The Maine Community Exchange

http://www.rurdev.usda.gov/me/

Aging Infrastructure

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Message from USDA Rural Development State Director Michael W. Aube

Maine's water and wastewater systems are feeling their age. Systems that were brand new 25 years ago are now facing a critical need for upgrades. The amount needed to meet this demand in Maine is staggering.

According to the Maine Department of Environmental Protection, nearly $422 million is needed for proposed projects statewide, with some individual projects (Combined System Overflow work in Portland) requiring over $90 million in total costs.

On October 11, Maine's Aging Infrastructure Conference was held in Lewiston, bringing together 20 speakers and panelists from local, state, and federal levels to explore the needs of Maine's aging systems. The conference was sponsored by USDA Rural Development, Androscoggin Valley Council of Governments, and HRH Northern New England.

State legislators, town and city officials, engineers, and community partners participated in discussions on the topics of financing options, technology and security issues, and national, regional, and local perspectives.

Although many different viewpoints were shared, all in attendance agreed that the need for assistance is reaching a critical point in time, and action needs to be taken now to ensure a bright future for Maine communities.

Quality water and sewer infrastructure is essential to a community's ability to grow, attract new businesses, increase tourism, and expand the population base, as well as ensure public health and safety. Please enjoy this volume of the Maine Community Exchange Magazine, which further explores the needs for attention to this issue.

Guest columns included in this publication are exclusively the views of the author.

In this Issue:

State Director's Message……..1

USDA Rural Development's Water and Environmental Programs: 70 Years of Service……1

Maine's Water Legacy……..2

The Inside View: Town of Kittery- Meeting the Challenge of Updating an Aging System……3

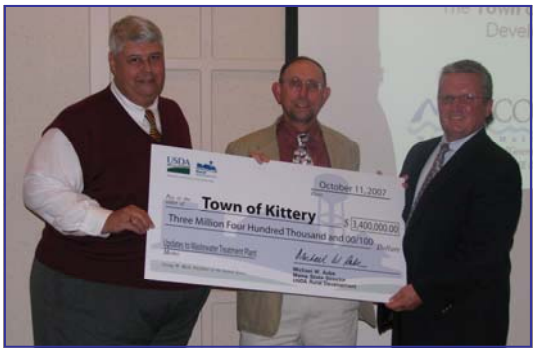
Trends in Maine's Environmental Infrastructure ……3

Challenging Times……..4

Water Infrastructure: Hidden but Critical ……4

USDA Rural Development's Water and Waste Programs…..4

Roving Reporter Rural Rover Asks: What are the Challenges of Maintaining Maine's Aging Water and Sewer Infrastructure? ……5



Pictured at Left: USDA Rural Development State Director Michael W. Aube (left) and USDA Rural Development Director of Water Programs Jim Maras (right) present Town of Kittery Superintendent of Sewer Services Steve Tapley (center) with a big check in the amount of $3.4 million for upgrades to their wastewater treatment plant. The Town of Kittery has the distinction of being Rural Development's Billion Dollar Project, as it was the loan that pushed the agency's total investments in Maine (all Rural Development programs) over the $1 billion mark.

USDA Rural Development's Water and Environmental Programs: 70 Years of Service

by Thomas C. Dorr

Most Americans take modern infrastructure for granted. Flip a switch and the lights come on. Turn the tap and the water flows, then disappears down the drain. Telephone access is nearly universal, and in urban areas broadband access is rapidly becoming so. Utilities do their jobs so well that, apart from writing a check each month, we usually forget about them … until a storm knocks out a power line or a pipe bursts, and we are quickly reminded of our fundamental dependence on the wires overhead and the pipes buried far beneath our feet.

(continued on page 6)

Thomas C. Dorr, Agriculture Under Secretary, USDA Rural Development

Maine's Water Legacy

By Senator Olympia J. Snowe

I can proudly say that Maine has a strong commitment to improving water quality. Since Senator Muskie's resolute dedication to passing the Clean Water Act in 1972, Maine has been steadfast in its support of ensuring water quality regardless of political affiliation, and I am proud to continue in that legacy.

