Spring 2015

Service Connection: The Maine Drinking Water Program Newsletter, Volume 23, Issue 1 (Spring 2015)

Maine Center for Disease Control and Prevention

Maine Department of Health and Human Services

Service Connection

The Maine Drinking Water Program Newsletter

"Working Together for Safe Drinking Water"

Spring 2015 ▪ Volume 23, Issue 1

Inside this Issue:

What Makes a Water System a Public Water System?

Nathan Saunders, Field Inspection Team Leader

The Maine Rules Relating to Drinking Water provide the basic definitions of Community (C), Non-Transient Non-Community (NTNC), and Transient (T) Public Water systems. Depending on the type of water system (C, NTNC, or T), its definition includes minimum criteria statements such as:

- ✓ the water system serves at least 25 people per day
- ✓ the water system has 15 or more service connections
- ✓ employees are present for 6 months or more per year
- ✓ residents are present for 6 months or more per year
- ✓ the water system serves water to the public 60 days or more per year

With there being so many different types of establishments to evaluate, how does the Drinking Water Program (DWP) make decisions on what is a public water system and what is not? To address this issue consistently across the State, the DWP uses two core, documented, policies and procedures (both available on the DWP website):

Multiplication Factors for Estimating the Population of a Public Water System (DWP0084): Because it is not feasible for the DWP to evaluate the actual count of individuals served per day at every individual establishment, certain multiplication factors are used to estimate the population at specific types of establishments. This document has many examples of different establishments and how population served is calculated for each type. The information in this document is used specifically to determine whether an establishment is, or is not, a public water system (PWS). One note on childcare facilities specifically: facilities with before and after care only, with children present for less than 3.5 hours per day, are considered Transient PWSs instead of Non-Transient, Non-Community (NTNC). This affects before and after care childcare facilities significantly. If you have questions on the classification of your childcare facility, please contact me.

Determining Classification and Overall Population Policy (DWP0008): This document describes how a system's classification (C, NTNC, or T)

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Is Your Water System Prepared for A Flood?

As cold temperatures persist, causing snow and river ice to linger, the threat of spring flooding in Maine is real. If your well is affected by flood waters and needs to be disinfected, visit the Drinking Water Program website for well shocking information: http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/pws/emergencyResponse.shtml

Additionally, the U.S. Environmental Protection Agency has developed an Incident Action Checklist for flooding. The checklist can help you prepare, respond, and recover from a flood. The checklist can be found on EPA's website at: http://water.epa.gov/infrastructure/watersecurity/emerplan/upload/epa817f15005.pdf

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DIRECTOR'S Corner

If You Want to Go Fast, Go Alone.
If You Want to Go Far, Go Together.
(African proverb)

Fourteen years ago, the Drinking Water Program adopted a vision statement of "Working Together for Safe Drinking Water." The use of the word "together" signifies multiple people and organizations working toward our common goal of safe drinking water.

This togetherness is clearly manifested in the work done by the Drinking Water Program staff. At the DWP, we have 35 ordinary people doing extraordinary work to ensure safe drinking water in Maine. The unity of purpose and teamwork has enabled us to accomplish great things. With a focus on public health protection and a sincere desire to help those we serve, each team at the DWP and each member of each team is an essential part of our effort to achieve our purpose. Each person brings his or her own unique gifts and talents to our work environment.

The adoption of a "continuous improvement" philosophy has enabled staff to be continually looking for better ways of meeting our mission. We don't have all the answers, but together, we can find and implement solutions to address all the problems we face.

I greatly appreciate the dedication, hard work and enthusiasm demonstrated by our staff daily. We have come a long way in the past 14 years, and there will be many new challenges in the years to come, but Working Together, we will go far!

Yours for safe drinking water,

Roger

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The Maine Drinking Water Program Newsletter

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Maine Water Systems Selected for 2015 Needs Survey

Norm Lamie, P.E., Assistant Director & Chief Engineer

In early March, 23 public water systems were notified they were one of the select few. No, they did not win the lottery. No, the superintendent did not win an all-expense paid trip to Disney World. However, these public water systems were selected by USEPA to represent all of the water systems in the State of Maine in the 2015 Drinking Water Infrastructure Needs Survey and Assessment (DWINSA). The Needs survey takes place every 4 years and will be the fifth survey conducted.

