Service Connection

The Maine Drinking Water Program Newsletter

"Working Together for Safe Drinking Water"

Fall 2013 • Volume 21, Issue 3

Inside this Issue:

Is Your Seasonal Water System Ready for Winter?

Jason Pushard, Compliance Officer

It is often said "An ounce of prevention is worth a pound of cure." Preparing your water system now for the long, cold Maine winter can save you a lot of time and expense when you reopen in the spring. The time you will need to spend winterizing depends mostly on the size, design and complexity of your water system. Please consider the procedures outlined below when closing your water system for the season. Following these procedures will help ensure your water system is in good shape and will need fewer repairs when you reopen in the spring:

1. Inspect your entire system and look for problems and damage that need attention or repairs. Look for leaks and exercise valves to ensure that they are working properly. Inspect your well cap for openings that could allow rodents, insects, or other contamination to enter, and correct, if necessary. The off season could be a better time for these problems to be fixed, rather than trying to do it while you are open.

2. Turn off the power to your water supply pump.

3. If there is potential for your pressure tank or storage tank to freeze, drain it. If there is no potential for your tanks to freeze, you may choose to leave them full.

4. Drain all of the water from your internal plumbing. If your piping is designed to drain to the lowest point, it may be as simple as opening a water outlet at the highest point in the system and then

Continued on page 5

Drinking Water Resources at your Fingertips

Did you know that there are several drinking water guidance documents for public water systems available on the DWP website? Some examples include:

- What to do if your Chlorination or UV System Fails
- Dealing with Pressure Loss Events
- Maintaining your Small System Chlorinator
- How to Shock Chlorinate Your Well
- What Consumers Should Know About Boil Water Orders
- Guidance for Eating Establishments During a BWO
- Transient System Guidebook
- Maintaining Your Treatment System
- FAQs about Sampling

Check out the Resources page of our website for links to these documents and more at: www. http://www.maine.gov/dhhs/mecdc/environmental-health/water/resources/resourceshome.htm.

Don't see what you need? Contact Erika Bonenfant at erika.bonenfant@maine.gov or 287-5681.

Maine Center for Disease Control and Prevention
An Office of the Department of Health and Human Services

Paul R. LePage, Governor Mary C. Mayhew, Commissioner

DIRECTOR'S Corner

Outcomes vs. Outputs – Remaining Focused on the Real Goal

Our advances in technology and communication allow us to accomplish much more than ever before. However, this ability can make our lives seem more frenzied, focused more on output rather than the outcomes that are more important.

Outputs are the work products such as reports, bills, letters, new water pipe installed, samples collected, etc. Outcomes are the things we are trying to achieve such as the protection of public health and excellent customer service. Installing a new water treatment system lacks meaning if it is not helping to achieve the outcome of protecting public health. Outputs are necessary to achieve the desired outcome. The wise selection of outputs will increase our ability to achieve our outcomes.

In August, I went on a three day backpacking trip with my two older children (Jessica, 15 and Daniel, 14). We hiked over 25 miles on the Appalachian Trail from Abol Bridge south to the south end of Nahmakanta Lake. We had a wonderful trip with great memories of being together in a beautiful location. The desired outcome from our trip was to strengthen the family bond between us (which we did). The output was the 25+ mile hike. Although a backpacking trip could become an annual family tradition (or output), it is not the only way to achieve the desired outcome.

Just as there are many ways to achieve the outcome of family bonding, there are many ways to protect public health. As public water systems, one of your desired outcomes is the protection of public health by reliably delivering safe water to your customers. You are accomplishing this effort - overall compliance with water quality standards in Maine (which is how we quantify "safe" drinking water) is very high. Maine exceeds the national average in measures of "safe" drinking water. Additionally, we have seen a steady decline in the "failure to monitor" rate which increases our confidence that we know the water is either "safe" or "unsafe." If the water quality does not meet the acceptable water quality standards ("unsafe"), sampling the water on a regular basis generally reduces the exposure time to the "unsafe" water, so public health is better protected.

