

Developing a Vision and Roadmap for Source Water Protection for U.S. Drinking Water Utilities

Water Research Foundation Project 4176

Project Goal

To identify critical elements of a unified source water protection roadmap and define steps that should be taken to set this roadmap in motion

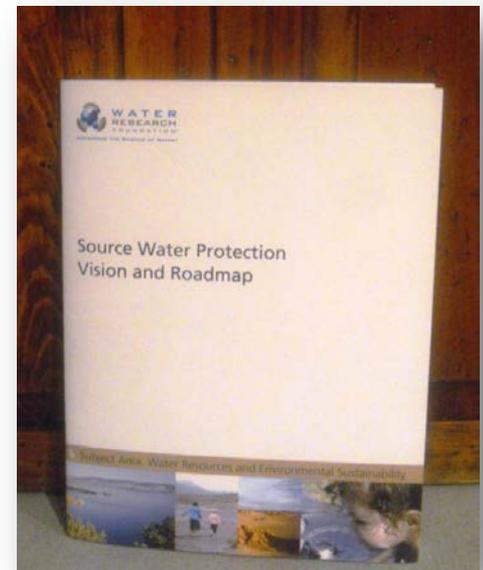
Source Water Protection Vision:

“Source water protection is essential for providing a reliable supply of high-quality drinking water. By 2025, every public community water supply will be protected by an active source water protection program.”

4176a Full Report (Electronic copy only)

4176b Shorter Version with Roadmap

<http://www.waterrf.org/Pages/Projects.aspx?PID=4176>



Roadmap Themes

- Raise Awareness
- Enhance Coordination
- Provide Support
- Increase Recognition



Raise Awareness

Need to *raise awareness* of importance and value of source water protection. Greater awareness is needed

- *By utilities*, of the role SWP plays in the multi-barrier approach to providing reliable, high quality water at reasonable rates
- *By utilities and their management*, of the value of SWP
- *By consumers*, of the benefits and value of SWP
- *By stakeholders*, of the importance of protecting drinking water sources and the priority that should be given to drinking water concerns in SWP

Enhance Coordination

Programs, efforts, and regulations affecting SWP can be conflicting, redundant, or lacking in focus. Need to *enhance coordination*

- *Overall (across all relevant operational and stakeholder groups), so that SWP efforts and programs are better integrated and work together synergistically*
- *Among CWA and SDWA regulators, both at the state and federal levels, for more effective implementation of existing CWA regulations so that drinking water interests are more immediately and completely addressed*

Provide Support

There is a need for greater *support*. Specifically, water utilities would benefit most from support provided by

- *Experienced water industry peers*, for fellow drinking water professionals trying to plan and implement source water protection programs; and
- *State and federal funding agencies*, so that source water protection needs are sufficiently addressed (for high quality water sources as well as impaired water bodies).
- *Municipal officials*, who can influence public support of regulatory and financial measures to implement source water protection; and
- *Customers*, through water rates.

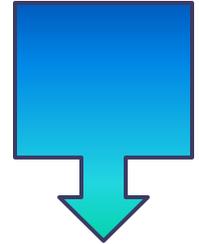
Increase Recognition

Issues and efforts related to SWP should be acknowledged more publicly. Successful efforts should be praised more frequently. Regulatory inconsistencies hampering SWP should also be addressed. In these ways, there should be *increased recognition*

- *By the public and the drinking water community, of successful SWP efforts made by water utilities*
- *By state and federal regulators, of inconsistencies and shortcomings of existing regulations that should more effectively ensure the protection of drinking water sources.*

Recommendations for How to Proceed

Top-Down Approach

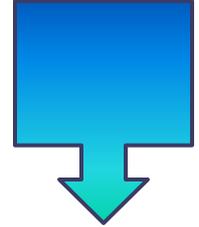


At the national level

- Develop system for providing awareness, outreach and education to key decision-makers and the general public (including schools) as to importance and values/benefits of SWP
- Fix gaps to improve integration of CWA regulation and source water protection
- Create a national source water protection coordination organization

Recommendations for How to Proceed

Top-Down Approach

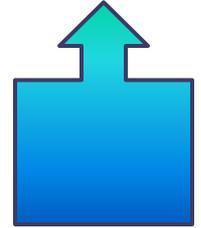


At the national level (continued)

- Achieve nationwide recognition of SWP efforts among key land use planning and management organizations
- U.S. EPA, states and ASDWA, AWWA, NRWA, NRCS and other appropriate organizations should provide more information, education and guidance on how to manage watersheds and aquifers regarding emerging issues and other SWP issues specific to drinking water
- Develop interstate and trans-boundary waterway commissions to facilitate SWP across state boundaries

Recommendations for How to Proceed

Bottom-Up Approach

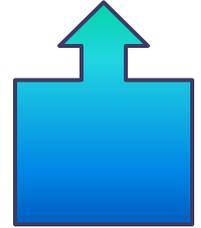


At the local level

- Create an on-site, individual SWP mentoring program for water utilities
- Update and build upon existing SW assessments to move forward to protection
- Leverage current CWA and other state and federal regulations and programs more effectively

Recommendations for How to Proceed

Bottom-Up Approach



At the local level (continued)

- Water utilities should encourage local and state legislative bodies to pass resolutions recognizing that SWP is important
- Develop watershed/aquifer councils of governments and/or partner with NGOs as watershed associations to facilitate natural system-based land and source water planning efforts

Various Efforts on SWP

- AWWA - G300 Standard for SWP (with guidebook); OpFlow article
- AWWA - Survey of large water systems regarding SWP
- AWWA - Exemplary SWP Awards
- EFCN - SWP IQ
- NALMS - workshop of SWP and special sessions; LakeLine article
- Source Water Collaborative - pilot projects (Salmon Falls, ME/NH)
- Source Water Collaborative - working with USDA
- Source Water Collaborative - CWA and SDWA integration
- State Source Water Collaborative - NC SWC
- U.S. Endowment for Forestry & Communities - SWP coordinator
- USEPA - State SWP workshops (targeted)
- USFS - Forest to Faucet
- UGSG - National Water-Quality Assessment Program - Circular 1385
- WaterRF - TMDL and SWP; impacts from wildfires