RESTORATION OF WATER MAINS
February 14, 1989
Walker Township Water Association, Inc.
R.D. 2, Box 286-D
Bellefonte, PA 16823
(814) 383-2354

Attn: Herb Pizer

Dear Herb,

Thank you for scheduling Bill Keller and Steve Krchnavy so promptly. Without their assistance on January 25 and 26 we would have had to issue a severe water restriction within days. With Pennsylvania Rural Water's aid and your leak detection equipment, we verified, located and pinpointed eight leaks, estimated to be leaking approximately 50 to 70 g.p.m. All eight leaks have been repaired.

Knowing we had additional leaks; we appreciated the loan of the leak detector and located six more leaks. Steve and Bill also provided us with valuable information in looking for other unaccountable water.

We are very grateful for what Pennsylvania Rural Water Association has done for Walker Twp. Water Association Inc. and we are proud to be a part of it.

The meeting you arranged for us with Brain Johnson of PENNVEST and Steve Krchnavy on February 9 was helpful. We feel the 3½ hours spent with them will be very productive.

Enclosed find a picture taken by our local paper; the Centre Daily Times.

Herb, we have many problems, but by working together with Pennsylvania Rural Water Association it makes them easier to solve. Thank you.

Walker Twp. Water Assoc.
Guy E. Shaffer,
Manager & Operator

William D. Shaffer,
Operator

Sincerely,

Guy E. Shaffer
Manager & Operator

February 2, 1989
Mr. Steve Krchnavy
Mr. Herb Pizer
Pa. Rural Water Association
P.O. Box 90
Saltsburg, PA 15681

Dear Steve and Herb:

Enclosed is an article I wrote for your consideration for the next issue of "The Keystone Tap."

I want to take this opportunity to express my thanks to you for taking the initiative to meet with me about your organization and hope that we can work together on matters of mutual concern. The enclosed article was prepared following our conversation about your publication. Please contact me if you have any questions about it.

With best wishes,

Mark S. Singel
Lieutenant Governor
Commonwealth of Pennsylvania

February 22, 1989
Mr. Thomas A. Stojek
President
Pa. Rural Water Association
Saltsburg Plaza
P.O. Box 90
Saltsburg, PA 15681

Dear Mr. Stojek:

Following up on our earlier communication, I have attached a copy of an article I wrote that I thought you might consider for publication in the newsletter.

I hope it meets your standards and that the message of cooperation is one that we need to emphasize.

If I can make changes or additions, please let me know.

Thanks again for the offer and for considering this piece. I appreciate the interest and your ongoing effort on the water problem.

Please keep in touch and all best wishes.

Sincerely,

John P. Murtha

Commonwealth of Pennsylvania
Lieutenant Governor's Office
Harrisburg, PA 17120-0002
(717) 787-3300
Mark S. Singel
Lieutenant Governor

Congress of the United States
House of Representatives
Washington, D.C. 20515

February 2, 1989
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Mr. Herb Pizer
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Mark S. Singel
Lieutenant Governor
Commonwealth of Pennsylvania

John P. Murtha
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The KEYSTONE TAP is the official publication of the PENNSYLVANIA RURAL WATER ASSOCIATION, P.O. Box 90, Saltsburg, Pennsylvania 15681, and is published quarterly for distribution to representatives of Rural and Municipal Water Supplies. Issues are mailed free of charge to member and non-member rural water associations. Articles and photographs are encouraged with payment in complimentary copies. For more information regarding this publication, contact the PRWA office, P.O. Box 90, Saltsburg, Pa., 15681, phone (412) 639-3246.
A MESSAGE FROM THE PRESIDENT

Thomas Stojek - PRWA President

Many rural areas and communities possess a quality of life based in part on their indigenous resources. Wise management of these natural resources is of paramount importance because it directly affects this quality of life. Water is the only drink for a wise man, said Henry David Thoreau.

Over the past eighteen months, PRWA staff has helped water system members become more productive, efficient, and innovative with their existing supplies and distribution systems. Our noted accomplishments are only the beginning. We are committed to having water managed wisely so that the benefit from each gallon is increased so that our communities and economies continue to prosper.

