Public Law 2019, Ch. 158 (LD 153): An Act to Strengthen Testing for Lead in School Drinking Water

2020 Annual Report

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Submitted by the:

Maine Department of Health and Human Services
Maine Center for Disease Control and Prevention
Drinking Water Program

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List of Acronyms

(See Glossary for Definitions)

ACRONYM	TERM
DWP	Drinking Water Program
LCR	Lead Copper Rule
Pb	Symbol for lead on the periodic table
RFP	Request for Proposals
SDWA	Safe Drinking Water Act
SWDF	State Subsurface Wastewater Disposal Fee Fund
EPA	US Environmental Protection Agency
WIIN	Water Infrastructure Improvements for the Nation Act

Executive Summary

In May 2019, the Maine Legislature passed LD153 *An Act To Strengthen Testing for Lead in School Drinking Water*. The law requires all public and private K-12 schools in Maine to test all of the schools' water fixtures used for drinking or culinary purposes. The Drinking Water Program (DWP) has provisionally adopted a major substantive rule to implement the law *(Lead Testing In School Drinking Water Rule, 10-144 CMR Ch 234).* This rule is currently awaiting review by the Maine Legislature, to ensure final adoption.

The DWP developed a program to assist schools in meeting their testing requirements under PL 2019, Ch. 158. Because LD 153 did not allocate additional funding to implement the testing and barred the transfer of sampling costs to schools, outside funding was needed. The DWP obtained federal grants through the Water Infrastructure Improvements for the Nation (WIIN) Act and obtained funds through the State Subsurface Wastewater Disposal Fee Fund (SWDF). This funding will cover the cost of sample bottles, sample bottle shipment, lead (Pb) water analysis, outreach, training, and education.

Due to COVID-19 and reduced school capacity, lead water testing has been temporarily delayed until at least Spring 2021. School staff are focused on keeping schools open during the pandemic, and due to low water turnover in school buildings, any lead samples collected would not be representative of normal use. School staff have expressed through member organizations such as the Maine School Management Association (MSMA) that they do not have the resources at this time to complete their mandated testing requirement.

Background

In May 2019, the Maine Legislature passed LD 153 *An Act To Strengthen Testing for Lead in School Drinking Water*. The law (PL 2019, Ch. 158) requires all public and private K-12 schools in Maine to test all their water fixtures used for drinking or culinary purposes. Prior to the mandate, only some schools meeting a certain set of conditions would have been required to test for lead (Pb) in their drinking water under federal regulation. Schools that met conditions for required lead testing would only have included those that provided their own drinking water instead of buying it from a water utility.

In 1991, the US Environmental Protection Agency (EPA) published the Lead and Copper Rule (LCR) under the Safe Drinking Water Act (SDWA). The purpose was to minimize the corrosive potential of water and thereby reduce the amount of dissolved and particulate lead present in water. The LCR characterizes the corrosive potential of water, but its purpose is not to identify plumbing that may contain lead. As a result, not all fixtures within a school building would have been tested under the LCR.

When lead is present in drinking water, it usually is a result of lead leaching from pipes and plumbing fixtures inside a building or facility, and not from the water source itself. Lead can be found in brass fixtures and fittings, or in solder used on copper plumbing. Before 1987, solder that contained lead was commonly used to join copper pipes, and as recently as 2014, plumbing fixtures could contain up to 8% lead. In most cases, the issue is not system-wide, but specific to the fixture identified.