On August 1, the I-35W Mississippi River Bridge collapsed in Minneapolis. This tragedy has rightly triggered a larger discussion about the investment into our inadequate transportation infrastructure and funding mechanisms. At the same time, we should also broaden this discussion to include America's entire infrastructure and specifically address America's wastewater investment. Although our wastewater system is on the verge of collapsing, the majority of Congress and the media have not focused on the severity of this looming problem – which is most severe in eight states, including Maine.

Specifically, Combined Sewer Overflows (CSO) represent the most pressing issue in Maine's water infrastructure. The pollution from Maine's 37 CSO communities affects our beaches, our fishing industry, and our public health, and we must make the investments necessary to reduce these discharges that also have a profound impact on our taxpayers.

This picture illustrating an aging pipeline was provided by Brian Tarbuck, General Manager of Augusta Water and Sewer Systems. A more detailed description is provided on page 7.

Therefore, I have again sent a letter to the Appropriations Committee for FY 08, urging $1.35 billion for the Clean Water State Revolving Fund and $853 million for the Drinking Water State Revolving Fund -- and I am cautiously optimistic that the Interior Appropriations Bill will include a modest increase for both programs in the upcoming year.

However, this is a problem that will not be solved through modest increases in annual appropriation bills. The scale of the challenge requires a profound funding investment over the next ten years. It is estimated that approximately $150 million is required to complete the CSO abatement plans in the 37 Maine communities. This amount is simply untenable for Maine's municipalities to bear alone.

Maine Senator Olympia J. Snowe

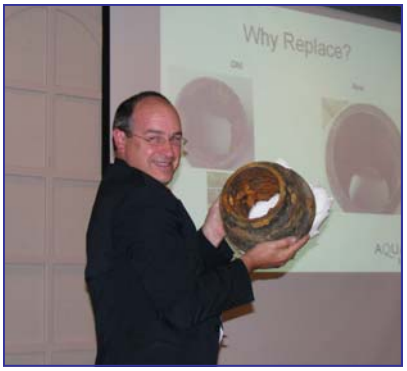
To begin planning for the long-term investment required, I have cosponsored a bill that would significantly increase funding for Maine's wastewater infrastructure. The Water Quality Investment Act (S. 836), would authorize $1.8 billion in additional funding into wastewater programs. Specifically, the bill would provide money directly to municipalities addressing CSOs. In light of Maine's ongoing problems, we are assured that Maine would receive a substantial increase in current funding.

I recognize that Maine has a significant hurdle to clear with CSOs and our wastewater infrastructure in general. As a nation, we must produce a long-term plan that will provide assistance for ratepayers in Maine and boost our country's aging infrastructure and water system. I look forward to ensuring that the United States continues its commitment to improving water quality.

-Olympia J. Snowe is a United States Senator (Maine)

Scenes from Maine's Aging Infrastructure Conference Held October 11, 2007

Judy Kelley, President of Aqua Maine holds up an aged piece of pipe during her presentation.



Ronald Lambert, Community Programs Director, USDA Rural Development (an aging infrastructure relic himself) displays and aged section of pipeline.

Jim Maras, Director of Water Programs, USDA Rural Development makes a presentation at the Conference.

The Inside View:
How the Town of Kittery is Meeting the Challenge of Upgrading an Aging System

An aging sewer infrastructure can create many incremental problems for the oldest community on the coast of Maine without a game plan. Environmental and discharge licensing concerns are key reasons to upgrade and keep modern sewer infrastructure. The Town of Kittery was faced with re-licensing and upgrading its 2.4 million-gallon-per-day treatment plant with an outfall into the Piscataqua River, in addition to many miles of sewer lines and 21 pump stations (including servicing the Portsmouth Naval Shipyard and a portion of the Town of Eliot). The Town decided to commit, in a 3 phase 3.5 year program, over $4.5 million to re-habilitate and update its infrastructure.

