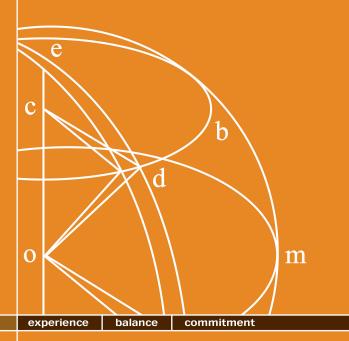


# Action Plan: Lead in Drinking Water

Cashmere School District No. 222 Cashmere, Washington

Project Number: 233745.00

August 19, 2023



#### Prepared for:

Cashmere School District Glenn Johnson 210 South Division Street Cashmere, Washington 98815

#### Prepared by:

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**Report Title:** Action Plan: Lead in Drinking Water

**Project Number:** 233745.00

**Date Issued:** August 19, 2023

Site: Cashmere School District No. 222

Cashmere, Washington

**Prepared for:** Cashmere School District No. 222

Glenn Johnson

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#### **Report Integrity:**

Fulcrum Environmental Consulting, Inc.'s scope of service for this project was limited to those services as established in the proposal, contract, verbal direction, and/or agreement. This report is subject to applicable federal, state, and local regulations governing project-specific conditions and was performed using recognized procedures and standards of the industry. Scientific data collected in situ may document conditions that may be specific to the time and day of service, and subject to change as a result of conditions beyond Fulcrum's control or knowledge. Fulcrum makes no warranties, expressed or implied as to the accuracy or completeness of other's work included herein. Fulcrum has performed these services in accordance with generally accepted environmental science standards of care at the time of the inspection. No warranty, expressed or implied, is made.

Action Plan: Lead in Drinking Water

Cashmere School District



# Cashmere School District Lead in Drinking Water Action Plan Revision History Table

Revision	Date	Section(s) or Purpose of Revision	<b>Board Acceptance</b>
00	08.19.23	Initial Action Plan	August 21, 2023
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## **Table of Contents**

Section	on	Page Page
1.0 2.0 3.0 4.0 5.0	Sampli Testing Action Mitigat 5.1 V 5.2 C 5.3 C	Information       1         ng and Resting Information       1         g Requirements       2         Plan Requirements       2         tion Measures       3         Vale Elementary School       4         Cashmere Middle School       4         Cashmere High School       5         District Office       5
6.0	Remed	iation Schedule6
	6.1 V 6.2 C 6.3 C	Vale Elementary School
7.0	7.1 V 7.2 C 7.3 C	emediation testing 9 Vale Elementary School 9 Cashmere Middle School 10 Cashmere High School 10 District Office 11
8.0	8.1 C 8.2 F	Unication, Retesting and Maintenance Plans
9.0	Limita	tions
10.0	Refere	nces and Links
<u>Table</u>	s	
Т	able 1.0	School District and Building Information
T	able 2.1 able 2.2 able 2.3	Vale Elementary School Sampling and Testing Information Cashmere Middle School Sampling and Testing Information Cashmere High School Sampling and Testing Information



Table 2.4	District Office Sampling and Testing Information
Table 5.1	Vale Elementary School Mitigation Measures
Table 5.2	Cashmere Middle School Mitigation Measures
Table 5.3	Cashmere High School Mitigation Measures
Table 5.4	District Office Mitigation Measures
Table 6.1	Vale Elementary School Remediation Measures
Table 6.2	Cashmere Middle School Remediation Measures
Table 6.3	Cashmere High School Remediation Measures
Table 6.4	District Office Remediation Measures
Table 7.0	Summary of Post Remediation Testing
Table 7.1	Vale Elementary School Post Remediation Confirmation Testing
Table 7.2	Cashmere Middle School Post Remediation Confirmation Testing
Table 7.3	Cashmere High School Post Remediation Confirmation Testing
Table 7.4	District Office Post Remediation Confirmation Testing
Table 8.2	Summary of Triennial Testing
Table 8.3	Point of Use Filter Maintenance Schedule



