

THE SOURCE Missouri Department of Natural Resources PROTECTOR

The Official Newsletter of the Missouri Source Water Protection Program

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Seasonal Extremes Reinforce Value of Management | Planning and Public Involvement

Anyone who has spent more than a few years in Missouri knows that floods, drought and seasonal storms are just a part of life in the Midwest. Although fairly common, these types of events seem to have reached new levels of frequency and intensity over the last five years. Record breaking blizzards, ice storms, flooding and drought have left little time in between to recover from one before the next seems to take hold. Regardless of the ultimate cause of this phenomenon, the end result for public water systems has been a mess of cracked, frozen or washed-out distribution lines, damaged water towers, lost power, depleted or overflowing reservoirs, lowered or absent water levels in wells, and most importantly – a concerned public.

Although these have been challenging times for many, there is a silver lining for public water systems: The customers you serve are more aware than ever of the importance, value and need for thorough management planning and preparedness. They have read the articles about communities relying on tanker trucks to haul in potable water and they have heard the stories about water wells going dry. They have heard about other communities nearly going bankrupt because of emergency actions taken to obtain water when the local system goes down – whether due to a decaying or damaged infrastructure or to a compromised water source. There have been few times in recent history when the general public has been more aware of the critical importance of having a well-



maintained and efficient water system to serve them. Now is the time to harness this concern and translate it into action!

There is no better way to involve the greater community, who already has a tremendous investment in its local water supply, than to initiate a local source water protection program. The planning process opens an avenue of communication between the utility and those served and enlightens the public about the unique conditions, strengths and weaknesses of their local water resources. Disasters and emergencies are, by nature, difficult to predict; however, responding to and recovering from these situations is far easier when the community has an active role in the planning process and knows what to expect from the utility during a crisis. Let your community know they are your strongest asset and they have an active, tangible role to play in keeping their source of drinking water affordable, safe and reliable. If you have not already started the process, I encourage you to explore the benefits of source water protection planning today!

*Kenneth P. Tomlin,
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Sign Up to Receive Future Issues of the Source Protector

Let us know if you would like to subscribe to receive future editions of The Source Protector: The Official Newsletter of the Missouri Source Water Protection Program. We are excited about the positive feedback we have received so far and look forward to continuing to provide this newsletter as a service to source water practitioners all across Missouri! We would also like to hear what you have to say about source water protection in your community or any other comments or suggestions you might have for how we can improve our program to serve you better. Simply contact us at 573-526-0269 or e-mail the Source Water Protection and Assessment Coordinator at ken.tomlin@dnr.mo.gov to register to receive future copies of the newsletter or to offer your comments and suggestions.

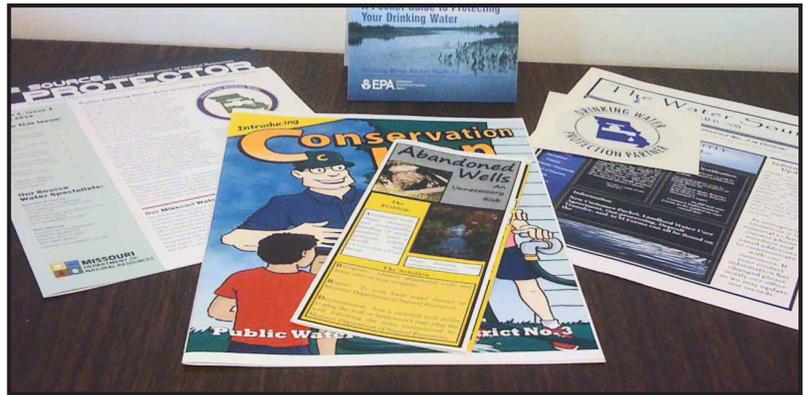
Practical Source Water Protection: Intro to Best Management Practices

Welcome to the first installment of a series of articles that will appear in *The Source Protector: The Official Newsletter of the Missouri Source Water Protection Program*. Each new article in the series will focus on a specific best management practice (BMP) that has been tried, tested and proven to raise awareness of source water protection or to address specific conditions or contaminants that may threaten drinking water sources. The focus of this first edition is information and education, a natural starting point for any planning team seeking to develop an initial protection program and a valuable tool for those who have successfully implemented other source water protection strategies.

