



THE GREAT LAKES RCAP Connection

The Voice of the Great Lakes Rural Community Assistance Program

Why Review and Update Your VA and ERP?

By Nettie Harper, WV RCAP

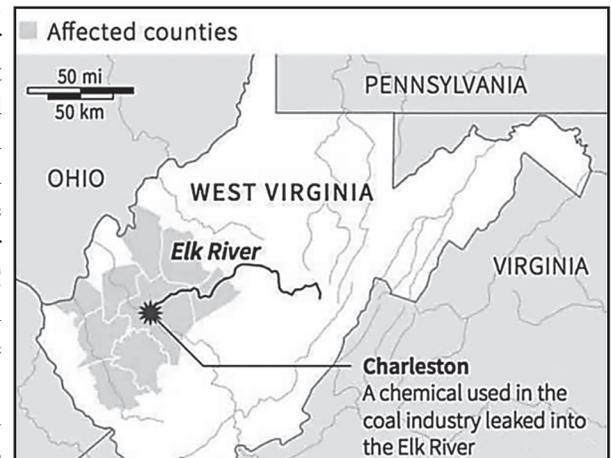
One of the most valuable tools to have available for water and wastewater systems is their written Emergency Response Plan (ERP) completed after they have performed a thorough Vulnerability Assessment (VA). Pre-planning by identifying potential threats and emergencies and being proactive by having prepared written system information, corrective actions to be taken, and resources available is critical in managing the impact of both large and small unexpected adverse events.

Water supply contamination risk elevated to a higher level of consideration on some of the West Virginia water systems vulnerability assessments after a recent January event. WV Governor Tomblin issued a State of Emergency on January 9th for Boone, Cabell, Clay, Jackson, Kanawha, Lincoln, Logan, Putnam, and Roane counties following the notice from the West Virginia American Water Company that its water supply had become contaminated. About 300,000 residents in the affected service areas and numerous persons working there or visiting the areas could not use tap water for drinking, cooking, washing or bathing. West Virginia American Water (WVAM), a subsidiary of American Water, is the largest water utility in the state, providing services to approximately 550,000 people.

Charleston residents reported a smell similar to licorice in the air around town on that morning. Investigations by several agencies revealed that 4-methylcyclohexane methanol (MCHM), a chemical used to clean coal, had leaked into the river from a storage tank located on the Elk River about a mile above the WV American Water Company Kanawha Water Treatment Plant. Several days later it was learned the leak also contained a mix of glycol ethers called PPH. An estimated 10,000 gallons of the chemical blend had leached through the cement retaining wall entering into the water source for thousands of people throughout the valley.

Throughout the emergency multiple agencies collaborated to determine the best course of action. With limited toxicity data on either of the chemicals, the CDC established a 1 ppm health-protective limit guideline. Once the chemicals were contained and the production of potable water was allowed WVAM conducted systematically and ongoing around-the-clock flushing, sampling and testing until non-detectable or extremely low levels of MCHM was achieved throughout the water distribution system. Once the drinking ban could be lifted a plan of zones was established based on the flow of water from the treatment plant through the system so that customers could begin flushing their home and business plumbing systems in specific designated areas at intervals so that excessive demands would not result in additional water quality and service issues. The final ban was lifted on January 18th for everyone affected by the spill. However, the CDC suggested pregnant women should drink bottled water until MCHM is no longer detectable in the water distribution system.

Well into February some residents are still reporting the black licorice smell in some homes and schools. Because of the lack of confidence that the water is safe, many homes and schools are still using bottled water on a daily basis. Residents have a concern not knowing the long-term exposure effects to crude MCHM health impacts the future will bring.



What's Inside

- Pg. 1 Why Review and Update Your VA and ERP?
- Pg. 2 Indiana RCAP Presents Financial Reporting Training to USDA-RD Borrowers
- Pg. 3 Understanding When and How to Conduct an Income Survey
- Pg. 6 Kentucky RCAP Receives \$90K from USDA to Provide Assistance to the Cumberland County Recycling Center
- Pg. 7 The Village of Mt. Blanchard Says Good Bye to Their 1915 Water Tower
- Pg. 8 Mark Your Calendars Small Towns, Big Futures



Great Lakes RCAP assists rural communities in developing and maintaining community infrastructure and meeting other community development goals to improve quality of life.