#### 1.0 School Information

Fulcrum Environmental Consulting, Inc. (Fulcrum) was retained by the Cashmere School District (District) located in Chelan County, Washington State to complete this Action Plan for Lead in Drinking Water consistent with Washington State Department of Health (DOH) guidance. The District can be contacted at:

Cashmere School District No. 222 210 South Division Street Cashmere, Washington 98815 509.782.3355

In addition to the District office, the District manages the three school buildings in which students attend:

- 1. Vale Elementary, constructed in 1990, is located at 101 Pioneer Avenue, Cashmere, Washington, and has the phone number 509.782.2211.
- 2. Cashmere Middle School, constructed in 2007, is located at 300 Tigner Road, Cashmere, Washington, with the phone number 509.782.2001.
- 3. Cashmere High School, constructed in 1981, is located at 329 Tigner Road, Cashmere, Washington, with the phone number 509.782.2914.

## **2.0 Sampling and Resting Information**

Initial water testing was completed by DOH in January 2023. Following up testing and post-remediation testing was completed by Fulcrum from February through May 2023. The following tables summarize the sample collection dates, analytical receipt dates, sample collection provider and analytical laboratory for events in each school facility:

Table 2.1: Vale Elementary School Sampling and Testing Information

Sampling Date	Date Test Results Received	Sampling and Testing Provider
1/21/2023	1/30/2023	DOH
2/26/2023	3/1/2023	Fulcrum, AmTest Laboratories
3/03/2023	3/7/2023	Fulcrum, AmTest Laboratories
3/12/2023	3/21/2023	Fulcrum, AmTest Laboratories
4/11/2023	4/13/2023	Fulcrum, AmTest Laboratories
5/15/2023	5/22/2023	Fulcrum, Fremont Analytical

Table 2.2: Cashmere Middle School Sampling and Testing Information

Sampling Date	Date Test Results Received	Sampling and Testing Provider
1/20/2023	1/27/2023	DOH
4/11/2023	4/13/2023	Fulcrum, AmTest Laboratories

Action Plan: Lead in Drinking Water

Cashmere School District



Table 2.3: Cashmere High School Sampling and Testing Information

Sampling Date	Date Test Results Received	Sampling and Testing Provider
1/20/2023	1/26/2023	DOH
3/03/2023	3/7/2023	Fulcrum, AmTest Laboratories
4/11/2023	4/13/2023	Fulcrum, AmTest Laboratories
5/15/2023	5/23/2023	Fulcrum, Fremont Analytical
7/03/2023	7/18/2023	Shawn Turner, Eurofins – Cascade Analytical

Table 2.4: Cashmere District Office Sampling and Testing Information

Sampling Date	<b>Date Test Results Received</b>	Sampling and Testing Provider
7/03/2023	7/18/2023	Shawn Tanner, Eurofins – Cascade Analytical

#### 3.0 Testing Requirements

The Revised Code of Washington (RCW) <u>28A.210.410</u> and <u>RCW 43.70.830</u> require all drinking water outlets in public schools built, or with all plumbing replaced, before 2016 be tested for lead at least once between July 1, 2014, and June 30, 2026. Retesting shall occur at least once every five years thereafter. Drinking water sampling and testing must be done in partnership with DOH or contracted through an accredited lab (https://apps.ecology.wa.gov/laboratorysearch/appfiles/DWLabs WAByCounty.pdf).

The Cashmere School District's water is supplied by the City of Cashmere Water Department. The City's drinking water source is supplied by two groundwater wells and one surface water source. The City's public water system is classified as a Group A Community system and is required to regularly test the water to confirm that potential contaminants concentrations are below the level identified by the Washington State Department of Health (DOH) and the Environmental Protection Agency (EPA) as safe to drink. Different potential contaminants have different required sampling schedules. The City of Cashmere's Water Department is required to test for lead every three years. The most recent testing was completed in 2020 and all 10 samples were reported to be below the regulatory action level for a Group A Community system of 15 parts per million (ppb). District collected water samples from the point closest to where the City's water entered the building was tested and was below the Washington State DOH threshold established for school of 5 ppb or less. The next scheduled testing of the City's public water system for lead will occur in the summer of 2023.

