



from  
**Watershed**  
to Well

A publication of RHI, the Northeast Rural Community Assistance Program.

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Dear Friend of RHI, the Northeast RCAP,

I write to convey some important announcements and updates to our friends and supporters.

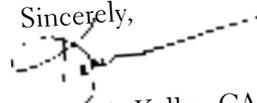
RHI (Rural Housing Improvement) has a thirty-five year history of providing a variety of services to individuals and communities. For the past two years, our governing Board of Directors has worked closely with me and our senior staff to reposition the agency as an integrated community development organization. This process has resulted in some significant changes to our growing organization that I want to share with you.

- **New Corporate Identity:** We will now be known as RCAP Solutions. Our new name and logo more accurately reflect the scope of our activities.
- **New Strategic Position:** Our strategy embraces our historical work in water, wastewater, solid waste management, housing assistance and development, and also takes us into new areas of community development. Enhanced master planning for communities requiring economic development, downtown revitalization, tourism, access, elderly housing, watershed protection and homeland security are but a few of the options we can bring to your communities.
- **New Loan Program:** RCAP Solutions Financial Services, LLC is a newly created subsidiary of RCAP Solutions that will work with individuals and communities giving affordable short-term loans for a variety of purposes.

The primary mission of our organization has not changed. Upon invitation, we go into communities in nine states and two U.S. territories to help create and/or protect resources and to assist community leaders in strengthening quality of life. We have an extremely talented work force of close to 100 with a diversity of specialties, from social workers to civil engineers, dedicated to the people within your communities. We are a \$23 million organization with 365 active projects in 313 communities currently. Last year we helped to leverage \$37.5 million for those communities and managed close to \$13 Million in assistance to low income individuals in need of housing assistance.

Watch for our Winter '04 edition of *From Watershed to Well!* It will have a new masthead and a new format. We hope you will continue to be a faithful reader, and we look forward to continuing relationships with all our friends throughout the region.

Sincerely,



Karen A. Koller, CAE  
President & CEO

**RCAP** Solutions™  
*Resources for Communities And People*

# Director's Notes . . .



John McCarthy

**C**hange is in the Air! If you have read the front page message from our Chief Executive Officer you will know that we are moving in new directions. Our name becomes RCAP Solutions; our mission will emphasize the community development potential of water resources development; our activities will expand in new directions to better meet the needs of the communities and people we serve.

Our commitment as an agency is to further improve our professionalism while we continue to learn how best to meet your needs. One way you can participate in our learning process is by completing and returning the survey you will find in the center of this newsletter. Our survey focuses on *From Watershed to Well* and what benefit you derive from it. This is just one part of our broader commitment to seek your input as we move forward with our transformation from RHI to RCAP Solutions.

The link between *water resources* and *community development* has always been a central theme for our technical assistance providers. They are inextricably linked in most communities. For the rural communities assisted by RCAP, water resources decisions and community development aspirations are often linked in ways that are immediate and personal.

### *A few examples:*

- Residents are reluctant to take on more debt, so a needed school construction is voted down because the town has just borrowed \$4 million to build a water filtration plant.
- A state environmental agency imposes a new home construction moratorium in a small town because the town has exceeded its sewage capacity and a project to upgrade the system is stalled.
- Economic development leaders for a small community are unable to attract desirable businesses because the reputation of the public water system is poor, and major improvements to the system are known to be needed.

- A much sought-after major employer is considering moving to a rural area, but only if a regional wastewater system is approved.

Issues such as these are everyday concerns and motivators for many rural communities. Our technical assistance (TA) providers often find such topics at the heart of discussions on water resources infrastructure improvements.

A related and equally important topic of discussion is the ability of system users to pay for needed or desired water infrastructure improvements. In fact, the debate often centers around whether improvements are really needed at all, or whether they are just due to overzealous regulation or respond to the needs of one segment of the community seeking to promote private ends. At the heart of this debate is often the real economic hardship that the cost of new infrastructure can sometimes bring to the lower income residents of a community.