Great Lakes RCAP is a member of the Rural Community Assistance Partnership. RCAP is a national network of regional non-profit organization that provide comprehensive, on-site technical assistance and training to help small, rural communities address their drinking water, wastewater, and other community development needs.

Continued. . . Why Review and Update Your VA & ERP?

Costs are continuing to escalate as clean up continues for this unexpected event. In addition to the cost of providing bottled water and tankers there is the loss of revenue for local restaurants and lodgings, lost wages for employees, additional man hours for agencies, as well as costs to families dealing with this emergency. As of February 10th WVAM has performed over 2,500 water analyses and continues to monitor and test.

In addition to updating vulnerability assessments and emergency response plans RCAP is reminding small water systems the need to update their source water protection plan. Environfacts is the U. S. EPA single point of access to environmental data about air, water and land and allows the user to generate maps reflecting the data. Environfacts has recently been updated to reflect more current data.

“Oh, that’s not going to happen here”, has been said so many times by operators as they review the list of potential threats to their system while completing a vulnerability assessment and developing their emergency response plan. However, having the plan in place and knowing what to do in case something does happen is just one of the many important aspects of running well managed systems.

RCAP Technical Assistance Providers are available to assist communities in preparing Vulnerability Assessments and Emergency Response Plans. For your nearest contact please go to the regional website at www.greatlakesrcap.org.

2012-13 Great Lakes RCAP Results

- *More than 145 million was mobilized for new projects and upgrades and line extensions*
- *510 communities were served*
- *25 trainings with 213 attendees were conducted*
- *Received an overall rating of 4.86 on a scale of 1-5 with 5 being the highest as a result of its customer satisfaction survey*

Indiana RCAP Presents Financial Reporting Training to USDA-RD Borrowers

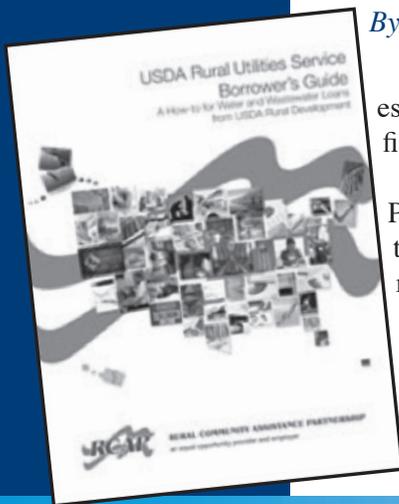
By Vicki L. Perry, Indiana RCAP

To expand upon our already popular board training series, Indiana RCAP introduced a training especially for USDA-RD borrowers, to improve the quality and timeliness of their required annual financial management reports.

Technical Assistance Provider Daniel DeVault, a former Rural Development Community Programs Specialist, was the lead trainer for this opportunity. His years of experience reviewing the documents and assisting borrowers with their completion, as well as his abundant humor, made the sessions highly informative and entertaining. Said DeVault, “Many small towns and utilities, as well as their customers, continue to exhibit financial stress. Hopefully the workshops will help them be aware of, and thoughtfully address, their issues.”

The free training consisted of half-day sessions in which each form was covered in detail. Participants received a copy of RCAP’s RD Borrower’s Guide and the required forms in excel format on a CD.

. . . Continue on page 7



Understanding When and How to Conduct an Income Survey

By Sherry Loos, Ohio RCAP

Many of RCAP's communities, at one time or another, have had to complete an income survey to determine their eligibility for a funding program. Most funding programs for small community water and sewer projects include, as part of their eligibility requirements, criteria for the income level of a community, often in relation to its water and sewer rates.

The need for income surveys in rural areas will continue, if not increase with the adoption of the American Community Survey (ACS) by the US Census Bureau. In past decades, income data was collected during the decennial census. This changed beginning in 2005 when the Census Bureau introduced the ACS to provide more timely data. In the 2010 Census, the 'long form' that many households received no longer included questions about household income. This data is now collected by surveying a much smaller percentage of the population each year through the ACS, and then the data is combined over multiple years. The Census Bureau publishes ACS data for single years, called 1-Year Estimates and for multiple years by combining data from surveys over those periods- the 3 and 5-Year Estimates. According to the information provided on the US Census' website, urban areas with a population of at least 65,000 may be able to make use of the 1-Year Estimates. Populations of at least 20,000 may find the 3-Year Estimates reliable enough to use, but any areas with smaller populations can only use the 5-Year Estimates.

