

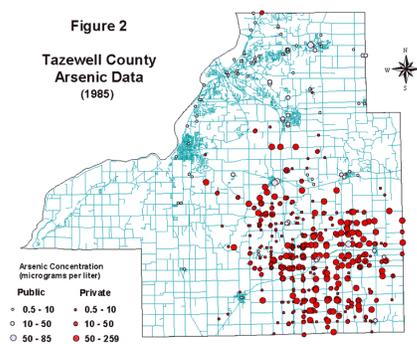
Arsenic Problem a Major Focus for Midwest: Several MTAC Projects Funded to Address Problem

MTAC has sponsored several educational workshops for small system operators and administrators concerning arsenic over the last two years. There are also three separate major projects funded through the competitive grant process by MTAC that address this issue.

The first project, *Arsenic Removal In Water Treatment Facilities: Survey of Geochemical Factors and Pilot Plant Experiments*, sought to identify critical factors related to improved arsenic removal employing existing plant equipment, and identifying geochemical factors that may influence the concentration of arsenic in groundwater wells. Improving oxidation efficiency and the ratio of iron to arsenic were determined to be the most critical parameters related to arsenic removal efficiency. Researchers also concluded the bulk of the arsenic in these wells came from the main aquifer and not the bedrock as previously thought, and that there was a great deal of temporal variability in arsenic concentrations

MTAC Request for Proposals Issued

MTAC funds up to four competitive grants during each annual funding cycle. These grants are limited to a maximum of \$50,000 for a project no more than fifteen months in length. Past proposals funded by MTAC have addressed such diverse topics as Source Water Protection, Arsenic Mitigation,



This map illustrates the high local variability that exists in a region of Illinois where wells are known to contain arsenic. These high local variations in the arsenic concentration make it difficult to predict when arsenic will exceed recommended levels in any new wells drilled.

for many wells. This report is available as a PDF file on the MTAC web site.

The second project, *Arsenic in Illinois Groundwater: Implications for Non-community Water Supplies*, involved sampling the non-community supplies in Illinois that had not been sampled for arsenic to determine which had an arsenic concentration that might pose a health concern to those consuming the water. Each sample also had a complete water quality analysis performed to determine if there were other water quality parameters that may be related to high arsenic concentrations. Additionally, well construction and geological information were collected when available to try to correlate these factors with the variability in arsenic concentration in Illinois groundwater supplies. This report is available as a PDF file on the MTAC web site.

The last project currently in progress, *Development of Low Cost Treatment Options for Arsenic Removal in Water Treatment Facilities.*, is attempting to use innovative means of improving the oxidation of arsenic and its co-precipitation with iron oxide to result in increased arsenic removal efficiency. Preliminary studies are encouraging, and in-plant trials are proceeding.

Corrosion, and Financial Planning, Capacity and Performance. For a complete listing of current and past grants, check our Web site at <http://mtac.sws.uiuc.edu/comgrant.asp>. MTAC issued another Request for Proposals (RFP) during May of this year. The due date for a proposal

submission is July 1, 2004. If you would like more detailed information regarding the RFP, check the MTAC Web site (<http://mtac.sws.uiuc.edu/>) for specifics once the RFP is issued.

MTAC-Sponsored Training Opportunities
(see our Web site at <http://mtac.sws.uiuc.edu> for details and registration information)

Rate Maker Workshops
(Summer 2004)

Information Technology Security Workshops
(Summer 2004)

Water Operator Short Course
(Summer 2004)

Project Helps Small Communities Plan for the Future

The project report, *Assessment of Capacity Needs for Rural Water Supply in the Midwest*, is complete and available as a PDF file on the MTAC web site. This project reports the existing water supply infrastructure capacity on a county level basis for several states in the Midwest. There are also projected water supply demands developed for those same geographic areas for the years 2005, 2010, 2015, 2020, and 2025. This should be a valuable planning tool for small communities.

Did you know?

- MTAC is one of eight Technology Assistance Centers for Small Public Water Systems.
- MTAC encompasses the ten states defined by USEPA Regions 5 & 7.
- >95% of all Public Water Systems in the MTAC region serve < 10,000 people.

MTAC: Promoting Capacity Development for Small Public Water Systems

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We're on the Web!
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About MTAC...

The Midwest Technology Assistance Center for Small Public Water Systems (MTAC) cooperates closely with other regional technology assistance centers established by the USEPA, and with other partner agencies and organizations in order to ensure efficient response to the highest priority needs of small public water systems and Indian Tribal systems in the Midwest. MTAC is a joint effort of the University of Illinois at Urbana-Champaign and the Illinois State Water Survey. The Illinois State Water Survey is a part of the Illinois Department of Natural Resources. University of Illinois participation is led by the Illinois Water Resources Center, a member of the Environmental Council at the University of Illinois. MTAC employs an Advisory Group made up of representatives from USEPA Region 5, the Illinois EPA, Illinois Section AWWA, Illinois Rural Water Association, Illinois RCAP, and the Illinois Environmental Resources Training Center to assist in developing its Annual Work Plan.



Interactive Guide to Developing A Source Water Protection Plan

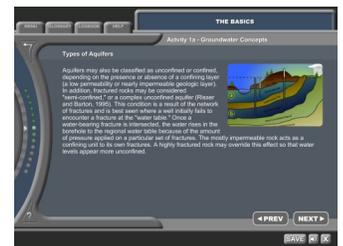
MTAC sponsored a cooperative project with the Montana Water Center, with assistance from the Illinois Environmental Protection Agency (IEPA) and the Illinois Rural Water Association (IRWA) to produce an *Interactive Guide to Developing a Source Water Protection Plan*. The CD includes an overview of the basic concepts and terminology involved in preparing Source Water Protection Plans, and provides system operators or administrators with the tools they need to develop or update their own Source Water Protection Plan. Each individual is able to log into the program and develop his or her own password-protected information and plan. The CD includes extensive glossary and reference infor-

mation on Source Water Protection. The game program, *Sink Sam*, is included as a fun way of learning glossary terms. Copies of the CD are available at no charge from MTAC.

This year, MTAC has sponsored another project to build upon the software platform developed for the Illinois Guide to produce an individualized version of this product for the States of Indiana and Ohio. These products will be tailored to the specific needs and capabilities of those states, and while it will have the same basic components it will possess a slightly different appearance and content responsive to the individual state needs.



Operators log on to create their own private account.



The basic concepts are explained in detail.



The glossary provides a ready reference of common terms.



The Sink Sam program combines fun with learning.