



MINNEAPOLIS
PUBLIC SCHOOLS

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Lead in Water Safety Plan

**Minneapolis Public Schools
Environmental Health and Safety
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This plan was updated to meet 2023 Minnesota legislative changes to MN Statute 121A.335

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Minneapolis Public Schools

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Appendix A: MPS Lead in Water Testing Schedule

Appendix B: MPS Lead in Water Safety Program Annual Notice document.

Appendix C: MPS Daily Lead in Water Flushing Protocol

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Introduction: Purpose of this Plan

Minneapolis Public Schools (MPS) is committed to providing a safe and healthful learning and work environment for all our students and staff. We recognize the importance of protecting our students and staff from potential lead exposure and are confident the procedures established in this Plan will accomplish this goal. This Plan is designed to minimize the exposure of students and staff to lead in drinking water throughout the MPS system and is a continuation of the efforts that MPS has made since the early 1990s. This Plan was developed in compliance with Minnesota Statutes section 121A.335 and the Minnesota Department of Health (MDH) and the Minnesota Department of Education (MDE) document “Reducing Lead in Drinking Water a Technical Guidance and Model Plan for Minnesota’s Public Schools”. MPS Environmental Health & Safety (EH&S) manages the implementation of this Plan. This Plan is reviewed annually by the EH&S Manager and updated as required.

Regulations

Lead in School Drinking Water Minnesota Statute:

[Sec. 121A.335 MN Statutes](#)

Other Resources:

MDH Drinking Water in Schools, Child Care and Head Start Programs

[Drinking Water in Schools, Child Care and Head Start Programs - MN Dept. of Health \(state.mn.us\)](#)

[Consultation on Lead in Drinking Water Result Reporting - MN Dept. of Health \(state.mn.us\)](#)

MDH Education and Communication Toolkit: Reducing Lead in Drinking Water

[Education and Communication Toolkit: Reducing Lead in Drinking Water \(state.mn.us\)](#)

MDH Reducing Lead in Drinking Water “A Technical Guidance and Model Plan for Minnesota’s Public Schools” revised 2023.

[2023 Manual \(state.mn.us\)](#)

EPA 3Ts for Reducing Lead in Drinking Water in Schools

[3Ts for Reducing Lead in Drinking Water | US EPA](#)

Step 1 – Sampling Program Development:

Fixture Inventory

EH&S, in conjunction with the MPS Plumbing Shop, has identified water sources used for consumption (drinking water and food preparation) at each of the MPS facilities.

- This includes drinking water fixtures, fountains and bubblers, kitchen sinks, staff lounge sinks or any other tap that is used for human consumption.
- It includes only “cold-water” taps. Hot water taps are not to be used for consumption.
- Drinking water taps do not include bathroom taps, hand washing sinks, hose bibs, laboratory faucets/sinks or custodial and mechanical area faucets and sinks.

The MPS Plumbing Shop has evaluated drinking fountains to ensure they do not have lead-lined tanks as defined by EPA Lead Contamination and Control Act. Drinking fountains of this type were previously removed and replaced throughout MPS.

Sampling Schedule:

MPS will test water sources used for consumption (drinking water and food preparation) at a minimum of once every **five** years (MN Statute 121A.335.subd 3.) The MPS Lead in Water Testing Schedule is maintained as **Appendix A** of this Plan.

- MPS will perform follow up sampling of individual fixtures where corrective action has been implemented (i.e., fixture or piping replacement).
- MPS will conduct testing following domestic water renovation projects.
- MPS will conduct water sampling in new schools or new additions to existing schools during the first month of occupancy.
- MPS will conduct water sampling in a random and targeted manner to confirm the effectiveness of lead in water flushing procedures.
- MPS will facilitate testing in conjunction with the Design & Construction process (where and when applicable) to pinpoint where in domestic water systems lead components exist so that their replacement can be included in the planned future renovations.

Sampling Logistics & Water Analysis:

MPS EH&S staff conduct water sample collection districtwide. All water samples are submitted to an MDH/EPA accredited laboratory. MPS does not have plans to utilize field analyzers for sample analysis. MPS will contract with licensed industrial hygiene consultants or engineering firms to aid in sample collection when needed.