Data from the Needs Survey is used to substantiate Maine's share of the annual federal appropriation for the Drinking Water State Revolving Fund (DWSRF). The active participation in the Needs Survey by our public water utilities is critical to substantiate information for future DWSRF grants.

Key points about the EPA Needs Survey that need to be emphasized include the following:

- This survey is a national effort to determine the total amount of funds needed by all public water systems for infrastructure improvements.
- The Needs Survey addresses total capital investment needs that can be financed with DWSRF funds over the next 20 years.

The time and effort by representatives from the following utilities to complete the Survey is greatly appreciated. If your water system is not a participant, please thank your neighboring water system that is participating, for representing all of our public water infrastructure needs in the State of Maine.

The following public water systems have been asked to participate in the 2015 Drinking Water Infrastructure Needs Survey and Assessment.

Auburn Water District	Maine Water Company Camden & Rockland
Bangor Water District	Maine Water Company Millinocket Division
Belfast Water District	Maine Water Company Skowhegan Division
Brunswick / Topsham Water District	Old Town Water District
Gardiner Water District	Orono-Veazie Water District
Greater Augusta Utility District	Portland Water Dist / Greater
Hampden Water District	Presque Isle Water District
Houlton Water Company	Rumford Water District
Kennebunk, Kennebunkport & Wells Water District	Sanford Water District
Kittery Water District	South Berwick Water District
Lewiston Water & Sewer Division	York Water District
Maine Water Company Biddeford Saco Div	

DWP Staff Receive Awards from Maine Water Utilities Association

Carlton Gardner, DWP Compliance and Enforcement Team Leader, and Norm Lamie, DWP Assistant Director and Chief Engineer, were recently awarded the Lifetime Achievement Award and the 2014 President's Award, respectively, at the Maine Water Utilities Association Annual Conference and Trade Show in February. The Lifetime Achievement Award was awarded to Carlton "with gratitude in recognition of an esteemed career of providing outstanding and industrious professional expertise and devotion to benefit the public drinking water community." The President's Award was awarded to Norm "in recognition of extraordinary commitment and years of exemplary service to both the Maine Water Utilities Association and the water profession." Congratulations, Carlton and Norm!

Water Utilities, Emergency Responders, and State Agencies Participate in Chemical Spill Workshop and "Table Top Exercise" in Berwick, Maine

Erika Bonenfant, Education and Outreach Coordinator

The Drinking Water Program, in conjunction with the Maine Department of Environmental Protection (DEP), New Hampshire Department of Environmental Services, the Maine Emergency Management Agency (MEMA), the York County Emergency Management Agency and the Maine Rural Water Association (MRWA) held a Workshop and Tabletop Exercise (TTX) to address the hypothetical scenario of a chemical spill upstream from the public water system intakes on the Salmon Falls River. In addition to the presenters, attendees represented both Maine and New Hampshire and included first responders (police, fire, and DEP HazMat Responders), water and wastewater utilities, a bottled water company, environmental consultants and representatives from local oil and propane companies with above-ground storage tank facilities in the Salmon Falls watershed.

The day started off with a Workshop consisting of a series of presentations including lessons learned from the 2014 Elk River Chemical Spill Incident in West Virginia, above ground storage tank (AST) inventory and mapping within the Salmon Falls River watershed, and an overview of the Emergency Planning and Community Right to Know Act. The Workshop provided a forum for several interesting discussions, such as whether a water system would make the decision to shut off their intake or well immediately, in the event of a potential contamination event, and what options might be available to sustain service to customers during a shutdown. This question led to a discussion of existing interconnections between utilities and how an additional permanent or temporary interconnection, specifically between Berwick and Somersworth, would be beneficial to handle an emergency event.

Several of the water systems expressed the importance of public perception in the case of a potential contamination event. In the wake of the Elk River Chemical Spill Incident in West Virginia (which dominated headlines and national news stories in January 2014) managing the efficient communication of information to the public may now play an even greater role.