Thank you for the essential work you do in protecting public health. This outcome makes a positive difference in the lives of all of your customers.

Yours for safe drinking water,

Roger

Service Connection

The Maine Drinking Water Program Newsletter

Published by the Drinking Water Program to provide technical and regulatory information on drinking water issues. Articles may be reprinted without restriction if credit is given to their source. To be added to the mailing or email list, contact:

Erika J. Bonenfant, Editor
Drinking Water Program
Division of Environmental Health
Maine Center for Disease Control and Prevention
Department of Health and Human Services
11 State House Station, 286 Water Street, 3rd Floor
Augusta, Maine 04333-0011
TEL: (207) 287-5681 TTY users: Dial 711 (Maine Relay)
FAX: (207) 287-4172
E-mail: erika.bonenfant@maine.gov
Web Address: http://www.medwp.com

Drinking Water Infrastructure Needs Survey and Assessment Results

Norm Lamie, Chief Engineer

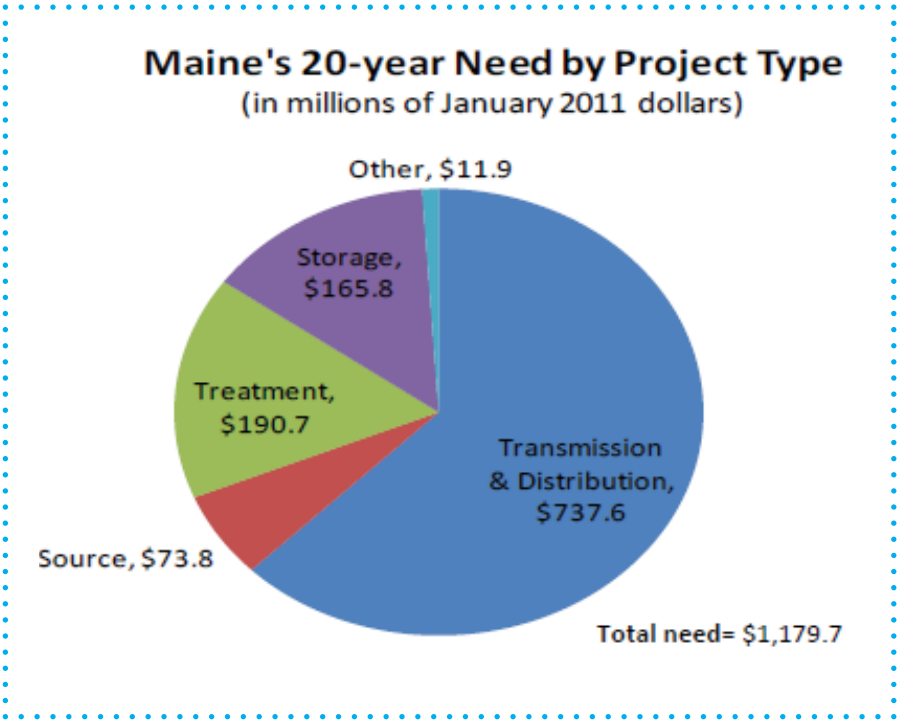
In April 2013, the U.S. Environmental Protection Agency (EPA) published its fifth national assessment of public water system infrastructure needs, based on their 2011 Drinking Water Infrastructure Needs Survey and Assessment (Needs Survey). The estimates within the Needs Survey represent projects that will be necessary from January 1, 2011 through December 31, 2030 for water systems to continue to provide safe drinking water to the public.

Infrastructure needs were grouped into four major categories based on project type: source, transmission and distribution, treatment, and storage. Each of these project types fulfills an important function in delivering safe drinking water to the public. 25 of the 157 public water systems regulated by the Public Utilities Commission (PUC) participated in the Needs Survey.

Maine's Needs

Over the next 20 years, the total amount for drinking water infrastructure needs in Maine is estimated to be $1,180 million dollars which amounts to approximately $59 million dollars annually (in 2011 dollars). Over the last few years, the DWSRF has provided an average of $12 million dollars per year in available construction dollars to public water systems for infrastructure improvements. Other funding assistance comes from the United States Department of Agriculture-Rural Development (USDA-RD) Community Facilities Loans and Grants Program and the Department of Economic and Community Development-Community Block Grant Program (DECD-CDBG), which has an average of $6 million available annually to public water systems.

