Then and Now
Are Small Community Infrastructure Needs Still an Issue?

Solving Funding Necessities for Safe Water
A RCAP Loan is Secured in Englewood, KS

Multi-tasking in Colorado
MAP Staff Make a Meeting out of AWWA
LETTER FROM THE EXECUTIVE DIRECTOR

This year has brought some welcome challenges for Midwest Assistance Program. After just over four years as part of the MAP team, I became Executive Director this year. I have watched MAP grow to a team of over 40 staff three years ago and shrink to nine earlier this year. Currently, we have 12 staff and are growing rapidly. This is not the first time MAP has gone through this sort of change.

Part of my challenge as the ED for MAP is to ensure the work our staff does in the field continues to be significant and to find a way to stabilize the company regardless of the financial environment of the country.

Recently, we rehired one of the founders of MAP, Joe Dvorak. It is great to hear stories from Joe about how we started and why. It becomes obvious when he is talking that the work we are doing has a significant impact in rural America and that our job is far from over. Some of the challenges facing rural America have changed, but many of the challenges we faced when MAP first started in 1979 still exist.

The technical assistance providers at MAP are some of the most dedicated people I have ever had the pleasure to work with. The future for MAP is promising and we are all very excited about our work and challenges ahead.

Michael Brownfield
Executive Director
MAP

VOLUNTEERISM IN AMERICA

Volunteerism in America is often under appreciated. In reality, it is difficult to imagine how rural America could survive without all of the volunteer efforts that occur every day. We rely on volunteers to protect us from fires, enrich the education of our children in schools, raise money for community needs and hundreds of other worthy causes.

People choose to volunteer and give of their time and services for numerous reasons. Some are compelled by gratitude and a need to “pay it forward”. Others see a meaningful cause and want to see it come to fruition. We all want to use our God-given talents to help our neighbors and improve our communities for future generations.

The Midwest Assistance Program (MAP) relies on volunteers to serve on its board. The board works tirelessly to establish policies that will lead to the highest level of water quality and wastewater services for our rural neighbors. I am privileged to serve with this group of dedicated people as we focus on improving the quality of life in rural America.

Richard Cavender
Chairman
MAP Board of Directors
MEET MAP’S NEW STAFF

MIKE BROWNFIELD
Mike Brownfield is the new Executive Director of MAP. One of Mike’s first actions as Executive Director was to move the central office to Maryville, MO. Mike has been employed with MAP for four years. He began as a technical assistance provider, was promoted to a field manager, then program manager and now Executive Director. Mike says he loves the dedication of the people at MAP and is a firm believer in the mission to find solutions for small rural communities. As Executive Director, Mike aims to further expand the offering of MAP services to rural America.

STEPHANIE ROSS
Stephanie Ross is returning to the MAP team as Technical Assistance Provider in Missouri. She works hard to help sustain water and wastewater infrastructure through technical, managerial and financial assistance. As a certified water and wastewater operator, she is able to assist with infrastructure development, operations, maintenance and repair and replacement programs with asset management. Stephanie is excited to be working towards the goal of providing safe drinking water to all.

CHRISTOPHER JEWETT
Christopher Jewett is the Field Manager who supervises all field staff in MN, NE, IA, KS and MO. He ensures all funder obligations are met; MAP policies and procedures are followed and field staff are trained, developed and informed. He participates in MAP management decisions and assists in the development of training, budget and work plans, and policies and procedures. Christopher enjoys being able to make a difference in rural communities while working with wonderfully dedicated, committed and professional co-workers.

CHRISTINA FIERROS
Christina Fierros rejoined MAP as Program Manager for IA, KS, MN, MI, MO, NE, ND, SD and WY. She oversees all grants and contracts to ensure compliance and program development in each community and overall for the Agency. Christina appreciates the ability to offer assistance and be a part of the quality work that MAP does in rural America.

HAVE A QUESTION?
Submit questions on subjects such as drinking water, wastewater, solid waste management or rural utility operation to map@map-inc.org. We will feature one question and answer per issue, but you may visit our Web site for more at www.map-inc.org.

