
- Social
- Economic
- Public health
- Resiliency



Environmental benefits



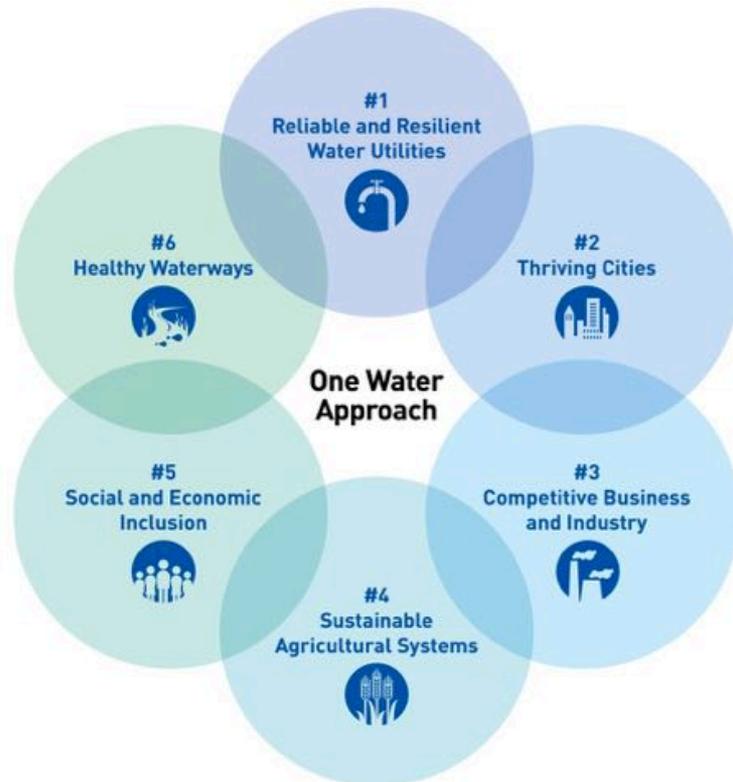


Emergency Response Coordination

- With pre-existing relationships, emergency response is more efficient and effective
- More reliable backup source

“One Water” approach

Water, in all forms, is valuable and should be managed holistically.



**US Water
Alliance**



How can small systems participate in watershed management?

- Collaboration with other entities
- Participate in watershed plans
- Educate customers
- Encourage public participation
- Transparently share information
- Be proactive



Collaboration

- Lewisburg, WV partnership with West Virginia Land Trust
- Identify critical parcels for source water protect
- Stakeholder engagement process
- Lewisburg serves about 10,000 customers and sells water to Ronceverte (2,000 customers).



Education

- Collaboration with schools
- Customer education





Polling question

- Are you or the utilities that you work with involved in a significant watershed protection partnership?
 - Yes
 - No
 - I don't know
 - Does not apply



Governance Structures

- Interlocal agreements
- Watershed districts and planning areas
- Regional partnerships
- River basin associations or compliance associations



Interlocal agreements

- Source protection
- Water quality monitoring
- Coordination between watershed plans
- Partnership with other systems



Crafting Interlocal Water and Wastewater Agreements





Regional partnerships

- Regional water source protection projects
- Monitoring partnerships
- Shared source partnerships





Funding and Financing

- CWSRF
- DWSRF
- 319 Grant Program
- National Water Quality Initiative



Funding and Financing

- 2018 Farm Bill
- 10 percent of \$4 billion mandated for conservation programs that protect source water
- Collaboration between private landowners, conservation organizations, and state and local government



**Federal Funding
Opportunities for Source
Water Protection**





Want to learn more?

- [EPA Source Water Protection](#)
- [Partners you can work with to protect water quality](#)
- [Watershed Management for Potable Water Supply](#)
- [Farm Bill Funds for Water Source Protection](#)



Polling Question

- Would you like one-on-one assistance for funding source water protection?
 - Yes
 - Maybe
 - No
 - Not a water system



Questions?



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