## **4.0 Action Plan Requirements**

If test results reveal elevated lead levels above 5 parts per billion (ppb) at any outlet used for drinking or cooking, an action plan must be developed. If your school has an existing action plan, you have the option of updating the existing plan to meet the following requirements instead of creating a new one.

Per RCW 28A.210.410, a school's action plan must meet the following requirements:

 The action plan shall be developed in consultation with DOH or your local health jurisdiction and in accordance with DOH's technical guidance.



- Consult with the Office of the Superintendent of Public Instruction (OSPI) when seeking funding
  for remediation activities. The OSPI Lead in Water Remediation Grant is a potential source of
  funding.
- Before the action plan is officially adopted, it must be shared publicly with the opportunity for public comment.
- For testing that occurred after July 25, 2021, the deadline for adopting the action plan is six months after receiving elevated lead test results.
- The action plan must include:
  - 1. **Mitigation measures** implemented since receiving elevated lead test results.
  - 2. A schedule of **remediation activities** that adhere to the technical guidance. The schedule may be based on the availability of state or federal funding for remediation activities.
  - 3. A plan for **post remediation sampling and testing** to confirm remediation activities have reduced lead concentrations at drinking water outlets to 5 or fewer ppb.

#### **5.0** Mitigation Measures

Mitigation measures are immediate (temporary or permanent) actions, such as shutting off an outlet or marking as "hand wash only," to stop access to drinking water with elevated lead concentrations. Outlets with lead concentrations exceeding 15 ppb must be shut off immediately upon receiving test results in accordance with the technical guidance.

Cashmere School District received a copy of the DOH testing results on February 24, 2023. Following review of the analytical results, the District identified 14 water outlets with elevated lead levels requiring mitigation, two additional locations measured at 5 ppb and one location one that did not have DOH results reported that the District elected to include in mitigation. In July 2023 the District completed supplemental outlet testing and identified two additional locations for mitigation measures.

On February 25, 2023, the District contracted with Fulcrum to complete follow-up testing to confirm the initial DOH results at the identify outlets with elevated lead concentration, and to collect second draw samples to determine if the connecting plumbing could also be contributing to the elevated lead concentrations.

See Tables 5.1, 5.2, 5.3 and 5.4 for a summary of mitigation measures implemented by the District for Vale Elementary, Cashmere Middle School, Cashmere High School, and the District Office.

There were no outlets identified in the District Building with lead concentrations above 5 ppb, however, one location was identified for mitigation measures as the lead concentration was identified near 5 ppb.



#### **5.1 Vale Elementary School**

Vale Elementary School had eight water outlets identified with elevated lead levels requiring mitigation. See Table 5.1 for a summary of mitigation measures.

**Table 5.1: Vale Elementary School Mitigation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented
1/21/2023	375359	Kitchen	South Steam Kettle, Faucet	119	Temporarily discontinued	February 2023
1/21/2023	375843	Kitchen	North Steam Kettle, Faucet	71	Temporarily discontinued	February 2023
1/21/2023	375840	Kitchen	West Wall, Sink	25	Temporary "Hand Wash Only" signage	February 2023
1/21/2023	375844	Kitchen	South Center, Sprayer	18	Temporary "Hand Wash Only" signage	February 2023
1/21/2023	375841	Kitchen	South Center, Faucet	17	Temporary "Hand Wash Only" signage	February 2023
1/21/2023	375339	Room 103	Bottle Fill	13	Previously not operational	February 2023
1/21/2023	375350	2 <sup>nd</sup> Grade Pod	Faucet (Staff only access)	8	Temporary "Hand Wash Only" signage	February 2023
1/21/2023	375358	Staff Room	Faucet	5	Temporary "Hand Wash Only" signage	February 2023

#### 5.2 Cashmere Middle School

Cashmere Middle School had two water outlets identified with elevated lead levels requiring mitigation. See Table 5.2 for a summary of mitigation measures.

