

Guidance on Testing for Lead in Drinking Water and Recommendation on Flushing Outlets in Schools during the 2020-2021 Academic School Year

Background

Public, charter, and nonpublic schools serving children in Pre-Kindergarten to grade 12 that receive drinking water from a public utility are required to periodically test for lead in drinking water under Maryland's law, "Testing for Lead in Drinking Water - Public and Nonpublic Schools" ([House Bill 270 \(2017\)](#)). Testing, in accordance with Maryland's [regulations](#), is coordinated by the Maryland Department of the Environment (MDE) in consultation with the Maryland State Department of Education (MSDE). For more information on Maryland's testing requirements, please visit MDE's "[Testing for Lead in Drinking Water - Public and Nonpublic Schools](#)" web page.

This document will provide guidance on how to conduct monitoring for lead during the current (2020-2021) academic school year. A flowchart accompanying this guidance may be found [here](#).

Scheduling Criteria for Testing during the 2020-2021 Academic School Year

As stipulated in the regulations, schools are scheduled to conduct lead testing of their drinking water on a 3-year frequency*. Some schools may have applied for a waiver or waivers† for their school building(s). If granted, a waiver or waivers would exempt school building(s) from the requirements under the regulations until the school building(s) no longer meet(s) the conditions of the waiver(s). Please note that waivers are different from deferrals, which allow the initial testing to be deferred for a defined period, either 12 months or 3 years.

For schools that have applied for waivers (Type 1 - Prior Testing, Type 2 - Bottle Water, and/or Type 3 - Lead-Free Building) and have not received a final decision in writing from MDE, your school might be eligible to waive testing. Please contact MDE's Water Supply Program by email at reporting.leadschoolwater@maryland.gov and include the word 'Waiver' in the subject line of your email.

Unless your school has been granted a waiver or waivers for all of its school buildings by MDE, in consultation with MSDE, your school is scheduled for a complete round of standard testing during the 2020-2021 school year based on the **scheduling criteria** below:

- Your school has building(s) originally constructed before 1988, **and**...
 - Your school has not performed a complete round of standard lead testing under Maryland's law and regulations.

or

- The lowest grade your school serves is between Pre-Kindergarten to grade 5, **and**...
 - Your school has not performed a complete round of standard lead testing under Maryland's law and regulations.

or

- Your school's most recent complete round of standard lead testing under Maryland's law and regulations occurred during the 2017-2018 academic school year and the samples were collected **on or before** January 1, 2018.

or

- The lowest grade your school serves is between grades 6 to 12 **and** the oldest school building at your school was constructed in 1988 or later, **and**...
 - Your school has not performed a complete round of standard lead testing under Maryland's law and regulations, **and**
 - Your school has not been granted a 3-year testing deferral by MDE, in consultation with MSDE.

or

- Your school has building(s) that was/were put into service and occupied after the effective date of the regulations (i.e., April 9, 2018) and before the end of the 2019-2020 school year, **and**...
 - Serves students in any grades between Pre-Kindergarten and grade 12, **and**

*A 3-year frequency is interpreted as not to exceed 3 years and 6 months.

†Waivers are granted by MDE, in consultation with MSDE, on a building-by-building basis and any school building that is granted a waiver is indefinitely exempt from the requirements under the regulation until it no longer meets the conditions of the waiver. More information on waivers can be found in [MDE Training Presentation](#) on pages 13-15.

- Has not performed lead testing under Maryland’s law and regulations within 1 year of occupancy.

or

- Your school has building(s) that has/have substantive plumbing upgrades or renovations before the end of the 2019-2020 school year, **and**...
 - Serves students in any grades between Pre-Kindergarten and grade 12, **and**
 - Has not performed lead testing under Maryland’s law and regulations within 1 year of the upgrades or renovations.

IMPORTANT: If your school’s most recent complete round of standard lead testing under Maryland’s law and regulations occurred during the 2017-2018 academic school year and the samples were collected **between** January 2, 2018, and July 1, 2018, your school is scheduled to perform the next round of standard lead testing within 3 years and 6 months (i.e., 42 months) of the most recent complete round of standard testing. As required under the regulations, the testing must be conducted during the regular school year and while school is in session for all the drinking water outlets in all occupied school buildings. To determine the latest date that the sample(s) must be collected for the next round of standard lead testing, it is recommended using the earliest date on which the sample(s) was/were collected during the 2017-2018 academic school year.

For example, if the earliest date on which the sample(s) was/were collected during the 2017-2018 academic school year occurred on March 15, 2018, then the latest date on which the next round of standard lead testing should occur is September 15, 2021, which is 3 years and 6 months (i.e., 42 months) from March 15, 2018; however, if the school will not be in session and/or is not occupied before September 15, 2021, the school must conduct the complete round of standard testing with all samples collected by the end of current testing period (i.e., July 1, 2021) or by the end of the 2020-2021 school year, whichever occurs sooner. Note that if the school is not currently occupied and will not be occupied by the time that the 3-year-6-month timeline has been exceeded, please contact the Water Supply Program’s Lead in Drinking Water Division at 410-537-3729 or via email at reporting.leadschoolwater@maryland.gov.

If your school is scheduled to test during the 2020-2021 school year as indicated above, please refer to ‘Testing Requirements for 2020-2021 Academic School Year’ section below for additional information regarding testing requirements.