The age of the sewer lines created infiltration and inflow issues (I&I) of groundwater and stormwater including salt water infiltration into the system. This is the #1 problem as it creates both overwhelming and problematic discharges into the plant and river during storm events and decreases the life of the treatment plant with salt corrosion. More importantly, it takes away available wastewater treatment capacity that otherwise could be used to increase the user base and revenues.

Kittery is now underway with its infrastructure projects with the assistance of a USDA Rural Development Loan in the amount of $3.4 million . The plant has been re-licensed for five years, the I&I study and correction work is moving forward with a parallel project by the Navy at Portsmouth Naval Shipyard. A major sewer line is being replaced, and the plant is undergoing considerable equipment upgrade and modernization, with an examination of ultraviolet disinfection treatment to potentially eliminate the need to chlorinate during a portion of the year.


Jonathan Carter

The outcome for Kittery will be improved compliance with environmental laws, as well as increased capacity and treatment by eliminating the I&I and to allow for its customer and economic base to further grow under the existing plant capacity. The upgrades will also lower the cost of treatment through plant efficiency to sustain its costs into the future.

-Jonathan Carter is Town Manager for the Town of Kittery, Maine.

Trends in Maine's Environmental Infrastructure (An Excerpt on Funding Maine's Aging Water and Sewer Infrastructure)

By David Littell, Guest Columnist

In 2006 dollars, 58 percent of the approximate $405 million in state bond money spent on environmental infrastructure since 1983 has been for sewage infrastructure. The challenge is simple: there are hardly any more funds being provided today.

Maine's sewage infrastructure wears out even as the need for improvements increases. A well-maintained waste water treatment plant has a working life of 20 to 25 years. In addition, combined sewer systems and storm water systems need to be separated or the sewer system fails in periods of heavy rains. When this happens, raw sewage flows into our streams and rivers.

The funding for sewage system investments is drying up at both the federal and state levels. The formula is still there for the deeply subsidized loan pool for $5 in federal money for each $1 in State money contributed. But neither federal nor state government is providing the money to meet the level of need.

Similarly, direct construction grants for municipalities have dried up at the State level and are only available as "earmarks" at the Federal level. In today's dollars, $308 million is needed in Maine for the next 5 years for 79 municipal wastewater treatment plant upgrades, sewer line extensions, and replacing combined sewer and stormwater systems. Another $114 million we know about today will be needed in the following 10 years, for a total of $422 million needed statewide.

With a 5 to 1 federal to state match formula, that would mean a state obligation of some $65 million – if the federal money is there. Making this challenge greater, the state obligation would be much greater than that because a large number of the municipalities needing assistance need direct grants in addition to the subsidized loans. At $20 million annually, these construction grants would just keep pace with the level needed to avoid system failures statewide.


David Littell

An additional $5 million annually is needed for small community grants to municipalities to fix failed residential septic systems of impoverished homeowners that are contaminating surface waters or area wells. This money is also needed for the replacement of licensed overboard discharges that have alternative septic systems directly discharging into surface waters. So what happens if there is not adequate funding to manage Maine's sewage?

The communities with wastewater treatment plants where there has been no replacement of worn machinery are reaching the time for major reconstruction. They will be left with failing systems that cannot serve new businesses or residents, and ultimately cannot serve existing users.

The end result is not pretty. Without some improvement, the surface and groundwater quality that Maine has done so well to improve and protect for the past 50 years will begin a downward slide.

In more affluent and growing communities, the challenge is to meet the new demand, as well as to deal with the old issues of sewage system upgrades and eliminating combined sewer overflows, and new issues of excessive nutrients and toxics.

Industrial, commercial and residential development will take place where wastewater systems are already in place that meet standards. Investors don't have the time to wait for improvements in basic municipal infrastructure. We cannot exaggerate the consequences of not investing in environmental infrastructure.