The morning's presentations and discussions provided a good warm-up for the afternoon TTX. The TTX scenario involved a multi-vehicle accident that resulted in two tractor trailer trucks rolling over and spilling liquids into a nearby catch basin that eventually drains into the Salmon Falls River a few miles upstream from the public water system intakes in Berwick, Maine and Somersworth, New Hampshire. As the scenario played out, the water utilities, first responders, and state agencies were each asked what their course of action would be (e.g., what actions would they take, who would they communicate with).

The series of events within the TTX helped to highlight some areas where additional work and collaboration is needed between those responding to the spill event and drinking water personnel who could potentially be impacted by the spill event. For example, throughout the TTX, the communication pathway was not clear on who should be responsible for notifying both the Drinking Water Program and the drinking water utility that might be impacted.

The Drinking Water Program and the DEP have since met to discuss the results of the TTX and to determine how the chain of communication may be improved between DEP and the Drinking Water Program during a spill event that could potentially impact a nearby public water system. The DWP is now working on improving our mapping of source water protection areas to include critical areas upstream from intakes where a spill into the draining network could present an immediate threat to the water utility. The DEP and DWP will continue to work together and have regular meetings to ensure that the communication pathway remains open and clear whenever DEP is responding to a spill or other event that has the potential to impact a public water system.

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Who can collect Radon Samples?

If your water system is required to collect radon-in-water samples please be aware of the following: The Radon Registration Act of 1989 requires that radon samples must be collected by a registered Radon Tester. The exemptions to this rule include a Maine CDC employee, collecting samples in the course of their duties, an owner, or direct employee of a public water system.

If you have any questions please call Robert Stillwell at 207-287-5743 or Carlton Gardner at 207-287-8403.

Revised Total Coliform Rule (RTCR): Countdown to April 1, 2016

Although the RTCR doesn't go into effect until April 1, 2016, there is much to do ahead of time for both DWP and Public Water Systems (PWSs) to prepare.

Training

DWP and our training partners will hold classes to introduce changes and train system samplers, owners and operators about the RTCR. As training is scheduled, announcements will be made. Also, watch the Operator Training calendar for dates. EPA funded the development of a free, online course by the American Water Works Association. This course has been approved for 3 Training Credit Hours (TCHs) for Maine Drinking Water Operators. Maintaining and Achieving RTCR Compliance for Small Systems: http://www.awwa.org/store/productdetail.aspx?productid=48406119

Sample Site Plans

The RTCR requires all systems to update sample siting plans to include system specific information pertaining to sampling locations and schedules. Water systems with populations greater than 1,000 will need to submit a revised Sample Site Plan to DWP for review by December 31, 2015. Be on the lookout for training on Preparing Sample Site Plans for RTCR compliance. For all other water systems, Field Inspectors will help you to review and update your sample site plan during your next sanitary survey.

Sampling Frequency

Depending on your current sampling frequency for Total Coliform, under the RTCR your sampling frequency may change. Reduced monitoring for Total Coliform may be an option depending on system type and size, compliance history, source water protection status, and other operational characteristics. Sampling frequency changes as a result of the RTCR will be a transitional process and will be evaluated for each PWS system during the next routine sanitary survey following the RTCR implementation date. Water systems can prepare for this change now by ensuring that Total Coliform samples are collected correctly and on time, maintaining an updated Source Water or Wellhead Protection Plan, and correcting any identified issues or problems promptly.

Total Coliform Positive Results

Confirmed total coliform positive results under the RTCR will require an assessment of the water for possible causes, referred to as sanitary defects. The PWS will then be required to correct the defects. Water systems can prepare for this change by inspecting their water system and ensuring everything, including source, treatment, storage, and distribution system, is in good working condition to prevent Total Coliform positive sample results before they happen.

Continued from Cover...

and its population are determined when multiple population types (C, NTNC, or T) are served by the same water system. An example is a campground serving a Transient population that also serves a year round store with employees (NTNC population) and also serves the owner's home (C population). Populations are combined and the system type is determined by the amount of exposure to water by each population type (C has the most exposure, NTNC has less exposure than C, and T population has the least exposure to water). In the case of the campground above, the C and NTNC populations are added to the T population, to determine the transient public water system's population; C and NTNC populations have more exposure to water than T population, and are therefore included in the population served by the Transient PWS. In contrast, T and NTNC population, which has less exposure to water than C population, is not added to the Community population count. As a result, a municipal water system population only includes the number of service connections it has multiplied by 2.5, and not a count of all of the people who come into the town/city each day to work or visit. Other examples and complexities are described in this policy.

