RCAP working with local leaders in small communities to meet the safe drinking water, sanitary waste disposal and community development needs of rural America

The Great Lakes RCAP Connection

The Voice of the Great Lakes Rural Community Assistance Program

Summer 2008

Wastewater Relief On The Way for North Jessamine

Kimberly Padgett, KY RCAP

There is an old saying that states, "Patience is a virtue". If this is true, then several residents of the Ashgrove Road area of Northern Jessamine County, Kentucky are more virtuous than most. For a number of years, there have been sewage problems in several mobile home parks in this part of the county. Many septic systems in the area are failing which cause both odor and health issues.

The Jessamine County Fiscal Court, working in conjunction with the Jessamine South Elkhorn Water District, proposed the construction of a sanitary sewer system in the affected area that would eliminate the existing health hazard and extend sanitary sewer to approximately 600 unserved residents.

RCAP program staff assisted the district by conducting door-to-door income surveys in the project area which determined that the area qualified for both USDA Rural Development and HUD-CDBG grant funding. RCAP also assisted with obtaining over 90 highway rights-of-way so the project could be released for bidding.

USDA Rural Development (State Director Kenneth Slone pictured front row, fifth from the right) committed $1,272,000 in loan funds and $941,000 in grant funds while HUD-CDBG (Governor's Office for Local Development Infrastructure Branch Manager Jeff Hanna pictured far left) committed $1,000,000 in grant funds. This project has been strongly supported by U.S. Senator Mitch McConnell's office (Field Representative Kevin Atkins pictured front row, third from the right); U.S. Senator Jim Bunning's office (Field Representative Holly Hopkins pictured front row, seventh from the right); and U.S. Congressman Ben Chandler.

On May 7, 2008, all the years of hard work and collaboration paid off when ground was broken for the project. Construction is expected to take approximately nine months to complete. The journey has been long, but it appears that another adage is true…Good things do come to those who wait.

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Planning for a Project; the Owner's Role (Part 1 of a 2-part article)

Kristin Woodall, Great Lakes RCAP; based upon coursework developed by Bob Allen, Ohio RCAP

Does this sound familiar? You are at a council meeting discussing business when the topic of new tires for the village truck is brought up. Apparently it's past time to replace them and a lengthy discussion results in where to buy the tires, what kind of tire tread is needed, etc. The discussion goes on for approximately 45 minutes before a decision is made to buy 4 tires for $450 from the local auto parts store. The following agenda item is the need for council to pass a resolution to approve their engineer's plan in building a $1.4 million water plant and it gets passed in less than five minutes.

Water and wastewater systems are important infrastructure for rural communities and are one of the largest investments that will be made. It is not unusual for pipeline projects to have an engineering design life of fifty to sixty years. With proper maintenance, some water and wastewater infrastructure has been known to last for more than double its original design life. Decisions made today will impact your children, grandchildren, and great grandchildren.

Planning is the first step in a three step process. Implementation of your plan will involve design and construction; these topics will be discussed in greater detail in upcoming newsletter articles.

It is vital for communities and utility districts to understand that project engineers and other professionals are important assets in completing water or wastewater projects. However, you are (or will be) the owner of the infrastructure, and projects are ultimately the responsibility of utility managers and owners. One of the very first steps for the owner is to assemble a project team to represent the community or utility district. This team should include members of the governing body of your community or organization, your operator (if you have an existing utility), and other community members that have an interest or specialized expertise, and the time to devote to the project.

As the project owner, these are your primary responsibilities associated with operating a utility:

- Protecting the health and well-being of community members and the environment by operating your utility in compliance with your primacy requirements and industry standards; and
- Complying with all legal requirements for operating a public utility.