This issue of *From Watershed To Well* contains a diverse selection of fine articles by our field based technical assistance providers. Bruce Goodale reminds us that our work is with, for and about human beings. Michael Pattavina explores a special recycling issue while Patrick Pinkson-Burke recounts an effort in composting. Both play a key role in the protection of our natural resources, particularly our water quality. The piece by Don Schwartz and the pictures that accompany it tell about our staff's recent training at the Small Public Water Systems Technology Assistance Center, a program at the Harrisburg campus of Penn State University. In another effort reported here we are updating our own staff and outside federal/state agencies as well as other related organizations about the special security and emergency planning issues encountered by very small rural systems. Bob Morency, in his article, explains how to create an effective set of by-laws for your small utility, while John Moriarty tells us a little about some recent assistance provided to the Penobscot Nation. I hope you enjoy.

John McCarthy  
Program Director



# Requiem for a Community Leader

by Bruce G. Goodale, P.E., Water Resources Specialist, New York

**R**CAP specialists are required to deal with a wide range of issues in providing technical assistance to communities. One of the more difficult for me has been dealing with the death of a community leader. This sad event occurred recently when Supervisor Christine Snide of the Town of Long Lake, NY passed away after a long illness.



The Town of Long Lake is a geographically large but sparsely populated community located in the midst of the huge Adirondack Park in northern New York State. Surrounded by vast tracts of forest, rugged mountains and pristine lakes, there are only 852 year-round inhabitants. Most of this population is

clustered in two small settlements located 24 miles apart—the hamlets of Long Lake and Raquette Lake.

Tourism is a major industry in Long Lake. During summer months the population swells with numerous visitors who come to enjoy the great natural beauty of the area. But, for year-round residents, the winters are long and severe, and jobs tend to be few and low-paying.

Former Supervisor Chris Snide was a true Adirondack person and reflected the character of the region and its people. She was born in Long Lake and spent most of her life there as a resident. She was active in civic, church and volunteer organizations. She served as a Town councilperson from 1988-1993 and was serving her third term as supervisor. Like many of the long time residents one encounters in the Adirondacks, Chris was a strong, independent woman with much character. She was also an effective community leader.



As supervisor, Chris Snide faced serious challenges in dealing with the needs of the two existing water supply systems that serve the hamlet areas of the Town. The Raquette Lake water system is under a NYS Department of Health compliance order to meet requirements of the surface water treatment rule. Achieving compliance has been extremely difficult. The very small size of the system makes filtration almost prohibitively expensive for the many low-income residents. Development of a ground water source is the most logical option, but all of the most promising well sites are located on New York State Forest Preserve land. For many years, the Town has been unable to secure State approval to drill test wells on these protected lands.

The much larger Long Lake hamlet water system also has some serious needs. The system requires an additional water source, storage facilities, better chlorine contact and upgrades to its distribution system. These improvements are estimated to cost nearly \$2.0 million.

Both systems have faced emergency situations over the past year. The Raquette Lake water system has had serious episodes of high turbidity, resulting in water that was unpalatable and a “boil water” order. With the Long

*(continued on page 4)*

## Requiem for a Community Leader (cont'd)



Lake system, a major leak occurred in mid-winter with an underwater line; this reduced customer water flows below safe levels. Finding the underwater leak under several feet of lake ice and snow, and securing an emergency supplemental water source were major challenges for Chris and water superintendent Keith Wamback.

RCAP has played a major role in assisting Long Lake find solutions to the Town's water supply needs. In 1995, RCAP specialist Bill Webb assisted Chris and the Town with a self-help project that replaced water distribution lines for the Raquette Lake system. I have worked with the Town for nearly six years on water supply issues. These have included: groundwater and project planning studies, engineer selection, technical and cost analyses, income surveys, compliance issues, funding applications, and many other tasks. RCAP efforts were instrumental in securing recent eligibility for a \$538,000 grant and over \$2 million in interest-free loans for the two water systems.