Although the general merits of information and education are recognized by most, the role these elements play within the realm of source water protection is often understated. Even today in the age of high-speed internet and smart phones, many water consumers have no idea from where their drinking water comes (other than the tap). Realistically, every consumer of public drinking water has a stake in protecting their source and most are willing to do so. It can minimize the cost of their drinking water and promote a healthier community. This, among other reasons, is why informing and educating the greater community about the particular sensitivities of their water source can have an immediate and sustainable impact with regard to protecting what is arguably the most vital resource to the community.

Educating the community about the benefits of source water protection can be achieved through a variety of approaches. Bill inserts or brochures are an excellent

“A water utility who serves an informed and educated community stands to benefit in a variety of ways.”



means of reaching a large general audience and for communicating to the community that they can make tangible, meaningful contributions that ultimately help themselves and those around them. More targeted efforts, such as displays or exhibits at fairs and water festivals, are even more effective at reaching out to individuals and organizations that have potential for embracing and assisting with the effort. With some patience and diligence, an effective education and information campaign can set the foundation upon which a truly effective, proactive protection program can take root.

A water utility that serves an informed and educated community stands to benefit in a variety of ways. Increased interaction between the community and the water provider opens pathways of communication that simply wouldn't exist otherwise. A water system that needs infrastructure improvements, for example, is in a far better position to solicit the support of the greater community if that community has an awareness of the strengths (and limitations) of their local water source and provider. A community that recognizes the value of their water source is more apt to stay vigilant about protecting it. Whether it is a matter of increased vigilance in reporting suspicious activities or if it involves changing the daily behavior and habits of members within the community, educating and informing the community about their source of drinking water is a win-win situation all around.

Come back and check out the next edition of *The Source Protector: The Official Newsletter of the Missouri Source Water Protection Program* to learn about other best management practices communities in Missouri have successfully implemented to protect their drinking water!

Watershed Protection Corner

The “Our Missouri Waters Initiative” continues to evolve as activities have ramped up in each of the three watersheds selected for the pilot program. Stakeholder summit meetings have been held in the Spring River watershed in southeast Missouri and are scheduled to be held in the Lower Grand and Big River watersheds this fall. The summit meetings are intended to bring together local stakeholders from each watershed in an effort to discuss and share the unique challenges and interests within each watershed. Through this type of collaboration, it is hoped that local, regional, state and federal resources can be more efficiently targeted towards resolving environmental quality issues in each watershed in a comprehensive, holistic fashion.

“We are extremely pleased with the wide range of stakeholders that have participated in our pilot watersheds so far,” said Jennifer Hoggatt, coordinator of the department’s “Our Missouri Waters Initiative.” From landowners to mayors to county commissioners, it is great to see the passion that local citizens have for our water resources.”

By fostering stakeholder participation and collaboration within each watershed, the department hopes to greatly increase awareness among the community of the diverse tools and resources available to them to improve water quality. A more informed regional community, particularly one that is working together towards a common goal, is poised to use available resources more efficiently and in concert to maximize the benefits and efforts of all involved. For additional information about the “Our Missouri Waters Initiative” or to find out how you can get involved please visit the department’s website or call the department today.

Source Water Protection: Funding Update

The Missouri Department of Natural Resources is pleased to continue to provide dedicated funds to communities and public water systems in Missouri to develop local voluntary source water protection programs and to plug abandoned wells that may provide a conduit for contamination of groundwater reservoirs. Any community public water system in Missouri is eligible to apply for Source Water Protection Project grant funding to develop a preliminary protection program or to implement protective measures and strategies of an existing plan. For a limited time, projects that can be completed prior to June 2014 are eligible for funding with no maximum award amount! Revisions to the Abandoned Well Plugging Grant Program include expanded eligibility and a new tiered reimbursement rate structure for plugging domestic or multiple family abandoned wells. For a limited time, any public water system that has an active or emergency groundwater well is eligible to apply for funding to plug abandoned domestic, multiple family or public water wells, and abandoned public water wells are now reimbursable for up to 90 percent of the total plugging cost up to a maximum of \$15,000! Applications must be submitted by Dec. 31, 2013 to be eligible for funding and proposed projects must be completed by June 1, 2014. Funding is limited and eligible projects are selected for funding on a first-come, first-served basis as allocated funds remain. For additional information about both grant programs, visit the Source Water Protection page of the department's website or call 573-526-0269.