While the goal of the ACS is to provide more current data, rather than only having a snapshot every ten years, there are disadvantages that particularly impact small rural communities. The first problem that can occur is a higher margin of error in the income data. Even by combining 5-years worth of data, a smaller percentage of the population, 12.5%, is actually surveyed now using the new ACS methodology as compared with the old decennial censuses which surveyed 17% with the 'long forms'. And the rate of door-to-door follow up by the census bureau workers is reported to be lower (see ESRI article under references). This results in a higher margin of error unless a greater response rate is actually achieved than in past decennial censuses. Even with 'oversampling', which the Census Bureau does to help get enough responses in rural areas, in some small communities the margin of error can be very high, and that can provide justification for an income survey. All ACS margins of error are reported at the 90% confidence level. So if, for example, the 2008-2013 ACS reports 'Smalltown's' MHI at \$40,232 with a margin of error of +/- \$12,457, we can be 90% confident that the MHI of Smalltown is \$40,232 with a 31% margin of error.

The other problem with 'rolling' five year data is that the reported Median Household Income (MHI) for a community changes every year. Changes can be modest, but particularly if one or more years had a lower response rate from households selected for the ACS, which leaves the potential for wide swings in the data. The changes can be enough to impact a community's eligibility for various funding programs. Because projects in rural areas often take a few years to plan and secure funding, this can really throw a wrench into any long term capital improvement planning. The higher level of uncertainty about a community's continued eligibility for funding from year to year, in some cases, creates more risk in proceeding to the design phase of a project.

Income surveys can yield data with a lower margin of error and higher confidence level, and can be especially useful if a project's 'benefit area' does not match the boundaries of a township, village, city or census block group. In townships especially, it is common to find pockets of lower-income households that are not accurately represented within the entire township's income data. Often, these are the places we are helping because they are the older, denser settlements on smaller lots that experience greater problems with failing septic systems and subsequent contamination of private wells.

When Do We Need an Income Survey and What Kind?

RCAP Technical Assistance Providers can help community representatives communicate with potential funders to find out whether or not an income survey is warranted for their project. Sometimes

"Christie was invaluable in the help she provided. Our sewer project would not have succeeded without her help."

*Carl Van Loon-
Casnovia Twp., Michigan*

"I have spoken to several officials from the villages and have told them that the help that you give is exceptional and that if they are going to start a project that they should contact you first. That way it is done right from the very beginning."

- Unknown, Ohio





“The RCAP program is one of the most valuable contacts that small cities such as Thomas could ever hope for.”

-Thomas, West Virginia

the need for one may be obvious, but in all cases it is a good idea to talk to the funding agencies first to confirm whether or not they will accept data from an income survey, the methodology needed, the amount of time allowed to complete the survey, and how long afterwards they will continue to honor the results. There are three types of income surveys, and in all of them residents are asked to either check a range or give their best estimate of their Gross Household Income. This means the income, before taxes, of all working adults in the household, and it includes social security and other retirement income.

A Median Household Income (MHI) Survey determines the mid-point at which half of the households are wealthier and half are poorer. Sometimes, people confuse this with an ‘Average’. The difference is that an Average Income can be skewed by a few very rich people. In some cases, I have heard more than one community representative bemoan the single millionaire in town, believing that one family has dramatically caused the MHI to appear higher than it should. One family should not have a significant impact on the Median.

Another type of survey many communities are familiar with is the Low-to-Moderate Income (LMI) Survey for Community Development Block Grants. A ‘benefit area’ must be at least 51% Low-to-Moderate-Income according to the US Department of Housing and Urban Development’s criteria. Households are deemed LMI if their gross household income is less than a maximum figure based on the number of people living in each home. Each county and Metropolitan Statistical Area has its own income limits, and they are updated annually.

The third type of survey is to do a combination MHI/LMI survey. Usually in these cases the MHI Survey form is used, and data can be transferred to an LMI form for CDBG eligibility. Combined surveys are often done when a community hopes to apply for both CDBG and another funding program, such as USDA.

