

November 6, 2023

Agency of Natural Resources
State of Vermont
Department of Environmental Conservation
Drinking Water and Groundwater Protection Division
1 National Life Drive, Davis Building, 4'th Floor
Montpelier, VT 05620-3521

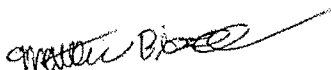
Re: Lead Service Line Replacement Plan, Chester, VT
DG 4123002
System - Chester Water Department
System Address - PO Box 370, Chester, VT 05143

To Whom it May Concern,

On behalf of the Chester Water Department (WSID #5318), the attached Lead Service Line Replacement Plan is submitted to the Vermont Department of Environmental Conservation in accordance with 40 CFR 141.84(b). Chester Water Department affirms that it will implement this plan effective immediately.

If you have any questions, please contact our office.

Sincerely,
DUFRESNE GROUP



Matthew Bissell
Engineering Technician

&

TOWN OF CHESTER



Julie Hance
Town Manager

WSID	5318
Water System Name	Chester Water Department
Date Completed	January 16'th, 2024
Inventory Completed By	Dufresne Group

**If there are any comments pertaining to information provided in this inventory, please use this space:
(optional)**

265 Church Street customer side reported as brass. 113 North Street only has a future use curbstop and it does not continue into the building. 20 Coach Road customer side is 1 1/4" diameter. 319 South Main Street customer side is 1 1/4" diameter. 130 Treatment Plant Road customer side is 1 1/2" diameter. 55 VT Route 11 is customer side is 1 1/2" diameter. 117 Main Street system and customer side line material is ductile iron. 352 Main Street system side line material is ductile iron. 936 VT RT 11 West customer and system side is 1 1/4" diameter. 99 School Street source listed as other since unable to identify material. 17 Grafton Road source listed as other since unable to identify material. 17 River Street Future Use is a future use curbstop installed to the right of way.

The following section will auto-fill upon completion of the inventory

Total number of Service Lines	570
Number of Lead	0
Number of Galvanized Requiring Replacement	7
Number of Unknown	2
Number of Non-Lead	561

REVISION DATE: 09.27.2022

Information being asked	Background/explanation	Status
Information about the location of the service line		
Street Address	The correct address of the building being served.	Required
Town/City	Not to include any resident information. Ex: 115 State Street, Montpelier, Vermont 05602	
State		
Zip Code		
SPAN	This should be an 11-digit number in three segments. Ex: 405-126-13234. You can locate these numbers here: https://tax.vermont.gov/span-finder	
Coordinates of where the service line connects to water main - Latitude	Where the water line enters the building. An approximate guess where the line enters the building is acceptable. The number must be between 42.7 and 45.1 and contain <u>AT LEAST</u> 4 decimal places: ex: 44.26247	Optional, but encouraged
Coordinates of where the service line connects to water main - Longitude	Where the water line enters the building. An approximate guess where the line enters the building is acceptable. Must contain a "-" before the number and be between -73.5 and -71.2. ex: -72.58044	
Coordinates of where the service line connects to building - Latitude	Where the service line connects to the water main. Must be between 42.7 and 45.1 and contain AT LEAST 4 decimal places: ex: 44.26247	
Coordinates of where the service line connects to building - Longitude	Where the service line connects to the water main. Must contain a "-" before the number and be between -73.5 and -71.2. ex: -72.58044	
Supplying Water Main		
Supplying Water Main - Diameter (inches)	If you know the size of the water main serving the service/address listed.	Optional, but encouraged
Supplying Water Main - Current Line Material	If you know the material of the water main serving the service/address listed.	Optional, but encouraged

