

The Safe Drinking Water and the Clean Water acts

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The Safe Drinking Water Act of 1986 and the Clean Water Act Amendments of 1991 present significant financial and technical challenges to municipalities in Maine and other states as they struggle to meet compliance standards. Steve Levy, executive director of the Maine Rural Water Association, offers a view of the effects of these requirements on rural communities; Chris Branch, public works director and city engineer for Lewiston, presents a large community perspective.

A small community view

by Steve Levy, Executive Director, Maine Rural Water Association

The Maine Rural Water Association is a private, non-profit corporation. We were incorporated in 1979. Our staff of six works mostly with small water systems around the state. We have grant money from a variety of sources, so we do not have to charge for our services. We also run training sessions to help water system operators pass their certification test. We spend an enormous amount of time helping people interpret rules and regulations including the Safe Drinking Water Act, and we spend a lot of time helping them comply. We also do troubleshooting. People will have leaks or breakdowns or failures, and we will send someone out to find the leak.

Although I am an executive director, I do very little executive directoring. Most of my time is spent in the field doing technical assistance with small water systems. I will tell three quick stories that will give a perspective on rural water.

When I started in 1979, I knew I did not know very much, but I wanted to go out in the world and do good. There was a small water system Downeast, and they did not have a certified operator. I knew that was a bad thing, so I decided to help them. I headed out for this uncertified water system but I could not find the operator. It turned out that he was a full-time school teacher, he owned blueberry fields and it was blueberry picking season. After about six hours, I finally tracked this operator down in some blueberry field. He asked, "How did you ever find me?" I said, "Persistence." I added, "You realize you don't have a certified water operator?" He said, "So what?" I said, "It's against the law. You need a certified water operator." He put his arm around me and said, "Listen, we have a spring up here on the hill. We have a pipe that goes down the hill and exactly 14 houses get water out of this pipe. So what the hell else do I have to know about drinking water?" I learned something that day.

Last year, I was at another small - very small - water system. They had been on a boil order forever because of coliform bacteria. They have been boiling the water since Hector was a pup, and they had yet another outbreak of coliform bacteria. I went with a member of the Division of Health Engineering staff to find out what was wrong and to disinfect the spring. The sanitarian climbs down through the hatchway until he is in the base of the spring, which is just a hole in the ground. Water bubbles up from underneath, and there is a pipe that runs down the hill. While he

is standing at the bottom of this spring in his boots, I pour the Chlorox into a Dixie cup and he throws it into the spring. I thought, "Here we are in the '90s with the Safe Drinking Water Act measuring things in parts per billion, and we're throwing Chlorox in Dixie cups into this spring."

The third story happened recently. The Maine Rural Water Association gets money from the EPA to help people comply with the Safe Drinking Water Act. Some administrator from Washington, D.C. came to see what a rural water system is, what do we do, and how we spend the money. These are important things, so I wanted to show off. We took him to some places that we have worked with, and I thought that the visit was going well. Then we get to this little town where they were not impressed that this guy was from Washington and from the EPA. They certainly did not care if I looked good or not. The local official looked at the EPA guy and he said, "Explain something to me. How come the Division of Health Engineering wants to throw me in jail because I'm not putting chlorine in the water and they're afraid I'll kill the people, and the DEP wants to throw me in jail because I'm not taking chlorine out of the wastewater and they're afraid that I'll kill all the fish?" That is the dilemma of environmental protection in the '90s.

Maine's small water systems

There are 3,367 water systems in this state. The vast majority, 2,235, are non-community systems. They serve at least fifteen service connections or 25 people a day at least 30 days out of the year. These are restaurants, campgrounds, inns, and so forth. They are all public water systems and they come under the drinking water rules and regulations. How many staff people does the Department of Human Services have to deal with the technical problems of 2,235 water systems? One. The 439 community systems are your basic, everyday water systems - Portland, Augusta, Lewiston, Starks - selling water every day. About half of those are mobile home parks, condominiums, or similar operations. The other half are the more basic water systems. Out of the 439, about 150 are regulated by the Public Utilities Commission because they are monopolies that sell water. Of those 150, about fifty-five percent are quasi-municipal districts, twenty percent are municipalities and about 40 water systems are private water companies. Approximately fifty percent of these 150 systems have fewer than 500 customers. Twelve percent serve fewer than 100 customers. The water systems in this state are small and Maine is not peculiar. Most of the water systems in the country are small. These little systems come under all the same rules and regulations as Lewiston in terms of EPA, in terms of Health Engineering, and in terms of the Public Utilities Commission. Given the vast amount of rules and regulations, obviously that has some major implications.

The drinking water standards have been expanded to include a new group of systems. The new category is called non-transient, non-community water systems. These are schools, factories, and institutions that have a well or a surface water supply. They are serving at least 25 people daily a certain number of days out of the year. In the past, they have had minimal standards. They would send in the bottle once a quarter; they would do some special test. Suddenly, this huge new group of regulated utilities has to worry about surface water treatment, radon, and corrosion control. They may have to disinfect their water. These institutions are not designed to sell water. They are designed to teach school. Now they must get the staff to start running small water systems. It is very hard for them.