The estimated annual need of $59 million dollars far exceeds the estimated annual available funding from federal and state programs alone, presenting a significant shortfall for funding public water system improvements in Maine.



Need by Project Type

The infrastructure in Maine requires ongoing maintenance, continued planning, and adequate funding. In particular, storage, treatment, and transmission and distribution facilities require maintenance, replacement, and upgrades to meet current and future drinking water standards.

Transmission and distribution projects are the largest category of need at $737.60 million dollars over the next 20 years, or 63% of the total need. This finding, although significant, is not surprising, given that many of the distribution lines in Maine are more than 100 years old.

Spotlight on DWSRF:

A Water System's Perspective on the Benefits of the Drinking Water State Revolving Loan Fund (DWSRF) Program

The following is an article written by Wayne Brockway for the Summer 2013 issue of Kennebunk, Kennebunkport, and Wells Water District's Customer Newsletter, "What's On Tap."

As you may know, we have a developing national crisis when it comes to replacing infrastructure. Thankfully, the District has a robust infrastructure renewal and replacement program. One way we have been able to fund this is through the use of low interest loans from the State Revolving Loan Fund (SRF) through the Maine Drinking Water Program. Once construction has been completed, these loans are converted to low interest bonds administered through the Maine Municipal Bond Bank. In each of the past three years, the District has qualified for an SRF loan for three major projects totaling $4.5 million in cost. Of this total, nearly $500,000 was in the form of a grant, and the average interest rate on the remaining $4 million of borrowing came in at 0.9%. This has happened in a market where general obligation bonds have ranged between 2-3% or more.

Another way to look at how this benefits you (the customer) is by showing what impact these lower debt costs have on our annual budget which directly affects your water rates. The following table illustrates the dramatic difference in the cost per million dollars of debt service payments (both principal and interest). As you can see, **the cost per million dollars for the three most recent debt issues under the SRF program is about 30% of all of our previous debt.**

	Principal	% of Total Debt	Annual Debt Service	Annual Cost per Million Dollars Borrowed
Older Debt	$4.67 Million	54%	$850,000	$181,800
New SRF Debt	$3.98 Million	46%	$220,000	$55,500

While the future is uncertain regarding interest rates (they will likely begin to rise slowly), it is clear that the SRF program has proven to be very beneficial for the District and its ratepayers by providing a lower cost mechanism to fund our ongoing infrastructure replacement needs. We look forward to many more years of this mutually-beneficial partnership with the Drinking Water Program. It's been great for me personally to work and collaborate with such wonderful people to help protect our resources.

New DWP Staff

Rychel McKenzie

Rychel McKenzie joins the Drinking Water Program as the new Field Inspector and DWSRF Project Manager for community systems in District 3, working from the Bangor office. Rychel graduated from the University of Maine in 2012 with a B.S. in Civil Engineering and a focus in Environmental Engineering. She has previously worked for the Veazie Sewer District as an operator and for Portsmouth Naval Shipyard and Olver Associates Engineering as a structural engineer intern and environmental engineer intern, respectively. You can contact Rychel at 991-2383 or rychel.mckenzie@maine.gov.

Continued from cover...

opening a water outlet at the lowest point. If not, you may need to connect a compressed air source to the highest point and continue to release air into the system until all of the water is forced out of the lowest point. Make sure to cap off or screen any openings into your plumbing system and close all of the valves after the system is drained. For example, if you have above ground plastic plumbing that supplies different buildings while your system is open, make sure to cap off or screen the plumbing inlet to the building after disconnecting it, to prevent rodents and bugs from crawling in

5. Also consider draining jet pumps (after discontinuing power to the pump), chemical feed pumps, hot water heaters (don't forget to shut off power to the hot water heater before draining the tank), furnaces, dishwashers, toilets, plumbing to refrigerators with ice machines, back flow prevention devices and water meters. This list is not all inclusive and you may have additional appliances or devices that need to be drained to protect against freezing. Do not forget to add environmentally friendly anti-freeze to your toilet bowls and sink and shower traps to prevent the traps and bowls from cracking and to keep sewer gases from entering buildings.