Above all, remember that water always has been — and always will be — the right drink for wise men and women.
RESTORING CAST IRON WATER MAINS

By Mike Landes
Pipeline Pigging Products, Inc.

New American Water Works Association statistics advises there are 58,900 public water supply systems in the US delivering 29 billion gallons per day. It is estimated that 85% of the pipelines delivering this potable water are made of metallic materials such as cast iron.

A build-up, called tuberculation, occurs in all metal pipelines sooner or later. The AWWA defines tuberculation as an accumulation of rust knobs or, a little more scientifically, as an accumulation of metallic salts.

Most of us who see tuberculation build-ups for the first time think we’re looking at a rusty pipe. This is not the case. While the metal pipe does attract tuberculation, the build-up itself comes from minerals that leach from the water. To compound the problem, the treatments we add to insure safe potable water such as chlorine, soda ash and alum, also add to the build-up causing a “Catch 22” situation.

The result of this build-up, of course, is interrupted flow, higher pumping costs, and, often times, red water and bad odor due to tuberculation bleeding.

The solutions to the problems described vary. On small diameter (4” and less) that run short distances (few hundred feet), chemicals are sometimes used to “break down” tuberculation. After a “soak period” of at least eight (8) hours, the pipeline is flushed resulting in a cleaner pipe. Another method for these small diameters is to water blast them — the distance limit is usually about 300’.

Without question, however, the most popular way to clean out tuberculated pipelines is by pumping polyurethane “foam pigs” through them. To be more specific — a progressive cleaning method is used which simply means “foam pigs” of various stiffness (densities) and sizes are pumped through the system to insure maximum safety against plugging up the line during the operation. This progressive cleaning method has, over the last 20 years, proven to be the safest, fastest, most economical and effective way to clean transmission and distribution water lines in sizes 6” and larger.

Foam pigs — often referred to in the trade as “Poly-Pig” — are bullet shaped, polyurethane, flexible foam cleaning devices that come in various densities (2# per cu. ft. up to 10# per cu. ft.) and are offered in a variety of styles: uncoated (bare), externally coated, up to abrasive (wire brush) types. Poly-Pigs are available from at least three major manufacturers in the U.S.

There are certain rules that should be followed to insure successful cleaning:

1. Prior to cleaning, customers should be notified of the shutdown.
2. Prior to cleaning, all in-line and lateral valves should be located and checked.
3. Isolate section to be cleaned.
4. Open operational valve to determine pressure, flow, flow rate and direction of flow.
5. Introduce (launch) line size 2# swab into the pipeline to “prove” pipeline.
6. Run series of pigs in progressive densities (and diameters if necessary) until pipeline is clean.

7. Check progress of cleaning operation periodically by running nominal sized swab. If swab is damaged, tuberculation is removed.
8. Flush pipeline, laterals, and services following cleaning.
Water works!

Celebrate the good work of your public water system professionals. They make sure that water "works" for you.
SAFE DRINKING WATER HOTLINE FACT SHEET

Background: The U.S. Environmental Protection Agency’s (EPA’s) Safe Drinking Water Hotline commenced operation on July 1, 1987. The Hotline’s primary function is to assist both the regulated community and the public with their understanding of the regulations and programs developed in response to the Safe Drinking Water Act Amendments of 1986.

Purpose: The Hotline talks to:
- public water supply systems;
- EPA Regions, State water supply programs, local governments;
- consultants, engineers, private industry, law firms;
- environmental groups, associations, schools; and
- the general public.

The Hotline provides:
- interpretation/clarification of the drinking water regulations;
- explanation of the EPA’s policies and guidelines;
- updates on the status of regulations and policies;
- information on the availability of public-education/public-information materials.

Staffing: The Hotline is staffed by Information Specialists who have technical degrees in a variety of backgrounds, including the environmental sciences and engineering, natural resource management, community and regional planning, public policy. The Information Specialists have 15 years cumulative experience in the environmental control field, including expert knowledge of the EPA’s drinking water regulations and policies, gained through a comprehensive training program and daily interaction with the Office of Drinking Water.

Hours of Operation: The Safe Drinking Water Hotline operates Monday through Friday, excluding Federal Holidays, from 8:30 a.m. to 4:30 p.m., Eastern Standard Time.