Defining the Problem

Prior to formally starting a water or wastewater project, it is important for you to evaluate the current conditions and needs of the utility (for existing systems). The owner needs to evaluate the technical capacity of the existing utility, openly evaluate the strengths and weaknesses of the management of the utility, and evaluate the financial capacity of the utility. Whether you have an existing system or are trying to build a new one it is also important to analyze community demographic data, identify the perceived problem, assemble any documentation related to the problem, and identify efforts made to eliminate the problem to date.

Once these needs are known, they need to be prioritized in order of their impact to the safety and well being of the citizens served by the utility then further prioritized by their criticality, regulatory requirements, and what needs may cause the utility to interrupt service to customers.

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The first task of the project team is to develop a project summary, which is a written report containing the following information:

- Description of the existing utility system (if applicable)
- Description of the problem the project will solve
- Project expectations
- Measures for success

The team also needs to identify the proposed project service area and gather demographic data for the area. Local documentation from county health departments and Ohio EPA sanitary surveys for existing systems need obtained to document any health hazards.

Developing Project Records

Maintaining adequate and orderly project files is important, because the amount of project records and paperwork involved in a utility project can be overwhelming and lost files may cause difficulties in closing out grants if records are not maintained in an orderly fashion. A project manual can be a very useful resource for documents that you may need for quick reference. The purpose of the manual is to provide an on-source reference guide for project activities including public notices, health hazard documentation, etc. A formal project file system should also be established during the planning phase. A project team member or utility employee should be assigned the task of filing project records in a safe and secure location at the utility. The records should be reviewed by project team members periodically to ensure files are being maintained in an orderly fashion.

Hiring an Engineer

A critical first step in any project is selecting a project engineer. Once selected, the engineer is involved in nearly every aspect of the job including identifying alternative solutions evaluating financing options, completing project design, obtaining permits, bidding the project, and completing construction.

Your responsibilities are as follows:

* Follow your state's law for hiring engineers and other professionals and retain records of compliance with this law.
* Assemble a team to interview and rank engineers.
* Meet with potential funding agencies to determine the required format for the preliminary engineering report in advance of contracting with the engineer for services.
* Thoroughly evaluate the preliminary engineering report. Question assumptions and recommendations made by your project engineer.

Problems can result if sufficient time is not taken and proper procedures are not followed when hiring an engineer and may include:

* Costs of force main were not included in design
* Outdated estimates resulting in cost overruns
* EPA guidelines not followed
* Improper siting of buildup, pump stations, towers, etc.
* Unstable firm hired that had multiple managers throughout project
* Overestimated costs and inflated rates making project infeasible

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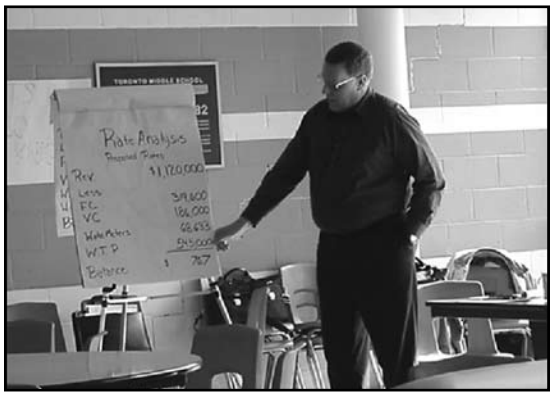
Public Participation

Public support and acceptance of a project may be greatly increased by keeping community members informed during all phases of a project. RCAP strongly recommends that communities develop and implement a plan for involving community members prior to the actual start of a project. Keeping the public informed and answering their questions throughout the project ensures that there will be few surprises by the time you're ready to start construction, and makes it less likely that you will encounter resistance.

During the planning phase you should hold at least two public meetings, or more as appropriate for your community. The first meeting (Stage 1) should occur after you've assembled your project team and written your project description. At this time you're simply informing the public that a project is being considered. The second meeting (Stage 2) should be conducted upon completion of your review of the preliminary engineering report and when you've made a decision on how to proceed.