-David Littell is the Commissioner for the Maine Department of Environmental Protection

Challenging Times

By Steve Levy, Guest Columnist


Steve Levy

Maine Rural Water Association has assisted Maine's utilities secure hundreds of millions of dollars of grants and low interest loans for system improvements. Despite all of our success, I have never seen a greater demand nor more hurdles in the eternal hunt for money. So, what are the problems?

Natural attenuation is the culprit on the demand side of the equation. Water pipe in the northeast is hitting the century mark. It is old and brittle. On the wastewater side, many of the treatment facilities constructed during the early days of the Clean Water Act have reached the end of their useful life.

Increased federal and state environmental regulations also put new pressure on the demand for environmental capital. Correcting infiltration and inflow, storm water separation, rigorous permitting requirements, and new standards for contaminants, like arsenic or radionuclide's all strain local budgets. (continued on page 7)

USDA Rural Development's Water and Waste Programs

Did you know that USDA Rural Development has programs aimed at upgrading Maine's aging water and sewer infrastructure?

Water and Waste Disposal Loans, Grants, and Guarantees:

Eligibility: Public Entities, Municipalities, Counties, Special Purpose Districts, Indian Tribes, Not-for-Profit Corporations unable to obtain funds from other sources at reasonable rates and terms. Must be located in a city or town with a population of 10,000 or less.

Uses: Restoration of water supply, to improve or enlarge water facilities or inadequate waste facilities, merging small facilities, assisting facilities serving low-income communities.

Grants and Other Assistance:

Rural Development Offers Grants for Solid Waste Management, Technical Assistance and Training. Rural Water Circuit Rider Technical Assistance is also available to help ensure cost-effective operation of rural water systems. This assistance is provided free of cost and may be requested by officials of rural water systems or by Rural Development staff.

For more information, contact Gary Vanidestine, Rural Utilites Specialist, at 990-9121, or email Gary.Vanidestine@me.usda.gov, or visit http://www.rurdev.usda.gov/me/CBP/waterand.htm

Water Infrastructure: Hidden but Critical

By David Anderson, Guest Columnist

In light of recent bridge failures, aging and overburdened transportation infrastructure has become a national concern. We need to be equally concerned about drinking water and wastewater infrastructure. In 2002, the EPA published "The Clean Water and Drinking Water Infrastructure Gap Analysis" (EPA-816-R-02-020). For the years 2000-2019, the estimated capital needs for clean water are over $300 billion and over $200 billion for drinking water.

Unlike bridges and highways, most of water infrastructure can't be seen because it is buried. Many water mains and associated equipment are 75-100 years old. Broken water mains cause disruption of traffic and damage to roads and buildings in addition to lack of water for drinking, sanitation, and fire protection. Based on the age of existing water mains and the expected service lives of different construction materials, pipe replacement will need to increase four to five times over the current rate after the year 2020. Research on chemical and microbiological contaminants effects on health has led to stricter requirements for drinking water treatment. Thus, many water systems will need to upgrade or even build treatment facilities.

Many of the nation's sewer pipes were installed in the late 1940's and 50's. Many wastewater treatment facilities were built or renovated in the 1970's after the passage of the Clean Water Act. Much of the construction was financed by the EPA's Construction Grants program. Because of the corrosive nature of sewage, the pipes and treatment plants will soon require upgrading and/or replacement. In Maine alone, $300 million is needed for the next five years for 79 wastewater treatment plant upgrades, sewer line extensions, and replacing combined sewer and stormwater systems. This year Maine citizens overwhelmingly approved an $18.3 million environmental bond package which will leverage $49.5 million in other funds. However, even that falls far short of the need.


David Anderson

A National Clean Water Trust Fund, similar to the Federal Transportation Funding Program, has been proposed to provide the necessary funding mechanism to address this critical situation. This trust fund should restore the federal-state-local partnership that is needed to provide these critical resources. The benefits to public health are obvious but there also are economic impacts which should not be overlooked. Industrial, commercial, and residential development will take place where water and wastewater systems are already in place that are adequate to support them.

