



# The Great Lakes RCAP Connection

The Voice of the Great Lakes Rural Community Assistance Program

Fall 2009

## Sokaogon Chippewa Constructs New Wastewater Facility

By Kathy Cartwright, WISCAP

The Sokaogon Chippewa Community, a band of Lake Superior Chippewa within Forest County in northern Wisconsin, has completed construction of a new \$3.53 million wastewater treatment plant to serve Mole Lake. The facility will replace an undersized recirculating sand filter, which has served 50 of the 170 households and 6 businesses. The new facility is sized to serve the businesses and 60 existing residences, as well as future residential growth.

Wisconsin TAPs Kathy Cartwright and Paul Matthiae helped the tribe plan for the new system. One major task was assistance with financial capacity development. Prior to 2004, water and sewer services were provided by the tribe’s Housing Department. Salaries and repairs were paid by three separate tribal departments. To apply for USDA funding the tribe needed to establish a Utility Department with its own budget and user rate structures. In 2004, RCAP worked with the tribe to develop an ordinance to establish a Tribal Utility Department. As planning for the new wastewater treatment facility progressed, RCAP developed separate budgets for the water and wastewater utilities. With help from the tribe’s Roman Ferdinand, Kathy Cartwright compiled historical expense and maintenance records for both water and sewer. Those historical expenses were combined with estimated operating expenses for the new wastewater facility to prepare a sewer operating budget for the USDA docket. The water budget was completed separately in the same manner.



Mole Lake’s new wastewater treatment system.

RCAP’s next step involved proposing a sewer fee structure based upon the budget that was used for the USDA docket. A separate water rate fee structure was also developed by RCAP in 2007. Although the tribal government still subsidizes a portion of the operating costs, which is needed to help keep user fees affordable to residents (the median household income is only \$18,000, which is approximately 40% of the 2000 Wisconsin MHI of \$43,791), Sokaogon Chippewa Community has made considerable progress within the past five years.

(See Sokaogon Chippewa on page 4)

### What’s Inside:

- \* Designing a Project; The Owner’s Role . . . . . pages 2-3
- \* Great Lakes Staff Acquire New Skills To Help Communities Save Money . . . . . page 4
- \* Be Prepared in the Event of an Emergency . . . . . page 5
- \* Life, Liberty and the Pursuit of Drinking Water . . . . . Back Cover
- \* Input Needed . . . . . Insert

## Designing a Project; the Owner's Role

*(Part two of a two part article)*

*Based upon "Project Development - Design" coursework developed by Kurtis Strickland, Ohio RCAP*

Part one of our "Designing a Project" was published in the spring edition of the RCAP Connection and covered financing of the design work, construction financing plan, public input and support, and monitoring of the engineer's work.

This article will conclude the two part Design series and focus upon land acquisition, user agreements, permits, bidding, and pre-construction activities.

As the design progresses, your responsibilities as the owner continue. Often times, the project will involve land acquisition by the owner for infrastructure such as pump stations, booster stations, treatment plants, or permanent easements for lines. For most water and sewer projects, land acquisition is considered an "involuntary acquisition" even if you have a willing seller. This is because local governments have the power of eminent domain, which allows you to take the property if necessary. Certain procedures need adhered when purchasing land for a project, even if you have a willing seller. The owner may want to require legal services at this time. Certain federal funding sources require that owners follow the Uniform Relocation Act (URA) when acquiring land and permanent easements. The URA stipulates how land can be acquired, what steps must be taken, and how land value is determined. Since you may be unsure which funding sources you intend to use at the time that land is being acquired or optioned, it is best to follow the procedures set out by the Act anytime you need to acquire property. It is important that the owner notify property owners prior to the time the actual land acquisition will occur and inform them of their rights under the URA, so the property owners are not surprised at this time. The U.S. Department of Housing and Urban Development has published a handbook for the Act, which can be found at the following link:

<http://www.hud.gov/offices/cpd/library/relocation/policyandguidance/handbook1378.cfm>

As with land acquisition, homeowners also need to be made aware of their rights under the URA regarding easements. Owners should not delay in obtaining and recording necessary easements. Delays can cause future problems (i.e. construction delay and additional change orders). The owner must use the easement form for the agency that is involved with financing the project. Some agencies don't stipulate what easement form must be used, but others, such as USDA Rural Development, require that their easement form be used when they are involved with financing the project. The owner may require legal services at this time, but it is not always necessary. When it comes time (all easements need obtained well in advance of construction) for the owner to visit or meet with property owners to acquire easements, it should not be a surprise to property owners because they were informed of the need for easements during the public meeting that was held earlier regarding the project.

For projects involving utility lines, the owner should develop a right-of-way map and certify that all rights-of-way and land needed for the project have been obtained. This is more important for utility line projects because lack of proper rights-of-way could lead to relocation of utility lines during construction and therefore project delays. Not all funders require rights-of-ways to be mapped, but it is a good idea to ensure that these are secured prior to the start of construction.