**Table 5.2: Cashmere Middle School Mitigation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented
1/20/2023	375801	Room 114	Bottle Fill	7	Temporarily taken out of service	February 2023
1/20/2023	N/A <sup>1</sup>	Room 114	Faucet	N/A	Temporary "Hand Wash Only" signage	February 2023

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.



#### 5.3 **Cashmere High School**

Cashmere High School had eight water outlets identified with elevated lead levels requiring mitigation. See Table 5.3 for a summary of mitigation measures.

**Table 5.3: Cashmere High School Mitigation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented
1/20/2023	375293	Kitchen	Faucet	15	Taken out of service in 2018 following remodel.	2018
1/20/2023	375324	Locker Room (Boy Team Room)	Drinking Fountain	10	Temporarily taken out of service	February 2023
1/20/2023	375285	Locker Room (Women)	Drinking Fountain	10	Temporarily taken out of service	February 2023
1/20/2023	375286	Locker Room (Women)	Drinking Fountain	10	Temporarily taken out of service	February 2023
1/20/2023	375283	Locker Room (Men Locker)	Drinking Fountain	5	Temporarily taken out of service	February 2023
1/20/2023	375789	Home Economics	Faucet	9	Temporary "Hand Wash Only" signage	February 2023
1/20/2023	375788	Home Economics	Faucet	8	Temporary "Hand Wash Only" signage	February 2023
7/7/2023	N/A <sup>1</sup>	Baseball Visitor	Drinking Fountain	5.89	Temporarily taken out of service	July 2023

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

#### **District Office** 5.4

The District Office had one water outlet identified with lead levels close to the level requiring mitigation. Though not required, the District elected to include the one water outlet in the lead action plan as a conservative mitigation measure. See Table 5.4 for a summary of mitigation measures.



**Table 5.4: District Office Mitigation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented
7/7/2023	N/A <sup>1</sup>	Staff Room	Faucet	4.64 <sup>2</sup>	Temporary "Hand Wash Only" signage	July 2023

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

#### 6.0 Remediation Schedule

Remediation activities are short-term or permanent control measures to reduce lead concentrations in drinking water to 5 ppb or less. Per RCW 28A.210.410, outlets that have elevated lead levels (above 5 ppb) must be identified, remediated (if not permanently mitigated), and retested. Refer to the technical guidance for remediation options.

Cashmere School District Error! Reference source not found.Error! Referenc

## 6.1 Vale Elementary School

Vale Elementary School had eight water outlets identified with elevated lead levels requiring remediation. Follow-up sample collection and testing demonstrated that plumbing components in Vale Elementary kitchen were contributing lead to the concentrations measured at the outlets.

For the Vale Elementary kitchen, the District elected to replace all plumbing components with new cross linked polyethylene (PEX) plumbing in addition to permanent removal or replacement of outlets shown to have elevated lead concentrations. See Table 6.1 for a summary of remediation measures.

<sup>&</sup>lt;sup>2</sup> The District elected to include this location in the action plan as a conservative mitigation measure.