-David Anderson is President of the Maine Wastewater Control Association and a Chemist at Portland Water District

USDA Rural Development Mascot Rural Rover

Roving Reporter Rural Rover

Message from USDA Rural Development Mascot Rural Rover:

Welcome to my column, where you can find out answers to your questions on topics of interest to rural Maine– you might even say I have a "nose for news!" If you've never met me, I am Rural Development's Mascot, ***Rural Rover****, and I travel around Maine sharing information about the Programs of* ***USDA Rural Development****. .*

Don't be left in the doghouse– read my column!

This Issue Rural Rover Asks: What are the Challenges of Maintaining Maine's Aging Water and Sewer Infrastructure?

This issue, I met with Brian Tarbuck, General Manager of Augusta Water and Sanitary Districts and Past President of the Maine Water Utilities Association. The Augusta Water and Sanitary Districts serve 5,780 people through 130 miles of water infrastructure and 4,700 customers through 120 miles of sewer pipe.

Q: Approximately how many (or what percentage) of Maine systems do you estimate are considered aging and in need of updates or repair?

A: All of them. The answer really is to what degree they need replacement. Figure that a pipe lasts 100 years once you put it in the ground. Every passing year, the pipe has 1 percent less value than the previous year. Put another way, I have to replace 1 percent of my pipes every year to "keep up" with aging infrastructure. Systems that were new in 1950 are better off than systems that were new in 1905. However, some utilities have found that newer pipes from the 50's don't last as long as the thicker, older pipes installed in the early 1900's. Without aggressively assessing your infrastructure, you can't identify where to begin, and many utilities honestly don't know how old their infrastructure is and, in some cases, *where* it is.

Q: What is the biggest issue systems are faced with when seeking funding for upgrades?

A: It's the public will to pay for "another project". I think the public perception piece is the hardest part. Because the work we do is mostly invisible, there is nothing to point to. Our work is not "sexy". For example, if a town meeting votes to buy a new fire truck, the gleaming chrome and blinding safety lights of the new truck leads the next parade as the proud firefighters wave and smile. When we install a new sewer pipe, no one cares. In fact, they are angered that the road is a mess, there's dust everywhere, and they drive by as people are standing around "staring into a hole." Our lack of visibility and lack of serious risk for failure to act are the two primary factors that hamper our ability to convince the public that this work is critical and valuable. Conversely, a water main that fails and floods a person's basement is perceived as a utility "not doing its job." When the public demands improvement or is forced to comply with a regulation, the funding piece is very easy. When it's not "sexy", the will of water and wastewater boards to increase public debt is diminished.

Brian Tarbuck

Q: How can not making necessary repairs and updates to aging systems affect a community's capacity for economic and community development, job growth, business, etc.?

A: One of the key facets of Augusta is the Kennebec River. Virtually every plan, model and new idea for economic development mentions the river in one way or another. The river's quality has improved from Class C to Class B. That's great news because it means the water today is cleaner than it was 20 years ago. The reason it is cleaner is due to the money that people who live in Augusta and the communities both up and down river pay for wastewater and stormwater treatment. A rail trail now extends about six miles along the Kennebec River and is touted as a tourist attraction, a pleasant way to exercise, and a genuine benefit to the community. If the river stunk, people wouldn't enjoy it. Another reason to repair infrastructure on a routine basis is that it helps make rates and taxes more predictable. Waiting 15 years to do anything may seem like good policy from the "I've held rates down for 15 years" perspective, but the pipes are older and now the next generation will have to spend a great deal of money quickly to make the repairs. This may require very steep, sudden rate changes which are not politically popular and may make it difficult to pay for other community projects like new schools or roadways. Failure to maintain these systems and radical rate swings can not improve a community's image.

