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[detroitmi.gov/dwsd](http://detroitmi.gov/dwsd)

November 2, 2018

Honorable Board of Water Commissioners  
735 Randolph St.  
Detroit, MI 48226

Re: Customer Requested Lead in Water Sampling

The Detroit Water and Sewerage Department (DWSD) has made it easy for customers to request lead and copper water samples at their homes at any time using an [online](#) or [paper form](#). These samples are available at no charge to customers. In exchange for offering free samples, DWSD asks for a picture of the service line where it enters the customer's home so that DWSD can update service line records for that home.

The water sampling process is as follows:

1. Customer requests a lead and copper water sample [online](#) or by calling the lead line at 313-964-9300 and using the [paper form](#). The customer must answer a series of questions to help DWSD interpret the sample data, and the customer must provide a picture of the service line where it enters the home.
2. Great Lakes Water Authority (GLWA) Water Quality Laboratory delivers one 1 liter sample bottle to the home with sampling instructions within 2 business days of receiving the request.
3. The customer follows the sampling instructions and calls the GLWA Water Quality Laboratory to pick up the sample bottle.
4. GLWA Water Quality Laboratory analyzes the samples once they have received more than 20 lead and copper sample bottles from their customers. This can take anywhere from 1 to 6 weeks.
5. DWSD mails out the results letters within 5 business days of receiving the sample results from GLWA.
6. If the sample results are less than 10 ppb for lead, DWSD provides the sample results and an informational brochure "Do you know your pipes?".
7. If the sample results are greater than 10 ppb for lead, DWSD calls the customer as soon as possible and offers a pitcher filter that meets NSF/ANSI Standard 53 for lead removal. DWSD makes an appointment to collect additional lead samples in the home using a sequential sampling protocol (11 samples) to better identify potential sources of lead in the plumbing and service line. Again, the wait time for sample analysis can be between 1-6 weeks.

8. Once the sample results for sequential sampling are available DWSD calls the customer and follows up with the results in the mail. Additional actions are taken on a case by case basis.

The EPA Action Level for lead in water is 15 parts per billion (ppb). This is a measure of corrosion control effectiveness; it is not a measure of public health protection. In 2016 the World Health Organization had an action level of 10 ppb for lead in water. DWSD used this level to prioritize filter delivery to any home exceeding 10 ppb. This memo focuses on lead sampling results because DWSD's water samples are well below the EPA Action Level and Maximum Contaminant Level Goal for copper.

The current process for customer requested samples has been in place for calendar year 2018. Since January 2018 DWSD has received 30 sample requests, and 16 of those were requested since August. Sample information is summarized in the following table:

**DWSD Customer Requested Lead in Water Sampling, 2018 to date**

	Jan-Feb	March-April	May-June	July-August	September	October <sup>1</sup>
Sample requests	3	7	4	2	4	10
Samples returned	3	4	3	2	3	3
Lead Sample Results (ppb)	ND <sup>2</sup>	ND-56	ND-5.5	2-3.39	ND-3.91	ND-5.64

<sup>1</sup> Most of these were requested in the second half of the month so these samples may be returned and analyzed in the near future.

<sup>2</sup> ND = non-detect

In March 2018, a sample collected at one home measured 15.54 ppb of lead. Sequential sampling turned up samples at 55.15 and 56.37 ppb. The service line inside the house is copper, and the stop box was excavated. A copper service line was found on both the private and DWSD side of the stop box. The meter was replaced with a new Badger meter; the previous meter from 2010 may have contained up to 8% lead in its brass components. DWSD delivered a pitcher filter within 2 weeks of initial sample collection. DWSD confirmed that the customer has an NSF/ANSI 53 filter certified for lead removal on their refrigerator water dispenser after the subsequent high samples were detected.

DWSD also coordinates with the Detroit Health Department to offer lead in water sampling at homes of children diagnosed with an elevated blood lead level (EBLL). Participation in this program is low. In 2018, 16 samples have been collected from EBLL homes. The results from these homes were non-detect (13 samples), 2.89, 3.08, and 16.22 ppb. A filter was delivered at the home with 16.22 ppb and all sequential samples were non-detect for lead.

Sincerely,

Samuel A. Smalley, PE  
Asset Manager