Telephone Numbers: Callers within the United States, Puerto Rico and the Virgin Islands may reach the Safe Drinking Water Hotline by dialing 1-800-426-4791 or (202) 382-5533 in the Washington, D.C. metropolitan area and Alaska.

Operation/Location: The Hotline is operated by Geo/Resource Consultants, Inc. (GRC) under contract to the EPA. The Hotline is located in GRC’s offices, adjacent to the EPA Headquarters in the Waterside Mall at 401 M Street, S.W., Washington, DC, 20024.

FORMS ARE AVAILABLE FOR PENNVEST ADVANCED FUNDING

HARRISBURG (April 14) — Owners and operators of sewer and water treatment systems now can apply for advanced funding from PENNVEST to conduct feasibility or design and engineering studies, according to Paul K. Marchetti, PENNVEST’s executive director.

Five-year, low-interest loans are available to owners of wastewater systems, either private or governmental, for design and engineering studies.

For owners of drinking water systems, PENNVEST has loans available for feasibility studies, as well as for design and engineering. The funding is available to privately owned systems as well as those owned by municipal governments and authorities.

Marchetti said that approval of the advance funding requests by PENNVEST board members is not a guarantee that a proposed construction project also will be approved for PENNVEST funding. If a construction loan is approved, the advance-funding loan can be rolled over into the project loan, he said.

Instructions accompanying the forms include a flow chart describing the steps an applicant must take to apply for advanced funding and a list of regional contacts with the Department of Environmental Resources. In addition, there are forms to request a planning consultation with a regional DER project manager.

A second section includes general, technical, financial and legal information which PENNVEST staff needs to evaluate funding requests.

Completed applications received by April 19 will be evaluated by the staff for consideration at the June 21 quarterly meeting of the PENNVEST board of directors.

Cut-off dates for project and advanced funding requests are approximately eight weeks before each quarterly PENNVEST board meeting. Meeting and cut-off dates will be advertised in the Pennsylvania Register in June or July of each year.

The PENNVEST board, chaired by Gov. Robert P. Casey, approved 157 loans and grants worth $284 million in the new agency’s first year.

Of that total, 90 projects were to improve drinking water systems and 67 were for wastewater. Funding for drinking water projects totaled $103.6 million and $180.1 million went for wastewater projects. Of those amounts, $10.1 million was in the form of grants.

For further information, those interested may call PENNVEST at 717-787-8137, 717-787-0804 (FAX) or write: PENNVEST, 22 S. Third St., Box 1344, Harrisburg, PA 17105.
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Connie - Cranesville Water Department

Dale - Sharpsville Water Department

Bob - Jenners Sewer Authority, Wills and Bob - Central City and Bill - PRWA

Ed Akus (Chlorinators, Inc.) - PRWA Training, Sharon
On March 1, 1988, Governor Casey signed legislation creating one of the largest state sponsored infrastructure repair programs in American history. Over the next 25 years, this innovative program will direct nearly $3 billion to rebuild, repair, and redesign water and sewage facilities that have been ignored for decades.

The Pennsylvania Infrastructure Investment Authority, known as PENNVEST, will help improve water systems plagued with giardia, secure adequate water supply, ensure the water pressure needs of fire fighting, and provide funds for a variety of structural changes to community water systems.

The Casey/Singel Administration initiated the massive infrastructure improvement project both to assure better environmental conditions and cleaner drinking water, and to overhaul an infrastructure that will support existing industries and make Pennsylvania more attractive to out-of-state investors. We can only hope to expand new business opportunities if we provide the critical water and sewage facilities necessary to support economic growth and ensure a healthy environment. For these reasons, PENNVEST has become an important part of Pennsylvania's comprehensive economic development plan and complements our efforts to improve our transportation network, renew our commitment to our schools, plan progressive energy measures, and incubate and enhance young businesses.

The PENNVEST program is the result of a promise by Governor Robert P. Casey to provide assistance to local governments that do not have the fiscal resources to fund infrastructure improvements on their own. With the PENNVEST initiative, state government is making a wise investment in Pennsylvania's future in a manner that is fiscally sound for both state and municipal government.

