Water System Partnerships

http://water.epa.gov/infrastructure/sustain/partnerships.cfm

Small systems face unique challenges in providing affordable drinking water that meets federal and state regulations, especially as new drinking water requirements become increasingly complex. These challenges include aging infrastructure, increasing costs and declining rate bases, and limited technical and managerial capabilities. In order to overcome some of these challenges, water systems may need to develop partnerships with other systems.

These partnerships can provide opportunities to collaborate on compliance solutions and operations and maintenance activities and to share costs with other nearby systems, thereby increasing capacity and enabling systems to provide safe and affordable water to their communities.

Partnerships can range from informal arrangements (e.g., sharing equipment with another water system) to more complex arrangements (e.g., sharing management with another water system) and may involve changes to the operational, managerial or institutional structure of a water system. When considering a partnership with another water system, it is important to evaluate:

- Available partnership options.
- Which options ensure long-term compliance and financial stability.
- Associated costs.

Webinar Series on System Partnerships:
As part of the EPA-USDA Memorandum of Agreement (MOA) “Promoting Sustainable Rural Water and Wastewater Systems (5 pp, 374K), the two agencies are collaborating on a four-part webinar series to promote system partnerships.

- Partnering Over Time: Vinton County Water Joins Jackson County Water (10/26/2011) Featuring the partnership between two water systems in Ohio, and how the nature of their partnership evolved from informal cooperation to interconnection.
- Communicating to Gain and Maintain Buy-in: The Logan Todd Regional Water Commission (2/29/2012) - Featuring a regional water commission formed by 12 water systems that each kept their own identities.

Additional Resources:

- Helping Small Systems Comply with the Safe Drinking Water Act: The Role of Restructuring (PDF) Frequently asked questions on how restructuring can help aid compliance and create shared benefits.
- Case Studies: Gaining Operational and Managerial Efficiencies Through Water System Partnerships (PDF) EPA 816-R-09-005
Small System Initiative in Region 5

Small water suppliers have historically had more difficulty than large water systems in meeting the regulatory requirements of the Safe Drinking Water Act. They generally have limited technical, financial, and managerial resources. Region 5 has nearly 40% of the nation’s non-community water systems – over 40,000 small water systems! Supplying drinking water for many of these systems is not their primary function. Their focus is on running a school, or childcare facility, or restaurant, etc.

Most of the violations at small water systems are for monitoring and reporting violations (M/R), though there are maximum contaminant level (MCL) violations too. M/R violations can usually be traced to: (1) a poor understanding of the rule requirements, (2) not having the money to pay for the analyses, or (3) forgetfulness. These causes are related to the systems’ technical and/or managerial expertise. The MCL violations are usually a problem because the small systems do not have the technical and/or the financial capability to resolve the issues.

In 2011, Region 5 started a Small System Initiative that focused on a subset of small systems, schools and childcare facilities. States have been working with small systems for many years and have tried many ways to enhance their compliance. This initiative tailored Regional compliance assistance activities to meet our individual State’s needs with respect to working with school and childcare facilities.

In addition to this Small System Initiative, Region 5 has been working on small system compliance through our enforcement program. A focus area has been on small systems with radium or arsenic MCL violations. The main issue with these systems is the lack of funding to pay for the needed solutions – treatment or connecting to another system. We have had some success in applying pressure by involving the communities served by these water systems. However, traditional funding sources like DWSRF and USDA-Rural Water funds are limited and the need is great.

Region 5 is interested in any advice NDWAC would have on optional approaches and vehicles to providing capacity development to small systems.
Small Drinking Water Systems and Building Partnerships

October 4, 2012
Small Systems in Region 5

- Number of Public Water Systems = 45,803

- Number of Non-Community Water Systems = 38,465
  84% of the PWSs in R5
  37% of the nation’s NCWSs

- Number of Community Water Systems with populations 500 or less = 3,936
Problems at Small Systems

- **Monitoring/Reporting Violations**
  - Non-Community Water Systems = 6,951
  - Community Water Systems (pop ≤ 500) = 841

- **Health-Based Violations**
  - Non-Community Water Systems = 1,722
  - Community Water Systems (pop ≤ 500) = 265
Issues at Small Systems

