



**Testimony presented to the
House Natural Resources & Outdoor Recreation Committee
In Support of House Bills 5104 and 5105**

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Good afternoon. My name is Cyndi Roper, and I'm the Michigan Senior Policy Advocate for the Natural Resources Defense Council. NRDC has a long history of working to strengthen the nation's drinking water safeguards including extensive efforts to eliminate lead from our drinking water. We applaud the bill's sponsors for their leadership in proposing a true solution to the problem of lead in school and childcare drinking water through this Filter First legislation: House Bills 5104 and 5105.

In 2016, New York became the first state to require lead testing of all water outlets in all public schools. The results provide early lessons for policymakers in New York and elsewhere on the steps they might take to reduce lead in drinking water in school and certain childcare facilities. NRDC wrote the model bill upon which Michigan's Filter First legislation is based after reviewing the lead in school drinking water occurrence data from New York State. [What we found](#) is:

- Around 82 percent of New York public school buildings reported one or more taps that tested above 15 parts per billion (ppb). *There is no safe level of lead in drinking water.*
- More than 56 percent of New York public school buildings statewide tested above 15 ppb – *again, there is no safe level of lead in drinking water* - at five percent or more of their water outlets, with a higher rate of taps outside New York City (59%) than inside New York City (51%).
- Almost 2% of the public school buildings statewide found levels above 15 ppb (once more, there is no safe level of lead in drinking water) for at least half of the



outlets tested, with a higher rate **outside** New York City (2.4%) than in New York City (1.1%)

Closer to home, [Indiana conducted a voluntary](#) lead in school drinking water testing program during the 2017-18 school year. Of the more than 1,700 eligible K-12 public schools and educational facilities, 915 (60%) enrolled in the program through which 57,000 samples were collected. Their samples revealed that 62% of schools had at least 1 fixture with lead over 15 ppb, and 7% of schools had more than 10 fixtures (roughly 25%) sampled above 15 ppb.

Both New York and Indiana found that lead is present in the drinking water if you test for it. But even with the testing results from these states, they don't have an accurate picture of lead in school drinking water due to the variability of lead release at each faucet or fixture. As the testimony of others highlights, the test results at the same water outlet can vary dramatically from one water sample to another.

Before I talk about the cost estimates for implementation, I want to be crystal clear that filtering our water first is the most effective way to ensure our kids have lead-free drinking water at schools and in childcare centers. Investments in the Filter First approach provides health protections for children in schools and childcare centers; investments in programs that simply test for lead in drinking water do not. The good news is that Filter First is the most cost-effective option for ensuring lead-free water in schools. We are still awaiting data for childcare centers, but the expectation is that those facilities will only be installing filters on taps rather than filtration stations as would be the case for schools.

NRDC's cost analysis is highlighted in the attached "Michigan First Cost Estimates" document. The bottom line is this: If the legislature enacts and fully funds Filter First for schools in Year One (\$54 million), it would actually protect kids from lead in drinking water for roughly two-thirds of what it would cost to test, notify, and replace just 40% of the fixtures (\$80 million) resulting in a savings of about \$26.5 million.



Over a ten-year period, the maintenance and sampling of the filtration stations (\$166 million) compared to the cost of testing, notification, and replacing just 40% of the faucets and fixtures (\$497 million) is even more favorable: Filter First is about one-third the cost, saving roughly \$331 million.

Some have questioned why we don't just replace all of the lead fixtures and fittings after testing. There are at least two problems with that approach: 1) most school districts cannot make the immediate large upfront investment necessary to replace plumbing and fixtures; and 2) even new fixtures, solder, and fittings contain lead. In contrast. We know filters work when they are certified to remove lead and when they're installed and maintained properly.

NRDC also supports at least a \$25 million of non-School Aid Funding for our estimated cost of phasing in elementary schools first. Ideally, lawmakers would appropriate the entire \$54 million to implement the program so kids throughout Michigan could be provided with safe drinking water at schools and childcare facilities.

Again, we laud the House and Senate bill sponsors and other supporters for their leadership in embracing Filter First. This lower cost solution will invest in immediate health protections for our children. We strongly urge you to support this approach rather than embarking on a costly strategy of chasing lead in schools by testing then not having the funds to install filtration, since that's the fastest and best way to protect our kids.

Thank you for this opportunity to testify before the Committee today.







Michigan Filter First Cost Estimate

The filter first approach to reducing lead contamination in drinking water at school calls for providing one filtered drinking water station for every 100 students and staff in Michigan Public Schools.

Filtered drinking water stations are water fountains or bottle fillers with filters that remove lead and other impurities.

