

SERVICE CONNECTION

The Maine Drinking Water Program Newsletter

Working Together for Safe Drinking Water

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Lead in Drinking Water

Helping Schools Reduce the Risk of Children Being Exposed to Elevated Lead Levels

The Maine Rural Water Association, Maine Water Utilities Association, and the Maine Public Drinking Water Commission have joined in an initiative to encourage all schools in Maine to voluntarily test their drinking water for the presence of lead. The Maine Drinking Water Program, which oversees all public water systems in the state, is assisting with technical and financial support for this effort.

The federal Lead and Copper Rule does not require water utilities to test for lead in schools. This means that, while the water going to the schools is tested and safe, the water quality inside the schools is largely unknown. Over the past year, some schools, water utilities, and towns have voluntarily collected and tested water samples from selected schools, but the majority of schools have not yet been tested for lead.

To close this gap, all water utilities in Maine are encouraged to work with the schools they serve in testing for lead. Participation is entirely voluntary; however, the free testing being offered will only be available until May 31, 2017.

This initiative only applies to schools served by water utilities. Schools that have their own source of water, and are thus regulated as public water systems, will continue sampling for lead and copper as required by the Drinking Water Program.

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2017 Preliminary Drinking Water Testing Requirements Now Available Online

Robin Frost

Preliminary Drinking Water Testing Requirements for 2017 are now available on the Drinking Water Program website (www.medwp.com). These preliminary reports serve as guidance materials for public water systems, providing insight into their sampling requirements for the coming year.

As *preliminary* reports, the requirements are subject to change; after the DWP has run end-of-year compliance, *final* Drinking Water Testing Requirements will be mailed to all public water systems, and will be available on the DWP website in March, 2017. If you have questions about your testing requirements, please contact your Public Water System Inspector, or call the DWP at (207) 287-2070. ■



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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*

Lead, Lead, and More Lead

Roger Crouse, Director



It seems that ever since the public health crisis in Flint, Michigan, emerged a year ago, legislative policy makers, regulators, the media, and the public have been hyper-focused on lead in drinking water. Unfortunately, despite all of the attention to this topic,

there seems to be an increased misunderstanding about the federal Lead and Copper Rule.

Most of the drinking water regulations published by US Environmental Protection Agency (EPA) include a maximum contaminant level (MCL) for the contaminant of concern. Generally, if the concentration of the contaminant exceeds the MCL, the water provider must take action to modify the water system (add treatment or find a different source of water) to ensure that all customers receive water below the MCL.

The Lead and Copper Rule, published in 1991 by the EPA, does not have an MCL; instead, it includes a lead action level (AL) of 15 parts per billion. Exceeding the AL generally requires the water system to install treatment to reduce the corrosiveness of the water – not to remove lead from the drinking water. This type of regulation is based upon a treatment technique (TT) rather than the MCL. A rule with a TT requires the monitoring of the treatment process to ensure it is working properly, with the understanding that if the treatment system is working properly, the desired outcomes (in this case, reduced leaching of lead) will occur.

The Lead and Copper Rule directs water systems to monitor for lead in a representative number of homes (for community systems) or water fixtures (for systems such as schools) – not to determine if there is a specific health risk to the customer, but rather to determine if the treatment system is working properly. If 90% of the lead samples are below the lead AL, then the treatment system is determined to be meeting the TT standards.

The Surface Water Treatment Rule works under the TT premise also, except the evaluation of the efficacy of the treatment process is actually done at the water treatment plant. A surface water treatment plant that meets the TT of the Surface Water Treatment Rule is effectively removing or inactivating Giardia, Cryptosporidium, and viruses (as determined by the monitoring of surrogate parameters – turbidity and disinfection), even though the system does not test for any of these pathogens in their treated water. (Imagine the problems that would ensue if you used customer sampling to determine if your surface water treatment plant was operating properly!)

There are a few challenges associated with the Lead and Copper Rule:

1. The major evaluation step for determining if the treatment system is operating correctly is done in the homes of customers, with limited control by water system personnel;
2. The contaminant of concern (in this instance, lead) is also the “surrogate” used to determine if the treatment system is working properly; and
3. The source of the lead is, in almost all cases, the homeowner’s plumbing.

Much of the confusion among the media, the public, and legislators stems from the persistent misunderstanding of why public water systems sample in homes. The public wants to know if their water is “safe”, so they look to their lead test to make this determination. At the same time, by giving the sample bottle to the homeowner, the water operator is trying to determine if the treatment system is working properly.