• **Lack of Technical Capacity**

  – Operating a PWS is not the primary business for most Transient NCWSs
    • School/Daycare
    • Restaurant
    • Service Station
    • Recreation area
    • Hotel/Motel
Issues at Small Systems

- **Technical Issues Even at Small CWS & Non-Transient NCWSs**
  - Region 5 experience during early implementation of Stage 2 DBP Rule
    - Number of operators lacked knowledge of the DW rules
    - Some operators lacked knowledge of proper O&M
Issues at Small Systems

- Lack of Managerial Capacity

  - In Region 5's experience, there have been issues with:
    - Lack of short and long term planning
    - Little staff training
    - Poor financial-management systems
Issues at Small Systems

- **Lack of Financial Capacity**
  - Many small water systems are not collecting and/or setting aside sufficient funds for:
    - Proper O & M
    - Replacement of equipment
    - Funding necessary construction
      - New treatment
      - New well
Region 5 Small Systems Initiative

- Started in 2011
- **Purpose:** Preventing non-compliance and improving compliance at Public Water Systems that are schools or childcare facilities
- **Schools/Childcare Facilities**
  - 2,379 systems
  - 1,452 with violations (2006-2010)
  - 376 violations not returned to compliance
  - 75% Monitoring/Reporting violations
  - 25% Health-based violations
Region 5 Efforts with Small Systems

- Tailored Region 5 activities to State’s needs
- Identified menu of 10 activities
  - Technical assistance
  - Help with Ground Water Rule
  - Coordinate with National Rural Water Association
  - Provide system reminders
  - Help with Lead
  - Notification of School Boards
  - Coordination with Region 5 Childrens’ Health
  - Research innovative funding
  - Track & provide status reports to States on R5 actions
  - State-generated suggestions
Region 5 Efforts with Small Systems

- Sent letters to schools/childcares with repeat Monitoring/Reporting violations stressing importance of sampling.
  - Number of systems responded to letter from “USEPA”

- Sent letters to schools/childcares with violations of the Lead Consumer Notice requirement.
  - Number of systems are responding.
Region 5 Efforts with Small Systems

- Sent letters on the requirement to have certified operators.
- Working with State on providing training to local health department on rule requirements.
- Writing newsletter articles focused on rule requirements for small systems – acute contaminants
Region 5 Efforts with Small Systems

- **Region 5 Enforcement**

  7 small CWSs with radium or arsenic MCL violations
  - Out of compliance for number of years
  - Lack of funding
  - Lack of urgency
Region 5 Efforts with Small Systems

- **Region 5 Enforcement**
- Region 5 sent clear message that waiting was not an option.
  - Required systems to come up with plan and funding
- Region 5 got consumers involved by holding public meetings and providing health information.
Region 5 Efforts with Small Systems

U.S. ENVIRONMENTAL PROTECTION AGENCY

Region 5 Water
Serving Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin and 35 Tribes

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Drinking Water in the Village of Ransom, Illinois

Important Health Message
For many years, the drinking water in Ransom, IL has contained more radium than the federal government allows. EPA is concerned because long-term exposure increases the risk of developing certain health problems. The Village of Ransom must find a permanent way to reduce radium levels in the water supply.

In the meantime, residents may choose to take precautionary steps to reduce your radium exposure. This is a personal decision based on cost, convenience and one's view of risk.

How radium can affect your health
Over-exposure to radium increases the risks of developing certain cancers, particularly bone cancer. Over time, radium can damage bones, tissue or genetic material.

Children are at a greater risk
Drinking water containing radium at high levels for a long period of time increases the risk of cancer, particularly bone cancer. The body recognizes radium as calcium and deposits significant amounts to bones after repeated ingestion. Since children are still growing, they are at a higher risk of absorbing larger amounts of radium in their bones, especially if exposure occurs during a critical growth stage.

10/4/2012
U.S. Environmental Protection Agency
Discussion

- Funding is a major issue for small systems with MCL violations. Are there innovative approaches/vehicles to provide funding besides the traditional DWSRF, USDA-Rural Development funds?

- What innovative approaches can be used to provide needed technical and managerial assistance?
Thank You
for this opportunity to speak
to you about small water systems