HIGHLIGHT—Water's Journey

Claps of thunder and flashes of lightning greet you as rain begins to gently fall. Well-tended fields with contoured terraces welcome the rains as they capture and absorb the gentle showers. Across the valley, though, fields on the gently sloped hillside look scarred as runoff from the rains carve random and muddy paths towards the gullies below – the scene depicts a stark contrast of how flowing water can ravage the landscape if left unchecked. Along the historic city streets of St. Joseph the rain can also be seen flowing in sheets over parking lots, paved roads and rooftops, carrying with it the dirt and grime that have accumulated since the last storm. Fertilizer, soil, thin films of oil and grease, even pesticides and antifreeze are picked up by the flowing water as it passes through a serpentine network of storm sewers and natural channels and continues its journey toward the great Missouri River and beyond. Off in the distance, one can see a shiny water tower standing tall above the region.

This is the scene visitors of the Remington Nature Center, a facility owned and operated by the City of St. Joseph, witness as they enter the newest permanent exhibit, "Water's Journey." The exhibit represents a collaborative effort between the city and Missouri American Water to illustrate the path water takes as it falls from the sky as precipitation and eventually finds its way to a water tap. Visitors can watch and follow as the rains are channeled into pipes that lead to the river, embellished with interactive jumping fish that offer educational snippets about the river and its significance. From here, visitors can follow the path of water as it flows toward a water treatment facility to undergo sedimentation, coagulation and filtration, ultimately flowing into and out of a water storage tower to be distributed throughout the city by hundreds of miles of water mains.

"This interactive display shows the journey of water as it travels from a source to our tap. It answers the question of how we get our drinking water and the answer is delivered in a fun and unique way. There are buttons to push to sound thunder and lightning and a fish wheel to turn for fish facts, and the entire walk-through display includes running water," said Andrea George, Manager of the Remington Nature Center. With informative placards along the way, even the youngest visitors can appreciate a glimpse of the often un-seen path that water takes as it journeys from the source to the tap.

"This display is the first of its kind in Missouri and the first time American Water has embarked on a collaboration of this kind..."

Frank Kartmann, President, Missouri American Water.



As an educational component of St. Joseph's source water protection plan and program, the display highlights both the value of protecting water resources and the remarkable power of partnership and collaboration in promoting source water protection at the local level. "This display is the first of its kind in Missouri and the first time American Water has embarked on a collaboration of this kind. With the contributions of the city of St. Joe and the Missouri Department of Natural Resources, we believe 'Water's Journey' will set a new standard for water-themed educational displays," said Missouri American Water's President, Frank Kartmann. "Water's Journey" was funded by Missouri American Water, the City of St. Joseph and a grant through the Missouri Department of Natural Resources.

Perched along the banks of the Missouri River, the Remington Nature Center of St. Joseph is a state-of-the-art facility that spans 13,000 square feet and is dedicated to providing education and interpretation of nature, conservation, environment and the cultural history of the region. For additional information about the Remington Nature Center of St. Joseph and the "Water's Journey" display, visit the center at 1502 MacArthur Drive in St. Joseph, go online or call 816-271-5499.

Photo credits: The Remington Nature Center, City of St. Joseph.



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This publication is funded through the Missouri Drinking Water State Revolving Fund - Set Asides under the authority of the federal Safe Drinking Water Act and is intended to promote and publicize the benefits of source water protection planning. If you have any questions about the Missouri Source Water Protection Program or would like more information contact the Public Drinking Water Branch's Source Water Protection and Assessment Coordinator at 573-526-0269 or 573-751-5331. You may also write to the Missouri Department of Natural Resources, Water Protection Program, Public Drinking Water Branch at P.O. Box 176, Jefferson City, MO, 65102-0176.

For questions or comments about this newsletter or to contribute materials call 573-526-0269. Thank you for your interest in source water protection!

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