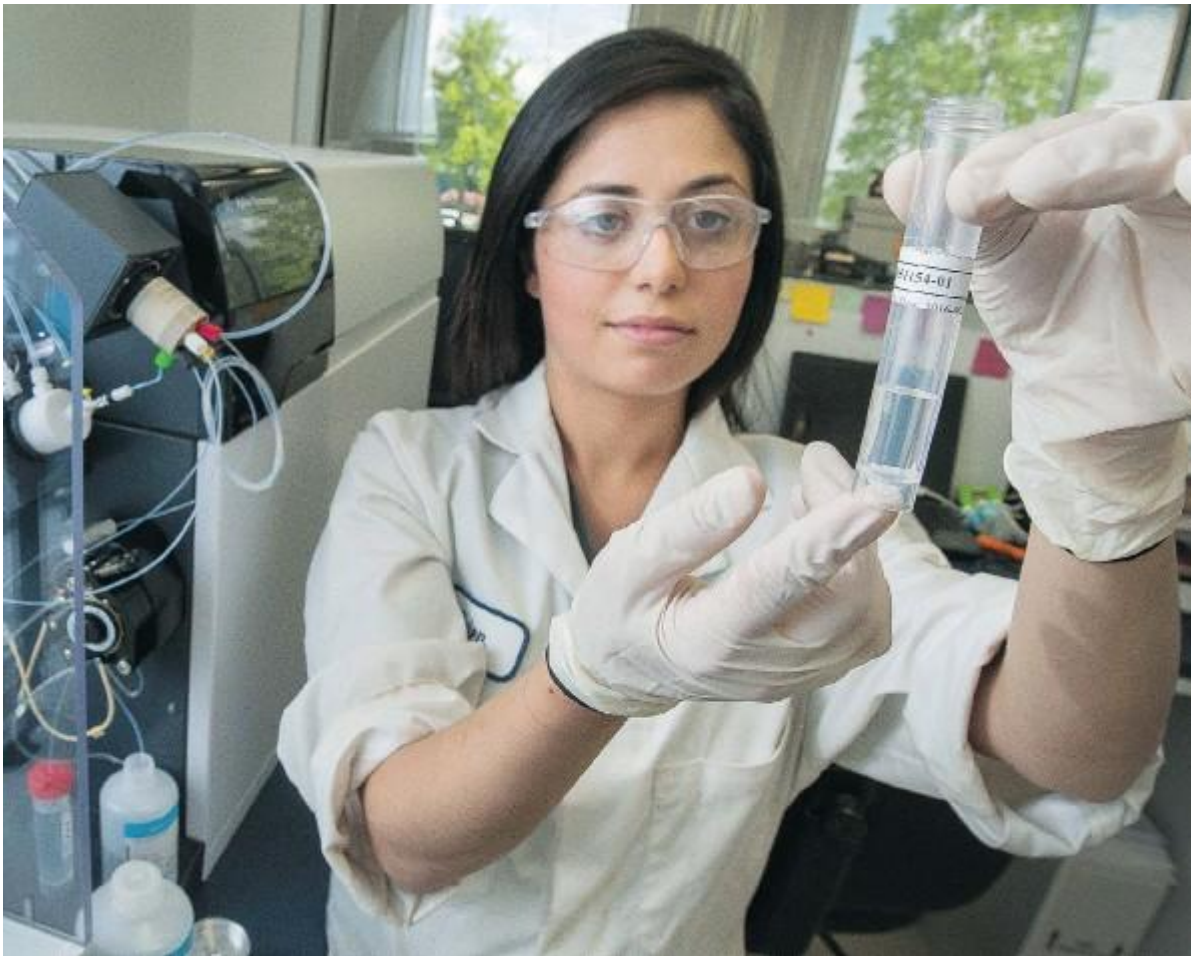


LEAD TAINTS SCHOOLS' WATER

The province is finally taking action, but is the response adequate?

We will have annual verification with school districts to ensure they have safe drinking water.

More than a quarter of B.C. school districts have found lead levels in drinking water exceeding safety limits in at least one of its schools. Victoria has responded by ordering schools to carry out annual testing. More than a quarter of B.C.'s school districts have found lead in drinking water that exceeds safe limits, The Vancouver Sun has learned.