In addition to the documented policies and procedures listed here, the DWP uses various clarifications provided by the EPA to help determine what establishments meet PWS criteria.

The classification and population of every PWS is determined when it first starts operation and again at each sanitary survey inspection, every 3 or 5 years depending on the PWS classification. If you have questions regarding a PWS's classification or population, please contact the PWS's field inspector or call the DWP at 287-2070.

Water Operator Board News

Teresa Trott, Licensing Officer

Please welcome new Board member Mary Bowers, of Water Quality and Compliance Services! Mary represents non-transient, non-community water systems. The Board is reviewing the existing statute and rules to identify possible improvements. Please watch the website for information and public comment opportunities. If you have ideas, please contact a Board member. Contact information is on the Water Operator Board page of the DWP website.

Exams

Computerized exams continue to be a popular option. Turnaround time makes it convenient to study at one's own pace and apply for exams when the student feels prepared. The overall pass rate has increased by 6% over 2013. Paper exams will continue to be offered in Aroostook County annually.

Training Contact Hours (TCHs)

The same training topic may only be used once within a renewal cycle. For relevant safety related training, there is no longer a restriction on the number of safety topics that can be used towards TCHs within a given renewal cycle. Relevant Training topics must include the following:

- ✓Influence on water quality, water supply, or public health protection; and
- ✓Be directly related to the operation or maintenance of a water system; or
- ✓Be directly related to managing the operation or maintenance of a water system.

EPA has funded providers to offer free training. Training will be posted on the training calendar. Check the website calendar for class offerings. These providers may also contact operators directly.

License renewal

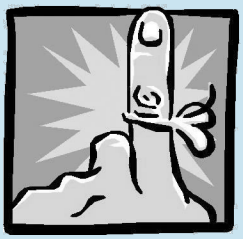
Licenses with renewal dates of 12/31/2013 or 2014 are inactive and you are not able to be in responsible charge of a water system. To reinstate your license, you must earn the required TCHs and pay Renewal ($75) and Reinstatement ($50) fees. Licenses that have renewal dates of 12/31/2012 and earlier that have not been renewed are expired. These license holders must take appropriate level exams to become licensed again.

'TTX' Continued from page 5...

The TTX underscored the importance for water utilities to develop and maintain relationships with their local emergency responders. Several of the water utilities present identified a next step for them will be to make sure their local emergency responders (police and fire) are aware of their drinking water source protection area and the importance of notifying them in the case of emergencies that could potentially introduce contaminants into the water supply. If you haven't already, please reach out to emergency responders in your community to begin establishing these beneficial relationships. You can't predict when an event might happen that could impact your water system, but that early call from your local responder could give you the time you need to react quickly to protect your customers as well as your treatment and distribution system.

Compliance Reminders

Jennifer Grant, Compliance Officer



- ✓ **Consumer Confidence Reports (CCRs)** are required to be distributed to consumers (and the DWP) by July 1st, 2015, and a signed certification form must be submitted to the DWP by October 1, 2015.
- ✓ **SOC Waiver Application**s are due by July 31, 2015.
- ✓ Systems required to collect **annual or triennial Lead and Copper or Disinfection Byproducts (DBP)** samples in 2014 must collect between June 1 and September 30, 2015.
- ✓ **Schedule 4 (serving less than 10,000) unfiltered surface water systems** begin Stage 2 DBP monitoring in the 4th calendar quarter of 2015. You should be receiving a letter this summer from your Compliance Officer outlining your specific requirements.

Please contact your Compliance Officer with any questions.