The Midwest Assistance Program (MAP) is a member of The Rural Community Assistance Partnership (network). RCAP is made up of a total of six regional partners including MAP.

MAP has been helping communities and tribal nations meet their infrastructure and development needs through information, resource management, expertise and technical assistance since 1979. MAP provides solutions to more than 400 such communities each year in Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North and South Dakota and Wyoming. Through individualized support from MAP staff, residents are given the knowledge and tools to revitalize their communities. MAP staff members live in the communities served and have a deep commitment to the strength, vitality, and future of rural America.
In the beginning of July, the small, southwest town Englewood, Kansas was faced with the stark reality that there soon may not be a community water system. The city’s main well had been deemed out of regulatory compliance because of high levels of arsenic. According to the city clerk, the city’s main well was sucking air caused by an extended drought that has greatly impacted their aquifer. The solution was to drill a new well a few miles outside of town. A local geologist identified a promising location for a well and the city is seeking funding for the project from USDA Rural Development and the Kansas Community Development Block Grant program. Neither agency is willing to fund the project without proof of an adequate source of new drinking water that has the necessary quantity and meets regulatory standards.

A test well needed to be drilled in order to attain proof of an adequate source of drinking water. Well drillers in western Kansas are swamped with work caused by the drought and from oilfield activity. Drillers place future customers on a waiting list and if a scheduled drilling time is missed, there is a long waiting time to be rescheduled. Englewood had the well drillers scheduled to come the first week in August to allow the test well to be drilled and water samples tested in time to provide proof to the funders that the well site was adequate. The problem was that the city did not have the funding to pay a well driller to drill a test well.

Phillip Fishburn, MAP’s Technical Assistance Provider in Kansas was contacted by the project engineer. Information about the RCAP loan fund was provided to the engineer and it was explained that the fund can be used to provide pre-development loans for systems seeking funding from agencies such as RD. The RCAP loan fund is administered by the Community Resource Group, Inc. (CRG) for the RCAP network. Fishburn met with city leaders and the project engineer and spent the majority of a day completing an application for funding to be used to drill the test well. Fishburn also instructed the city that they needed to consult with a bond counselor to issue temporary bonds that CRG could purchase to provide the financing. Fishburn worked with the CRG loan fund specialist to complete an application for funding. In about two and half weeks, the city was informed that it had been approved for funding. The city signed the loan agreement a few days later and the test well was drilled. The engineer reported that the site appears to have a good volume of water that she anticipates will meet regulatory standards. The engineer commented that without this test well, the city’s chances for funding would have been hurt. The city clerk commented, “If the funding had not been available, I don’t know what we would have done. Most citizens are senior citizens, and none would have had a way to haul water. We thank Mr. Fishburn for taking the time to help us to apply for funding and to put a rush on getting funding secured.”

Dire and Urgent Funding Needs Are Solved by using the RCAP Loan Fund: Englewood, KS
Just over 25 years ago, in Platte County, Missouri, a man named McLiney owned over 200 acres that he decided to divide and sell, thus creating KCI Farms. From the day the property was sold to the present, residents have hauled water or used wells that have low capacity and poor quality water. This water has to be reserved strictly for washing because it does not meet safe drinking requirements. The neighboring residents in Stillings face the same challenge. They haul from Farley, Missouri, where water is unavailable so they have to dig wells. Together, the residents of KCI Farms and Stillings worked diligently to locate someone who could help provide an adequate supply of safe drinking water.

The Platte County Public Water Supply District #3 reached out to the Missouri State Representative Martin Rucker who toured the area as Board President Terry Richardson explained the concern. Rucker contacted the Missouri Department of Natural Resources who sent Jerry Smith to make a site visit. Smith has worked with the district to repair the existing system and upgrade to electronic meter read with a low interest loan that accounts for 50% of the project cost and a grant covers the remaining 50%.