My interaction with Christine was, without qualification, positive. She displayed a sophisticated knowledge of the issues. Her leadership and community commitment were exemplary. I especially admired her feisty spirit in taking on State bureaucracy in seeking approval to allow ground water testing for the Raquette Lake water system. Ironically, victory on this issue was not achieved until three weeks after her death when the long sought approval to drill test wells was finally granted. Moreover, the results of this testing identified two promising well locations that can easily supply the water needs of the system.

RCAP specialists pride themselves on supplying their communities with objective, technical assistance services in a friendly and professional way. This can also result in close personal attachment to the communities we serve, especially when one likes, admires and respects the community leaders with whom we interact. It makes the death of a leader such as Chris Snide a personal, as well as a community, loss.

Chris Snide fought a courageous battle with cancer and died on June 26, 2003. She is survived by her husband of 47 years and four children.

I have every confidence that under the able leadership of Deputy Supervisor Cynthia Thompson, the Town will persevere in solving its water supply needs. These efforts will rest on the strong foundation that Chris Snide helped to lay as a community leader. 



# Springs and More Springs

by John Moriarty, Water Resources Specialist, Maine

The Penobscot Nation, the oldest continuous political entity in the United States, is centered on Indian Island, Maine. This island is small, perhaps one quarter square mile. Approximately 500 people live on the reservation, while another 500 or so Penobscots live elsewhere in Maine.

The island is essentially built to capacity, while tribal leaders struggle with questions of housing, care for elders, educational and health facilities, and water-wastewater infrastructure.

At one meeting with Craig Sanborn (Housing Director, Penobscot Nation), the issue of a single, undeveloped house lot on Indian Island itself arose. It seemed that a development had been constructed in 1980, with 19 of 20 possible lots built upon.

## Why was the 20th lot left untouched?

It turns out that local lore had it that there was a fresh water spring on the lot, so the tribe had foregone construction. Mr. Sanborn asked RCAP Solutions to survey the area, and try to gain as much information as possible because the Penobscots wanted to build on the lot.

Interviews with office mates, elders, and tribal staff members led us to an area remote from the house lot in question, and we were able to locate a spring. The spring, although

obviously well cared for in the distant past (stone work protective measures) was degraded by housing development road runoff and a generation of siltation. The name of the spring is “Sara Spring.”



Through this effort, the lore of yet another spring arose, “Ghost Spring.” RCAP Solutions was able, with the help of the tribe, to locate that spring as well. Again, the spring was degraded due to years of neglect.

We also located yet another spring (unnamed, as far as I know) near a playground.

So the question arises, what is the tribe to do with these rediscovered natural resources? There are several avenues of opportunity:

1. Under the auspices of the tribe’s Cultural Preservation Committee look into and direct an anthropological/archaeological study of the areas.
2. Desilt and restore the springs, including reconstituting the original stone work protective measures.
3. Test the springs for water quality and quantity, with attention to the seasonal fluctuation in ground water character commonly experienced in this area.
4. Plumb the springs with readily usable materials for use in the event of an emergency.

At present, Indian Island buys water from the Old Town Water District. These springs could be managed with an eye towards providing a reliable source of fresh water to this community in the unlikely event that conventional, modern water supplies fail.

## Looking Ahead

In summary, RCAP Solutions has had the opportunity to work with the Penobscot Nation on a drinking water issue that has historical, cultural, and emergency preparedness aspects. This work will continue, with the hope that these springs will become a source of pride and utility for the Penobscots.



# Rensselaer County, NY, Electronics Recycling Program

by Michael Pattavina, Solid Waste Specialist



Gus Soucy recycling RHI electronics in Massachusetts

The East Rensselaer County Solid Waste Management Authority has successfully implemented its first electronics recycling program. The Authority represents four towns and three villages in Rensselaer County, NY, and is best known for its Community Warehouse, which collects unwanted and/or discarded household products and makes them available for resale to the public. The Community Warehouse is hugely popular in this rural county because of the savings to residents who only pay a fraction of the cost of a new product.