MPS has determined that using an independent accredited lab is best for the following reasons:

- Laboratories use Chain-of-Custody to ensure integrity of sample analysis process.
- Analysis is done by a third-party and provides more independent review and transparency.
- Accredited labs use EPA approved methods and have met industry standards for analysis; and
- Lab technicians are certified and trained to conduct the test.

A listing of accredited laboratories may be found at:

- <https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam>
- At present, MPS uses the Twin City Water Clinic for lead in water testing.

Step 2 – Conduct First Draw Tap Monitoring

According to the established schedule (Appendix A), water from taps used for drinking and food preparation are tested for lead using “first draw” samples. First draw means that the samples are collected before the fixture is used or flushed for the day. First draw testing represents the **worst-case scenario** for lead in water.

- The day before sampling – normal usage of the sampling tap occurs.
- Taps to be sampled must sit stagnant for a minimum of **six hours** but not more than 18 hours. As such, sampling on Mondays, during school breaks or the day after school breaks will not be performed.
- Use only cold water for collecting lead in water samples.
- Aerators or other tap attachments are not to be removed.
- First draw samples are collected in 250 milliliter plastic bottles.
- Sampling will occur starting at taps closest to where the water enters the building so that no unintentional flushing occurs.
- The sampling will be recorded on the chain-of custody and sampling form provided by the accredited laboratory.

Step 3 – Interpretation of Sample Results

Lead in water results are expressed in parts per billion (ppb). The MDH Action Level for lead in water is **5 ppb** as measured on a first draw sampling basis. Lead hazard reduction options are implemented at any school facility or at targeted tap locations where lead in water levels is at or above **5 ppb**. In some schools, the lead hazard reduction options are implemented throughout the facility and in other schools' reduction options are implemented at targeted taps. In addition, to reduce lead exposure at all detected levels, MPS recommends running the water until cool before drinking or using. This philosophy is supported by the MDH, EPA and the City of Minneapolis Water Department.

Step 4 – Lead Hazard Corrective Actions (Remediation)

Option 1 - Removal of Lead Sources

Over the past 20 years, most water conveyances and fixtures used for consumption have been replaced or components replaced to reduce lead. Following lead in water testing at a school, results are evaluated to determine the best lead hazard reduction option. The removal of lead sources is the first option considered and is implemented where and when feasible.

- The District Plumbing Shop performs routine maintenance on drinking water systems. Faucet aerators are routinely cleaned where applicable and filters are changed on an as needed basis.
- Taps identified above **5 ppb** are evaluated by the District Plumbing Shop to determine if the possible source of lead is at the fixture. If the source of lead is determined to be at the fixture, the fixture is either removed from service, the fixture is replaced, or fixture components are replaced.
- To minimize the introduction of lead into the drinking water systems, MPS ensures that plumbing materials and fixtures used are certified lead free.
- As part of the District Long Term Facilities Maintenance (LTFM) program, MPS evaluates plumbing systems as part of the facility condition assessment process or in the project planning phase to determine the need for system upgrades to address lead levels. Targeted sampling is performed to pinpoint where lead materials or components are located and can be included in a future capital project.
- MPS has included a filtered bottle filler/fountain to the standard in new construction and renovation projects. Since 2018, MPS has added at least one filtered bottle filler/fountain at each school and in most cases multiple fixtures.

Option 2 – Implement Flushing Program

Flushing is a best management practice used to eliminate lead in water by controlling the amount of time water is allowed to be unused. The longer water is stagnant in a system the greater the likelihood lead in water levels will elevate. The flushing

procedure works by removing water that has been in the system overnight prior to consumption. The MPS flushing procedure is implemented in addition to removing lead sources to increase safety and health. The sites where daily flushing procedures are implemented are identified in **Appendix A**.