Along with the type of survey needed to determine eligibility for various funding programs, each funding agency has requirements for the survey methodology that will be employed. There are two basic survey methodologies that can be used, census surveys and randomized surveys. Census surveys are often used when the population of a benefit area is very small, or whenever a funding agency allows for this type of survey. For larger surveys, it can be easier to administer than a randomized survey. Census surveys involve contacting all households in the benefit area, with the hope that a minimum response rate will be achieved. In some cases additional efforts must be made, including second mailings or door-to-door canvassing, to obtain more surveys. With census surveys, a map depicting the households that responded may be needed to demonstrate whether or not a relatively uniform distribution of responses was achieved to ensure surveyors did not attempt to ‘cherry pick’ low income households for the survey.

The second type of methodology is a randomized survey. Randomized surveys allow for a smaller number of responses and if done properly can reduce the chance for bias in large surveys. For example, in a census survey some types of households may be more likely to respond by mail than others. In a random survey, additional attempts are made to solicit a response from all households that are randomly selected to participate. LMI Surveys for CDBG funding, except in very small benefit areas, are supposed to be conducted as random surveys. This methodology, combined with the minimum response rate required by HUD, has a confidence level of 95%.

Three Types of Income Surveys

Median Household Income

We ask for the best estimate of the household’s gross annual income.

Low-to-Moderate Income

For CDBG funding, we ask them to check a small range for the gross household income.

Combined MHI/LMI

We do the MHI survey and transfer data to LMI forms to effectively do both types of surveys at the same time.

How Do We Conduct an Income Survey?

To start, having a comprehensive list of all residential households, including individual apartment units, with non-residential customers removed, is very important. While this can involve some effort on the part of the community staff to scrutinize customer lists and track down landlords to ask about rental properties, it can save a lot of time later on.

RCAP Technical Assistance Providers can help communities prepare the income survey forms they will need, as well as assist by receiving and tallying the results. It

can be helpful to have an outside agency like RCAP involved to do this work in order to help keep responses confidential. Residents may be less likely to respond if someone they personally know would otherwise see their data.

Since the required sample size is based on the total number of occupied residences, not the total number of customers or connections, eliminating unoccupied and non-residential addresses can reduce the number of surveys needed from the start and save time and postage. Once the number of surveys needed is determined, other details such as whether or not one or two mailings will occur ahead of door-to-door visits can be made, and a random selection of the households to include in the survey can be made.

Randomization can be achieved by assigning a number to each address on a complete list of all households in the benefit area, and then using either a Random Numbers Table or a computer program to create a random numbers string to rank each household and select which ones will be included. A website that has been around for many years called www.random.org offers a free simple program that can quickly generate a random numbers string. Some oversampling will be necessary to replace homes that refuse, cannot be reached, or are found to be vacant. For CDBG surveys, up to 20% additional homes may be contacted to serve as replacements. The standard for replacing unresponsive households in a random survey is to make at least three attempted contacts by mail and/or home visits. It is important to try and obtain the minimum number of surveys needed from the list of randomly selected homes, including the additional 20%, without having to proceed with even more replacements.

Often surveys are initially mailed with a stamped return-addressed envelope. A cover letter should accompany the survey form with simple instructions. It is important not to use language in either the cover letter or when performing home visits that suggest the community is trying to demonstrate it is 'low income' to get grant dollars. It is better to use a generic explanation that will not encourage anyone to 'round down' their income or refuse altogether because they think they make too much money. "We are gathering data for an accurate income picture for the planning of our water project," is a good statement.

Generally, the response from a mailing will be 20-30%. Sometimes a second mailing can be done if there is enough time, but often the expense and delay are not worth the small response typically seen. After providing 2-3 weeks for residents to respond by mail, a 'door-knocker' list, ideally accompanied by a map, is prepared for surveyors to hit the streets. The list of addresses to visit should include columns to report the date of each attempted visit, whether or not a completed survey form was obtained, and to make notes about suspected vacancies or refusals. Visits should be made at different times of the day or different days. If a resident refuses to respond, they should be automatically replaced.