As the project progressed, the district had the option to expand service to KCI Farms and Stillings residents. MAP staff was requested to work with the district to complete the upgrades and prepare the application for expansion. The expansion project will utilize a grant from the Missouri Department of Natural Resources in the amount of $507,015 and a subsidized loan in the amount of $507,015 to construct a water system to serve residents in the local area of KCI Farms and Stillings.

District Attorney John Barry wrote a contract that made it possible for residents to buy-in to Platte PWSD 3. By July 1, 43 residents had participated in the buy-in and in August, the district provided notice that MDNR had approved the engineering. Resident Leo Huston is largely responsible for the organized efforts of the residents in KCI Farms and Stillings. Residents were required to pay $4,500 for the water meter and connection but not everyone could pay this fee without assistance. Four families applied and were approved to obtain funds totaling $18,000 from USDA Rural Development’s 504 home repair loan/grant program.

MDNR and Rural Development are pleased to have provided the financial assistance needed to help provide safe, stable drinking water to the residents in the KCI Farms and Stillings community area. Bartlett and West completed design for the upgrade and are now working on engineering for the expansion to serve KCI Farms and Stillings. KCI Farms and Stillings are on target to have a safe and reliable water supply in 2014 thanks to the combined efforts of KCI Farms residents, Stillings residents, Platte PWSD 3, Attorney John Barry, Engineering by Bartlett and West, loan and grant coordination by MAP, USDA Rural Development residential funding, MDNR project funding.
Lanagan is a tiny community in the far southwest corner of Missouri, nestled in a bluff-rock Ozark hill that overlooks a train track and the beautiful Indian Creek. Lanagan has found itself in an unfortunate situation of a declining population in which 50% are considered low income and 35% of the citizens are living under the poverty line. The water system is decrepit with 75% water loss and most water meters aged well over 20 years. Lanagan also has radionuclides in their water that first became an issue when the EPA changed their maximum contaminant level standards in December of 2000.

In the past five years, the city of Lanagan has had five mayors, or mayor pro tempore, and an untold amount of newly elected or appointed council members. The city has been through a number of water operators, almost all of whom were not certified for the treatment or distribution of drinking water. An audit in 2011 resulted in multiple arrests of past and what were present employees. The uncertainty and constant changes in administration has led to a poorly run city and water department, which is also the city’s only source of revenue.

For nearly thirteen years, Lanagan has been grossly out of compliance and has received numerous monitoring violations that include exceeding their Maximum Contaminant Level (MCL) for Combined Radium (-226 & -228). The municipality has had multiple monitoring violations concerning Total Coliforms (TCR) and failure to submit samples.

Prior to Midwest Assistance Program (MAP) offering technical assistance to Lanagan, the community had hired an engineering firm to develop the water improvement project. The firm was purchased and another engineer unfamiliar with municipal projects was assigned to work with Lanagan. The engineer delivered three Preliminary Engineering Reports (PER), almost all of which failed to pass Missouri Department of Natural Resources (MO DNR) or USDA Rural Development approval - costing the city thousands of dollars and leaving the city without a viable option.

MAP Technical Assistance Provider (TAP) Kristina Hartley started working with the city in October of 2008. Hartley opened communication with the Missouri Department of Natural Resources and started working with the state to discuss and correct issues that had been neglected. Hartley completed an application for loan funding with USDA Rural Development and completed a bond brochure to help the city pass its first bond issue in recent memory. She also facilitated numerous town hall styled meetings to inform the citizenry as to the overwhelming necessity for the project, inviting staff from DNR and USDA to work with MAP to help educate the public. Hartley currently keeps the Attorney General’s Office and Missouri DNR up-to-date with the progress of the project and attends and facilitates meetings when requested.

Missouri DNR had been warning the city of an impending intervention with the Attorney General’s office if a qualified solution wasn’t soon reached. The engineering firm refused to revise the PER for the fourth time until the final payment for the three previous failed reports was paid in full. Since the engineering firm had discontinued their services, MAP encouraged the city to publish a Request for Qualifications (RFQ) for engineering services to hire a qualified engineering firm to continue the project. The city hired a competent engineering firm and provided their attorney with the engineering agreement for review.