User agreements are often required for utility projects because financing agencies often require assurance that a certain number of customers will connect when the service is provided so that debt repayment is assured. This is particularly true for water systems, since connection is voluntary. The owner should consult with the financing agency to determine if a user agreement is required. For new water systems or existing water systems extending service to new users, having user agreements in place is just good business, even if not required by the funder. The

user agreement asks for a down payment from the prospective customer and shows their intent to connect to the system. They are legally binding documents, and can protect you from making costly investments in infrastructure without having sufficient customers to be cost effective and allow debt repayment.



Sewer connection can be mandated if a sewer line is installed within 200 feet of a property; however, if some of your prospective users are outside your jurisdictional boundaries, it is important to discuss this mandatory hookup with your county governing body and the county health department, as they will need to enforce the provision.

Permits are required for railroad crossings, stream crossings, wetland crossings, highway crossings, structures, electric, plumbing, etc. It is the responsibility of the owner to acquire all necessary permits for a water

or sewer project. The owner should consult with their engineer and make sure that permit acquisition is included in their scope of services.

Once all necessary acquisitions, easements, and permits are obtained the community can then move forward and bid the project. Each state has specific laws that need adhered when bidding a public project. Typically the owner includes the preparation of the bid packet and addendums (i.e. federal form updates, specification changes, etc.) as part of the engineer's role. However, the owner needs to work with the engineer to ensure that all funder requirements (i.e. federal prevailing wages and necessary forms) are included within the packet. Included in the bid document must be proper bonding requirements for each contractor. Each contractor must be bonded to a certain identified amount. This requirement protects the owner in the event that the selected contractor declares bankruptcy or performs improper work. The bonding company basically backs up the contractor's word that the company will complete the work in the contract.

Once the bid packet is prepared, an advertisement notifying potential bidders that the project is being bid is placed. The advertisement dates must follow the state regulations. While the engineer normally prepares the advertisement the owner normally pays for the publishing cost. The advertisement notifies potential bidders about the project details and sets a deadline on when bids are to be received and a date and time on when they will be opened, which normally takes place at the owner's office. At the bid opening the engineer typically opens each sealed bid and reads aloud the quote provided to conduct the work. This information is tabulated on a sheet and the bids are then taken by the engineer for review to ensure they were properly completed. The low bidder is recognized and the bid tabulation is sent to the owner and funding agencies. Contractor references need checked prior to award of the contract.

Once the bids are tabulated, the project engineer prepares a notice of award that is signed by the owner and reviewed by the owner's attorney. The notice of award is then sent to the contractor who submitted the low bid. It is important for the owner not to issue notice of award prior to all funding being approved and environmental reports being completed for the project. Issuance of the notice of award prematurely could result in the owner losing certain grants for the project. The notice of award must be issued before the contractor's bid period ends. If possible, it is best to wait until approval from all funding sources is obtained before advertising the bids.

Immediately preceding construction the owner holds a preconstruction meeting, which is normally facilitated by the engineer. Items discussed at the pre-construction meeting include the responsibilities of the owner, contractor, engineer, resident project representative, and financing agencies. It is also very important to have representatives

## Great Lakes Staff Acquiring New Skills to Help Communities Save Money

Great Lakes RCAP recently held a training for its staff to learn how to conduct energy audits to help rural communities reduce energy costs.

Made possible by a grant from the U.S. Department of Agriculture (USDA) Rural Community Development Initiative (RCDI), the training was aimed at building the capacity of staff to help small communities become more energy efficient and in turn save the utilities money. Other funders also included the U.S. Department of Health and Human Services and the Ohio EPA.

In a January 2008 published report (“Ensuring a Sustainable Future: An Energy Management Guidebook for Water and Wastewater Utilities”), the Environmental Protection Agency stated that energy consumption represents the largest controllable cost of providing water and wastewater service. Given the increasing cost of energy, communities can realize significant cost savings through increased energy efficiency. Currently, it is estimated that energy efficiency investments can reduce costs at facilities between 5-25 percent. Savings realized through energy efficiency can then be utilized for other priorities such as needed capital improvements.

Water and wastewater utilities are among the largest users of energy in many communities and typically represent between 30-60 percent of a municipality’s total energy bill. Collectively, water and wastewater utilities use approximately 75 billion kilowatt hours of electricity annually, and loads are projected to increase by 20 percent over the next 15 years. Utilities can be made more sustainable, reduce their climate impacts, and save money by instituting energy management.

Great Lakes RCAP hired Science Applications International Corporation (SAIC) to conduct the training, which took place August 11-13<sup>th</sup> in Coshocton, Ohio. Staff participated in a walk-through at Coshocton’s wastewater treatment plant, which allowed staff to gather insight and direct hands-on training on what to look for while conducting an energy audit. Coshocton is one of the 13 recipient communities in Ohio that is receiving technical assistance from Ohio RCAP staff via the USDA RCDI grant.



