

# Testing for Lead in Drinking Water - Public and Nonpublic Schools

## **TESTING REQUIREMENTS AND RELATED DOCUMENTS**

Under Maryland law\*, all public, charter, and nonpublic schools, serving students in Pre-Kindergarten through grade 12, that receive drinking water from a public utility are required to periodically test all their drinking water outlets for the presence of lead in the water on a State-established three-year cycle, unless a waiver† from future testing has been granted. The testing is coordinated by the Maryland Department of the Environment (MDE) in consultation with the Maryland State Department of Education (MSDE). To determine whether your school is subject to requirements under Maryland law\*, please refer to MDE's [flowchart](#).

The law does NOT apply to schools that have their own individual wells (i.e., non-transient non-community water systems) and are currently testing for lead in the drinking water under the federal Lead and Copper Rule (LCR).

Prior to conducting the lead testing, it is recommended that schools familiarize themselves with the requirements by reviewing MDE's [training presentation](#) and [flowchart](#), determine the locations of outlets to be tested under the regulations, and contact one or more [State-certified laboratories](#) to get information about pricing, which can vary based on the number of samples. Lead samples do not need to be collected by a State-certified water sampler; therefore, schools can request the bottles from a laboratory and collect the samples themselves, which could potentially reduce the cost of testing. Alternatively, schools may choose to obtain the services of the laboratory or other third parties to collect the samples.

The lead testing must be conducted in all occupied school buildings during the regular school year and while school is in session. The samples must be collected in a manner that complies with the [regulations](#) (see [Lead Sample Collection Instructions](#)) and analyzed by one of [the laboratories certified by the State](#) for lead analysis in drinking water. In addition, the sample results must be reported to MDE, MSDE, Maryland Department of Health (MDH), and the appropriate local health department within 30 days of samples being analyzed by the laboratory. This may be accomplished by submitting required reporting documents to [testresults.leadschoolwater@maryland.gov](mailto:testresults.leadschoolwater@maryland.gov).

Schools operating with a lower-than-normal occupancy (e.g., schools doing hybrid schedules) should refer to MDE's [Guidance](#) for information regarding recommended additional steps to perform before samples are collected.

For up-to-date important information, documents, and forms, please visit [MDE's "Testing for Lead in Drinking Water - Public and Nonpublic Schools" web page](#).

### **Determining Outlets to be Tested under the Regulations**

All outlets directly connected to piped water and used for drinking water and food/drink preparation need to be tested for lead. Drinking water outlets include: drinking water fountains (bubbler or cooler styles), kitchen sinks, classroom combination sinks, teachers' lounge sinks, nurse's office/health room sinks, home economics room sinks, classroom sinks in special education classrooms, ice machines, hot drink machines, and any other outlet used for consumption.

Outlets not used for drinking water or food/drink preparation (i.e., non-consumption outlets) do not need to be tested for lead; however, the outlets must be tested for lead if they do not have [signage](#) clearly posted indicating that the outlets are not used for drinking or are used for hand washing only. The exception to signage are eyewash stations and shower heads. Non-consumption outlets include: utility sinks, mop sinks, outdoor hose bibs (if used for consumption, these must be tested), bathroom sinks (if used for consumption, these must be tested), and any other outlet not used for consumption.

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\*[Testing for Lead in Drinking Water - Public and Nonpublic Schools \(Chapter 386 \(House Bill 270\), Acts of 2017\)](#) and [School Buildings - Drinking Water Outlets - Elevated Level of Lead \(Safe School Drinking Water Act\) \(Chapter 237 \(House Bill 636\), Acts of 2021\)](#)

†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's [Training Presentation](#) on pages 13-15.

In addition, the testing should be conducted on the outlets that are accessible to students and/or staff. 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.

Outlets that are not accessible to students and/or staff or outlets that are out-of-service do not need to be tested; however, when these outlets become accessible to students and/or staff or are returned to service, your school must conduct testing on these outlets by the end of the school year or by the end of the testing period during which the outlets become accessible or are returned to service. For instance, if these outlets become accessible during the current 2020-2021 school year, your school must conduct testing on these outlets with samples collected by the end of the school year or by the end of the current testing period (i.e., July 1, 2021), 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.

### **Special Consideration for Critical Outlets**

A critical outlet is an outlet that is essential to the daily functions of the school, such as a kitchen sink faucet that is used for food/drink preparation. A critical outlet must be accessible only to school staff. It is recommended that all critical outlets have a flush sample collected in addition to a first-draw sample on the day of sample collection. Collecting the flushed sample on the same day will allow the laboratory to analyze the flushed sample immediately if the first-draw sample shows an elevated level of lead, and can minimize the length of time the outlet is out of service if the flushed sample does not show an elevated level of lead. However, **all first-draw samples** must be collected in the building **before any flushed sample** is collected; otherwise, all the first-draw samples collected after a flushed sample is collected, anywhere in the building, will be rendered invalid.