During the Stage 1 meeting, you should:

- Present project description and the need for the project
- Briefly discuss the engineering procurement process
- Discuss planning financing



During the Stage 2 meeting, you should:

- Present preliminary engineering report
- Discuss project schedule
- Present financing plan

In summary, the keys to successful planning include:

- ***Coordination***—with Primacy Agencies, with potential funders, and with all project team members. Keeping everyone "on the same page" is essential;
- **Communication**—with the public, funders, regulators, project team members, and your consulting engineer throughout the process;
- ***Documentation***—keep track of all project expenses and all project-related records in a project manual;
- ***Use of all available resources***—use "no cost" sources of technical assistance wherever possible;
- ***Review & questioning***—don't be afraid of reviewing the work of your engineer to ensure that it's in line with your expectations & never be afraid to ask questions.

This concludes Part 1 of Planning for a Project. Be on the lookout for Part 2, which will focus upon financing, environmental requirements, and the project schedule within the next *Great Lakes RCAP Connection* edition.

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 and click on your applicable state or contact our regional office at 1-800-775-9767.

Interested in Receiving Practical Information for Your Water or Wastewater System?

The eBulletin is a FREE online resource brought to you by the Rural Community Assistance Partnership. Sign up today and receive instant access to useful information that will allow you to focus on providing safe water while making informed decisions that will benefit your community, keep you in compliance with EPA regulations, and maintain your water quality in the most proactive way. To use the eBulletin simply complete the subscription form online @ www.watertrust.org. Then just sit back and every three weeks the latest issue will be sent to your e-mail inbox. Your personal information will not be shared with anyone else and you can unsubscribe at any time.

Asset Management Tool (CUPSS) Designed with Small Communities in Mind

Wayne Cannon, Ohio RCAP

The U.S. Environmental Protection Agency (EPA) developed CUPSS (Check-up Program for Small Systems) as a user-friendly desktop application to promote the integration of asset management activities into utility practices. CUPSS leads users through a series of modules to collect information on the utility's assets, operation and maintenance activities, and financial status to produce a prioritized asset inventory, financial reports, and a customized asset management plan. CUPSS was designed and developed with input and suggestions from a diverse stakeholder group including water utility officials, state workers, RCAP, and other related water groups.

Three important components of asset management are a comprehensive list of current assets, including information on their condition and useful life; an understanding of the daily/monthly/yearly tasks to maximize the useful life of the assets; and a clear organization system for financial records, which will help identify trends and determine the full cost of doing business. CUPSS is a free Asset Management software designed to help small and medium sized communities to establish and maintain a successful asset management program.

The focus of asset management is to manage utility system assets to minimize their entire life cycle cost. This concept is vastly different than present industry practices which minimize annual operating cost. To achieve minimum life cycle cost you must spend money on preventative maintenance and timely rehabilitation. Over time money spent on preventative maintenance and rehabilitation will generate big dividends with both improved reliability and help to extend the useful life of your equipment. The CUPSS program will also help you to prepare work orders and schedule preventative maintenance. These work orders can be used to help keep operation and maintenance, as well as compliance tasks, on schedule. While many programs are available to assist the community with the financial aspects of asset management, CUPSS is the first to combine financial management with this operational component.

CUPSS will also help you make determinations about the current state of the assets in your utility, the level of service you are aiming to uphold, which of your assets are critically important, what the minimum life cycle cost is, and what your long-term funding strategy is. The program will help you to organize and report this information in an asset management plan. CUPSS will provide a snapshot of your utility that will allow someone with little knowledge to jump in and understand the state of the utility.

CUPSS relies on a combination of specific information entered by the user and general information provided by EPA. The information entered by EPA has been inserted to provide additional assistance—such as the life expectancy of 6" mains—to provide simple, eye-opening reports. You only need to enter a couple of important assets and last year's financial statement to generate a targeted action plan. The quality of the output of the program will be determined by how much information you input: The more information that is entered, the more accurate and descriptive your results will be! Like anything worth doing, integrating CUPSS and asset management into your utility's culture will take time and effort. These are certainly high goals, but we think taking the simple approach used in CUPSS will result in great strides forward for your community.