**Table 6.1: Vale Elementary School Remediation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented
1/21/2023	375359	Kitchen	South Steam Kettle, Faucet	119	Plumbing replacement and new fixture installed	April 2023
1/21/2023	375843	Kitchen	North Steam Kettle, Faucet	71	Plumbing replacement and new fixture installed	April 2023
1/21/2023	375840	Kitchen	West Wall, Sink	25	Removed fixture	April 2023
1/21/2023	375844	Kitchen	South Center, Sprayer	18	Plumbing replacement and new fixture installed	April 2023
1/21/2023	375841	Kitchen	South Center, Faucet	17	Plumbing replacement and new fixture installed	April 2023
1/21/2023	375339	Room 103	Bottle Fill	13	Removed fixture	April 2023
1/21/2023	375350	2 <sup>nd</sup> Grade Pod	Faucet (Staff only access)	8	Installed new fixture	April 2023
1/21/2023	375358	Staff Room	Faucet	5	Installed new fixture	April 2023

#### 6.2 Cashmere Middle School

Cashmere Middle School had two water outlets identified with elevated lead levels requiring remediation. See Table 6.2 for a summary of remediation measures.

**Table 6.2: Cashmere Middle School Remediation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented	
1/20/2023	375801	Room 114	Bottle Fill	7	Installed new fixture	February 2023	
1/20/2023	N/A <sup>1</sup>	Room 114	Faucet	N/A	Installed new fixture	February 2023	

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

## 6.3 Cashmere High School

Cashmere High School has eight water outlets identified with elevated lead levels requiring remediation. See Table 6.3 for a summary of remediation measures.



**Table 6.3: Cashmere High School Remediation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented
1/20/2023	375293	Kitchen	Faucet 15		Removed Fixture	May 2023
1/20/2023	375324	Locker Room (Boy Team Room)	Drinking Fountain	10	POU Filtration installation <sup>2</sup>	October 2023
1/20/2023	375285	Locker Room (Women)	Drinking Fountain	Drinking Fountain 10		October 2023
1/20/2023	375286	Locker Room (Women)	Drinking Fountain	10	POU Filtration installation <sup>2</sup>	October 2023
1/20/2023	375283	Locker Room (Men Locker)	Drinking Fountain	5	POU Filtration installation <sup>2</sup>	October 2023
1/20/2023	375789	Home Economics	Faucet	9	Installed new fixture and inline POU filter	May 2023
1/20/2023	375788	Home Economics	Faucet	8	Installed new fixture and inline POU filter	May 2023
7/7/2023	N/A <sup>1</sup>	Baseball Visitor	Faucet	5.89	Inline POU filter installed	October 2023

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

#### 6.4 District Office

The District Office had one water outlet identified with lead levels close to the level requiring mitigation. Though not required, the District elected to include the one water outlet in the lead action plan as a conservative mitigation measure. See Table 6.4 for a summary of mitigation measures.

**Table 6.4: District Office Mitigation Measures** 

Sample Collection Date	Sample ID	Location	Fixture Type	Lead Test Result (ppb)	Mitigation Measure	Date Implemented
7/7/2023	N/A <sup>1</sup>	Staff Room	Faucet	4.64	Installed new fixture and POU filter	October 2023

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

<sup>&</sup>lt;sup>2</sup> The District elected to install inline point of use (POU) filters for all locker room drinking fountains because three of the four fountains had elevated lead concentrations and the fourth fountain was at the action level.



#### 7.0 Post Remediation testing

Following the remediation of the outlets with elevated lead levels, Fulcrum and the District completed post-remediation testing to ensure that remediation actions brought the levels below the action level. See Table 7.0 for a summary of the post remediation testing.

**Table 7.0: Summary of Post Remediation Testing** 

School Name	Completed Post-Remediation Testing
Vale Elementary School	Two outlets were permanently removed. Four outlets had plumbing in addition to
	fixtures replaced. Two outlets had fixtures replaced. Six outlets were replaced and
	retested by Fulcrum on April 19, 2023, and May 15, 2023. All post remediation
	results had a lead concentration of 5 ppb or less.
Cashmere Middle School	Two outlets were replaced and retested by Fulcrum on April 11, 2023. All post
	remediation results had a lead concentration of 5 ppb or less.
Cashmere High School	One outlet was permanently removed. Two outlets were replaced and had POU
	filters installed. Five outlets had POU filters installed. Two of the seven outlets
	were sampled and retested by Fulcrum on May 15, 2023. Five fixtures are pending
	conditioning and retesting. Post remediation results for the two fixtures retested
	had a lead concentration of 5 ppb or less.
District Office	One outlet was replaced and is pending conditioning and retesting.