EPA is now working on revisions to the Lead and Copper Rule. However, there doesn’t seem to be any attempt to rectify this dichotomy between the public perception of the sample results and the actual purpose of the sampling. The journey towards a revised lead and copper rule should be very interesting.

The Drinking Water Program staff is here to help you with your questions on how to meet the requirements of the Lead and Copper Rule. Please give us a call.

Yours for safe drinking water, *Roger*



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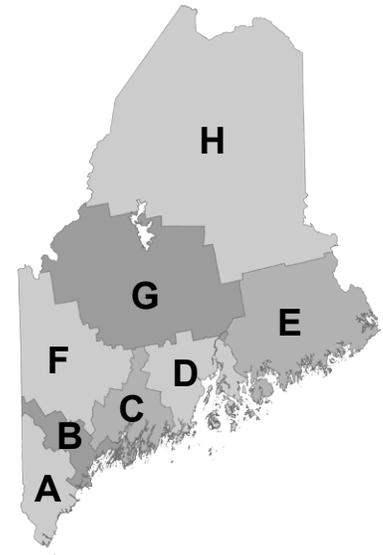
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Level 1 and 2 Assessments

Michael Plaziak

The Revised Total Coliform Rule, or RTRC, requires a small Public Water System (PWS) to conduct an assessment of the system whenever monitoring results indicate the system may be vulnerable to contamination. An assessment is a proactive approach to ensure the protection of public health and safety. There are two types of assessments depending on the severity of a sanitary defect in the system, Level 1 Assessment and Level 2 Assessment.

The **Level 1 Assessment** is a basic self-examination of source water, treatment, storage, distribution, and operating practices. It is required whenever two or more total coliform positive samples are collected from the system in the same month (routine or repeat) or when a PWS fails to collect a repeat sample following a single detection of total coliform in the system. The objective of the assessment is to identify and correct a sanitary defect in the system to prevent a PWS from developing conditions that lead to fecal contamination.

A Level 1 Assessment can be conducted by the PWS or, at the PWS request, a Maine Rural Water Association circuit rider, a consultant, or a DWP Public Water System

Inspector. A PWS that is required to have a licensed operator may have the Level 1 Assessment conducted by a licensed operator holding a grade comparable to or higher than the required grade for that PWS.

If a Level 1 Assessment has been triggered, the PWS has 30 days in which to complete the assessment, document any sanitary deficiencies, take corrective actions, and report the assessment to the Drinking Water Program.

Level 2 Assessments are triggered when the small PWS has to conduct two Level 1 Assessments within a rolling 12-month period, or if the PWS detects E. Coli in the system. This assessment is much more detailed than the Level 1, as conditions at the PWS are more likely to introduce contamination into the system. Level 2 Assessments must be performed by an assessor with a working knowledge of public water systems, such as a licensed operator holding both a Class II Treatment and Class I Distribution license or higher, DWP personnel, or a professional engineer with relevant experience.

Both Level 1 and Level 2 assessments should be performed by someone familiar with the entire system.

A good source of information on the assessment process can be found on the DWP website, or from the US EPA online at <http://tinyurl.com/epa-rtcr>. ■

2017 Grants for Capacity Development and Source Protection

Sara Flanagan

Applications for the Drinking Water Program's 2017 round of grants for Capacity Development, Wellhead Protection, and Source Water Protection will be available on the DWP website (www.medwp.com) by January 31, 2017.

Capacity Development Grants are available to public water systems for the preparation of documents aimed to assist them in the maintenance or enhancement of water quality by identifying possible improvements in technical, managerial and financial operations (capacity development). Grant amounts are 50% of the project costs, with a maximum reimbursement of \$10,000. A few grants may fund up to \$15,000 if the project clearly demonstrates a need for the higher grant amount.

Wellhead Protection Grants can be used for public water system projects aimed at preventing contamination of a

groundwater source, while **Source Water Protection Grants** fund projects aimed at preventing contamination of a surface water source. Grants amounts are up to \$5,000 with a few grants available up to \$10,000 if the project demonstrates a significant commitment to ongoing source water protection.

For questions about the Capacity Development, Wellhead Protection, or Source Water Protection Grants, contact Sara Flanagan at 287-5678 or by email at sara.m.flanagan@maine.gov. ■

We think of our land and water and human resources not as static and sterile possessions, but as life-giving assets to be directed by wise provisions for future days.

