



Montana Lead in School Program

Education Interim Committee

June 14, 2022

In January 2020, the Montana Department of Public Health and Human Services (DPHHS) adopted amendments to the administrative rules regarding the matter of health in Montana schools. The amendments included requirements pertaining to reducing lead in schools' drinking water. It requires all schools accredited by the Montana Board of Public Education to sample for lead in schools' drinking water. Montana Department of Environmental Quality (DEQ) implements the program on behalf of DPHHS

All drinking water fountains and kitchen fixtures used for drinking or food preparation must be sampled. As well as all other fixtures that have the potential of being used for food prep or drinking (classroom sinks, bathroom sinks, nurse's office, concession stands, etc.). Results are placed into the Bins in the table below.

Bin 1	Greater 15.0 ug/L or ppb	Corrective action required. Immediately discontinue use of the affected fixture.
Bin 2	5.0 and 15.0 ug/L	Corrective action required. Interim flushing plan must be developed if fixture is to remain in service.
Bin 3	Less than 5.0 ug/L	No corrective action is required, conduct routine sampling.

ug/L = micrograms per Liter, ppb = parts per billion

The rule also requires a school to have a water flushing program. The school is required to flush out their water system whenever the school is inactive for greater than 3 days. When a school is not being used, the water in the plumbing system becomes stagnant. The stagnant water tends to warm up due to the facility's heating system. The warmer water can be more corrosive to the piping and fixtures causing lead to be leached out of the plumbing. Flushing is a relatively easy and inexpensive maintenance practice to help reduce lead levels in your drinking water.

As of June 8, 2022, Montana DEQ has received lead sampling results from 393 out of the 593 schools. Approximately 73% of those schools have had at least one fixture that exceeded the Montana Action Level (AL) of 5.0 micrograms per Liter (ug/L) or parts per billion.

- Total samples collected – approximately 13,327
- Total samples greater than Action Level (AL) – 3,466 (26%)
 - Sample results between 5 and 15 ppb – 2,454 (18%)
 - Sample results greater than 15 ppb – 1012 (7%)
- Average number of samples per school - 38
- Number of Schools with no exceedances – 97

The table below shows the ranges of number of exceedances per school.

Number of Fixtures that Exceeded	Number of schools within that range	Percent of schools in that range
1-5	127	48%
6-10	38	14%
11-20	50	19%
21-30	20	8%
31 and greater	30	11%

Corrective Actions that can be used:

- If fixture is likely source of lead
 - Replacing old fixture with new “Lead Free” fixture
 - Permanently removing fixture if not needed or used
 - Installing point of use filters
 - Routine Flushing/Signage (not preferred)

- If plumbing is likely source of lead
 - Auto-flushers
 - Partial plumbing replacement
 - Full plumbing replacement
 - Whole school treatment (corrosion control)
 - Lead service line replacement (if present)

Estimated Cost of Corrective Actions:

- New “lead free” faucet - ~\$100-\$500 each
- Drinking Water Fountain - ~\$500 each
- Bottle Fill Stations - ~\$1,000-\$1,500 each
- Point of Use Filter Unit - ~\$25-\$100 each
 - Replacement filters – ~\$10-\$75 each
- Auto-Flushers - ~\$300 - \$500 each
- Plumbing replacement – school dependent (a few thousand dollars to a few hundred thousand dollars)
- Whole school treatment – school dependent (~\$10,000+)
 - Monthly operational costs - ~ few hundred to few thousand dollars per month
- Lead service line replacement - ~\$5,000

Estimating the lead remediation costs for schools can be difficult. Costs of labor and supplies can vary greatly across the state. Some of the larger school districts have in-house plumbers and electricians, but the majority of schools would have to hire a contractor.