Senior Custodians are trained on flushing procedures specific to their buildings and daily flushing logs are maintained. Senior Custodians are responsible to train their custodial staff to implement flushing procedures in their area of the school. In the event of a staff absence, other custodian(s) will implement flushing for absent employee's area. Custodial Rovers are also trained on flushing procedures. Senior Custodians are encouraged to communicate their flushing procedures with their building principal. Building principals will share the procedures with school staff. Senior Custodians are to contact EH&S or the MPS Plumbing Shop if they have questions about how to best implement flushing procedures or if they need flushing logs or signage. If needed, clamps or other devices to hold taps in the open position are available.

Individual Tap Flushing (Targeted Flushing)

At school sites where lead levels have been identified at specific taps or in isolated areas of a building, individual tap flushing will be performed on those taps only. Individual tap flushing generally means that the source of lead is at or near the fixture and lead components are not contained in the water main or distribution system. Because the source of lead is at or near the fixture, the length of time required for flushing is shorter as compared to water main flushing. The following procedures are implemented at sites where individual tap flushing is needed:

- The taps where individual tap flushing is required are identified in the fixture inventory and communicated to individual sites by EH&S and the MPS Plumbing Shop. Labels are applied that read "PLEASE RUN WATER UNTIL COOL BEFORE DRINKING OR USING!! THANK YOU, CUSTODIAN."
- Senior Custodians will identify all taps for flushing on a school floor plan.
- Identified taps are required to be flushed each day that school is in session.
- During periods of normal water use (in school periods), each tap will be run for 2 to 3 minutes in the morning prior to student arrival. On the first day after school breaks or holidays, individual taps will be flushed for 15 minutes. EH&S provides notifications to Senior Custodians to perform system flushing prior to school start whenever extended school breaks occur.
- Midday flushing is required if a tap has been stagnant for the morning period.
- The implementation of individual tap flushing will be performed by the school custodial personnel. The Senior Custodian may delegate the flushing of a specific tap to the staff person where the tap is located. For example, the Food Service Coordinator may be required to flush the tap in the kitchen, or a teacher may be required to flush a tap in a classroom.
- Daily flushing will be documented by the Senior Custodian on the MPS Daily Lead-in-Water Flushing Log and will be available in the Custodian Office (Appendix D).

- MPS will conduct water sampling in a random and targeted manner to confirm the effectiveness of the lead in water flushing procedures.

Main Pipe Flushing Program (Building Wide Flushing)

At school sites where lead in water levels have been identified at multiple locations throughout the facility or in a large portion of a facility, main pipe flushing procedures are implemented. Main pipe flushing generally means that the source of lead in the water distribution system cannot be easily pin-pointed and may be in water mains and branch lines. Because the source of lead may be in the distribution lines, the length of time required to flush is longer to ensure all water in the system is cleared prior to consumption. The following procedures are implemented at sites where main pipe flushing is needed:

- The sites where main pipe flushing will be implemented are identified by EH&S and the MPS Plumbing Shop and are communicated to the Senior Custodian.
- Building wide flushing will be performed at identified sites each school day prior to the scheduled arrival of students.
- School Custodians will flush all general use public taps including taps in corridors, common areas, cafeterias, gyms, pool areas, locker rooms, staff lounges and kitchens. Classroom or office area tap flushing is the responsibility of the occupant. Custodians will communicate with staff in these areas about daily flushing and labels will be installed that read “PLEASE RUN WATER UNTIL COOL BEFORE DRINKING OR USING!! THANK YOU, CUSTODIAN.”
- Senior Custodians will identify all taps identified for flushing on a school floor plan and the location of the water main.
- Taps located the furthest away from the water main on each floor of each wing will be flushed for a minimum of 10 minutes and continue by flushing all general use taps for 2 minutes. Classroom or office area taps will be flushed for 2 minutes or until the water is cool.
- Flushing will start at the furthest taps from the water main and proceed in a manner leading back to the water main.
- Midday flushing is required if a tap has been stagnant for the morning period.
- Daily flushing will be documented by the Senior Custodian on the MPS Daily Lead-in-Water Flushing Log and is available in the Custodian Office (Appendix D).
- MPS will conduct water sampling in a random and targeted manner to confirm the effectiveness of lead in water flushing procedures.