MAP was forced to refer the project to the Attorney General for intervention. In January of 2011, the city administration had a meeting with the AGO, Missouri DNR, Midwest Assistance Program and the new engineering firm. Hartley explained the project up-to-date and the city was issued a Consent Judgment (CJ) by the Attorney General’s Office. The city agreed to sign the Consent Judgment and was given a time guideline to correct the issues plaguing the water system.

Lanagan has concurrently failed to meet the CJ time guideline but is working with the state towards solving the radionuclide issues with the water system. The city has no resources and researching a funding avenue for an expensive project is an ongoing task. MAP will continue to work with the city of Lanagan to seek the most viable solution to serve the community the safest possible drinking water without bankrupting the city.
Recent Backflow Prevention Efforts in MN Tribal Drinking Water Systems

By Jason Gorr

Most of us have been in a building that uses boilers for heat and hot water, or have hooked something up to a threaded fitting such as a hose spigot, wash tub or mop sink. Some have had a medical procedure involving tools in need of sterilization or have been known to take a dip in an indoor pool or hot tub. Presumably, we all utilize sinks and flush toilets on a daily basis.

In any of the above mentioned situations, plus numerous others, it is essential to have adequate Backflow Protection (otherwise known as Cross Connection Control or CCC). Without CCC, there is a potential threat of having bacteria (some cause things like Legionnaires Disease), toxic chemicals (like anti-scaling agents for interiors of boilers or lawn applied pesticides and herbicides) and bodily fluids in drinking water systems.

To help protect from non-potable, unappealing and potentially unhealthy or deadly cross contaminations of drinking water systems, steps must be taken and rules must be followed. These processes fall under the practice of CCC.

CCC by definition leads to the elimination of potential backflow events. A proper CCC Program starts with adequate Utility Ordinance (with a CCC Provision specifying access/entry rights, regulation, & enforcement) and includes a periodic System Survey, Annual Testing of Testable BF Devices, Record Keeping and Public Education.

Skepticism and an “it’s not going to happen to me” attitude are often used to justify the lack of effort to implement a CCC Program. Actually, not having a proper CCC Program is like planning to put on a seatbelt a split second before impact – an unlikely way to prevent injury.

In an effort to unify the regulations and protection efforts of Drinking Water and Plumbing Primacy Agencies, EPA Region V has directed CCC Education and Survey Efforts Specific to Tribal Systems with an intense focus in MN. Midwest Assistance Program Staff, in an ongoing contract as the MN Tribal Circuit Riders, have spearheaded this effort. The concentrated effort began in 2009 with system surveys on non-residential buildings, various inventories and initial training events.

In 2012, MAP staff recognized the need for additional Education and Technical Assistance on CCC Program Development. MAP has brought together water operators, public work directors, water resource specialists, Indian Health Services, hospital staff, plumbers, tribal council, facility managers, facilities maintenance, boiler operators and custodial staff in a structured effort to educate and assist in improving drinking water safety. A total of 5 training events have been conducted across Tribal Systems in Minnesota – two in February, two in July and 1 pending. The courses detailed: Definitions/Hazards & Liability, Case Studies, Rule/Regulations, Roles/Responsibilities, Device Usage/Selection, Ordinance Needs, System Survey and Device Testing Requirements, Record keeping, & Public Education/Enforcement.

Through improvements in annual Certified CCC Device Testing for high hazard situations and instituting Cross Connection Control Programs, Tribes will be able to reduce health risks and liability concerns for system users. MAP staff have been involved in helping spearhead concerted efforts to improve protection and compliance of Federal Plumbing Codes and accepted Drinking Water Practices. The staff have been actively involved and are noticing improvements to existing or lacking ordinances, increased compliance with annual testing/rebuilds to High Hazard Devices and remedying some of the non-compliant CCC occurrences ID’d in the ’09 Survey.