ARLEN REDEKOP There is no standardized water testing policy for B.C. schools, even as higher-than-safe levels of lead have been found in the water in a number of provincial districts.

Test results have reached as high as 10 times the safe allowable levels for lead in drinking water in a high school on northern Vancouver Island. Higher-than-safe results were also found in 90 per cent of all schools in the Delta school district, according to results compiled as part of a provincewide survey by The Sun.

In response to the newspaper's survey and questions, B.C.'s education minister has ordered an annual program for school districts to test student drinking water, report results to the ministry and explain what they are doing to fix any problems.

“We’re going to be annually getting the school districts to do these checks and report back to us with their findings so we can have it documented going forward,” Mike Bernier said in an interview.

“We will have annual verification with school districts to ensure they have safe drinking water. Also within that reporting they’ll have to have their mitigation strategies.”

The demand for annual testing is a result of a letter sent to school districts in February, in which the ministry suggested they check water sources because of public concerns raised over lead in schools in northwestern B.C. The result: 17 of 60 B.C. districts reported higher-than-safe levels of lead in school drinking water in at least one fountain, sink or other water source in at least one district school. A further six districts have found elevated lead levels in recent years.

Some of the new results barely exceed the Health Canada drinking water maximum of 10 parts per billion, while others are much higher, such as a sink in the foods classroom at Port Hardy Secondary School on northern Vancouver Island that registered more than 10 times the recommended maximum allowable for human health. Not every school in each district was tested, and in most cases lead was found in only one or two sources within any single school.

In Delta, lead was found in sinks and water fountains in 28 of the district’s 31 schools in tests done at the ministry’s urging in April and May. Five water fountains and a sink have been shut down and other mitigation strategies are underway. It’s the first time the water in Delta schools has been systematically tested for lead, officials say.

A survey of B.C.’s school districts by The Sun over the past month shows no one — not the provincial government, school district trustees or public health officials — was officially charged with ensuring the tests are done and following up when problems show up. Instead, there is widespread confusion over testing, reporting results and mitigation techniques such as the frequency of flushing water lines.

Bernier first said the district numbers failed to convince him an annual testing program was needed. He revised his position Thursday, saying The Sun’s survey, the ministry’s internal results and questions about why Ontario is so far ahead with its mandatory school water testing program led him to reconsider.

Now the B.C. government is taking the lead on the issue, annually reminding districts to test their water, compiling comprehensive provincewide results and checking if enough is being done to mitigate the risk to students. Yet, because districts usually sample only a fraction of their total water sources, it still falls short of a system to test every student drinking fountain in every B.C. school.

Even tiny amounts of lead in water can cause lifelong health problems for children, yet there remains no provincewide mitigation strategy to deal with problems when they are discovered. Experts warn the standard response — to periodically flush the pipes by running water for several minutes — is a temporary and unreliable fix.

The district responses represent the first provincewide survey of lead in school drinking water in decades, and come after concerns were raised earlier this year about water quality at schools in Prince Rupert and Kitimat. The numbers are expected to rise as more districts receive test results in coming weeks.

The vast majority — 92 per cent — of B.C.’s 1,578 public schools are at risk of having lead in the water from the lead solder used to connect pipes before 1990, when the plumbing code was revised to limit the use of lead in potable water lines.

In recent testing, lead was found in many older schools, and at times at higher than acceptable levels. In most cases it was mitigated by flushing the water system or allowing the water to run for a time before drinking it. In

some cases, water fountains were shut and sinks were marked with signs designating the water as unsafe to drink.

Some schools have installed bottle filling stations to reduce the number of plastic water bottles in their garbage. These stations provide filtered, chilled water.

Lead can enter the water from old pipes, lead solder and certain types of fittings and fixtures. Many municipalities, including Metro Vancouver, treat water to reduce its acidity and thus reduce its ability to leach lead from pipes and joints inside buildings.