#### 7.1 Vale Elementary School

Samples collected by the DOH on January 21, 2023, documented that Vale Elementary School had eight water outlets with elevated lead levels. The District completed initial mitigation measures as documented in Section 5.0, and remediation measures as documented in Section 6.0. Following completion of the remediation measures, Post remediation water testing collected by Fulcrum documented each of the outlets that were not permanently removed from service to have lead concentration below the action level of 5 ppb. See table 7.1 for a summary of initial and post remediation outlet analytical results.

**Table 7.1: Vale Elementary School Post Remediation Confirmation Testing** 

Sample ID	Location	Fixture Type	Initial Lead Test Result (ppb) 1/21/23	Post Remediation Result (ppb)	Post Remediation Sampling Date
375359	Kitchen	South Steam Kettle, Faucet	119	1.48	4/19/23
375843	Kitchen	North Steam Kettle, Faucet	71	0.66	5/15/23
375840	Kitchen	West Wall, Sink	25	Removed fro	om Service
375844	Kitchen	South Center, Sprayer	18	1.04	4/19/23
375841	Kitchen	South Center, Faucet	17	0.95	5/15/23
375339	Room 103	Bottle Fill	13	Removed fro	om Service
375350	2 <sup>nd</sup> Grade Pod	Faucet (Staff only access)	8	1.09	5/15/23
375358	Staff Room	Faucet	5	2.67	4/19/23

Contact the District representative identified in Section 8.0 for the school building individual sampling event summaries and supporting analytical data reports.



#### 7.2 Cashmere Middle School

Samples collected by the DOH on January 21, 2023, documented that Cashmere Middle School had one water outlet with elevated lead levels. One additional outlet was identified with elevated lead during subsequent investigations. The District completed initial mitigation measures as documented in Section 5.0, and remediation measures as documented in Section 6.0. Following completion of the remediation measures, Post remediation water testing collected by Fulcrum documented each of the outlets that were not permanently removed from service to have lead concentration below the action level of 5 ppb. See table 7.2 for a summary of initial and post remediation outlet analytical results.

**Table 7.2: Cashmere Middle School Post Remediation Confirmation Testing** 

Sample ID	Location	Fixture Type	Initial Lead Test Result (ppb) 1/21/23	Post Remediation Result (ppb)	Post Remediation Sampling Date
375801	Room 114	Bottle Fill	7	3.78	4/11/23
N/A <sup>1</sup>	Room 114	Faucet	N/A	0.768	4/11/23

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

Contact the District representative identified in Section 8.0 for the school building individual sampling event summaries and supporting analytical data reports.

#### 7.3 Cashmere High School

Samples collected by the DOH on January 21, 2023, documented that Cashmere High School had seven water outlet with elevated lead levels. One additional outlet was assumed to have elevated lead as it was identical in manufacture to the matching outlet fixtures and was at the action level. The District completed initial mitigation measures as documented in Section 5.0, and remediation measures as documented in Section 6.0. Following completion of the remediation measures, Post remediation water testing collected by Fulcrum documented each of the outlets that were not permanently removed from service to have lead concentration below the action level of 5 ppb. See table 7.3 for a summary of initial and post remediation outlet analytical results.