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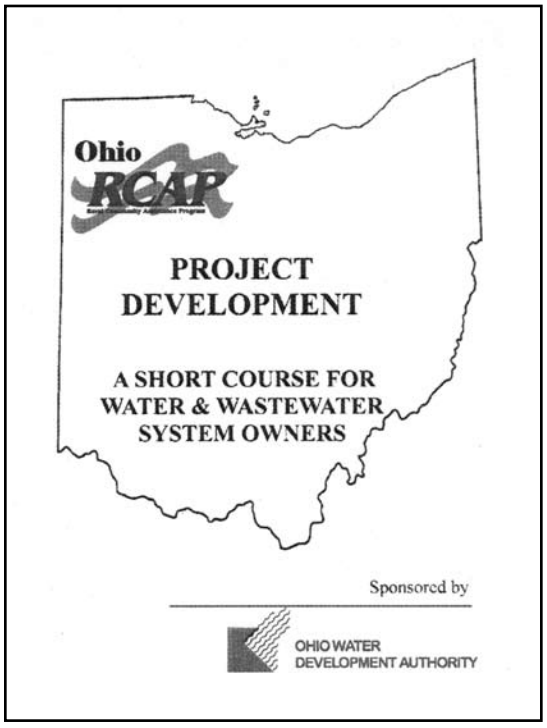
US EPA has developed a new website devoted to Sustainable Infrastructure for Water & Wastewater systems. This site is located at http://www.epa.gov/waterinfrastructure/. The CUPSS program can be referenced under the Asset Management section of Better Management. It can also be referenced at the following direct link http://www.epa.gov/cupss/. In addition, EPA has developed three new guides which give communities excellent information on Asset Management for Local Officials (PDF), Building an Asset Management Team (PDF), and Asset Management: A Best Practices Guide (PDF).

Ohio RCAP Introduces Project Development Short Courses

Kristin Woodall, Great Lakes RCAP

Ohio RCAP and the Ohio Water Development Authority (OWDA) recently partnered to develop a curriculum intended to help small communities through each phase of developing a water or wastewater project.

With increasing demands for technical assistance services, the shrinking pool of federal resources, and issues facing communities in repaying outstanding loans, OWDA and Ohio RCAP both felt something needed to be done to assist small communities. Discussions between the partners began and did not end until they came up with a curriculum involving a combination of on-site training and technical assistance. The curriculum concentrates on project development from the planning stage through construction, and is targeted to local officials who are developing a water or wastewater facility. The "Project Development" courses are intended to walk communities step-by-step through the development of a project and are structured to help them avoid common pitfalls.



The manual itself is divided into three sections (Planning, Design, and Construction). Each section is intended to be a two-hour training course that is delivered on-site within the community. Direct technical assistance by Ohio RCAP Field Agents conducting the training will also be provided to communities participating in the trainings. In addition to the manual, a toolkit that provides invaluable samples, and other useful information is included.

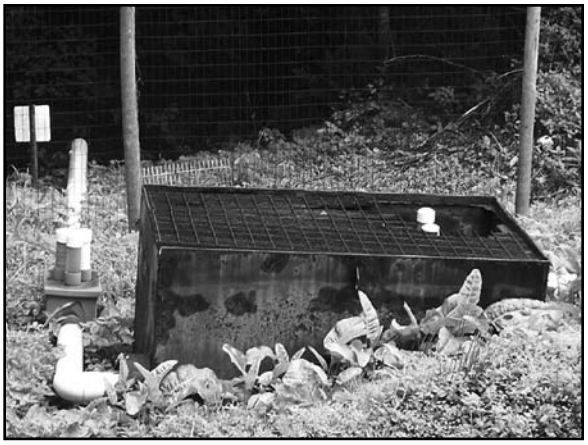
RCAP recently held its first training in South Amherst where ten local officials including the Mayor, council members, a member from their Board of Public Affairs, and the Fiscal Officer attended. The training focused on the first stage of project development –planning. The village currently has on-site septic systems that are deteriorating. Options, including whether to build their own system or connect to an existing system, are currently being reviewed. RCAP Field Agent Sherry Loos conducted the training, which covered a variety of topics including funding, public participation, and hiring an engineer. According to Ms. Loos the training was overall well received.