6. Protect your distribution system by not leaving taps open in the off season. Never use automotive anti-freeze in your water system because it is a health hazard!

7. Turn the power off to all treatment systems. Properly discard any unused chlorine solutions and stock. For other treatment systems, follow the manufacturers' instructions for equipment, chemicals or filter media not in use for long periods of time.

Closing your system for the winter may be time consuming in some cases, but it will provide you with peace of mind knowing that at start up, repairs to the system should be minimal.

If you shut down your water system for the winter, please make sure that you flush and shock chlorinate your system in the spring prior to re-opening for the season. We would also recommend collecting an Operations & Maintenance (non-compliance) bacteria sample to make sure that your water system is bacteria free before you open for the season. You can find the shock process and other procedures for opening your seasonal water system at the following Drinking Water Program link: http://www.maine.gov/dhhs/mecdc/environmental-health/water/resources/wakeupyourwatersystem.htm.

Two Easy Ways to Avoid Violations, Save Time & Money

Carlton Gardner, Compliance and Enforcement Team Leader

1. Make Sure Your Laboratory Knows Your PWSID#

Past articles in the Service Connection have discussed electronic transfer of laboratory test results by certified labs to the Drinking Water Program. Other articles have discussed the importance of providing your Public Water System Identification Number (PWSID#) to your lab and informing your lab that the samples are compliance samples and the results must be submitted to the DWP. The Rules Relating to Drinking Water, 10-144CMR 231, 6(B)(2) states: "*All reports of laboratory analyses for compliance purposes must be submitted to the Department by the certified laboratory contracted by the public water system to analyze the samples."*

In July, we issued over 30 "Failure to Monitor" violations to water systems even though they collected and submitted water samples to their laboratory. The labs later reported to the DWP that the water systems either failed to provide their PWSID# or failed to inform their lab that the samples were compliance samples. **Please remember,** when filling out the Chain of Custody form (sampling sheet), make sure your lab knows the sample results need to be sent to the Drinking Water Program. If in doubt, please discuss with your certified laboratory.

continued on next page...

Continued from previous page...

Two Easy Ways to Avoid Violations, Save Time & Money (cont.)

2. Include Sampling Date and Time on the Sample Form

When collecting water samples, the Chain of Custody form (sampling sheet) has a place for the date and time the water samples were collected. Many water samples must be analyzed within a defined time. For example, total coliform bacteria samples must be analyzed within 30 hours of collection and nitrate samples must be analyzed within 48 hours of collection.

If a water system does not indicate a sample collection date and time, the certified lab has two options: 1. Immediately reject the sample because they do not know when the sample was collected; or 2. Try to contact the sample collector to determine when the sample was collected.

Save yourself a phone call, and possibly added sampling cost, by always filling in the date and time water samples were collected. Take a few minutes and discuss this with your certified laboratory.

Enforcement Corner

EPA's ETT Report Numbers Improving for Maine

Tera Pare, Enforcement and Rulemaking Coordinator

Last year, I reported in the Enforcement Corner that each state with primacy authority under EPA receives a quarterly report called the ETT. This "Enforcement Targeting Tool" assists states in targeting those "priority" public water systems needing formal enforcement action by the state primacy agency. In Maine, that's us: The Maine Drinking Water Program.

The ETT assigns points to a public water system, for each unaddressed violation within the last 5 years, which are added together for a total score. If that total score reaches 11 or higher, that PWS is considered a "Priority System" for Maine's Enforcement Staff. In July 2012, 92 public water systems in Maine were listed as Priority Systems.