Even low levels of lead in water can lead to serious health problems, and in rare cases seizures or death. Reduced intelligence scores, learning disabilities and behaviour disorders such as attention deficit disorder and physical weakness are all linked to elevated lead in drinking water. It's particularly serious for children and pregnant women. Lead is mostly banned from paint and gasoline in Canada.

The Sun asked B.C.'s 60 school districts what they are doing to ensure kids have safe drinking water. Of those, 37 replied.

Some, such as New Westminster, have been testing water annually. Many others, including Powell River, Maple Ridge-Pitt Meadows, Vernon, Vancouver Island West and Abbotsford, only respond to complaints about how the water looks, tastes and smells.

People cannot see, taste or smell lead in water.

Nanaimo appears to have no lead testing regime at all for schools on city water.

Richmond insisted its drinking water is audited every three years by Vancouver Coastal Health, even though Coastal Health denied it has an auditing program for school drinking water and merely takes random samples during routine inspections.

One of the highest results was a school board office water fountain in Campbell River, which tested 154 parts per billion — 15 times the Health Canada limit.

Port Hardy Secondary's foods classroom sink was 117 parts per billion, more than 10 times the federal maximum.

Shawn Gough, president of the Vancouver Island North Teachers' Association, who has 17-year-old twins at the school, said the district is taking action to address the problem, but it's not possible to replace all the pipes in a chronically underfunded education system.

Public health officials have said tests as recently as 2013 in B.C. showed no cases of children with elevated lead levels in B.C. due to contaminated drinking water. Some health authorities think more needs to be done, while others seem to play down the risk.

"We would so value some consistent provincial guidelines to help us work with our schools on this," said Charmaine Enns, an Island Health medical health officer.

"We don't want to be doing oneoffs everywhere. We want to make sure there is something standard, consistent and sustainable. People need to have the assurance we're doing the right thing all the time."

Courtney Hesketh, manager of environmental health at the Interior Health Authority, said in an interview that finding lead in water is “very rare” in the Interior.

But just weeks later, testing found elevated lead in three schools in Penticton, likely due to lead used in the plumbing. Officials shut off all of the water fountains and asked students and teachers to bring in their own water bottles.

“Currently we don’t know the state in every school district,” said Perry Kendall, B.C.’s chief medical health officer. “I think every school district is currently gathering that information. It doesn’t happen overnight. It’s more coastal schools than interior schools ... water in coastal districts is more likely to be aggressive than in the interior. That’s just how it is.”

Less than a month after that interview, lead was also found in school drinking water in southeast Kootenay.

Bruce Lanphear, a professor at Simon Fraser University who studied lead exposure among children in Rochester, N.Y., said even though people aren’t showing toxic levels of lead poisoning, it doesn’t mean children aren’t being affected.

“If we were to take it seriously as a public health issue, we’d have a systematic survey of all the water fountains in our schools, which I think is deserved,” Lanphear said.

“We’d look at the levels, and even step back a bit and say is 10 parts per billion low enough, since we now know from new studies and declarations from the centres for disease control in the U.S. and WHO (World Health Organization) that there is no safe level of lead.”

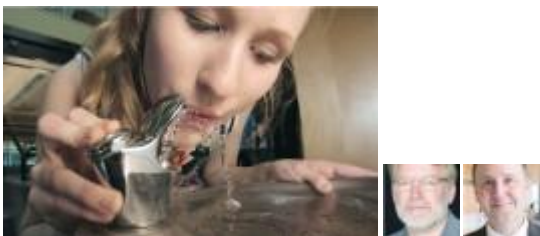
Many school districts have fallen back on flushing their pipes — running the water for several minutes each morning, or once a week after the weekend — as a way to remove any stagnant water with high lead concentrations. The method is endorsed by B.C. health officials.

Lanphear said flushing is at best a temporary solution.

“(Flushing) may be good for an hour or two, but you can often times build up lead to higher concentrations again quite readily,” Lanphear said.

“If you are going to flush it, you’d probably be flushing it every three hours. You can imagine doing that, within a year you’ve paid for your new water fountains.”

What tends to happen is that over time, people tend to stop flushing because of staff cuts or when the controversy dies down.



“We’re really in quite a dismal situation when it comes to protecting people from enviro hazards,” Lanphear said.