Franklin Roosevelt

Maine Water Company Announces Plans to Build a New Water Treatment Plant in Biddeford

Roger Crouse

On June 23, 2016 the Maine Water Company announced plans to construct a new water treatment plant on the Saco River in Biddeford, replacing the existing plant that was first constructed over 130 years ago.

The existing water treatment plant has served the communities of Saco, Biddeford, Old Orchard Beach, and Scarborough for over a century. Built in 1884, with the last major upgrade done in 1936, it continues to produce water that meets all water quality standards. Still, a significant upgrade is long overdue. Of particular concern is that the existing facility is in the flood plain of the Saco River; due to significant flooding the plant has been out of service at least three times in its history. These facts, along with an engineering assessment of the plant commissioned by Maine Water in 2014, are driving the decision that it is time to build a new plant.



Above: Artist's concept of Maine Water Company's proposed water treatment plant in Biddeford.

The new plant is expected to be on line in 2020, with a capacity of 20 million gallons a day (MGD), versus the current plant's 12 MGD capacity. It will be built well out of the flood plain, on a parcel of land recently purchased by Maine Water across South Street from the existing plant. The Saco River will continue to be the source; with over 2.2 billion gallons flowing by the plant every day, the Saco has been identified as one of two significant sources of water that could serve the growing population of Southern Maine – even beyond the area of operation currently in service. ■

2017 DWSRF Project Applications

Michael Abbott

Fifty-six Drinking Water State Revolving Fund (DWSRF) project applications, totaling over \$35 million, were submitted to the DWP for funding through 2017. As is typically the case, there are more projects out there than can be funded through the DWSRF in a single year. The available project funds total about \$19 million for 2017, which will allow us to provide financing assistance for about half of the total funding request. The following table presents a summary of project applications:

Project Type	Number of Projects	Amount Requested	% of Total Request
Treatment	5	\$5,575,409	16%
Source Replace/ Rehab.	1	\$367,000	1%
Pumping/ Instrumentation	8	\$5,105,900	14%
Tank Replace/ Rehab.	7	\$3,920,940	11%
Water Mains	30	\$18,458,958	52%
Meter Replacement	2	\$1,311,440	4%
Refinancing	3	\$1,027,023	3%
Totals	56	\$35,766,670	100%

A copy of the Draft 2017 Primary List and Backup List is now available on the Drinking Water Program website at <http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/pws/srf.shtml>.

Continued on Page 6...

Follow Us on Facebook

The Maine CDC Drinking Water Program is now on Facebook, bringing important, timely information to public water systems, licensed water operators, and the public. We will be posting regular updates on the DWP's work, as well as reminders for sampling, submitting monthly and annual reports, training opportunities and operator licensing. We welcome your input; let us know if there are topics you would like to see included. ■

Water Operator News

Julia Kimball

The renewal date for approximately half of Maine's water operators' licenses was December 31, 2016.

Although operators who have not yet renewed are currently in a grace period, it is imperative that they take the time to renew their licenses as soon as possible. Any system whose operator does not have an active license will receive a violation. Online renewal is now available; debit and credit cards are accepted.

Remember: the longer you delay your license renewal, the less time you will have in the next cycle to accrue the necessary training contact hours (TCH). Check the Water Operator's Board page of the Drinking Water Program website (www.medwp.com) to see how many TCH you have on record. If your accumulated training hours fall short of the required total, please check the Maine Water Operator Training Calendar for upcoming training. There are also online distance training opportunities.

Please contact Julia Kimball, Board Clerk, with any questions: phone (207) 287-5699, or email julia.kimball@maine.gov. ■

DWSRF *Continued from Page 5...*

We estimate that the Federal DWSRF Grant will be similar to 2016, providing approximately \$8.3 million in total program funding. The State Match to access the 2017 DWSRF federal funds will be provided through revenues from the Wholesale Liquor Contract, projected at \$1.7 million (20 percent of the federal grant), which should become available on June 30, 2017. Additional funding for 2017 Capital Improvement projects will come from past repayments and interests on DWSRF loans, along with carryovers from 2016 funding.

With continued emphasis by EPA for all states to reduce levels of Un-Liquidated Obligations (ULOs), the pressure to keep projects moving forward to completion will not diminish. It should be noted that interim financing will not be extended to a point that would allow ULOs to exist beyond two years from the original funding year.