Initial funding for PENNVEST will come from a number of sources including a $300 million bond issue approved by voters last Spring. Other sources will be capital budget allocations, federal funds, unused Water Facilities Loan Board monies, and general fund allocations. Loan repayments and interest will be recycled into new projects.

Most PENNVEST money is allocated in the form of low interest loans based on 1 to 6 percent interest rates depending on local economic conditions. Total funding of any project is not prohibited but awards are limited to $11 million per project or $20 million if a project serves more than one community.

PENNVEST, in conjunction with other state and federal programs that address the consequences of years of infrastructure neglect, is essential to guaranteeing both a clean and safe environment for Pennsylvanians and an atmosphere conducive to the needs of tomorrow's economy. Governor Casey and I remain committed to these goals and will continue to pursue other initiatives that offer growth opportunities and environmental improvements.
As I sit here at my kitchen table watching it rain, it is hard for me to imagine that we are still way below average in rainfall. Many communities in Pennsylvania and Ohio are still having problems with water supply. This article, however, will deal with systems who have not had a problem but will if this pattern of low precipitation continues.

Most of the systems I deal with in Pennsylvania use springs and/or wells as a source of supply. Monitoring your wells and springs weekly or even daily will give you a better idea of when conservation measures must begin.

Most of us know how to monitor the static and pumping levels of our wells so I will not take up space with that. If you do not know how, contact your well service company or the Pennsylvania Rural Water Association and they will be glad to help.

Monitoring the flow from springs can prove to be more difficult. Since most springs flow into a reservoir unmonitored, it is hard to tell when the flow from each spring starts to drop off. If the pipe into the reservoir from each spring is separate and accessible, the formula in FIG. 1 can be used to calculate gallons per minute of flow. This formula can also be used to measure the overflow from the reservoir to determine overall spring flow. These figures can be compared with flow and depth data compiled when the wells or springs were developed and will tell you of a decrease in supply. They may also tell you of a need for maintenance. If old data is not available, this is as good a time as any to start a history of your source of supply. This will be of great benefit to you down the road as well as future generations.

If the static level of your wells or the flow from your springs has been dropping for a month and the weather has not been cooperating, it is time to gently alert your customers of this fact and ask for voluntary conservation. Even though it may not be a problem yet, letting your customers know of negative changes in supply will help stretch your supply if things get worse. Waiting for the well to break suction or the springs to dry up will only make things worse. If your system has had a problem with water loss, a drop in supply should prompt you to do some leak location and repair on your distribution system and to start testing some of the older meters for accuracy.

As far as methods of informing our customers of our plight and asking them to start conserving water is concerned, one could write a large book on the subject and still not cover it all. The bottom line is that they must be made aware that lack of rainfall has not only turned their lawn brown but has reduced the amount of water available for use by the water systems. If they water their lawn or garden and increase recreational use of water, this will increase demand on supplies that are not being replenished. Let your customers know that the price of green grass may well be water to drink and fire fighting capabilities.

My employer, the National Rural Water Association, has literature, posters, and bill stuffers espousing water conservation which are available from the Pennsylvania Rural Water Association at a nominal cost. The use of these coupled with news releases on supply shortages at an early, before it is an actual problem, may delay or eliminate the need for mandatory measures.

I feel that this is especially important for those communities that are growing in population with people from large cities. These folks generally have grown up with a generous supply of cheap water and know little of water shortages or conservation. When your new customers come in to sign up for water service, this is the time to provide information on conservation.

As always, if we can provide any information or help you in any way, please let us know. See you next time.

Jeff

**FIG. 1**

Yield from open pipe can be approximately determined by the following formula:

$$Q = \frac{2.56 \times d^2 \times X}{\sqrt{Y}}$$

Where:

- $Q$ = Yield in gallons per minute
- $d$ = Diameter of pipe in inches
- $X$ = Horizontal distance in inches
- $Y$ = Vertical distance in inches

**EXAMPLE** — Assume inside diameter of the pipe to be 2 inches, distance $X$ to be 20 inches, and distance $Y$ to be 25 inches. Then the square of diameter is 4, multiplied by horizontal distance is 80, multiplied by 2.56 is 204.8, which divided by 5 (the square root of 25) gives a flow of 40.96 gallons per minute. Keeping the vertical measurement exactly 9, 16, 25, or 36 inches will simplify calculations.