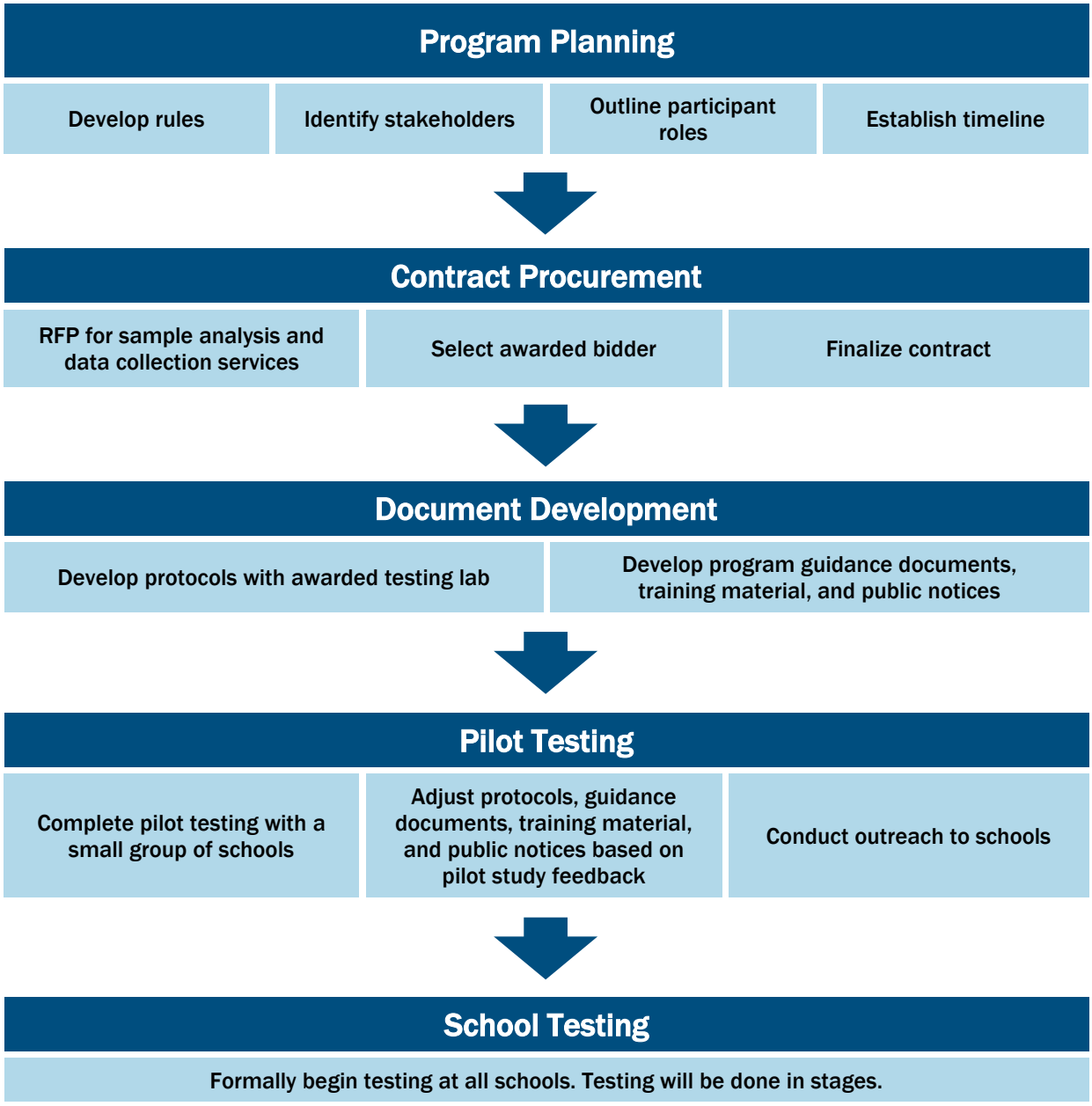
Although the presence of lead in drinking water is a concern for everyone, younger children are particularly vulnerable, because they absorb more lead, compared to older children and adults. A young child's brain is still developing and is more easily harmed by lead. Effects on young children can include learning disabilities and behavioral problems. For older children and adults, ongoing lead exposure can damage the brain, nervous system, kidneys, and cause high blood pressure.

Lead is rarely from the water supply itself. Rather, there are three primary sources of lead in water:

1. Service lines (i.e. the pipe that runs from the building to the street or to the well)
2. Internal plumbing of a building (i.e. pipes, fittings, etc.)
3. Fixtures (i.e. faucets, drinking water fountains, etc.)

Program Overview

Testing costs for PL 2019, Ch. 158 will be funded using grants under the WIIN Act and from funds from the SWDF.



Program Funding & Costs

Testing costs for PL 2019, Ch. 158 will be funded using grants under the WIIN Act and from funds from the SWDF.

FUNDING SOURCE	AMOUNT
USEPA WIIN Grant	$406,000
SWDF	$40,000 Annually

The WIIN grant guidelines stipulate that funds can only be used to perform testing, outreach, training, and provide community education. Funds cannot be used for abatement/mitigation or to reimburse schools for routine lead sampling, as required under the Safe Drinking Water Act (SDWA). In addition, grant funds can only be used for schools that are:

(1) A Local Education Agency, as defined in the Elementary and Secondary Education Act of 1965 (20 U.S.C. §7801);
(2) A Tribal Education Agency, as defined in the National Environmental Education Act (20 U.S.C. §5502);

Because grant funds cannot be used for testing at private schools, funds under the State SWDF will be used to cover sampling costs for private schools.