The mission of the Authority encompasses more than operating the Community Warehouse. It is also responsible for assisting member communities with solid waste disposal and recycling programs. Because electronics are an increasingly significant part of the waste stream, it was appropriate for the Authority to establish a collection program to salvage these components of the waste stream.

The kickoff electronics recycling event was held on Saturday, June 7, at the Hoosick Falls Central School parking lot. An RCAP technical assistance provider worked along with personnel from the Authority, as well as teens from the County Sheriff's first offender community service program for whom this effort counted as part of their required community service time. The event collected 110 cathode ray tubes (computer monitors) and 76 televisions in addition to a variety of CPUs, fax machines, typewriters, cell phones, stereo components, VCRs and computer peripherals (mice, keyboards, modems, etc). In all, the program



collected 6 tons of electronic waste from 62 households and 3 businesses. Next year's goal will be to collect electronics from more businesses. Because the collection infrastructure has been established, the County is now considering a waste disposal ban on electronics that will not allow these products to be disposed in landfills or incinerators.

Electronics recycling has become popular around the country but it has also attracted unscrupulous business practices. Stories have appeared in the news media of US electronic products being dumped in third world countries after they had been salvaged

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for their metals (copper, etc). RCAP Solutions staff assisted the Authority with researching electronics recycling businesses that are able to prove that their processing facility properly prepares the salvaged products for overseas markets. RCAP also arranged a tour of an electronics recycling plant in Gardner, MA, for the Authority to review proper handling procedures and how to include these protocols in their contractor bidding specifications. 

# Backyard Compost Bin Workshop and Distribution 2003

by Patrick Pinkson-Burke, Solid Waste Management Specialist

On June 14, 2003, I distributed one hundred and forty-one backyard compost bins to 106 people in five states (NH, VT, MA, NY, PA) encompassing 27 communities with populations under 10,000, and five communities over 10,000. All participants receiving backyard compost bins were educated about backyard composting techniques through a series of short workshops throughout the day. If used properly, these bins will divert up to **40 tons** of organic food scraps and yard waste from disposal into valuable soil enhancement.

Backyard composting is an easy, low-cost technique to divert valuable organic material from disposal. Between 35% to 60% of a household's waste and yard waste can easily be converted from garbage into an important soil additive through the compost process.

Composting is nature's way of converting raw organic waste into a stable soil enrichment. Microorganisms present in soil do the work, as long as a few basic requirements are met. Air, moisture, nutrient sources, surface area, temperature and pH are the basic building blocks of compost. While it isn't necessary to use a bin to produce compost, the bins accelerate the

process by helping to maintain an adequate size, temperature and moisture level in the compost pile. The bins also keep the pile contained and prevent animals like birds, rodents, etc. from disturbing the mound.



This is the second year RCAP Solutions, Inc. (formerly RHI, the Northeast Rural Community Assistance Program) has participated in this project. By joining other solid waste organizations from New Hampshire and Vermont, the compost bin, which normally retails for \$80.00, was made available for only \$30.00 to residents throughout NH and Vermont. In the aggregate, the project this year distributed over 4,000 backyard composter bins in the northeast. Collectively these bins have the potential of diverting over 1,200 tons of organics from disposal.

This has become an annual short-term project for RCAP Solutions. Work on this project usually begins in early March with simple promotion through fliers, posters, community access television, and letters to the editor in area papers. Pre-orders and checks are then collected, many questions answered, and orders collated. The order is submitted in early May with a delivery scheduled for June to each distribution and education site. This is an example of a low cost, short-term project yielding large results. In the two years RCAP Solutions has participated in this project, we have distributed over 420 compost bins on a local level and have helped promote the distribution of over 9,000 bins regionally.