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**UPCOMING TRAINING and MEETINGS**

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<td>PA</td>
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<td>L/B WATER SERVICE INC.</td>
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<td>Selinsgrove</td>
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<td>LaMOTTE CHEMICAL</td>
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<td>LAYNE-OHIO</td>
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NOTES FROM THE ROAD

Stephen M. Krchnavy - Circuit Rider

One of the goals we would like to achieve at PRWA is good working relationships between PRWA Member Systems. Cooperation among systems can prove to be a cost effective and educational process. Systems which are located near one another may choose to set up a co-operative purchasing system. Purchasing items such as Chlorine, Treatment Chemicals, and Water Meters may save systems money and also help create good working relationships with neighboring systems.

Another form of Co-operation, which the PRWA staff is willing to help with, is the sharing of labs, equipment and expertise with systems who may not have one or any of the items mentioned above. If you are willing to run tests in your labs such as Hardness, Alkalinitities, Iron and Manganese just to mention a few, please let me know at PRWA. In one recent example of PRWA members helping one another, tests were run at Brackenridge borough to solve a corrosion problem.

Possibly you may have equipment and experience with that equipment that could help a system in the area to do a project “In House” which otherwise would not be done because it was not financially feasible.

Better cooperation and communication between systems can help systems achieve goals which may not have been reached if not for the helping hand of a neighbor.

We at PRWA do not intend this cooperative effort to become a burden to those who are willing to participate. It is intended for those systems who really need help.

If you would like to donate a few hours of lab time, offer equipment for loan or volunteer your own personal experience to someone who may need it, please call us at 412-639-3246.

REFLECTIONS

Herb Pizer, Program Manager

How did your water system make it through the winter? Again the state didn’t get enough snow to help with the drought situation and the forecast for the remainder of the year doesn’t look promising.

Did your water system experience a shortage of supply last summer? If the answer is yes, what has your system done to alleviate this problem? Has your water system looked at a leak detection survey to cut down on water loss to conserve your water supply?

Does your water system have a metering program or a meter replacement program?

Does your water system’s rates promote water conservation?

Does your water system educate its customers on water conservation?

Has your water system looked at an alternative water source?

If you answered “NO” to any of the above questions, what are you waiting for? The drought situation will only get worse and Rural Water Systems can’t afford to “sit back and wait” any longer. Now is the time to act on your water system’s inadequate supply. If you need assistance in this matter, contact the P.R.W.A. office.

FOR TECHNICAL ASSISTANCE

CALL 412-639-3246
DOWN THE LINE —
I GOT DEM SLUDGE DISPOSAL BLUES

Bill Keller - PRWA Wastewater Technician

The time: 2:00 a.m. The date: Dead of winter. The place: somewhere in Pennsylvania between Pittsburgh and Philadelphia, south of Bradford, and north of Bedford.

I'm laying in my motel room, staring at the stucco walls, and purple trappings of my room, pondering upon the singularly most asked question of all my travel, and becoming increasingly frustrated at the lack of a good definitive answer. The question? "What the heck do I do to get rid of my sludge?!?"

I knew it was coming to this. I can remember the first time I heard those words, some seven months ago; I was fresh in the field, full of — and vinegar, ready to solve, or help solve, everyone's problems. The first week I spent getting my feet wet, becoming accustomed to meeting people, strangers, and convincing them that I could be of some service. I have to admit there were times I was more than a little nervous, especially when I would meet someone who had been in the W.P.C. (Water Pollution Control) business for 25 or more years. How could I convince a person like this that a roguish looking vagabond such as myself, with my paltry little bit of experience, could possibly be of any help to him? Well, I did my best to explain it wasn't just my experience, but more so the resources and information available to me, and most importantly, the amount of time I had to delve into these resources, allowing him to attend to more pressing matters, that afforded him the greatest benefit. As time went on I became more comfortable with my new situation, and even had a certain amount of success in obtaining possible solutions to some minor problems that I encountered.