When conducting a survey, in most cases the surveyor is allowed to record responses, although it is better to ask the resident to complete the income question themselves. Minimizing the amount of reading and writing they have to do make it easier and more likely they will give a response. Even on a simple one-page form, the reader has to spend some time figuring it out if it is handed to them blank. At a minimum, filling in the street address before knocking on a door, asking how many people live in the home and filling out that portion, and on an MHI form asking for the number of residents under 18 and over 65 and filling that in, leaves only the income portion for the resident to complete. Pointing to the income question when handing over a clip board helps, as they will not be familiar with the form. Remember too, some people have poor literacy skills, and using this approach can help solicit a response from them.

The most challenging part of an income survey, often times, is just getting the minimum number of responses needed. It is okay to explain this to people, especially those who do not want to answer because they think they make too much money. If all of the responses were low income, especially if it appears that the 'wealthier' area of town has a lower response rate, this would send up red flags to a reviewer.

RCAP Technical Assistance Providers can help communities through the process of conducting an

Two Types of Methodologies

Census Survey

We send surveys to everyone and try to get a certain number or % of responses. The distribution of responses received on a map should appear relatively uniform.

Randomized Survey

A certain number of homes are randomly selected from the complete address list of households in the area. At least 3 attempts are made to contact each before replacing them. Too many replacements can invalidate the survey.

"EXCELLENT!!! communications. They were always on top of all requests and in most cases predetermined our needs before they became an issue."

- Unknown, Wisconsin





Continued. . . Understanding When and How to Conduct an Income Survey

income survey, by receiving and tallying the responses for them, preparing reports and maps for funding agencies, and answering the multitude of questions that can pop up in the midst of a survey. Income surveys can be a lot of work, especially in conducting the door-to-door follow up, but in cases where the community qualifies and is able to secure hundreds of thousands in grant funds, it is a very good investment of time and postage!

Ohio RCAP Now Offers Door-to-Door Income Survey Services

In 2013, Ohio RCAP was asked by four counties and one small city to conduct income surveys for a fee, including the door-to-door follow-up, as these communities did not have staff available or other volunteers able and willing to help. A team of on-call Income Survey Technicians was created at the WSOS Central Office in Fremont. The team includes staff from other departments within the agency, several of whom routinely help people complete forms for LiHEAP and other services. Team members are available to perform door-to-door visits on weekends when it is often easier to find residents at home. For more information or to obtain a cost estimate for this service, please contact Sherry Loos at 330-628-4286, or your nearest Ohio RCAP Rural Development Specialist.

References

<http://www.lib.ncsu.edu/data/decvsacs.html>

<http://www.esri.com/news/arcuser/0408/samplesize.html>

“Interagency Income Survey Methodology”, developed by the Ohio Small Community Environmental Infrastructure Group, and published by the Toledo Metropolitan Council of Governments, 1996

Kentucky RCAP Receives \$90K from USDA to Provide Assistance to the Cumberland County Recycling Center

By Kim Padgett, Kentucky RCAP

Kentucky’s RCAP Program has been selected by USDA Rural Development to provide technical assistance to the Cumberland County Recycling Center that opened for business in March 2012 in Burkesville, Kentucky. A total of \$90,000 has been committed toward this project. In conjunction with the Great Lakes RCAP engineer, Kentucky RCAP staff will identify and evaluate solutions to solid waste disposal problems within Burkesville and Cumberland County, one of Kentucky’s persistent

poverty counties. This project will provide a plan for improved operation and maintenance of the existing solid waste disposal facilities within this area. Both the Great Lakes and Kentucky RCAP staff will provide on-site technical assistance to the solid waste coordinator and hands-on training to the recycling center operator so locals will have the skills necessary to consistently evaluate and streamline the efficiency of the center’s operations.

Additionally, RCAP will assist in the development and establishment of educational programs including special collection events and promotional activities. RCAP will conduct community outreach activities and events, provide lessons to the local schools and civic groups, and distribute educational materials to local businesses.

Recycling saves energy and money in addition to decreasing the flow of materials to landfills. The most beneficial way to increase cash flow for recycling centers is to increase participation of residents and businesses. Tom Fern, USDA Rural Development State Director commends Kentucky RCAP and the officials of Cumberland County for launching this community recycling program. “Protecting our environment is critical to the health and safety of rural Kentuckians. This endeavor will ensure a healthier environment for future generations.”



“The Services provided surpassed my expectations.”

- Unknown, Illinois

“Vicki was great to work with. She went out of her way several times to educate the new board and attend public meetings.”