Information about the system portion of the service line		
Does this service line have a lead gooseneck, pigtail or other connector?	The pigtail/gooseneck is the small section of pipe, less than 2 feet long, connecting the water main and the service line. The system may not have this information, but if you know whether or not the pigtail/connector is lead, log that on the form. If you do not know, select "unknown".	Required
Current line material	What is the current system-owned portion of the line made out of? Select from the drop-down. If the system does not own any portion of the service line, select "NA - Customer owns 100% of service line".	Required
Was the line material ever previously lead?	Answer "yes" if you know or have records that at one point this service line was made of lead.	Required
Installation/Replacement date (MM/DD/YYYY)	What is the installation date of the current service line? (if this is not the original service line, put the date it was most recently replaced). Use the 2 digit month, 2 digit day, and 4 digit year, for example: 07/04/1776. If you only know the year, put the 4 digit year, e.g. "1776".	Not required for inventory, but needed for rule compliance.
Diameter (inches)	What is the diameter of the system-owned portion of the service line? Select from the drop down options.	Recommended
What source(s) did you use to identify the line material?	Identify the source you used to identify the material(s) of the service line. If you select "other", please provide comments about this source/sources in the comment box in the "Intro and Summary Table" tab.	Required
Information about the customer portion of the service line		
Current line material	what is the current customer-owned portion of the service line made out of? Select from the drop-down. If the customer does not own any of the service line select "N/A - Sysetm owns 100% of service line"	Required
Installation date (MM/DD/YYYY)	What is the installation date of the current service line? (if this is not the original service line, put the date it was most recently replaced)	Not required for inventory, but needed for rule compliance.
Diameter (inches)	what is the diameter of the customer-owned portion of the service line? Select from the drop down options.	Recommended
What source(s) did you use to identify the line material?	Identify the source you used to identify the material(s) of the service line.	Required
Galvanized Requiring Replacement	This cell will auto-fill based on the information provided about the current, historic, or unknown presence of lead upstream of a galvanized segment. You do not need to do anything in this cell.	Auto-completes (no action needed)

Information about the building that is connected		
Building Type	Select from the drop down, whether it is single family, multi family, school, commercial, etc. For the purpose of this document, a single family home means the home is a stand-alone structure with its own lot intended for one family	Not required for inventory, but needed for rule compliance.
Were staff denied access to property or did the owner refuse to respond?	You must identify if you were denied access to do any investigation.	Required
Is treatment present in the building or at the point of use?	Such as a water softener or other filtration device/system.	Not required for inventory, but needed for rule compliance.
Interior plumbing - what material is used the most?	Identify the material of pipe most used within the building.	Not required for inventory, but needed for rule compliance.
Interior plumbing - what material is used 2nd most?	If multiple materials are used, identify the material of pipe second most-used within the building. If there is only one material used in the building, select "Not Applicable".	Not required for inventory, but needed for rule compliance.
Interior plumbing - installation Date (MM/DD/YY)	Identify the date (or year) the interior plumbing was installed. If the plumbing has all been replaced, identify the date of replacement. Use the 2 digit month, 2 digit day, and 4 digit year, for example: 07/04/1776. If you only know the year, put the 4 digit year, e.g. "1776".	Not required for inventory, but needed for rule compliance.

Instructions for filling out the Multiple Building Inventory Worksheet

***Red text indicates required fields**

Once the E911 Address is entered, all required fields will fill with the color orange until properly completed.

Failure to fill in Columns A, M, N, or R will result in the service line not being counted in the total on the Intro and Summary Table Worksheet

****NOTE:** Water Systems should try to complete as much information as possible. While not all fields are required, the additional information can help with future rule compliance.

Lead Service Line Replacement Plan

Chester Water Department

WSID: 5318

DATE: November 6, 2023

Section 1: Strategy for determining the composition of lead status unknown service lines in the inventory

The Water System determines the composition of lead status unknown service lines in its inventory by utilizing the methodologies listed below:

Water Quality Sampling

- Service Line Sampling
 - Calculate premise plumbing volume, flush out premise plumbing, then collect and analyze a service line sample.
- Flushed Sampling
 - After a set flushing time, collect and analyze a sample.
- Sequential Sampling
 - Collect and analyze a series of consecutive samples from the interior tap to the service line.

Excavation

- Mechanical Excavation
- Vacuum Excavation

Modeling

- Predictive Modeling
- Geostatistical Modeling
- Emerging Method approved by Vermont Department of Environmental Conservation
- Other Method approved by Vermont Department of Environmental Conservation
- Non-applicable: The water system does not have lead status unknown material service lines. If lead status unknown material service lines are discovered, the water system will revise and resubmit this plan to the Vermont Department of Environmental Conservation.

Section 2: Procedure for conducting full lead service line replacement

When conducting full lead service line replacement projects, the Water System implements the procedure outlined below.