Table 7.3: Cashmere High School Post Remediation Confirmation Testing

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Sample ID	Location	Fixture Type	Initial Lead Test Result (ppb) 1/21/23	Post Remediation Result (ppb)	Post Remediation Sampling Date
375293	Kitchen	Faucet	15	Removed fro	om Service
375324	Locker Room (Boy Team Room)	Drinking Fountain	10	Pending post rem	nediation testing
375285	Locker Room (Women)	Drinking Fountain	10	Pending post rem	nediation testing
375286	Locker Room (Women)	Drinking Fountain	10	Pending post rem	nediation testing
375283	Locker Room (Men Locker)	Drinking Fountain	5	Pending post rem	nediation testing

Action Plan: Lead in Drinking Water

Cashmere School District



Sample ID	Location	Fixture Type	Initial Lead Test Result (ppb) 1/21/23	Post Remediation Result (ppb)	Post Remediation Sampling Date
375789	Home Economics	Faucet (sink 3)	9	0.939	5/15/23
375788	Home Economics	Faucet (sink 2)	8	1.18	5/15/23
N/A <sup>1</sup>	Baseball Visitor	Faucet	5.89	Pending post rem	ediation testing

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

Contact the District representative identified in Section 8.0 for the school building individual sampling event summaries and supporting analytical data reports.

#### 7.4 District Office

A sample collected by the District on July 7, 2023, documented that District Office had one water outlet with lead levels close to the action level of 5 ppm. The District elected to include this outlet in the action plan as a conservative response. The District completed initial mitigation measures as documented in Section 5.0, and remediation measures as documented in Section 6.0. Following completion of the remediation measures, Post remediation water testing collected by the District documented the outlet to have a lead concentration below the action level of 5 ppb. See table 7.4 for a summary of initial and post remediation outlet analytical results.

**Table 7.4: District Office Post Remediation Confirmation Testing** 

Sample ID	Location	Fixture Type	Initial Lead Test Result (ppb) 7/7/23	Post Remediation Result (ppb)	Post Remediation Sampling Date	
N/A <sup>1</sup>	Staff Room	Faucet	4.64	Pending post remediation testing		

<sup>&</sup>lt;sup>1</sup> The faucet fixture was not tested in the original DOH event.

Contact the District representative identified in Section 8.0 for the school building individual sampling event summaries and supporting analytical data reports.

## **8.0 Communication, Retesting and Maintenance Plans**

Cashmere School District will communicate information about the Action Plan for remedial action to reduce lead concentrations in drinking water through District and Building website postings. This information will be updated annually, and following post remediation testing events, following triennial retesting events, and whenever procedural changes occur. Refer to the Revision History Table located on page ii.

<sup>&</sup>lt;sup>2</sup> The District elected to replace all matching drinking fountains in the locker rooms.

<sup>&</sup>lt;sup>2</sup> The District elected to replace the fixture and install a POU filter..



#### 8.1 Contact Information

The following person(s) is the main point of contact for more information related to this action plan.

Name: Glenn Johnson Role: Superintendent

Email: gjohnson@cashmere.wednet.edu

Phone: 509.782.3355

Preferred contact method: 

⊠ Email □ Phone

#### 8.2 Retesting Plan

The Cashmere School District has elected to retest school building outlets every three years.

The next cycle of outlet testing for elevated lead concentrations will occur in 2026. Following completion of each triennial testing event, Table 8.2 Summary of Triennial Retesting will be completed and determination if additional mitigation or remediation will be required. Should additional mitigation or remediation be required a new action plan will be developed.

**Table 8.2: Summary of Triennial Retesting** 

Location	ion Vale Elementary		Cashmere Middle School		Cashmere High School		District Office		Mitigation/ Remediation	
Triennial Testing Date	of Outlets	# >5 ppb	# of Outlets	# >5 ppb	# of Outlets	# >5 ppb	# of #>5 Outlets ppb		Required	

#### 8.3 Maintenance Plan

Based on the fixture type and plumbing configuration of select outlets that initial testing documented to be greater than 5 ppm, the Cashmere School District elected it install two different styles of POU filter systems: fixtures designed for POU filters that have filter replacement indicator lights (POU-light) and inline system filters that measure the comparative resistance gradient between the inlet and outlet (POU-gradient).