We are happy to report that the July 2013 ETT only identified 30 Priority Systems….down 62 from last year. Much of this reduction is attributable to many staff focusing on the individual violations within the DWP's data base, which was feeding this information to EPA. Once we were able to assure that data was accurate, we provided that updated information to EPA before they generated the latest ETT. In addition, Dawn Abbott, DWP Enforcement Specialist for Transient and NTNC public water systems, conducted a series of enforcement visits in the Spring of 2013, which resulted in 32 public water systems returning to compliance with drinking water regulations.

With your help in reaching and staying in compliance with safe drinking water regulations, this number can only decrease. Thank you for your hard work in assuring that the people in Maine are drinking safe water.

WATER OPERATOR NEWS

Teresa Trott, Water Operator Licensing Officer

Help shape the future of water operator licensing

The Association of Boards of Certification (ABC) is looking for volunteers willing to share their expertise in the water and wastewater fields, to work on the Certification Commission for Environmental Professionals (C2EP). To read about the variety of opportunities, check out "volunteers" at www.abccert.org.

Dates to Remember:

- **Nov. 1, 2013** – Renewal notices for odd-numbered year renewals mailed.
- **Dec. 31, 2013** – Renewals due.
- **March 1, 2014** – Submittals for paper exams must be postmarked by March 2, 2014, which marks the end of grace period. After March 2, 2014, the license will be inactivated, which may lead to a PWS receiving a violation for not having a licensed operator.
- **Week of April 14th, 2014** – Paper exams will be offered in Augusta only.

Operator TCH records now available on the DWP website. To check the number of TCH on file for your water operator license, click on the TCH report link, which can be found by going to www.medwp.com, clicking on "Licensing," then "Board of Water System Operators," then lastly on the "Maintaining Your Operator's License" link. Be sure to have your Operator License # handy. This TCH report is updated monthly.

Update your Mailing Address for License Renewals

If you change jobs, retire or otherwise leave a system where you are listed as a designated operator, call the Drinking Water Program to have your name removed.

Board Vacancy

The Board wishes to acknowledge the service of David Beaulieu of Maine Water Company for his participation as a Board Member from 1998 to 2013. David served on the Board during a time of great change, including a significant increase in the number of licensed operators. His resignation opens a Class III seat on the Board. If you hold either a Class III Treatment or Distribution license and wish to help shape the water profession in the future, please contact Terry Trott at 287-7485 or Trevor Hunt (Board Chair) at 443-2391 for more information.

The Significance of Operator Licensing

More than a decade ago, operator licensing changed dramatically. The Safe Drinking Water Act (SDWA) referred to operator requirements in various rules since 1974. In 1996, Congress amended the SDWA to require Community and Non-Transient, Non-Community water systems to be operated by a licensed water operator. In 1999, EPA developed guidelines for state operator programs, in order to ensure protection of public health while allowing state level flexibility in the administration of operator licensing. In Maine, licensing of operators is regulated through the Board of Licensure of Water System Operators. The Board is responsible for ensuring that training (both pre- and post-licensure) adequately addresses the protection of public health. The Board must also ensure that operators possess the necessary knowledge, skills, ability, and judgment to perform proper oversight. This assessment is measured by education, experience, and examination. In 2004, 79% of the Community and Non-Transient, Non-Community public water systems in Maine had appropriately licensed operators in direct responsible charge of the treatment and distribution of drinking water. The percentage has now increased to 99%.

Both the DWP and the Board expect that the licensed operator's knowledge and experience are applied in system operational decisions. Operators must maintain Emergency Response Plans and Standard Operating Procedures to assure consistent and appropriate decision making. When unexpected or unusual circumstances occur, the operator must be available to direct personnel to initiate the appropriate actions needed to protect public health.

Public Water System Compliance and Operator Responsibility

The DWP has begun a process of providing a quarterly report to the Board with a list of public water systems with violations and the associated Designated Licensed Operator (DO). The Board is currently developing criteria to identify which violations require additional investigation to determine if the licensed operator has failed in some way to fulfill the expectation of a licensed operator. If the Board determines that additional investigation is needed, the Board will contact the licensed operator to discuss the circumstances that lead to the violation(s).