(Roving Reporter Rural Rover Q & A with Brian Tarbuck is continued on page 7)

Broadband in Maine: One Year Later

In our April 2007 issue, the topic was connectivity issues in Maine. The following information is an update on the topic:

- On May 21, 2007, the ConnectME Authority adopted its Chapter 101, which describes the operation of the Authority. The Authority will be funded with a .25 percent surcharge on instate retail communications services. Proposals will be funded through grants, direct investments, or loans made on behalf of, in partnership with, or in support of, one or more communications service providers. (The final rule can be viewed at the following link: http://www.maine.gov/sos/cec/rules/90/99/639/639c101.doc)

- In late summer of 2007, the Rural Broadband Coalition was formed to assist in providing access to affordable and effective broadband to rural Maine. Members to date are: SEDC, PCEDC, Greater Franklin Development Corp., Sunrise County EDC, Northern Maine DC, Maine Rural Partners, Western Mountains Alliance and KVCOG.

- On September 22, 2007, Oxford Networks announced plans to invest more than $4 million in a 34.5-mile fiber optic network expansion project that will bring advanced telecommunication and data services to Bangor and Brewer businesses.

- October 16, 2007, the ConnectME Authority, by way of written request to all service providers, is attempting collection of information to determine unserved areas in Maine. The request can be viewed at http://www.maine.gov/connectme/documents/AvailabilityDataRequest1107.doc

Want to Share Your Thoughts on Maine's Aging Infrastructure with Us?

We welcome you to submit your views. Submissions are run at the discretion of the editor and should be 150 words or less to allow for multiple contributions.

Please submit opinions for the winter/spring publication by February 1, 2008. Submissions may be emailed to: Emily.Cannon@me.usda.gov or mailed to:

USDA Rural Development
Attn: Emily Cannon
967 Illinois Avenue, Suite 4
Bangor, ME 04401

USDA Rural Development's Water and Environmental Programs: 70 Years of Service *(continued from page 1)*

In rural areas, however, the provision of basic infrastructure has historically involved a special challenge. Lower density translates into higher costs that often place rural areas at a severe financial disadvantage. Beginning with the Rural Electrification Administration in 1935, USDA has, over the years, been assigned the primary responsibility at the federal level for assisting rural communities in meeting these needs. Today, USDA's Rural Development's Water and Environmental Programs continue that proud legacy of service.

The Federal Water Facilities Act was initially passed in 1937 to assist 17 western states in ensuring adequate water supplies. Over time, the federal commitment grew to meet the growing demand, eventually becoming national in scope. As environmental concerns multiplied, wastewater treatment joined water supply as a key objective. Some things, however, never change: the issues of low density and higher costs are as acute today as ever, and USDA Rural Development continues to work with rural communities to provide affordable drinking water, sanitary sewer, solid waste, and storm drainage facilities in rural areas including cities and towns of up to 10,000 in population.

During FY 2007 alone, Rural Utilities' Water and Environmental Programs provided technical assistance and invested $1.6 billion in direct and guaranteed loans and grants to help rural communities across the country develop nearly 1,500 water and waste disposal facilities. Three quarters of this amount consisted of loans, which will be repaid. The remaining 25%, the grant funding, was used to assist lower-income communities that would not otherwise be able to afford adequate water and waste disposal facilities.

While most of these projects are individually small - "below the radar screen" of the national media - the cumulative effect, year after year, is large. Rural America is today entering an era of unprecedented opportunity. The rural economy continues to diversify. Thanks to distributed computing and broadband, the playing field is being leveled. Rural areas, with their lower costs and higher quality of life, are better able to compete than ever before. At the same time, the rapid development of biofuels, wind and solar power, and - in the near future - cellulosic ethanol hold great promise for rural areas across the country. All of this, however, depends on reliable, modern infrastructure.

It may be easy to take infrastructure for granted -- that is, in fact, a sign of our success. But at USDA Rural Development, we are planning today to meet future challenges. The future for rural America is indeed bright, provided that we continue to ensure that rural communities from Maine to California have the assistance they need to lay the pipes, string the wires, and build the foundations for a better tomorrow.

-Thomas C. Dorr is Agriculture Under Secretary for USDA Rural Development, Headquartered in Washington, D.C.