There are seven outlets where the elected remediation action was installation of a POU filter: four locations have POU-light system and three have POU-gradient systems. Prior to the DOH sampling the District had POU filters that were rated for lead filtration on most of the hallway fountains and bottle fillers. As many of the DOH samples that were documented to be 5 ppb or less were collected from hallway fountains and



bottler fillers post POU filter, the District elected to include all outlet locations with POU filters in the maintenance plan discussion.

Fixtures that have filter replacement indicator lights measure the volume of water moving through the filter. The POU-light manufacturer identifies the total gallons of water that the filter is effectively at removing lead concentrations. When the manufacture's identified gallonage has passed through the filter the indictor light will come on. Building custodial staff have been trained to notify maintenance staff when indicator lights are on so that filter replacement can be scheduled. Additionally, maintenance staff complete a walk-through of each building twice a year to confirm that no indicator lights are on at any of the POU-light outlet locations.

Fixtures that have been configured to have an inline POU-gradient filter are also rated by the manufacturer for how many gallons of water the filter can effectively remove lead concentrations. As the POU-gradient filter removes lead or sediments from the water the gradient difference between the filter inlet and outlet filter can be observed by viewing the filter housing. Every six months (twice a year) the maintenance staff will access the filter housing, observe the gradient, and replace the filter. As a precautionary measure the filter will be replaced regardless of the gradient capacity. If filter gradient is observed to be more than 80% capacity, then the POU-gradient filter replacement schedule will be increased to three time a year.

Following each biennial inspection by maintenance, the corresponding Table 8.3 box will be checked to indicate the work is complete.

**Table 8.3: Point of Use Filter Maintenance Scheule** 

	,ht	lo			C	ashmere l	High Scho	ol			
POU Filter Inspection/ Replacement Date	Vale Elemtary POU-Light Cashmere Middle School	Cashmere Middle School POU-Light	Mens locker room A POU-Gradient	Mens locker room B POU-Gradient	Womens locker room A POU-Gradient	Womens locker room B POU-Gradient	Home Economic Sink 2 POU-Gradient	Home Economic Sink 3 POU-Gradient	Baseball Vistors POU- Gradient	Other fixtures POU- Light	District Office POU- Gradient



#### 9.0 Limitations

Fulcrum Environmental Consulting, Inc. has performed professional services in accordance with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. The conclusions and recommendations are based upon our field observations, field screening, and independent laboratory analysis. The scope of services for this project is limited to Fulcrum's sampling activities associated with lead reduction in drinking water. This document does not imply that the property is free of other environmental concerns. This report is solely for the use and information of our client. Any reliance on this report by a third party is at that party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing at the time services were performed. Fulcrum Environmental Consulting, Inc. is not responsible for the impact of changes in environmental standards, practices, or regulations subsequent to the performance of services. Fulcrum Environmental Consulting, Inc. does not warrant the accuracy of information supplied by others, or the use of segregated portions of this report. Fulcrum Environmental Consulting, Inc. assumes no liability for conditions that were not included in our scope of services, or conditions not generally recognized as predictable when services were performed.

#### 10.0 References and Links

Revised Code of Washington (RCW): 28A.210.410: Lead contamination at drinking water outlets (October 5, 2022) https://app.leg.wa.gov/RCW/default.aspx?cite=28A.210.410&pdf=true

2022. Lead in School Technical Guidance, Washington State Department of Health, DOH Publication 334-468, November 2022.

https://doh.wa.gov/sites/default/files/2023-01/334-468-LeadinSchoolsTechnicalGuidance.pdf

Lead in Water Remediation Grant, Washington Office of the Superintendent of Public Instruction, <a href="https://www.k12.wa.us/policy-funding/school-buildings-facilities/grants-funding-resources-non-scap/lead-water-remediation-grant">https://www.k12.wa.us/policy-funding/school-buildings-facilities/grants-funding-resources-non-scap/lead-water-remediation-grant</a>