It was somewhere in that second week I first heard it. It went something along the lines of "Hi, my name is Bill Keller, and I'm with the Pennsylvania Rural Water Association, etc." To which the operator responded; "Well, we got things going pretty good here, but I'll tell ya' one thing you might help me with, what the heck can I do with my sludge? My dryin' beds are full, and I'm sartin' to pile it up behind the tool shed back there. I gotta waste more sludge, and I got nowhere to go with it. Used to give it to the farmer up the road, but I can't do that no more 'cause D.E.R. says no way. Not that the farmer don't want it, hell, he'll take all I got and more, just that we need a permit now, and I just don't know how to get one. I'll tell you what though, D.E.R. comes around here and sees that pile behind the tool shed, they ain't gonna' like it too much! To which my response was; "No problem, I'll look into it, and get back to you in a few days with an answer." Come to think of it, the guy probably got a pretty good chuckle from that statement, as I drove away, ready to embark upon another research adventure that I was certain would result in my finding a workable and affordable solution to his problem.

Within a few phone calls, I had received the regulations and necessary forms concerning the permitting procedure for land application and dumping. I briefly glanced through them, not being very good at deciphering legalese, a language I sometimes wonder if anyone really understands, and decided to make a few more phone calls to see if I could get it translated. I called four or five different people, and received the same response each time; "Don't worry about all the legal mumbo jumbo, the bottom line is, after the testing, engineering involvement, permit fees etc. you're looking at a price tag of at least $2,000 to $6,000, and that's before we get into the $10,000.00 minimum bond you'll have to pick up, bringing the total to about 12 to $16,000. The systems you're working with probably won't waste enough sludge to justify the cost. They would be better off just having it hauled away by a private firm. By the way, if they want to go through with this, they'll have a heck of a time finding someone willing to bond them anyway."

Undaunted, I proceeded to the next course of action, which was finding out what other systems were doing with their sludge. Much to my dismay, more than on inquiry was answered with, "Good question. I got a pile of it here now I don't know what to do with, if you come up with any answers, give me a call!" Others were having their sludge hauled away at a cost of anywhere from $17.00 to $45.00 a dried ton, not an unreasonable cost, but always leaving me with the same thought to ponder, I wonder how much longer the hauling companies' permits will last, will they become overpriced eventually, and how much more sludge will their existing landfills take? Still; others were having liquid sludge removed. But with much the same concerns as those who died the sludge first. How long will the private firms last, and will the costs remain reasonable enough for the small systems to live with? Here and there I came across other alternatives, mostly small scale approved experiments, or unique situation scenarios where a larger plant was capable and willing to accept and process sludge from nearby smaller plants, but always the same thread was woven through every story. These are not definitive long term solutions to the problem of sludge disposal. With the crushed feeling of defeat, I called the operator back and conveyed the information I had gathered, and apologized for only coming up with what in my mind are only make shift, short term solutions to the problem. With an "I could have told you so" tone of voice, he thanked me for my efforts and hung up, but I said good-bye with a feeling that I just didn't do enough, or look hard enough.

In the following weeks and months, in system after system, I heard the same question from operator after operator until I knew it was only a matter of time before the words would come creeping into my sleep like an endless nightmare: WHAT DO I DO WITH MY SLUDGE? I would inevitably give them the feeble bits of information I had received, and drive away, always with a taste of defeat and frustration in my mouth.

And so here I lay down, the words emblazoned on the ceiling of this little purple cubicle I'll call home tonight, staring down at me like a challenge. I do not know the answer, I am not an engineer, or environmental expert, only a former operator who knows that the solution must not only be environmentally safe, but also economically and operationally practical, for the smallest of systems as well as the largest. Perhaps, a cooperative effort by county officials to build centralized incinerators, that could be constructed and used by all the systems in that particular county for a reasonable fee. Or perhaps a cooperative effort between different counties on a more statewide regional basis using the same idea for the same purpose.

Maybe we need to increase research to bring about better technologies to make the end product sludge more environmentally safe, or perhaps we need just examine our current policies and regulations to see if we might not have gone too far in restricting land applications. Whatever we must do I know one thing, it must be done now, and it must be done through the cooperation and input not only of the regulatory agency, but our legislators, the systems themselves, and the general citizenry of our state.