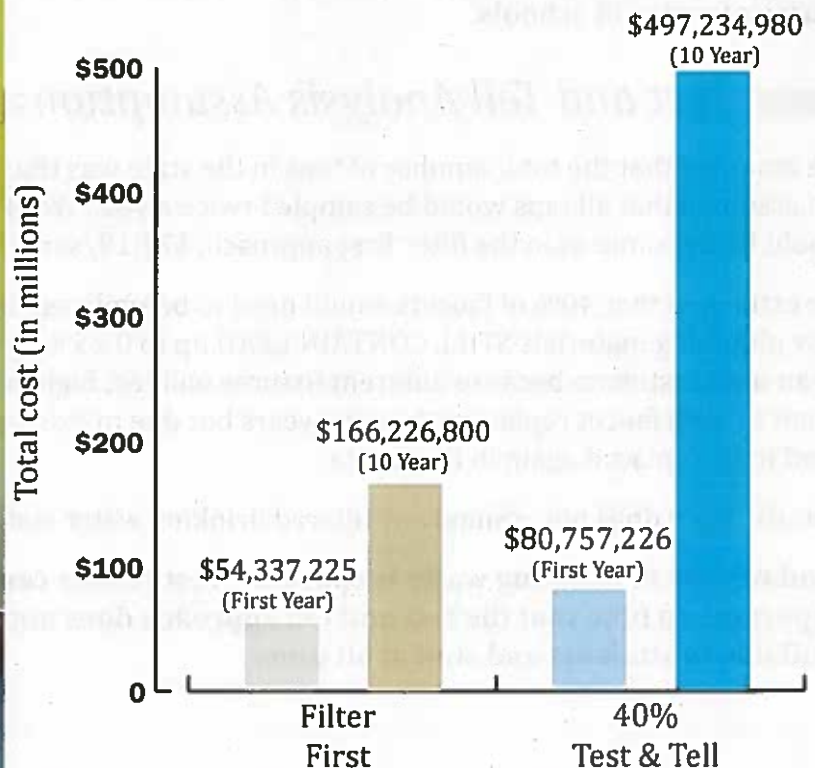
The filter first approach is more cost effective than a “test and tell” policy that has previously been proposed. The “test and tell” approach would require school districts to test all drinking water fixtures and then replace those that tested positive for lead above a set action level.

Our cost analysis shows that the filter first approach is the most cost effective and health protective option.

The graph shows that both the first year and the 10-year costs of the Filter First are significantly lower than the Test and Tell costs. The 10-year cost savings may be as much as \$331 million.



Michigan Projected Costs Filter First versus Test & Partial Fixture Replacement





Michigan Filter First Cost Estimate

Filter First Analysis Assumptions and Facts

This filter first cost analysis assumes that the cost of purchasing and installing one filtered water bottle filling station is \$2,725 based on purchase information from Detroit Public Schools Community District (DPSCD). The State of Michigan may be able to secure an even lower price via bulk purchasing. It will cost \$141 to replace each units filter three times a year, but filters may need to be replaced less often.

We also assume that every filtration station will be sampled twice a year to verify performance. We estimated this to cost \$77.19 per sample, based upon the real costs of testing from an Indiana effort to test school drinking water.

Our calculations assume that one filtered drinking water station will be installed per 100 students and staff, or for schools with less than 50 students/staff at least five taps/fixtures would be equipped with point of use filters. Additional point of use filtered taps/fixtures were calculated by taking the school population and dividing by 200, but a minimum of 5 filtered taps were assigned to each school regardless of population.

The estimate on the number of students and staff at schools in the state was drawn from MichiganSchoolData.org and PublicSchoolReview.com. The Detroit public schools were not included in the estimate for purchasing filtered drinking water stations because they have already been purchased and installed, however the cost of maintenance and testing is included for these schools.

These costs we estimated for the first year, which includes the installation costs, and then the 10 year costs include the filter replacement and water sampling costs.

As long as the filters are properly maintained, the filter first method assures a reliable, lead-free source of water in schools.

Test and Tell Analysis Assumptions and Facts

We assumed that the total number of taps in the state was the total school population divided by five. We assumed that all taps would be sampled twice a year. We also assumed that the cost per sample would be the same as in the filter first approach, \$77.19/sample.

We estimated that 40% of faucets would need to be replaced in the first year. It is important to note that new plumbing materials **STILL CONTAIN LEAD** up to 0.25% by weight. This faucet replacement cost may be an underestimate because different fixtures will test high in different years. For example, this could result in 10% faucet replacement some years but due to existing allowable lead content, new fixtures may need to be replaced again in the future.

This estimate does not assume any filtered drinking water stations or filtered taps.

Lead release in drinking water is sporadic. Test results can vary widely from year to year. It is important to note that the test and tell approach does not guarantee that lead-free water is available to students and staff at all times.