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*Between 35% to 60% of a household's waste and yard waste can easily be converted from garbage into an important soil additive through the compost process.*

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# *In the Operators Domain...*



For the past year RHI, the Northeast RCAP, has teamed with Penn State University-Harrisburg to provide specialized training to community boards charged with oversight of water supply and wastewater systems. At the same time, PSU-Harrisburg has been bringing system operators to a hands-on training facility on the university campus in Middletown, PA, for technical skills enhancement. On July 15 and 16 of this year, the “trainees” included RCAP’s twenty-four technical assistance providers working in the nine northeastern states and three from Puerto Rico.

Under the directorship of Dr. Charles Cole, his assistant Alison Shuler and the regular faculty for operator training, the RCAP staff had an opportunity to work with state of the art training tools. Our staff not only played the role of inquiring students, they were issued a test at the end and asked to determine results based on meter, gauge and visual findings related to the demonstration operating system.



*Drinking water filtration facility simulator*

*Northeast RCAP technical assistance providers taking advantage of the PSU-Harrisburg operator drinking water training facilities. Mitch Spear is the instructor.*



## *In the Operators Domain...* *(cont'd)*

Issues surrounding flocculation, the need for back flushing, sedimentation and mineral remediation are anything but dry subjects when explored and explained by interested teachers. Doing so in the very settings to which our TA providers can refer small system operators ramped up the level of RCAP technical and administrative staff's general interest, understanding and awareness of system operating problems. Here are some glimpses from this engaging experience.



*"Jar Testing" for flocculation and sedimentation effectiveness, with instructor Julia Saylor, so as to minimize filter clogging.*



*Looking at the mechanics and testing required to maintain quality drinking water*

***Sedimentation:*** A water treatment process in which solid particles settle out of the water being treated in a large clarifier or sedimentation basin.

*Source of definitions: EPA Drinking Water Glossary, June 1994*



*Tom Clark, RCAP Regional Manager, Northern New England, identifies what quantity of precipitate achieves maximum efficiency in eliminating fine, solid particles, given the unique (and changing) chemistry of the fresh, incoming drinking water.*

*In the Operators Domain...  
(cont'd)*

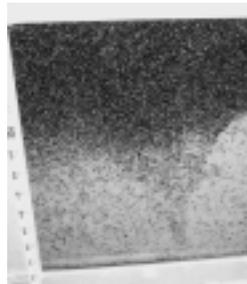


Mark Ambrose (left) and You Zhou (right) explain conventional filter backflushing and exploratory alternative technologies in the PSU Training Facility.

*Flocculation: The gathering together of fine particles in water by gentle mixing after the addition of coagulant chemicals to form larger particles.*

*Backflush: A method of forcing large amounts of water backwards through operating system filters for the purposes of loosening deposits and sedimentation.*

*Source of definitions: EPA Drinking Water Glossary, June 1994*



*Seeing what you never see... the "inside" story of the drinking water equipment we encounter every day: house meters, fire hydrants, safety valves to prevent backflow.*



# Building By-Laws for Your Small Utility

by Robert E. Morency, Jr., Ph.D., Water Resource Specialist



I recently had the opportunity to ask a village water district for a copy of their by-laws. My purpose for asking was so that, in my travels, I might be better able to match examples to communities. I was taken aback by one section that described the district's policy on livery stables, and the need to provide for regular removal of horse droppings from the village's streets. The by-laws hadn't been reviewed for 83 years, and the last update had preceded the switch to horseless carriages!

When was the last time that you reviewed your by-laws? Certainly, every utility serving drinking water to the public, and under regulation by the Safe Drinking Water Act (SDWA), should examine their by-laws, and determine if recent problems that may have arisen are adequately addressed. Long-standing misconceptions can be passed along through time, and vigilance is needed to avoid problems and define what the policies are *before* questions

arise. By-laws need to address potential issues between the board (owner) and other parties, including customers, operators and other employees, and vendors. A board should play an active role in constructing the by-laws, and not merely accept a set from an outside source. The members of the board will have to understand the provisions, and know when a provision is, or is not applicable. To that end, let's look at the minimum elements of a set of by-laws, and, examine what those elements should address.