There are many things that have the potential to cause damaging backflow in all systems. Main breaks, fires (pumper trucks), high water use/low pressure and pump failures cause low pressure events that allow a reversal of flow, or BACKSYMPHONAGE. Thermal expansion of pipes or storage vessels, induction of pressure via pumps/pressure washers/unprotected devices and excessive water hammer cause BACKPRESSURE events. Either one of these can reverse flow or force Contamination of Drinking Water Systems and put people at risk.
Although tribal water and wastewater operators face similar challenges as their non-tribal counterparts, there are a few fairly significant differences. One major difference that tribal operators face is the primacy agency or the level of government that the system has to report to. Since tribal water and wastewater systems and facilities are owned and operated by tribes, they fall under federal primacy and must report directly to the United States Environmental Protection Agency. Non-tribal water and wastewater systems and operators report directly to a state primacy agency – in Minnesota it is the Minnesota Department of Health (MDH) for water and the Minnesota Pollution Control Agency (MPCA) for wastewater. The majority of the reporting is almost identical for the United States Environment Protection Agency as the state primacy agency but there are slight variations that are very important and change the way a tribal operator fulfills his/her duties.

Another major difference that tribal operators commonly face is the vast area of their domain and the high number of systems that they must operate and manage. This tends to be a common issue among tribes. For instance, there are 11 federally recognized tribes in Minnesota that own and operate a total of 32 community water systems in addition to many non-community water systems. Since many of these systems are 30 or more miles apart, a tribal operator spends a lot of time on the road between systems. There is an equal amount of wastewater plants and treatment facilities that also need to be considered.

Last, but not least are the physical duties. The majority of the public tends to think of an operator as the person who takes care of the water or wastewater plant. They think of operators as the people to call when there is orange water coming out of the tap, who mow the park and plow the snow and occasionally ask for a water sample. Many people don’t see the behind-the-scenes duties that an operator must do, especially the duties of a tribal operator which sometimes include moving trailer houses, digging graves and serving on the tribal council.

Although there are differences that can affect the perspective of a tribal operator, rest assured that the common goal of all operators is to provide clean, safe, and reliable water and wastewater services to their customers.
Small Community

Infrastructure Needs – Still an Issue?
By Joe Dvorak

The Office of Economic Opportunity (OEO) is a program started as part of the Johnson Administration’s war on poverty. In 1976, the OEO realized that small town rural America was faced with serious health and safety issues being caused by poor water quality and quantity in addition to poor wastewater treatment facilities in multiple areas of the country.

Although a number of state and federal agencies were assigned the task of assisting these communities with the technical and financial help needed to address these issues, paper work and access to these funds were difficult to navigate for small-town elected officials.

In response to this difficulty, the Carter Administration created a program called the Rural Development Initiative Program. The OEO realized that in order for this program to be successful, an independent third party should be involved to assist with assessment of system needs and coordinate the planning and funding alternatives available. This intermediate organization concept identified the need for organizations like the Midwest Assistance Program (MAP)

Since the inception of MAP in late 1979, hundreds of systems across the nine-state region have received technical assistance and training in all areas of facility development and management. Since the start of MAP and the Rural Community Partnership organization, critics have challenged the importance of investing in communities that critics claim will soon be nonexistent. However, these small rural communities continue to exist.

Small town rural America is surviving and will continue to thrive if the infrastructure of these communities receives the investment needed for healthy living and growth. It is the hope of MAP to continue as a strong, independent third party technical assistance provider to assure that small-town elected officials have a place to turn for help.

This story first appeared in the 1998 summer edition of MAP Water Log - the predecessor to the Source magazine. The community of Kensett completed their collection system, lift station and lagoon site in 2000 and continues to progress. With their wastewater problems behind them, the community was eligible to apply for housing rehabilitation funding. They received $250,000 that they would not have been eligible for without the proper infrastructure. The community was able to rehab 14 housing units in the community that provided the elderly and low-income residents a quality and safe place to live in Kensett.
The entire MAP staff traveled to Denver, CO to conduct a staff meeting and participate in the American Water Works Association (AWWA) 2013 ACE Conference June 9-12, 2013. The dual-purpose gathering was to strengthen MAP’s ability to multitask and complete diverse tasks.