Testing Requirements for the 2020-2021 Academic School Year

Schools that plan to test during the 2020-2021 school year should conduct the complete round of standard testing with all samples collected by the end of the testing period (i.e., July 1, 2021) or by the end of the 2020-2021 school year, whichever occurs sooner. Due to special circumstances that may have arisen as a result of the COVID-19 pandemic, affecting schools’ normal operations during the 2020-2021 school year, schools may need to perform additional steps/actions before conducting the lead testing to minimize potentially inaccurate lead results.

As stipulated in the regulations, the lead testing shall be conducted on all drinking water outlets that are used for drinking and/or food preparation (i.e., consumption) in all occupied[‡] school buildings during the regular school year and while school is in session. Any non-consumption outlets (i.e., not used for drinking and/or food preparation) should have [signage](#) clearly posted indicating that the outlets are not used for drinking or are used for hand washing only. Unless signed, non-consumption outlets must also be tested. The regulations also require that water samples be collected after the water has remained stagnant in pipes for at least 8 hours but not more than 18 hours. The stagnation period may exceed 18 hours only for outlets that are used infrequently during a school’s normal operation. These requirements are designed to ensure typical use patterns of the water in the occupied school building(s) when the testing is conducted, which is a condition necessary to satisfy the testing protocols for accurately identifying outlets that may contribute to elevated levels of lead.

However, due to special circumstances that may have arisen as a result of the COVID-19 pandemic, some schools have experienced a reduced (or no) occupancy of school building(s) by students and/or a restriction imposed on students’ access to normally accessible drinking water outlets, for instance. These temporary changes may impact

[‡]Samples collected from unoccupied buildings cannot satisfy the requirements of the regulations.

the normal water use pattern and flow of water throughout the school building(s) necessary to accurately identify outlets that may contribute to elevated levels of lead.

Schools operating with a lower-than-normal occupancy (e.g., schools doing hybrid schedules) should take actions to simulate normal water use patterns as follows: Prior to the day of sample collection, schools should also flush all outlets with low usage, or that are not already being used daily or flushed daily. The flushing on each of these outlets should be for at least 30 seconds daily for a minimum of two (2) weeks (excluding weekends), when possible. This specific flushing recommendation is believed to be the best course of action to simulate a water use pattern that is representative of the water use pattern during normal school sessions.

Schools operating at normal capacity before the end of this testing period (i.e., July 1, 2021) or before the end of this school year, whichever occurs sooner, should conduct the standard lead testing without any additional steps as soon as these conditions are met.

In addition, schools should conduct the standard lead testing on all drinking water outlets and all non-consumption outlets without signage that are **accessible** to students and/or staff, regardless of the level occupancy. Accessible outlets are those that are without any physical and/or visible barriers, restrictions, and/or alterations. These barriers, restrictions, and/or alterations may include, but not limited to, taping off the outlets, out-of-service signage posted on the outlets, removal of outlet parts, and/or closed valves.

If, at any point during the current testing period, your school has any previously inaccessible drinking water outlets that have become accessible in any occupied school buildings, your school must conduct testing on these outlets with samples collected by the end of the current testing period (i.e., July 1, 2021) or by the end of the 2020-2021 school year, whichever occurs sooner. Prior to collecting samples, schools should also flush these outlets for at least 30 seconds daily for 2 weeks (excluding weekends), when possible.

Please note that any drinking water outlets with lead results of greater than 5 parts per billion (ppb) may be subject to required remediation by August 1, 2022, under legislation ([House Bill 636](#)) proposed in 2021, if laboratory analysis of these samples was conducted by June 1, 2021.

If your school anticipates any practical difficulties conducting the standard lead testing during the 2020-2021 school year, please contact the Water Supply Program’s Lead in Drinking Water Division at 410-537-3729 or via email at reporting.leadschoolwater@maryland.gov.

For Schools Providing Bottled Water

If your school is providing purchased bottled water either in single-serving bottles for individuals or large bottles for dispensers, the school should ensure that the water meets [the National Primary Drinking Water Regulations \(NPDWR\)](#) for all regulated contaminants. A certificate of analysis may be obtained from the bottled water supplier or manufacturer to verify that the water meets the primary standards.

Flushing Recommendation for All Schools

Extended periods of water stagnation can cause potential water quality issues such as bacterial growth, and leaching of metals, including lead and copper, from the plumbing. As a preventive measure, MDE’s Water Supply Program strongly recommends that schools flush their water distribution systems prior to reopening and periodically during times of reduced water usage. The flushing will help to remove the stagnant water which may contain elevated levels of bacteria, metals, disinfection by-products, and other contaminants.

Resources on flushing can be found on the accompanying document titled “[Preventing Water Quality Problems - Reopening Buildings: Links to Guidance](#)” and on MDE’s [web page](#). Additionally, the EPA’s school flushing instructions can be found under ‘Exhibit 1: 3Ts Flushing Instructions’ on page 3 of ‘[3Ts Flushing Best Practices](#).’

For schools not operating under normal operations, flushing of outlets in any school buildings that are currently occupied (i.e., by any faculty/staff, student, etc.) is recommended as follows:

- In the areas of school building(s) with low water usage (e.g., not occupied by students), the school should communicate to all faculty/staff that prior to using a consumption outlet, faculty/staff members should flush the outlet for a minimum of 30 seconds before consuming the water.

- The school should perform daily flushing on weekdays for any outlets used for consumption to which students have access **and** are not being used daily. Daily flushing may occur at any time during the day convenient to the school.

These actions may help prevent water quality problems that potentially occur due to an inactive plumbing system at a school during periods of low or no occupancy.