Redefining Source Protection Areas for River Intakes and Riverbank Wells

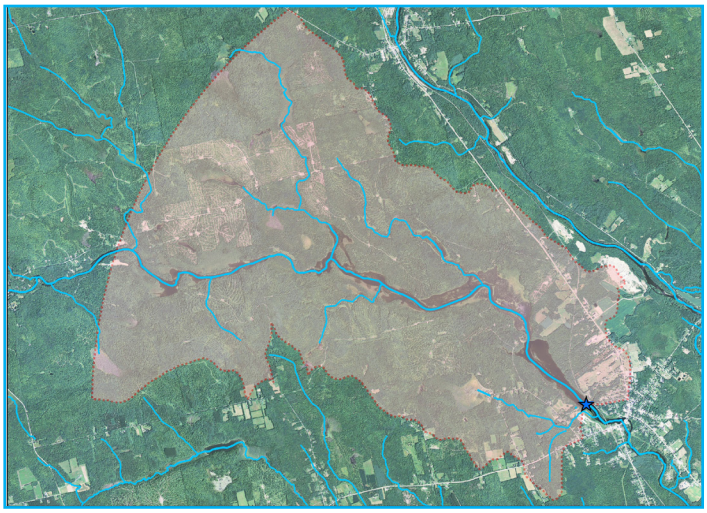
Michael Abbott, P.E., C.G, Water Resources Team Leader

The Drinking Water Program is in the process of delineating new source protection areas for Maine's 10 river intakes and about 30 sand and gravel wells located adjacent to rivers and streams. The purpose of this project is to update our current ArcGIS-based maps, as part of ongoing efforts to improve protection of intakes and wells from an accidental contaminant release into a flowing water body. Our current maps of source protection areas can be viewed by downloading the ArcGIS shape file from the Maine GIS (MEGIS) site at http://www.maine.gov/megis/. Or, if you do not have ArcGIS and would prefer to view the maps online using Google Earth, you may register to use our GE-based Public Water Resources Information System by going to http://www.maine.gov/dep/gis/datamaps/DWP_Wells/.

When viewing the current maps, you will notice that the source water protection area for river intakes consists of a very limited area near the intake, designated as the "surface water intake direct watershed." This area will be expanded to include a significant portion of the watershed upstream from the intake location. We are using the USGS StreamStats package, an online ArcGIS-based watershed analysis program newly developed for Maine, as part of a Maine DOT-funded project. This program allows us to delineate the watershed above a selected point on a river or stream and produces basic hydrologic data that can be used to make useful calculations regarding travel time in the river under normal flow and flood conditions.

We want the new source protection maps to enable public water systems to look upstream of their intake or riverbank well field and identify high-risk locations such as highway and rail crossings or above-ground storage tank facilities that would represent a critical emergency situation in the event of a spill. In such an event, the water utility would need to consider shutting down an intake or well(s) to avoid drawing in contaminated water. These maps would also be used by spill response personnel, including the Maine DEP's Oil and Hazardous Materials Emergency Spill Response Team, to quickly determine if a spill entering a drainage network might represent a significant threat to a public water supply and trigger notification of the water utility.

For some of our systems on large rivers, like the Saco or the Kennebec, including the entire upstream watershed in the source protection area would not be practical. So, to serve the primary purpose of this mapping project, the source protection area will be truncated at the point upstream that would represent a 6-hour time of travel under normal flow conditions. In other words, a spill within this part of the watershed could begin to impact an intake or well field within several hours, so immediate notification of the water utility would be critical.



The figure included in this article shows what a typical source protection area might look like. The intake is located at the lower point of the drainage basin or watershed, as indicated by the star symbol. The maps will include the delineated 6-hour "time of travel" watershed, as indicated here by the shaded area, and the stream drainage network within the source protection area. When the location of a spill or high risk location is known, it will be quick and easy to determine if there is a risk to the downstream intake or well field.

We hope to have these maps completed and available online by the end of this year. The completed maps will also be used as part of a new project to update source water vulnerability assessments and source water protection plans for river intakes and riverbank wells. More on that in the next *Service Connection* issue...

New Materials Available from CDC on Community Water Fluoridation

The US CDC has developed several new posters, info cards, and an infographic that can be used to educate the public about the benefits of fluoride and community water fluoridation. Some of the images contain general information appropriate for use in health settings. Others celebrate the efforts of the water industry as well as voters and decision makers who have made this public health intervention available in their communities. View the new materials at www.cdc.gov/fluoridation/materials/index.html.

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