The public relies on water systems and licensed operators to protect public health. The Board maintains high expectations of operator behavior. Please ensure that you are taking your professional responsibility seriously by protecting the health of your customers.

Department of Health and Human Services
Maine People Living Safe, Healthy and Productive Lives
Paul R. LePage, Governor
Mary C. Mayhew, Commissioner

Service Connection

Newsletter of the Maine Drinking Water Program
Maine CDC
286 Water Street, 3rd Floor
11 State House Station
Augusta, Maine 04333-0011

Dawn Abbott	287-6471	Enforcement Specialist	dawn.abbott@maine.gov
Glenn Angell	592-2084	State Site Evaluator	glenn.b.angell@maine.gov
Wendy Austin	287-5672	Receptionist	wendy.austin@maine.gov
Erika Bonenfant	287-5681	Education & Outreach Coordinator	erika.bonenfant@maine.gov
David Braley	441-5324	Wellhead Protection Coordinator, SWP	david.braley@maine.gov
Darren Brann	287-5545	Compliance Officer	darren.brann@maine.gov
Haig Brochu	592-0954	Field Inspector	haig.brochu@maine.gov
Pamela Bryer	287-1979	Compliance Officer	pamela.bryer@maine.gov
Roger Crouse	287-5684	Drinking Water Program Director	roger.crouse@maine.gov
Denise Douin	592-2165	Field Inspector & SRF Project Manager	denise.douin@maine.gov
Greg DuMonthier	592-1674	Field Inspector	greg.dumonthier@maine.gov
Sara Flanagan	287-5678	Capacity Development & Security Coordinator	sara.m.flanagan@maine.gov
Robin Frost	287-8411	SDWIS Administrator	robin.frost@maine.gov
Carlton Gardner	287-8403	Compliance and Enforcement Team Leader	carlton.gardner@maine.gov
Larry Girvan	592-7386	Field Inspector & SRF Project Manager	larry.girvan@maine.gov
Jennifer Grant	287-3962	Compliance Officer	jennifer.grant@maine.gov
James Jacobsen	287-5695	Project Manager/Webmaster	james.jacobsen@maine.gov
Jennifer Jamison	287-1929	Laboratory Certification Officer	jennifer.jamison@maine.gov
Norm Lamie	287-2647	Chief Engineer	norm.lamie@maine.gov
Brent Lawson	592-7376	State Plumbing Inspector	brent.lawson@maine.gov
vacant	287-8412	Data Management	
Rychel McKenzie	991-2383	Field Inspector & SRF Project Manager	rychel.mckenzie@maine.gov
Lindy Moceus	287-8402	Compliance Officer	lindy.moceus@maine.gov
Martha Nadeau	287-5683	Assistant Information Analyst	martha.nadeau@maine.gov
Tera Pare	287-5680	Enforcement & Rulemaking Coordinator	tera.pare@maine.gov
McKenzie Parker	557-2255	Field Inspector & SRF Project Manager	mckenzie.parker@maine.gov
Doris Poirier	287-5699	Operator Certification/ Well Drillers Board Clerk	doris.poirier@maine.gov
Jason Pushard	287-8487	Compliance Officer	jason.pushard@maine.gov
Nathan Saunders	287-5685	Field Inspection Team Manager	nathan.saunders@maine.gov
Fran Simard	287-8074	Secretary	fran.simard@maine.gov
Amilyn Stillings	287-6472	Information Coordinator	amilyn.stillings@maine.gov
Daniel Thompson	287-2070	Receptionist	daniel.thompson@maine.gov
vacant	287-6196	Hydrogeologist	
Teresa Trott	287-7485	Operator Licensing/Environmental Review Coord	teresa.trott@maine.gov
Kate Tufts	215-0624	Field Inspector	kate.tufts@maine.gov
David Welch	287-3056	Data Management Specialist	david.welch@maine.gov
Scott Whitney	592-0578	Field Inspector	scott.whitney@maine.gov
Jim Willis	287-5694	Office Clerk	james.willis@maine.gov