Step 5: – Retesting Results

Following remediation procedures, a first draw sample is collected to confirm if the lead level is below 5 ppb. If the sample is over the 5 ppb, 3 flushing samples would be collected. Samples are collected in a one-, five- and ten-minute increments. The sampling is collected to determine the effectiveness of the flushing program and confirm the lead levels after running the water through the fixtures. At school sites where lead in water levels have been identified at multiple locations throughout the facility or in a large portion of a facility, main pipe flushing procedures are implemented.

Interpreting Results after Implementing Remediation Actions

If sample analysis reveals none detect for lead or lead is less than 5ppb, no further action is required. The next sample of the water will be collected within five years as part of the districts on going management plan.

If the analysis shows lead remains present and is still at or above 5 ppb, a set of flushing samples are collected. If results are then below the 5ppb, a label will be placed at the fixture and the building is part of the daily flushing program that requires the custodial staff to run the system daily and document the procedure prior to the building being occupied.

Step 6: – Communicate Results

MPS maintains current lead in water testing information for each school on the MPS webpage: <https://www.mpschools.org/departments/operations/environmental-health-safety>

This web page provides the most current lead in water laboratory report for each school, a letter to the school principal explaining the results and any corrective actions. School Principals are assigned to share the information directly with their school communities. A copy of this Plan is also available on the website.

At the start of each school year, MPS notifies parents and staff of the Lead in Water Safety Plan and informs them that sampling reports and corrective actions for each school are available for review on the MPS webpage or by requesting the information from EH&S. EH&S staff are also available upon request to attend staff or parent meetings to provide information and answer questions. The Lead in Water Safety Plan annual notice is maintained as **Appendix B** of this Plan.

Step 7: – Reporting Results

Starting July 1, 2024, MPS will report their test results and remediation activities to the commissioner of health using the form and instructions provided by the MDH by July 1 of each year. MPS will maintain records of lead testing results and remediation activities for at least 15 years. The following links provide the instructions and template that are followed for MDH reporting:

[Results Reporting Instructions and Frequently Asked Questions \(state.mn.us\)](#)
[leadreporttemplate.xlsx \(live.com\)](#)

Step 8: – Water Management Plan

By July 1, 2024, a school district or charter school must revise its plan to include its policies and procedures for ensuring consistent water quality throughout the district's or charter school's facilities. The plan must document the routine water management strategies and procedures used in each building or facility to maintain water quality and reduce exposure to lead. A district or charter school must base the plan on the United States Environmental Protection Agency's "Ensuring Drinking Water Quality in Schools During and After Extended Closures" fact sheet and the United States Environmental Protection Agency's "3Ts Toolkit for Reducing Lead in Drinking Water in Schools and Child Care Facilities" manual. A district or charter school's plan must be publicly available upon request.

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MPS EH&S, in conjunction with the MPS Plumbing Shop, has identified water sources used for consumption (drinking water and food preparation) at each of the MPS facilities.

MPS EH&S staff has developed a rotation of schools and district building to be sampled. MPS EH&S staff conduct water sample collection districtwide. All water samples are submitted to an MDH/EPA accredited laboratory. MPS will test water sources used for consumption (drinking water and food preparation) at a minimum of once every **five** years (MN Statute 121A.335.subd 3.) The MPS Lead in Water Testing Schedule is maintained as **Appendix A** of this Plan.

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Water taps sampled by EH&S and identified above **5 ppb** are evaluated by the District Plumbing Shop to determine if the possible source of lead is at the fixture. If the source of lead is determined to be at the fixture, the fixture is either removed from service, the fixture is replaced, or fixture components are replaced. Following remediation procedures, a first draw sample is collected to confirm the remediation action taken and to determine if the lead level is below 5 ppb. If the sample is over the 5 ppb, 3 flushing samples will be collected. The sampling is collected to determine the effectiveness of flushing program and confirm the lead levels after water running through the fixtures. At school sites where lead in water levels have been identified at multiple locations throughout the facility or in a large portion of a facility, main pipe flushing procedures are implemented. The MPS flushing procedure is implemented in addition to removing lead sources to increase safety and health.