MAP’s visit to the Centennial State began with a staff meeting which focused on management’s vision for the future and internal training among field staff. Additionally, MAP welcomed back Chris Fierros as Program Director and Stephanie Ross as Technical Assistance Provider (TAP) for Northern Missouri. The majority of the staff meeting consisted of the field staff conducting sustainment training which covered such topics as: Discharge Monitoring Reporting; Water Leak Detection Equipment; Utilizing Smart Phones & Technology for Operators; Clerk Training; Asset Management; and Board Training. To conclude the staff meeting, newly appointed Executive Director Mike Brownfield responded to feedback and provided guidance for the field staff and his vision for the future of MAP.

The AWWA 2013 ACE Conference provided a secondary, yet productive purpose for traveling to Denver. The conference offered numerous opportunities for the staff to obtain information on cutting edge technology in the water industry, improvements to reliable equipment and seminars offering solutions and data for every imaginable issue the water industry faces today. MAP staff took full advantage of all the conference had to offer and gained networking opportunities, increased knowledge, proficiency and awareness of current water issues.

The newly organized leadership of MAP recognized an increase in staff motivation, moral and professional knowledge following this staff adventure. The daily efforts, immense dedication and professionalism continuously exhibited by the field staff reflect what a strong and highly viable resource MAP continues to be.
Soon the leaves will be changing colors and the temperatures will drop - now is the time to prepare your water system for Old Man Winter’s arrival. Preparing your water system for winter is just as important as preparing your automobile for the cold. Here are just a few reminders of items that may need attention before that first frost sets in:

Water systems with storage facilities tend to keep the storage facility full throughout the summer months to keep an adequate supply of water for peak usage. Doing this allows less water to be changed out of the upper areas of the facility and could contribute to positive bacteria samples when tank levels are adjusted for winter. Fall is a great time to overflow that storage vessel to clean out and exchange fresh water for that older water that’s been sitting there through the summer. Flushing the storage facility before resetting the levels could prevent the water system from receiving a bacteria violation.

Another system component to check prior winter’s arrival is the fire hydrant. Many hydrants get used during the summer for many reasons – flushing, watering public parks, filling fire trucks, etc…, and not all hydrants drain properly. Operators should check to make sure the water has drained out of the barrel to protect them from damage due to freezing.

We often hear the public service announcement that reminds us to prepare our homes for winter as well. Having your furnace serviced, checking weather stripping on doors and windows are a few steps to being winter-ready. Water Operators should also prepare their well houses for winter by making sure heaters are on and working properly, doors and windows are closed and secure, ventilation vents are working and emergency power units are serviced and ready.

Finally, if your system has water sampling stations, now is the time to blow out that water sitting in the piping before it freezes and causes damage. It is worth the time to drain those stations to avoid the possibility of busted piping. These are just a few tips to make you and your water system a little happier this winter when Old Man Winter makes his arrival.
The U. S. Congress recently created commotion when it passed the “Reduction of Lead in Drinking Water Act.” Documented wording led to the assumption that public water systems that use meters for billing would not be able to repair and reuse meters that were already in existence. The situation has been monitored by the Nebraska Department of Health and Human Services Division of Public Health.

In a fairly recent conversation with the USEPA, the Department has learned that, based on USEPA’s interpretation of the Act, if a PWS removes an existing in-service water meter and repairs it with no-lead parts, that meter may be re-installed either in the same location or in another location. The key to the re-installation of a repaired meter is that it is an appurtenance that was already “in service” prior to the implementation of the Act and the repairs were accomplished with parts that meet the new definition of “lead free”. The intent of the Act is to prevent the introduction of “new” pipe, fittings, etc. into drinking water service that don’t meet the new definition of “lead free”. Because the repaired meter is not “new”, it may be repaired and re-installed.

USEPA will be releasing this guidance in writing. As soon as the Department receives the written guidance it will be communicated to all affected PWS. In the meantime, if you have any questions in this regard, please contact Steve Drda (402-471-1008) or Doug Woodbeck (402-471-0521) with the Nebraska Department of Health and Human Services, Division of Public Health, Public Drinking Water Program.