

Montana Water Center

The Montana Water Center is one of 54 water research institutes in the United States established by a 1964 Act of Congress. Funded by the U.S. Environmental Protection Agency (EPA), the Montana Water Center operates the flagship institution of an eight-center network of Small System Technology Assistance Centers. Our main offices are on the campus of Montana State University in Bozeman, Montana.

Organizational Goals

Our Small System Technology Assistance Centers work to protect public health, improve water system sustainability, and enhance regulatory compliance by small water systems. The centers apply university resources to address the needs of rural and small public water systems or public water systems that serve Indian tribes, in the areas of technology verification, testing of innovative technologies, and training and technical assistance.

For twelve years, our center has focused on helping small public water systems provide safe water economically. We develop interactive training tools for operators of small public water systems and technical assistance providers throughout the United States.

Distance Education History

Since 1999, the Montana Water Center has developed a wealth of computer-based training products. Here are some of the highlights:

[Virtual System Explorer](#) is an immersive "Exploration" of three small public drinking water systems in DVD format. Users can begin with a narrated two-hour overview of system operations in the "Exploration Basics" course, and then progress to a half-hour interactive tour of each system -- a ground water system with no treatment, a ground water system with treatment and a small surface water treatment system. Three operational problems are presented in each system "Exploration" that must be solved.

This tool can be used for continuing education purposes as it is tracked and scored when used in a computer. It also works well for workshops and at-home use on a standard DVD player.

[Operator Basics Training Series](#). In 2005, the Montana Water Center Media Team announced the availability of the long-awaited comprehensive computer-based training for operators of small water and wastewater systems. Operator Basics 2005 contains over 20 hours of curriculum in three courses—Surface Water Systems, Ground Water Systems, and Wastewater Lagoons—and a “Water Exploration” showcase, all designed to prepare small system operators for certification. The revised software also offers a math practice section with 500 animated math problems and solutions, 500 exam preparation quiz questions, study games, a glossary and links to useful resources. Access to print and copy content is free.

[Source Water Protection Training Guides](#). The Center was funded to produce Source Water Protection training modules for states in the Great Lakes region. Based on our past experience with these tools, we’ve refined the product and have added several state-specific resources in collaboration with experts in Illinois, Indiana, Montana, Ohio and Pennsylvania.

[Sanitary Survey Fundamentals](#). This “prep course” provides basic instruction on operation of public water systems, a specialized vocabulary, and better understanding of the in-depth Sanitary Survey workshops given by EPA’s Drinking Water Academy and other organizations. We’ve incorporated 3-D fly-ins, animation, interactivity, games, narration, and video in this tool, all without the need for users to install a plug-in. The course takes about two hours to complete.

[Microbial Risk Assessment Tool](#) is a user-friendly computational tool that helps small water systems assess (by component) their vulnerability to microbial contamination. The project goal is to foster technical and managerial capacity in small water systems drawing from springs, wells, surface waters or any combination of sources.

[Point-Of-Use Reverse Osmosis Training Tool](#). The purpose of the POU-RO Training Tool is to familiarize engineers and other water treatment professionals with the use of centrally managed, point-of-use reverse osmosis (POU-RO) systems in order to comply with the arsenic drinking water regulations.