BCWWA
BC WATER & WASTE ASSOCIATION

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CDW Secretariat
Water and Air Quality Bureau
Health Canada
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Sent by email to: water_eau@hc-sc.gc.ca

Re: Lead in Drinking Water – Public Consultation

The BC Water & Waste Association (BCWWA) is pleased to provide comments on the updated drinking water guidelines for lead currently being developed by the Federal-Provincial-Territorial Committee on Drinking Water.

The BCWWA is a not-for-profit organization that represents over 4,000 water professionals who are responsible for ensuring safe, sustainable and secure water, sewer and stormwater systems in BC and the Yukon. Our members work every day to keep our water systems clean and safe—from source to tap to drain and back to the environment. They include water and wastewater facility operators, utility managers, engineers, consultants, government policy and regulatory staff, backflow assembly testers and cross connection control specialists, researchers, and suppliers.

The BCWWA Drinking Water Technical Advisory Committee has reviewed the Lead in Drinking Water document and has no objections to the evidence which shows lead levels, even below the new proposed MAC, are harmful to human health, and especially to children. Therefore, we have no objections to the proposed lowering of the MAC to 0.005 mg/L (from 0.01 mg/L) and having a treatment objective to reduce lead levels in treated water to as low as reasonably achievable (ALARA). With this, we provide the following comments on the proposed guidelines for your consideration:

Part I. Overview and Application

2.0 Executive Summary

- Section 2.1 could be expanded to summarize the health impacts that guide the new proposed MAC.
- We find it positive that the document clarifies that the proposed MAC is based on analytical achievability, and that there is an emphasis on how every effort should be made to maintain lead levels in drinking water as low as reasonably achievable (ALARA).
- Section 2.3 should state that the analysis can be done at the proposed MAC, accounting for method standard error and uncertainty.
- Section 2.3 The statement, "…municipal treatment is not generally an effective strategy." is misleading, as it seems to indicate that treatment will not be successful. It should state municipal treatment, alone, may not be an effective strategy. In fact, it could be very effective depending on the transmission line material.

- Section 2.3 The statement, “Consequently, the best approach to minimize exposure…” should be worded differently, for it depends on the system, water quality, etc.
- The statements in section 2.3 in regards to removing plumbing are good, the challenge is municipalities have no control over what occurs at the residential level.
- Include in the Executive Summary that the reduced MAC level is driven by lead's potential impact on IQ.

3.0 Application of the Guideline

- While it makes sense to focus monitoring on areas known to have lead issues, areas with no known plumbing/lead issues should also be included in the monitoring program, to capture lead background levels and in case lead issues develop in the future. A monitoring program should include the entire distribution system, but areas without lead issues could be monitored at a lower frequency.
- Section 3.0 We like this statement, “…strategies to reduce exposure to lead will need to focus on controlling corrosion within the distribution and plumbing systems and on removing lead-containing components…”, and believe it should be repeated in Section 7 to emphasize how multiple approaches often need to be used in the same distribution system to reduce exposure to lead.
- Section 3.1.1 Sampling locations accessible by Municipal Staff should be selected for regular sampling. It is possible that residents will not allow regular sampling at their fixtures.
- While the method proposed here would work for residents who want to take a sample in their home, sampling from residences may not be easily implemented into a water purveyor’s monitoring program.
- That said, the inclusion of the sampling recommendations in Section 3.1, which anyone (including individuals) could refer to, is appreciated.
- Section 3.1.1 recommends a minimum of 20 homes should be randomly selected for sampling. However, for many jurisdictions the responsibility of a water purveyor supplying potable water ends at a home’s service connection. It is often the homeowner/resident’s responsibility to sample inside their home. The content on sampling should emphasize this, so the home owner does not assume their water purveyor will sample inside their home.

Part II. Science and Technical Considerations

7.0 Treatment Technology and Distribution System Considerations

- The reference to water treatment alone may not be sufficient to reduce lead levels is better worded in this section than in the Executive Summary.
- Additional text on the water system conditions, when treatment should be considered (or not considered), would be appreciated.
- The inclusion of text explaining metals can accumulate on pipe walls and slough off in concentrations greater than what is in the raw water is appreciated.
- The reference to the study that showed increased likelihood of this occurrence when using cast iron pipe is also a great addition.
- Section 7.1.2.6 and 7.2 have good content on treatment options that can worsen lead concentrations or remove lead. We recommend you also include some available corrosion inhibiting technologies that prevent lead from leaching from pipe walls.

10.0 Classification and Assessment

- Section 10.4 summarized the guidelines from other jurisdictions very well, and was easy to read.

11.0 Rationale

- The rationale is effectively summarized and clearly outlines how this MAC was determined. This section is also easy to read.
- Some of the points were so well summarized in this section they should be emphasized earlier in the document, such as in the Executive Summary. For example, this statement "As this value exceeds the drinking water concentration associated with neurodevelopmental effects in children…" provides more explanation of the effects on children and could be added to Sections 1 or 2 for a better understanding as to of why an "ALARA" objective is being proposed in addition to the revised MAC.

We thank you for the opportunity to respond on the updated guideline and ask that we be kept informed on the development of any further updates. Our members have extensive experience in in applying current drinking water guidelines and are happy to provide clarification if needed.

Sincerely,

Carlie Hucul
Chief Executive Officer
BC Water & Waste Association

cc: BCWWA Drinking Water Technical Advisory Committee