## Introductions

First, state that the by-laws are for the purpose of governing the use of the utility, the installation of hardware, collection of user fees, and connection of customers to the system (including the rights and responsibilities of customers). State clearly that the board adopts the regulations for the management and protection of the public utility and associated facilities.

## Article 1- General Provisions

Label the General Provisions as "*Article 1*." Let's call the underlined terms that follow, "parts." Major topics are Articles. Sections (labeled as "*Section 1*," "*Section 2*," etc.) describe areas of concern under the major topics. Below the Sections are Paragraphs (labeled using Capital Letters), which describe specific actions that address the governing of the subtopic. Below the level of Paragraph, the Subparagraph (labeled with numbers) describes

what compliance with the required action consists of. You don't need to include all "sub-parts" if the policy and/or action is described as fully as you feel is necessary in a higher part.

In the General Provisions article *Section 1*, state the title of the bylaws. An example might be "XYZ Water System Regulation." For *Section 2*, state the purpose and objectives for adopting the regulation. These might include: assuring safe, reliable and ample supplies of drinking water; assuring that sewage is removed and related to protect the public health and the quality of the environment; protecting the public facilities; regulating the construction of facilities, and regulating the usage and payment to the utility for services.

### Stating the Provisions

Organizational Labeling Tip:

ARTICLE 1...

Section 1...

Paragraph A...

Subparagraph 1...

Section 2...

Paragraph A...

Subparagraph 1...

ARTICLE 2...

Section 1...

Paragraph A...

Subparagraph 1...

(continued on page 12)

## Building By-Laws for your Small Utility (cont'd from page 11)

*Section 3* sets the term of the regulations, and should say that they are in effect from the date when they are adopted, and that the board shall reserve the right to review and amend them as they deem necessary. *Section 4* sets the precedence of regulation, in case of conflict, as being the more stringent one, which serves the purpose of protecting health and environment.

### Article 2 - Definitions

*Article 2* should state clearly that the meanings of the list of terms that follow are as states in *Article 2*. For example, define the term "Owner" as referring to the person or entity who owns that property being served by the utility. Distinguish the "Town" or "System" as the owner of the utility itself, and make sure that these terms are not interchanged in the by-laws. Use the definitions article to define "shall" and "may." Here, also, the by-laws can define where the system's responsibility for plumbing repairs end, and where the customer's responsibility begins.

In addition to a separate article (*Article 2* in our example) set aside for definitions, definitions can also be included as *Section 1* of subsequent articles. This might be true where a term might have a special meaning in a special context within that article. For example, *Article 2*, General definitions might refer to the "owner" as being the responsible party, but in *Article 5*, concerning billing, the owner and the "responsible party" might not be the same person.

### Article 3 - Administration

*Section 1* should state that the board is the party that administers the regulations. Administration includes adopting rules and procedures, granting waivers, and acting as the authority to promulgate permits, applications and other documents needed to implement the by-laws.

*Section 2* gives the procedure for directing inquiries. For example, such a section might say that the Water Commission would handle all applications, permits, etc., or that the Board of Selectmen or the Town Council would be the authority to handle inquiries.

*Section 3* authorizes employees or agents of the utility to enter private property to service equipment, such as water meters, shutoffs, sample points, etc. State clearly that if access is denied, the procedure is to obtain search warrants or other instruments to ensure that those parts of the system can be maintained.

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*...one section described the district's policy on livery stables, and the need to provide for regular removal of horse droppings from the village's streets.*

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### Article 4 - Required Connections

In this article, the foundation is laid for the utility to stipulate that any property that uses water, abutting any street, alley, or right-of-way, shall be connected to the utility. A reasonable distance (e.g., 100 feet) from the main, and a reasonable time to effect the connection (e.g., 90 days) should be included.

