

Project: TECHNICAL ASSISTANCE CENTER FOR SMALL WATER SYSTEMS

Brief Description: A Congressional appropriation is sought to develop professional training tools for those who design, manage, operate and regulate small public water systems, and to develop and test water treatment techniques and management tools for small systems.

Executive Summary

The goal of the Technical Assistance Center is to develop and distribute tools and knowledge that allow small public water systems to dispense safe, affordable drinking water while satisfying a complex and growing set of regulatory requirements. The Center's specialty is developing computer-based interactive training courses for water-system operators and managers. The courses are also used by water engineers and drinking-water regulators and trainers. They cover the technical aspects of drinking-water characteristics and treatment, plus system management fundamentals and the pertinent regulations. They are used in all states and certified by most states for continuing-education credit. The program also sponsors university engineering teams to evaluate and report on innovative water treatment techniques for small water systems, and to develop cost-saving monitoring and assessment methods. These projects take place in partnership with public water systems.

Congressional Action Requested

An appropriation of \$500,000 is sought from the EPA Office of Groundwater and Drinking Water.

Importance to Montana

If they aren't designed, managed and operated appropriately, small water systems provide a pathway for the spread of disease. Consequently, they're highly regulated. Montana has more than 1900 public water utilities, and those who manage and operate them face a major challenge in acquiring the technical assistance and training they need. Treatment techniques and management approaches developed for urban water utilities cannot be supported by utilities with small rate bases, minimal staff, and long distances to sources of help. In Montana and other rural states it is common for public water systems to be managed by community volunteers and staffed by part-time operators. Few utility personnel have formal education in finance, water science or public health. Therefore it's vital that they have access to simple, affordable treatment techniques that don't require professional managers and full-time operators with advanced knowledge of physics and chemistry. They also need calculation tools for developing budgets, assessing infrastructure and managing their systems. Finally, convenient, engaging training opportunities are essential. These must allow water system personnel to obtain training that is of high quality, pertinent to their needs, on a schedule they set themselves, in a format that is enjoyable and provides them with the required continuing-education credit. The Technical Assistance Center works in all these areas.

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Montana Water Center

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Importance

- § There are tens of thousands of small public water systems in the United States; Montana alone has more than 1900 of them. Small systems are typically managed by volunteer community boards working with very limited revenues, and they're often run by part-time or volunteer operators who lack a technical background.
- § The risks inherent in distributing water for human consumption are potentially severe, and the regulatory demands on small public water systems are numerous and complex. High-quality training of system operators and managers, and those who assist and regulate them, is essential.
- § This program targets the needs of small systems: simple and affordable water treatment techniques, convenient and engaging training opportunities for water boards, managers and operators, and unbiased guidance on water treatment techniques.

Accomplishments

- § The interactive *Operator Basics* training series, updated and expanded in 2006, is approved by more than 40 states for operator continuing-education credits, and more than 40,000 copies have been distributed. The series has been used in courses attended by thousands of operators, including Native Americans who operate tribal water systems. A formal assessment conducted by an independent contractor in 2005 indicated that many users of this training employ it as their principle study guide when they train to become certified operators for the first time.
- § Several thousand small water utilities have used the Center's *Guide to Developing a Source Water Protection Plan* to help them identify threats to the quality of their source waters and set up procedures to protect those waters. A version specific to Montana is available.
- § The *Toolbox to Assess Microbial Risk* has been used by thousands of small water system managers to set priorities for allocating their limited capital funds to provide the best protection of public health; they can compare alternative system-upgrade schemes before choosing the one to implement.
- § The *Sanitary Survey Fundamentals Course* serves as the first level of training for all new water-system inspectors who are preparing for certification at the national level.
- § Treatment demonstrations and research projects involving more than thirty public water utilities have been completed, and a number of small utilities now use treatment techniques that were demonstrated by this program. A center-sponsored project in the Helena Valley that concluded in 2006 showed that new EPA-proposed measures of water contamination by microorganisms would not be affordable or technically feasible for small water utilities that rely on ground water. The results of this and other center-sponsored research and demonstration projects are being incorporated into national guidance for small water systems.