Basically, the little water systems do a good job. People are not dying in the street. They are very, very efficient; they are providing the product at a very low cost. The average water bill in the state is around \$150-\$160 per year. The average water bill for a little system is under \$100. Of course, they do not provide the same quality of service as the big systems. If there is a main break and somebody is out of water for an hour in a big city, that is a catastrophe. If there is a main break in a small town and somebody is out of water for a day or two, they understand. I had to learn that, because I grew up in the city. When people call to say that they are out of water, I ask first how long they had been out of water, because they might have been calling me on day number four. People in smaller communities know they pay less and also are willing to accept less.

One of the reasons that they pay so little is that these water systems were bought and paid for in about 1912, so they do not have any debt. Also, a lot of the work is done by volunteer help. Volunteer boards of trustees are also the volunteer water operators. I worked with a water system in which the operator had been running the system for the last 15 years. He has never sent the water district a bill; he has been running it for free.

Although the water is good, these systems cannot deal with bureaucracy. They have no office. There is no Starks Water District office; there are only 26 customers. There is no one to call. That drives bureaucrats crazy because there is just no one to reach. As regulation increases and as the bureaucracy increases, small utilities, in general, are less and less able to cope with all of this.

The crisis confronting small water districts is not a deterioration in the quality of water, but rather is the rising expectations on operators. Operators cannot conform to the new standards. Many compliance problems are monitoring violations, which means that the water quality is fine but the operator did not remember to fill the bottle to send in the test. This is a violation; it certainly should not be condoned. But these things are correctable. We call up people to say, "Did you remember to send in the bottle?" We explain to operators that if they do not send in these bottles, they will go to jail. There should be a distinction, both in the public's mind and in the regulator's mind, between water quality situations when people can get sick and situations where operators may not be reporting correctly but are willing to work to correct deficiencies. Maine Rural Water works with these operators and helps train them.

Cost of the Safe Drinking Water Act

The Safe Drinking Water Act will require from \$300 to \$500 million in Maine to comply. It may be more; it may be less. I do not know if Lewiston will spend \$6 million or in the final analysis, \$50 million, to comply. But it will be in that range; it will be expensive. The impact of the Safe Drinking Water Act is greater on small utilities than large ones, because most of the impact is higher capital costs. When you have fewer customers to cover the cost of large investments, it costs a lot more money per customer. What will be the impact on rates? Lewiston's went up forty-five percent; they were lucky. Typically in the state, you can expect a doubling of water rates. So, if the current average is \$150 a year for water, we can expect \$300 per year in the future for water. In other words, the price of water will approach the price of wastewater systems in the state, as \$300-\$400 a year is typical for wastewater systems.

But there is a large difference between water and wastewater. About \$525 million in grant money under the Clean Water Act has been made available to communities from federal and state sources for the construction of wastewater treatment plants. How much grant money has been made available under the Safe Drinking Water Act to date? None. I am not a policymaker, so I do not understand the wisdom or the distinction here. About \$525 million for wastewater; nothing for water.

The source of almost all of the grant money for these little water systems is Farmers Home Administration. Farmers Home might have \$9 million for grants for fiscal year 1992. That leaves a little bit of a gap. Maine Rural Water has been working with many small communities that have had private water companies - small systems with fifty to one hundred customers. They are private because in 1904 a couple of people got together and threw \$100 in and bought twenty shares of stock in the little water company. They dug a spring, put in pipe and that is why they are private. They never made a profit, ever.

We are helping these privates convert into quasi-municipal districts or departments through legislation. These districts or departments will then qualify for Farmers Home grants and can do the improvements. The Safe Drinking Water Act can be made to work if enough grant money is available to reduce the capital costs to a manageable level for small communities. Of course, many of these companies will remain private water companies. There will be legislation in this session to allow the Maine Municipal Bond Bank to make loans to private utilities at tax-exempt rates. This will allow small, private utilities to save about two percent on interest rates, which will be a huge savings for their ratepayers.

An important issue in a construction grants program is the absence of a lead agency to distribute this money. With wastewater, DEP not only did the enforcement, but also had a division to distribute the funds and to oversee the construction of municipal wastewater facilities. Right now no agency is equipped to manage that kind of a program for water. The Division of Health Engineering does a fine job with monitoring and with enforcement, but they are not equipped to obtain money or distribute the money. No one has identified that these 150 or 200 water systems have a vast need for capital. How will we as a state meet this challenge?

We are entering an era of increased expectations. We want more sophisticated treatment facilities to provide safe drinking water, yet there is no money for training for these new water operators. The Clean Water Act established training centers. The wastewater operators have two-year degree programs; they have college training; they read books; they write articles. They are dedicated professionals. Water people are just as dedicated, but they have nowhere near the training of their wastewater colleagues. There is no training under the Safe Drinking Water Act.

We expect increased vigilance of the state agencies. These requirements will mean more monitoring, more tests, and more supervision. Yet no money was put into the Division of Health Engineering or in the Department of Human Services to do these tasks. These tests and reports are coming in, and there are no new people to monitor. To provide safer drinking water, more staffing at Human Services will be required.

Finally, the communities that are funding new drinking water facilities also face other demands. Their waste treatment facilities are twenty years old and they must be rebuilt. Their landfills are being closed and new disposal options are more expensive. The Safe Drinking Water and the Clean Water Acts are very important. But there are limited resources to pay for all this. Do we want to spend that first dollar on corrosion control or on sewage cross connections or on landfills? How do we allocate this money? Where should we put our dollars first if we do not have enough money to do it all now? No one is setting priorities. These financial priorities are going to be very important questions.

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