Another section should state that the board must approve any new connections, and that they will conform to requirements of the by-laws, or a standard, such as ASTM or AWWA. This concept can also extend to the system reserving the right to inspect existing connections, and to require conformity, as a way to protect the system and the public health. It might also be in the interest for the utility to require that all new construction in a town be required to conform to the standards. By referring to standards, the by-laws will not become cluttered

(continued on next page)



# Building By-Laws for your Small Utility (cont'd)

with technical specs, but will maintain the protection of the public health and the system by essentially adopting the standards.

## Article 5 - Policies Regarding Connection to the System

A separate article should be concerned with policies regarding applications for connection and defining the process of getting a permit, so that there is an explicit statement that the use of the water is only granted by the board, and that only an employee of the system can tap any water main, and make a connection to the system. Reserve the right to deny connection to the system to a user who might put an undue strain on the capacity of the system (developments, industries, etc.).

Fees can be set for the application and the actual connection. Define the ownership, by the system, of facilities up to a certain point (curbstop, for example), regardless of who incurred the expenses for installation. Also state that the customer is responsible for repairs beyond this point.

Reserve the right to shut off water for repairs after a reasonable effort to notify customers.

Require that no cross-connections exist, or that back-flow prevention is installed where conditions exist for other sources to be on-site.

State whether water meters will be required.

State that the customer is entitled to meter tests, if they have a dispute with the readings.

## Article 6 - Billing Policies

This article describes how customers will be billed for water use. State whether the billing period is annual, semi-annual, quarterly, or monthly. You should refer to the schedule of rates, but, in most by-

laws, rates are not usually included, but instead are published as a separate document. By not including rates in the by-laws, changes in rates do not have to be adopted by a town or district meeting.

State what the terms are, and include policies on due dates, late fees, and when they are incurred. For instance, payments for services that are received 10 days after the due date might be surcharged a 10% late fee. Customers with unpaid bills 30 days after the due date might have their service terminated, and the termination policy should be stated in a separate article. Termination of water service is a serious matter, especially from the public health perspective, so you must have a clear policy with plenty of opportunity for appeals, hearings, and deferred payment plans.

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*...continuation of service to your customers is dependent on a system that is self-sustaining and has a governing board that is knowledgeable about current standards and regulatory trends.*

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especially from the public health perspective, so you must have a clear policy with plenty of opportunity for appeals, hearings, and deferred payment plans.

## Article 7 - Deferred Payment Policy

A system may want to institute a deferred payment policy that can allow the bill to be paid over an extended time to address occasional financial problems that customers might encounter, and to avoid shutoff of service following a single missed payment. An example of a timeframe is six months, with a stipulation that the deferred payment amounts shall be in addition to the current charges.

## Article 8 - Termination/Restoration of Services

After defining when a customer will be subject to termination of service in the article on billing policies, the board must clearly state what the procedure for the termination of service is and how to all parties can avoid this situation. Refer to the deferred payment policy and allow for appeals and hearings.



(continued on page 14)

## Building By-Laws for your Small Utility (cont'd from page 13)

Restoration of services should occur when arrears are satisfied in full and additional deposits and reconnection fees are also paid in full.

### *In Conclusion*

This description of parts of a set of by-laws is not all-inclusive. Other articles and sections might include: definition of a policy on how to handle multiple-user situations (i.e., apartment buildings); time, place and warning of meetings; permitted uses of supplied water; policy on water use bans; construction standards and material specifications; and how to handle violations of the by-laws by customers.



We would advise any board that is considering instituting or amending their by-laws to get assistance from state agencies (water supply bureaus, planning, municipal associations, etc.), USDA Rural Development, engineers, attorneys, and non-profit technical assistance providers, such as RCAP Solutions.

Remember that the continuation of service to your customers is dependent on a system that is self-sustaining and has a governing board that is knowledgeable about current standards and regulatory trends. 