If you would like to learn more about the short courses, John Rauch, Ohio's State Coordinator, can be contacted. His contact information is located at www.ohiorcap.org.

WV RCAP Assists Nicholas County with Wastewater Problem

Article from the WV CAP Talk Volume 1 Issue 1, July 2008

West Virginia Rural Community Assistance Program (RCAP), has been successful in helping residents of the Wood Service District, a homeowner's organization in Nicholas County, solve their community wastewater problem. The organization operates the Mt. Lookout wastewater treatment facility, a lagoon type system that serves 45 homes. Operating and keeping the system in compliance with West Virginia's Department of Environmental Protection and Bureau of Public Health was becoming a financial strain on the budget of the small homeowner's association. Remedying this strain by increasing monthly fees would be a burden to some families, so Ronald Wickline, a concerned citizen who had been asked to help, conducted an internet search for funding and assistance. While searching he found RCAP and made the initial call for help.



"It was clear after speaking with the operator and visiting the site" said Rick Proctor, WV RCAP Technical Assistance Provider, "that this was a good group of motivated individuals, yet they needed guidance, technical assistance, and funding to meet compliance issues and to upgrade the wastewater plant." RCAP accepted the responsibility to work with the governing board to ensure they had the opportunity to consider alternatives and make decisions so that both economics and efficiency of the system were given due consideration. Finding a viable solution was not an overnight process. Proctor researched technologies for updating the existing lagoon treatment facility that would help meet waste effluent regulations and permit requirements. He received assistance on determining the best technology from Ed Winant, an Engineer for Small Flows Clearinghouse located at West Virginia University. Proctor collaborated with other agencies as well as the power company, and contacted and negotiated with Area, Inc., the equipment providers. Once the Board made their final decision he also coordinated finding a funding remedy.

The southern RCAP region (Community Resource Group-CRG) operates the national RCAP loan fund program and WV RCAP assisted the community with securing a $34,000 loan from CRG for purchasing an aeration and ultra violet light treatment for the treatment process. To meet part of the federal regulations for this loan, Proctor worked on securing a "Categorical Exclusion Classification" from USDA. The UV light and aerator have been delivered, and the RCAP technical assistance and direct hands-on assistance is continuing even during the installation (see picture of WV TAP, Rick Proctor, to the left). This community is now able to avoid fines and litigation due to failure to meet the necessary requirements as well as avoid a negative environmental impact on their surrounding community. Additionally, the monthly costs of operating the system will be greatly reduced because chlorination and de-chlorination chemicals will no longer be used. WV RCAP has been successful in helping the Wood Service District operate a less expensive and more environmentally friendly wastewater treatment system.

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Attention Ohio Communities: Are you a member of OH-WARN?

Who are you going to call in an Emergency? Who has the equipment you need? Help can be close by. Become a part of the newly formed Ohio Water/Wastewater Agency Response Network (OH-WARN).

Advantages are numerous and include:

- No cost and may be valuable someday.
- Becoming a member just requires a signed agreement.
- Actual participation is at your own level.
- Even if you may not have resources to loan in an emergency it doesn't mean you will not be able to request and get assistance if you have an incident.
- Agreement format is setup for FEMA structure.

For more details, visit http://www.ohiowater.org/oawwa/OH%20WARN/OHWARN.htm or contact your Ohio RCAP Field Agent.