If a critical outlet is found to have an elevated level of lead in the first-draw sample, but not in the flush sample, schools may implement a temporary mitigation plan of flushing the outlet daily and prior to each use to reduce lead levels until a permanent solution (e.g., replacing the outlet) is put into effect. Signs must be posted at the outlet clearly stating that flushing for 30 seconds is required prior to each use. Otherwise, schools must close access to the outlet within 24 hours of receiving the laboratory report.

### **Training Materials**

1. [MDE's training presentation on this initiative](#)
2. [Guidance for the lead testing requirements](#) (guidelines for flushing of outlets and special requirements during the 2020-2021 school year, including schools operating with a lower-than-normal occupancy)
3. [Flowchart providing an overview of the testing requirements](#)
4. [A list of labs certified by the State for conducting lead analysis in drinking water](#)
5. [Lead Sample Collection Instructions](#)
6. [Example Signage for Non-Consumption Outlets and Critical Outlets](#)

### **Reporting Documents**

Submit the following forms to [testresults.leadsschoolwater@maryland.gov](mailto:testresults.leadsschoolwater@maryland.gov). When emailing these forms, please include name of school in the email subject line and name the forms using the following format: Name of form\_name of school

1. [Laboratory Results Reporting Form \(EDD\)](#): This form may be completed by your school or the laboratory and must include all samples that were analyzed by the laboratory. This form must be submitted within 30 days after the samples were analyzed by the laboratory.
2. [Lead Water Sample Collection form](#): Page 1 of this form must be completed and signed by the person(s) who collected the samples. If multiple people are collecting samples for the same school, each collector

must fill out a separate form. Page 2 of this form is **optional** as long as the EDD, Laboratory Chain of Custody (COC) form, or similar form contains this information including the date and time of the water last used at the outlets prior to sample collection. This form must be submitted within 30 days after the samples were analyzed by the laboratory.

3. **Official Laboratory Analysis Report signed by the Laboratory Director** ([see example here](#)): The laboratory report must be submitted within 30 days after the samples were analyzed by the laboratory. The laboratory report must also include the Chain of Custody (COC) form. It is recommended that the COC includes the date and time of the water last used at the outlets prior to sample collection.
4. **Floor Plan** ([see example here](#)): This is a floor plan of your school building(s) with all outlets tested uniquely identified with Outlet IDs. These unique Outlet IDs can be as simple as a combination of your school's initials and numbers (e.g., if a school initial is XYZ, then Outlet IDs can be XYZ-001, XYZ-002, XYZ-003,..., etc.). The unique Outlet IDs should match "Fixture Code" in column D of the Laboratory Results Reporting Form (EDD). If your school had previously conducted a complete round of testing under the regulations, please make sure that unique Outlet IDs match those used in the most recent previous round of testing. Please submit the floor plan no later than 30 days after the samples were analyzed by the laboratory.
5. **Lead Water Sample Summary Certification Form**: This form must be completed after the complete round of standard testing has been conducted and signed by the designated responsible person at your school who oversees the implementation of the sampling. The form must be submitted no later than 30 days after the samples were analyzed by the laboratory or 30 days after the end of the school calendar year in which the samples were collected.

Please submit these reporting documents to [testresults.leadschoolwater@maryland.gov](mailto:testresults.leadschoolwater@maryland.gov).

### **Steps to Take if any Sample Results Exceeds the Lead Action Level**

If there are any outlets with first-draw test results exceeding the lead Action Level (AL)<sup>‡</sup>, your school will need perform the following actions:

1. Close access to the outlets that are used for consumption with elevated lead levels within 24 hours of receiving the laboratory report. For non-consumption outlets, within 24 hours of receiving the laboratory report, [signage](#) must be posted; otherwise, schools must close access to these outlets within 24 hours of receiving the laboratory report. *Note that signage is only to be used for outlets that are not used for drinking and/or food/drink preparation;*
  - As required in [COMAR 26.16.07.08\(D\)](#), schools must continuously maintain an adequate supply of water to school occupants.
  - Requirements for a minimum number of water fountains and lavatory/bathroom sinks in educational facilities are governed by the State Plumbing Code ([COMAR 09.20.01](#)) which incorporates the International Plumbing Codes ([IPC, Chapter 4, Table 403.1, Classification: Educational](#)) by reference. Local plumbing codes may be more stringent than the State code and may change from time to time; please contact a representative from your [local jurisdiction](#) to obtain current information on the local adoption of a plumbing code. For additional information see [Maryland's Department of Labor's "Plumbing, Electrical and Mechanical Codes - Building Code Administration" web page](#).
2. Collect flush<sup>§</sup> samples from the outlets that are used for consumption and the non-consumption outlets that do not have signage posted. The flush samples must be collected within 5 school days of receiving the

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<sup>‡</sup>The lead Action Level under Maryland law (Chapter 386 (House Bill 270), Acts of 2017) of 20 ppb (i.e., greater than or equal to 20.5 ppb) is effective through May 31, 2021. Effective June 1, 2021, the lead Action Level is 5 ppb (i.e., greater than or equal to 5.5 ppb) under Maryland law (Chapter 237 (House Bill 636), Acts of 2021).