Past board member - Wells County Regional Sewer Board, Indiana

The Village of Mt. Blanchard Says Good Bye to Their 1915 Water Tower

By Julie Ward, Ohio RCAP

The Village of Mt. Blanchard, Delaware Township is located in the southeast portion of Hancock County. RCAP previously worked with the Village through the planning, development and construction phase of a new sewer facilities project. During that time RCAP was also asked to assist the Village in securing affordable financing for a new water tower.

The Village's current water tower was built in 1915 by Pittsburg Des Moines Steel Company. It is a 55,000 gallon column steel elevated tank. A recent inspection demonstrated many OSHA and safety related problems as well as AWWA standards and operational deficiencies. In addition, the Ohio EPA was encouraging the Village to replace the "oldest" tank in northwest Ohio due to storage deficiencies as well as make improvements to their distribution facilities.

The Ohio EPA inspection of January 19, 2012 recommended numerous improvements for the Village's water facilities including replacement of segments to the distribution system that were not meeting current standards, causing pressure problems and affecting the ability of the facilities to provide reliable and safe drinking water. These improvements included replacing 4" lines with 6" lines, particularly where 6" flows into 4" and then back into 6" lines, and looping lines to increase reliability and reduce the risk of disinfection by-products forming.

Mt. Blanchard has a 2010 Census population of 492. An income survey completed by RCAP demonstrated a low-moderate income rate of over 70%. The number of service connections for their water facilities are 205. Rates for the new sewer facilities are \$55.00 per month and thus Council was reluctant to proceed with a new tower and distribution improvements, which would result in increased water rates, until residents had a chance to absorb the new sewer bills. Note: the Village had been collecting a water tower surcharge of \$4.00 for many years and thus had around \$150,000 of local funds to commit to the project.

RCAP was able to assist the Village in securing affordable financing for the new water tower and distribution improvements. A CDBG grant of \$600,000 was secured for the project along with a 2% loan from the Ohio Water Development Authority for a total finance package around \$1.3 million including their local contribution. Water rates will need to be increased around \$6.00 for debt service, leaving average monthly bills around \$35.00.

The project involves the construction of a new 100,000 gallon tank to meet storage deficiencies. In addition approximately 6,100 linear feet of 6" and 8" water line will be installed to connect the treated water to the tank and replace other segments of the distribution facilities to comply with Ohio EPA requirements to provide adequate, safe and potable water to customers.

President of Council Donald Bowman commented at the preconstruction meeting "People in town weren't happy with the sewer project but are very supportive of the new water tower and making improvements to their water system".

Continued. . . Indiana RCAP Presents Financial Reporting

Response to the training was positive. Initially two sessions were scheduled, but as demand grew, two more were added. Ultimately, 94 participants from 62 utilities and municipalities attended. One participant commented, "The presenter at that meeting was one of the best that I've ever seen or listened to. He had very dry material to work with and did an excellent job. I found his information very helpful. When he told me that it was the second class that he'd ever given, I was astounded."

The 2014 series will be presented in various sites throughout the state in September. If your utility needs assistance before then, please contact Indiana RCAP at 800-382-9895, or download the Borrower's Guide for free at <http://www.rcap.org/pubs/usdaborrguide>.



1915 Mt. Blanchard
Water Tower

"Very helpful on helping us with our water mapping and GPA. Saved us \$ on electric, with an energy audit. Great Job!"

-Unknown, Kentucky





GREAT LAKES RURAL COMMUNITY ASSISTANCE PROGRAM

Administering Agency: WSOS CAC Inc.
P.O. Box 590
219 S. Front St.
Fremont, Ohio 43420
1-800-775-9767
www.glracap.org

Mary Chipps
Chairperson

Deb Martin
Director

Kristin Woodall
Editor

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Mark Your Calendars

Small Towns, *Big* **FUTURES**

Ohio RCAP will be holding its bi-annual Small Towns, Big Futures Conference August 13-14, 2014 at the Columbus Hilton at Polaris. The conference will hold sessions targeted to local officials with a focus upon infrastructure issues, community and economic development concerns and assistance, and leadership and management development. Visit www.ohiorcap.org for more details. Sponsorship and Exhibitor slots are still available with an early bird deadline of April 1, 2014.