For questions or more information about the 2017 DWSRF contact Mike Abbott: phone (207) 287-6196 or email michael.abbott@maine.gov. ■

Compliance Dates to Remember

Teresa Trott

The following are general deadlines. System specific requirements will be mailed to public water systems and are available at www.medwp.com. (See *Preliminary Drinking Water Testing Requirements Now Available Online* on page 1.)

- **Monthly Operating Reports** are due by the 10th of the following month.
- **Take bacteria samples early in the monitoring period.** If an assessment is triggered, it must be completed and returned within 30 days. Corrective actions identified during the assessment are to be completed as agreed upon with your Public Water System Inspector, generally in the same 30 days.
- Systems that collect **annual or triennial samples for Lead and Copper and/or Disinfection By-Products (DBP)** must collect between June 1 and September 30.

- **Consumer Confidence Reports (CCRs)** are required to be distributed to consumers with a copy sent to DWP by July 1.

Signed certification that CCRs have been distributed must be submitted to the DWP by October 1.

- **Synthetic Organic Chemical (SOC) Waiver Applications** must be submitted by July 31.
- Filtered surface water systems that serve fewer than 10,000 persons must **monitor the source water for E.coli** beginning October 1. Monitoring should continue at least once every two weeks for 12 months.
- All **annual sampling** must be completed by December 31, with results submitted to the DWP by the 10th of the following month.

For more information, contact your Public Water System Inspector. ■



Lead in Drinking Water *Continued from Page 1...*

The Drinking Water Program will cover the cost of lead analysis for up to 10 water samples from each school. The sampling kits will include prepaid postage labels for shipping the kits to the laboratory for analysis. None of the testing costs for the first ten samples will be passed onto schools. However, schools will need to pay for any additional testing required. In some cases, additional sampling will be needed and schools should be prepared for this (extra sampling kits can be ordered at a cost of \$20 per sample kit).

Water utilities and schools can take advantage of this offer by contacting the State’s Health and Environmental Testing Laboratory at (207) 287-1716.

Unless specifically requested, sample results will only be sent to schools. These samples will not be counted as compliance samples for the federal Lead and Copper Rule.

Additional pages of the Drinking Water Program’s website have been developed to offer resources and to promote awareness of the issue of lead in drinking water. For more information visit the Drinking Water Program website (www.medwp.com) and click on *Lead in Drinking Water*, or call us at (207) 287-2070. ■

Emergency Messaging Using the Maine Health Alert Network

Sara Flanagan

The Drinking Water Program (DWP) and the Maine Water/Wastewater Agency Response Network (MEWARN) will be utilizing the Maine Health Alert Network (HAN) to send emergency messages to public water systems and MEWARN members. The HAN is a secure, web-based communication system that is used by the US CDC. The HAN allows blast messages to be sent via email, phone, fax, and text. There is no need to sign up to receive emergency messages; the DWP and MEWARN have already added water system emergency contact information to the HAN.

The DWP will send out test messages periodically to ensure the system is working properly. If you are a member of MEWARN in need of emergency assistance from other network members, call (207) 737-4092 and a HAN message will be sent out to member utilities. ■

A Refresher on Record Retention

Record retention is an important function of all public water systems. Not only will consumers gain a historical perspective, but slight changes in water quality can alert operators to issues before significant problems arise.

According to the Maine Rules for Drinking Water (10-144CMR, Chapter 231, Section 5): *Any owner or operator of a system shall retain specific records on his or her premises, or at a convenient location near the premises. Such records (indicated below) shall be made available to the public for their review.*

Many of the timeframes noted below are Federal requirements of the Safe Drinking Water Act.

Record	Retention Time
Bacteria test results, triggered assessments, and corrective actions	5 years from completion
Chemical test results	10 years
Violations	3 years
Sanitary surveys	10 years
Variations or exemption granted	5 years after expiration
Sample Monitoring plans	Should be retained for the same duration that the applicable test results are kept.
Lead and Copper test results	12 years
Consumer Confidence Reports	3 years
Groundwater Rule – corrective actions	10 years
Daily operational records (Monthly Operating Reports are a summary of these.)	7-10 years for required disinfection results
Disinfection Profiling and Benchmarking	Indefinitely
Results of source water monitoring for LT2ESWTR	3 years

During sanitary surveys your PWS Inspector may ask to see any or all of these records. They need to be made available to our staff or the public within a reasonable period of time. When in doubt, call the Drinking Water Program at (207) 287-2070. ■

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