Challenging Times
(continued from page 4)

The supply side of the money equation is also tough. Many of our wastewater plants were built under the old construction grants with 85 percent grant funding. The USDA Rural Development, while a primary source of low interest loans, has seen decreases in grant dollars into rural Maine. The Drinking Water SRF has also become a significant supplier of low cost financing. However, the political vagaries of finding a state match create uncertainty in the marketplace.

The third issue is declining water usage. With the exception of Southern Maine, communities are losing their manufacturing sector, including paper, wood products, and light manufacturing. Utilities cannot count on industrial users to support the cost of new infrastructure.

The fourth piece of this story is the inflation of the price of basic commodities which utilities must purchase, especially anything requiring metal or plastic. So what does all of this mean for our water and wastewater facilities?

1. First, say goodbye to cheap water and wastewater.
2. Utilities must do a better job planning and putting together grant packages.
3. Many utilities are prone to put off investments for years. It may be more appropriate to do more, smaller projects and use traditional financing.
4. Utilities need to get in the habit of having more frequent and smaller rate increases.
5. Utilities should consider multi-agency support in financing their projects.

In summary, I think we all realize that times are tough. However, I believe there is a genuine cooperative effort among all of the funding agencies.

I know that the agencies strive to help utilities negotiate the complexities of various programs. I also know that the utilities are always going to try to get the best deal for their customers.

-Steve Levy is the Director of Maine Rural Water Association located in Brunswick, Maine.

Roving Reporter
Rural Rover *(continued from page 5)*

Q: What needs to be done to ensure the proper funding mechanisms are in place in the future?

A: We need to increase the awareness that our invisible system of water delivery and wastewater collection is as important as the new fire truck. I don't think this will happen. There are tons of TV shows about the heroics of firefighters, but I don't recall any that go out of their way to point out the engineering that went into getting the water to the hydrant. Funding will be available when there is a catastrophe or string of catastrophes to "wake up" the populace that aging pipes are real problems. Our invisible and reliable system will begin to fail and become much more visible and people will demand repair. Until that time, we will continue to lobby our congressional leaders to stop adding more rules that will cost more money. We will ask them to please recognize that water and wastewater utilities are critical elements of communities and that the invisible work must still be done. And finally, we need to better communicate the value of the services we provide locally so people can better understand why their rates are what they are and where their money goes.

-Brian Tarbuck is General Manager of Augusta Water and Sanitary Districts in Augusta, Maine.

From Page 2: This is a section of water pipe removed from a pipe replacement project in 2007 on Pearl Street, in Augusta. The build-up on the inside is iron tuberculation which is common in unlined cast iron pipes. Even though this pipe still had decent wall thickness and would have provided water for many more years, the tuberculation was reason enough to replace it with cement lined ductile iron pipe. Because there is no way to look inside an active water main, non-invasive testing like hydrant flow testing must be done to determine if the flow out of the hydrant is as much as engineering math says it should be. If it's not, the culprit could be a partially closed valve, or smaller pipe diameter due to tuberculation. Tuberculation increases energy costs to force water through the pipe and reduces flow rate which in turn decreases fire protection capabilities and can increase insurance costs. (Picture provided by Brian Tarbuck)

Water and Wastewater Infrastructure Websites

http://www.rurdev.usda.gov/me/CBP/waterand.htm (USDA Rural Development local Maine website)
http://www.usda.gov/rus/water/index.htm (USDA Rural Development website)
http://www.mainerwa.org/ (Maine Rural Water Association)
http://www.waterislife.net (Water is Life, and Infrastructure Makes it Happen)
http://www.mwwca.org/ (Maine Wastewater Control Association)
http://www.maine.gov/dhhs/eng/water/ (State of Maine Drinking Water Program)
http://www.maine.gov/dep/blwq/ (State of Maine Bureau of Land and Water Quality)

In Our Winter/Spring Issue: The Maine Community Exchange will explore the changing face of education in Maine, including new technologies that are changing the way information is shared . The traditional classroom of education is no longer limited to one educator and four walls– the educational experience is growing to include a global classroom of a wider cultural and community experience.

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