Funding will be used to cover the cost of sample bottles, sample bottle shipment, lead water analysis, outreach, training, and education. An independent laboratory has been awarded a contract for lead water analysis and data collection services at a cost of $21 per sample. Currently, it is estimated that 9,200 samples from over 700 schools will be collected as part of this program.

A testing protocol has been established to follow the Environmental Protection Agency's 3Ts guidance for school testing, which is a requirement of the WIIN Act grant.

Program Status

The DWP is working with outside school and utility organizations to determine whether school capacity is sufficient to engage in lead water sampling. Response to the COVID-19 pandemic has strained school resources, especially facilities staff, who would most likely oversee sampling within each school.

COVID-19 has also impacted school water usage, which prevents water testing under normal-use conditions. Many schools have shut off access to their drinking water fixtures, because lower water turnover can reduce water quality in their buildings. Lead testing under these conditions would not provide an accurate gauge of the water quality within a school building and, thus, would not represent what is being consumed by its occupants.

As a result of the challenges created by COVID-19, the DWP has temporarily delayed testing until school capacity is able to meet the demands of the program. As of writing this report, the tentative date for pilot testing is Spring 2021.

PL 2019, Ch. 158 requires the State of Maine Center for Disease Control and Prevention Drinking Water Program to submit an annual report to the joint standing committee of the Legislature having jurisdiction over health and human services. Reporting requirements include matters on the number of schools tested for lead, whether the department issued specific guidance to any schools to reduce exposure to lead, the number of schools that engaged in abatement or mitigation and the methods of abatement or mitigation used.

REPORTING ITEM	COUNT
Number of Schools Tested for Lead in 2020	0
Number of Schools Issued Lead Guidance for Abatement or Mitigation in 2020	0
Number of Schools that Engaged in Abatement or Mitigation in 2020	0
Methods of Abatement or Mitigation Used in 2020	0

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Glossary

Building: Any structure, facility, addition or wing of a school that may be occupied or used by children, students, and faculty or staff.

Corrosive Potential: The potential of water to dissolve plumbing material, which can lead to elevated Lead levels.

Environmental Protection Agency 3T's: Training, testing, and taking action. It provides tools for schools, childcare facilities, states, and water systems to implement a voluntary program for testing of lead in drinking water.

First-Draw Sample: A lead water sample that is collected from an outlet where the water has sat motionless in the school's plumbing for a minimum of 8 hours. It is recommended that water not sit motionless for more than 18 hours.

Fixture: Any faucet, spigot, or outlet that dispenses water, including drinking water fountains, bottle-fill stations, kitchen kettles, or any other fixture that dispenses water for the purpose of drinking or culinary purposes.

Lead (Pb): A naturally occurring metal found in the earth's crust. When present in plumbing material, it can elevate lead levels in the plumbed water. Lead in water can either be dissolved or a particulate.

Lead Copper Rule (LCR): The rule that regulates lead and copper in drinking water under the Safe Drinking Water Act and Maine's Water for Human Consumption Act (22 MRS Ch. 601).

Normal-Use Conditions: The term to describe how students, school staff, and/or faculty normally consume water from a fixture.

Public Water System (PWS): An entity that provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people per day for at least 60 days a year. A public water system may be publicly or privately owned. Public water systems include water districts, apartment buildings, businesses, or schools with their own well or surface water source, as well as restaurants, lodging facilities, campgrounds, and mobile home parks with their own wells or surface water sources.

Safe Drinking Water Act (SDWA): A federal law that was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply.

School: A *public* school as defined in 20-A MRS §1 (24) or a *private* school as defined in 20-A MRS §1 (22).

Glossary (continued)

State Subsurface Wastewater Disposal Fee Fund: A fund that is generated through fees collected by the Maine Subsurface Wastewater Unit, within the Maine CDC's Division of Environmental and Community Health.

Water Infrastructure Improvements for the Nation (WIIN) Act: A federal law that authorizes the Lead Testing in School and Child Care Program Drinking Water Grant, which creates a voluntary program to assist with testing for lead in drinking water at schools and childcare programs throughout the United States. In the program's inaugural launch in 2019, the grant included $43.7 million in funding.