<sup>§</sup>Flush samples are a better representation of normal water use condition as compared to the first-draw samples, which usually represent the worst-case condition. Flush samples can also be helpful to the schools when selecting appropriate remediation actions.

laboratory report. *It is recommended that the flush samples be collected before closing access to the outlets, when possible;*

3. Notify parents/guardians of currently-enrolled students and current faculty/staff within 10 school days of receiving the laboratory report, and post notification to the school's website within 30 school days receiving the laboratory report using the MDE's [template](#). *It is highly recommended that the notification remains on the school's website for a minimum of 30 days or until remediation has been completed;*
4. Submit a [Certification of Elevated Lead Water Sample Result\(s\) Notice](#) within 30 days of sending the notification to parents/guardians of currently-enrolled students and current faculty/staff at your school.
5. Submit a [Remedial Plan of Action Form](#) within 30 school days of receiving the laboratory report;
6. Take actions to remediate the outlets that are used for consumption and the non-consumption outlets that do not have signage posted;

**Important requirement for schools that have samples analyzed on or before June 1, 2021:**

*Schools must complete remediation by August 1, 2022, for outlets with first-draw lead sample results of greater than 5 ppb (i.e., greater than or equal to 5.5 ppb) but less than 20 ppb.*

7. Collect follow-up first-draw samples to assess if the remedial actions performed reduced lead levels in the outlets;
8. Put the outlet back into service if the outlet no longer has elevated level of lead; otherwise, perform remediation again;
9. Within 30 school days of successful completion of remediation, including follow-up first-draw samples with results below the AL, submit a [Completion of Remedial Action Form](#) and post the remedial actions taken (along with the associated dates) on the school's website; and
10. Report all follow-up test results, including post-remediation follow-up test results, within 10 school days of receiving the laboratory report.

Additionally, the following forms should be submitted to [testresults.leadsschoolwater@maryland.gov](mailto:testresults.leadsschoolwater@maryland.gov). When emailing these forms, please include name of school in the email subject line and name the forms using the following format: Name of form\_name of school

1. [Elevated Lead Water Sample Result\(s\) Notice](#): Within 10 school days of receiving the laboratory report, your school is required to notify all parents/legal guardians, teachers, and staff at your school about the elevated levels of lead that were detected. The notification must also be posted to the school's website within 30 school days after receiving the laboratory report. It is highly recommended that the notification remains on the school's website for a minimum of 30 days or until remediation has been performed.
2. [Certification of Elevated Lead Water Sample Result\(s\) Notice](#): This form must be submitted within 30 days of sending the notification to all parents/legal guardians, teachers, and staff at your school.
3. [Remedial Plan of Action Form](#): This form must be completed for each outlet with elevated levels of lead, including the outlet(s) that are used for consumption and the non-consumption outlets that do not have signage posted. This form must be submitted within 30 school days after receiving the laboratory report.
4. [Completion of Remedial Action Form](#): Within 30 school days of performing remediation, this form must be submitted and the remedial actions taken (along with the associated dates) must be posted on the school's website.
5. [Forms for Follow-Up Test Results](#): Your school is required to report all follow-up test results, including post-remediation follow-up test results, within 10 school days of receiving the laboratory report by submitting following forms: [Laboratory Results Reporting Form \(EDD\)](#), [Lead Water Sample Collection form](#), and official analysis report from the laboratory signed by the Laboratory Director along with the Chain of Custody (COC) form.

Should you need to conduct remediation, a good source of information can be found on the [U.S. EPA's "3Ts for Reducing Lead in Drinking Water" web page](#).

**If all Sample Results are Below 5 ppb**

If **all** test results are below 5 ppb (i.e., less than 5.5 ppb), your school building may qualify for [Waiver Type 1 - Prior Testing](#). If granted, the waiver would exempt your school building from future testing under the regulations until the school building no longer meets the conditions of the waiver. If denied, your school will need to conduct the testing in accordance with Maryland's law and regulations. To apply for Waiver Type 1 - Prior Testing, please complete and submit [Waiver Type 1 application](#) to [reporting.leadsschoolwater@maryland.gov](mailto:reporting.leadsschoolwater@maryland.gov) with "Waiver" included in the email subject line.

**Waivers**

In addition to [Waiver Type 1 - Prior Testing](#), there are two other types of waivers for which schools can apply, if eligible: [Waiver Type 2 - Bottled Water](#) and [Waiver Type 3 - Lead-Free Building](#). More information on the waivers can be found on Pages 13-16 of the [MDE's training presentation](#) and on [MDE's web page under the "Applying for Waivers" section](#).