### *“The Cyber Corner” Online Resources for Rural America*

*This occasional bulletin appearing in From Watershed to Well highlights some of the more valuable Internet tools and resources we have found that deal with issues of importance to rural communities. In general you will find here a wide range of web site references dealing with topics that relate to “community development” in the broadest sense. In every instance our readers may rest assured that the web sites listed and described here have been utilized and thoroughly validated by our professional field staff as accurate and authoritative sources of information.*

#### **[www.epa.gov/region1/assistance/ceitts/wastewater/techs.html](http://www.epa.gov/region1/assistance/ceitts/wastewater/techs.html)**

This EPA web page offers a synoptic assessment of numerous wastewater treatment technologies that may be appropriate for decentralized systems in small communities. There is a summary description of each technology option, along with data and information (mostly based on field tests) indicating site constraints, performance parameters, inspection and maintenance requirements, typical costs, disposal of treated effluent, and manufacturer's contact information. This site is great for community assessment of alternative technology options!

#### **[www.epa.gov/owm/mtb/decent/index.htm](http://www.epa.gov/owm/mtb/decent/index.htm)**

This is “The Word” from EPA on decentralized wastewater technologies and management. You can download the “Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems,” plus a Management Handbook for decentralized systems. You can also use this site to subscribe to EPA's “listserv” on decentralized wastewater topics.

#### **[www.rmi.org](http://www.rmi.org)**

The Rocky Mountain Institute is an entrepreneurial nonprofit organization that fosters the efficient and restorative use of natural, human and other capital to make the world

more secure, just, prosperous, and life sustaining. The RMI web site offers a wide variety of helpful tools, tips and resources grouped under issue areas such as energy, buildings and land, businesses, communities, climate, transportation, and water. Many articles and booklets can be downloaded for free, while other more substantial documents are for sale through their online bookstore.

#### **[www.greenteacher.com](http://www.greenteacher.com)**

The Green Teacher's web site! Green Teacher is a magazine by and for educators to enhance environmental and global education across the curriculum at all grade levels. Among the many resources available here you'll find an index of the titles and descriptions of all the articles and activities published in Green Teacher's ten-year history. Visitors can also freely download 100's of activities from several editions of the “Planet Earth Pages” K-12 activity section. Recent editions have focussed on renewable energy, sustainability, development education, and food.

#### **[householdproducts.nlm.nih.gov/](http://householdproducts.nlm.nih.gov/)**

What's under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room? Do these household products pose a potential health risk to you and your family? Find out what's in these products and what are the potential health effects, and other safety and handling information.

# Security and the Small Community

by Barry Woods and Tom Essig, Water Resources Specialists in Southern New England and Pennsylvania

National attention to threats of terrorism leaves us all sensitive to the importance of security and emergency response planning within our drinking water systems. Yet much of the training literature put out for vulnerability training for water systems does not take into account the special challenges encountered in very small system settings where populations are under 3,300. Vulnerability and security issues can be present and should be addressed in rural, small system settings. RCAP is working to address this gap.

RCAP Solutions, Inc., also known as the Northeast RCAP, has a two-decades-long commitment to and experience with small rural communities' water systems and community planning. Therefore, we are offering focused, specialized training sessions on vulnerability and emergency preparedness for people who oversee and/or work with these very small community systems.

During September, 2003, while this issue of *From Watershed to Well* is still in production, RCAP

is training technical assistance providers along with federal and state agencies, special commissions, and others who have oversight responsibilities for drinking water throughout our region. This training will emphasize the need for well thought-out and integrated emergency response plans, as a part of *overall* community effort, so that systems can provide ongoing service to their customers through a rational, well-planned response to *any* event—natural, accidental or intentional.

Sound emergency planning helps to eliminate, or minimize, the potential adverse impacts from most emergencies.

Here are some easy-to-understand visual tips about system security DOs and DON'Ts that will be included in recommendations offered during our Train-the-Trainers seminars. If you have concerns related to security issues and/or emergency response planning and would like some advice or technical assistance, please call us at 800/488-1969, ext. 237.

#### DON'Ts:

*Open and unlocked pump houses or well enclosures; storing chemicals beside an outside window*

#### DOs:

*Key locked gates; timed or motion-activated exterior area light*



(photographs courtesy of NETCSC)

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