(continued on next page)
Government and Local Water Systems — Working Together For Common Goals

by Congress of the United States Representative John P. Murtha

With three droughts in the 1980's, it may seem ironic to say that a plentiful supply of clean, fresh water could be Pennsylvania's most important natural resource. But by the end of the century that could be the case.

With the cooperation of governments and groups like the Pennsylvania Rural Water Association we can make strong progress in the next few years on two key fronts:
- making sure that Pennsylvanians achieve their valid expectation of safe drinking water, clean streams and rivers, and abundant water supplies
- positioning ourselves to use those water supplies as an economic force — being able to insure an employer adequate water (something the Southwest will find increasingly hard to do), and providing its employees recreational facilities based around Pennsylvania's clean water facilities.

To reach that goal, though, we must face the problems of water supplies, water quality, and planning to overcome droughts.

This will come about only through a government-local supplier partnership.

As a basic principle, communities and supplies should institute and implement continuing programs of water conservation through appropriate monitoring of system supply and demand, monitoring of distribution system integrity, and through the promotion of consumer education programs.

Writing over the years about water supplies, one of the examples I have often mentioned involves a family setting a fishbowl on the kitchen table, and having each member of the family contribute a dime to the bowl each day during the week they use water. The families are surprised at the large amount of money that accumulates, and it helps show those families how dependent we naturally are on water supplies and why conservation is so important.

In addition, with pressures of domestic and industrial growth, supplier concerns about contaminants are more important than ever. Bradford, Scranton, McKeesport. Recent disease outbreaks in these communities helped stress the fact that 15% of the State's community water systems are at health risk, and 14% have difficulty on occasion meeting water quality standards.

You can help do your part through adequate planning, but the key message I want to deliver to you in these remarks is that you are not facing this problem alone. I think the response of Congress and the State Government is already underway. We don't expect you to do this by yourself; we realize only a partnership will prove effective.

Here are some of the steps now underway or pending that the Government is considering or implementing:
- passage of the Pennsylvania Safe Drinking Water Act in 1984 qualifies the Commonwealth for more than $1 million annually from the U.S. Environmental Protection Agency to hire more state water inspectors
- the 1986 Federal Safe Drinking Water Act directed EPA to monitor 83 contaminants in water supplies — this does not mean a system will have to install treatments for all 83 contaminants, but will allow a combination of techniques. EPA may also be working on regionalization of water supply problems so available resources can be maximized
- DER's PENNVEST program establishes an array of funding options that enable the State to tailor an assistance program to a small system's financial needs
- we have worked for several years in Congress trying to develop an infrastructure bill to allow for rebuilding of older municipal systems, including water systems — the budget deficit makes program expansion difficult, but we will take another look at this proposal this year
- and as ranking majority member on the Interior Appropriations Subcommittee, I have supported funding for a wide-range of water research and development programs, including a very active university research program (centered at Penn State in our Commonwealth), and we are looking at new initiatives in groundwater protection research.

We face two goals. One, the availability of drinking water is a valid expectation of our citizens. We can make that a reality. Two, we can turn our water supplies into a major economic development key. We can give a big edge to Pennsylvania.

With government and local water systems working together in the coming years, we can reach these goals.

Down The Line
(continued from previous page)

The ability to waste sufficient amounts of sludge is crucial to the entire process of treating our waste water, and if we cannot do one properly, we will not be able to do the other. We must keep in mind that as with all things in God's world, there is a balance of nature that must be kept, and the very make-up of our waste sludge are things that have been taken at one time out of the environment, and therefore somehow must be returned. In a state where the focus has been increasingly on environmental issues, and in particular water and solid waste management, the issue of what to do with our sewage sludge has been largely ignored. We can't let this continue. Something must be done now! Besides, I need some sleep!

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All the equipment you need for safe and easy disinfection.

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Offering training for operators, managers, and local officials throughout the year;
Presenting unbiased information to your council or board, by our staff, at your meetings.
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NUMBER OF METERS IN SERVICE __________________ DATE ________

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