Field Agents from the Great Lakes RCAP tour a Wastewater Plant as part of their Energy Audit Training

### Sokaogon Chippewa

*(Continued from front page)*

USDA also requires that an emergency Response Plan be developed to receive funding. RCAP’s Paul Matthiae helped the tribe meet this requirement for USDA funding. A plan was developed for both the water and sewer facilities. As a result of RCAP’s assistance a total of \$3,530,000 in USDA loans and grants was received by Sokaogon Chippewa Community for the sewer project.

In addition to capacity development of the tribe’s water and wastewater utilities RCAP has also been helping the utility staff develop skills to operate the utilities. Wisconsin’s Tribal Circuit Rider, Richard Lawe, regularly works with operators to sharpen their technical capacity to operate their facilities.

# Be Prepared in the Event of an Emergency

If you haven't done so already, check out your state's WARN website. An American Water Works Association (AWWA) initiative, Water/Wastewater Agency Response Networks (WARNs) have been formally developed in states to promote utilities helping other utilities in time of crisis. The assistance can be in the form of equipment, materials, personnel, and other related services needed in the event of an emergency. To date, many communities have become members and some have even had the opportunity to use the system successfully.

For instance, the Cities of Fairborn and Hamilton in southwest Ohio had an incident in September 2008 for which they were able to use the WARN network. The incident involved 70 miles per hour winds as a result of the remnants of Hurricane Ike merging with a frontal boundary within the lower Ohio Valley. The damaging winds lasted for hours disrupting power services for days in some areas. The City of Fairborn had lost power, but thankfully regained it within six hours. Other areas, however, were not as fortunate. The City of Hamilton was in need of a portable generator and as members of WARN, the city was able to expand their search outside of their immediate area using the OH WARN membership directory, which is accessible to members only and includes 24/7 emergency contact information for all participating agencies. Fairborn provided Hamilton with a generator that provided power for four days at their East Reservoir Booster Station and was utilized to fill a 75,000 gallon elevated storage tank. In a thank you letter written by Jim Collins, Hamilton's Director of Gas and Water, it was noted that "without this generator approximately 350 residents would have been without water for several days while waiting on repairs from Duke Energy."<sup>1</sup>

WARN Websites	
Illinois	ILWARN.org
Indiana	INWARN.org
Michigan	MIWARN.org
Kentucky	KYWARN.org
Ohio	OHWARN.org
West Virginia	WVWARN.org
Wisconsin	WISWARN.org

The benefits of the WARN network are numerous and provide: a process for sharing emergency resources among water and wastewater agencies statewide, consistency with other statewide mutual aid and assistance programs and the National Incident Management System, the resources to respond and recover more quickly from a natural or human caused disaster, and a forum for developing and maintaining emergency contacts and relationships.

Don't be one of the many utilities that is not prepared to respond effectively when faced with an emergency. Contact your state's WARN network and find out more information about becoming a member.

<sup>1</sup>OHIO WARN: Utilities Helping Utilities  
By Karen Hawkins, Utilities Superintendent City of Fairborn Division of Water & Sewer

**Project Development**  
*(continued from page 3)*

from any utility company who has infrastructure in the project area to attend the meeting so that coordination with utilities can begin.

This concludes the Design phase of our Project Development series. Stay tuned for the next issue of the Great Lakes RCAP Connection, where we will discuss the final stage of project development-construction and the owner's roles throughout this phase.

RCAP has been assisting rural communities with project development over twenty five years through our technical assistance providers. For more information on the RCAP nearest you, visit our website [www.glrcap.org](http://www.glrcap.org) and click on your applicable state or contact our regional office @ 1-800-775-9767.



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Administering Agency: WSOS CAC Inc.

P.O. Box 590

219 S. Front St.

Fremont, Ohio 43420

1-800-775-9767

[www.glracap.org](http://www.glracap.org)

Ed Gerardot  
*Chairperson*

Deb Martin  
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## Life, Liberty and the Pursuit of Drinking Water

*By Kimberly Padgett, Kentucky RCAP*

When Revolutionary War veterans received land grants in the eastern section of the Pennyroyal region and the southern edge of the Knobs in Kentucky for their military service, they settled in the area and chose the town name of *Liberty* out of patriotic sentiment. Today's residents of Liberty continue to honor their deep rooted heritage which is evident by the sheer number of American flags flying throughout their charming city.

The city of Liberty is the county seat of Casey County, Kentucky. During the drought of 2007, the city had to operate its water treatment plant 24 hours per day and still had difficulty keeping its two water storage tanks filled. The city decided to pursue USDA Rural Development funding to expand its existing water treatment plant's design capacity from 1.3 million gallons per day to 2.1 million gallons per day and to install 17,500 linear feet of 10-inch transmission main from the water treatment plant to both water storage tanks. The Kentucky RCAP program was contacted to assist the city in complying with items as addressed in the letter of conditions so that the project could be released to advertise for bids.



Thanks to \$2.512 million of Rural Development funding, the project is currently under construction with an estimated date of completion scheduled for December. This project will enable the City of Liberty to supply a more reliable water demand and to meet current and upcoming federal regulations especially with the disinfectant by-product rule.