1. Assess Lead service replacement prioritization to determine replacement service or services.
2. Develop scope of work for replacement project.
3. Solicit bids to local contractors for service replacement.
4. Acquire local permits if necessary for service replacement such as permits to excavate from the Town Highway Department.
5. Acquire state permits if necessary for service replacement such as a DEC WW Permit.
6. Acquire property owner permissions for customer-owned portion of lines.
7. Complete service line replacement project.
8. Update service line inventory and replacement prioritization.

Section 3: Strategy for informing customers before a service line replacement

Before a service line replacement, the Water System will provide information to customers with lead, galvanized requiring replacement, and unknown material service lines.

The information must:

- provide persons served by a lead, GRR, or lead status unknown service line information regarding the water system's lead service line replacement program and opportunities for replacement of the lead service line;
- be provided to persons served at the service connection with a lead, GRR, or lead status unknown service line either in-person or by mail; and
- (if applicable) be sent within 30 days of the end of the tap sampling period in which a trigger level exceedance occurred.

The water system will notify customers at least 45 days prior to the replacement of a water system's portion of a service line. In the notification, the water system will offer to replace the customer-owned portion of the service line.

The water system will utilize the methods selected below for informing customers of a service line replacement:

- Door-to-door Conversations
- Door Hangers
- Mailings (letters and/or postcards)
- E-mails
- Public Notices
- Town Hall
- Media Outreach
- Social Media Posts
- Other Method approved by Vermont Department of Environmental Conservation

Section 4: Lead service line replacement goal rate

The Water System serves 10,000 or fewer persons and is not required to provide a replacement goal rate at the time of this plan's submission.

OR

In the event of a lead trigger level exceedance, the Water System has set a lead service line replacement goal rate of

Section 5: Procedure for customers to flush service lines and premise plumbing of particulate lead

Before, during, and after a gooseneck replacement, service line replacement, or other activity necessitating this procedure, the Water System will instruct customers to follow a procedure to flush service lines and premise plumbing of particulate lead.

When possible, the Water System will notify customers in advance of service line replacements in accordance with the strategy described in Section 3 of this Plan.

Prior to working on the service line, the Water System will close water flow to the building interior at a shut-off valve. Then, the Water System will complete the service line replacement. After the work is completed, the Water System will open flow to the building and premise plumbing.

Customers will be instructed to follow this procedure for flushing service line and premise plumbing of particulate lead:

- Do not consume tap water, open hot water taps, use icemaker, or use filtered water dispenser until after this flushing procedure is complete.
- Remove faucet aerators, screens, and shower heads from all cold water taps in the building.
- Beginning with the lowest level, fully open the cold water taps throughout the building including showers, baths, and hose bibs.
- After all the faucets are open, let the water run for at least 30 minutes.
- Turn off each tap starting with the taps at the lowest level of the building.
- Clean aerators and screens of solid debris place them back on faucets.

Section 6: Lead service replacement prioritization strategy

Vermont Department of Environmental Conservation's priority replacement strategy factors are summarized in the table below.

Priority Points	Prioritization Factor	LCRR Requirement
10	Known Lead Service Line	Required
10	Populations Most Sensitive to the Effects of Lead <ul style="list-style-type: none"> • Schools and Day Care Facilities • Homes with children and/or adults who are pregnant or may become pregnant 	Required
10	Disadvantaged Communities	Required
8	Known GRR Service Line	Required
5	Populations Most Sensitive to the Effects of Lead <ul style="list-style-type: none"> • Nursing Homes • Medical Facilities 	Required
5	Companion Projects (concurrent infrastructure projects)	Not Required
5	Compact Projects (concurrent project in the same area)	Not Required
3	Long Length Lead Pipe Projects	Not Required
2	Other Factors Listed in ANSI/AWWA C810-17 § II.A. <ul style="list-style-type: none"> • Service lines physically disturbed by digging, excavation, repair, or other activities • Existing partial lead service line replacements • Consideration of presence of lead goosenecks or pigtails 	Not Required
1	Other Factors Significant to the Water System	Not Required

Section 7: Funding strategy for conducting lead service line replacements

The Water System will fund lead service line replacements by:

Using capital resources, other water budget sources, or through grants/loans from State/Federal funding programs such as the State Revolving Fund.

For customers that are unable to pay to replace the portion of service line they own, the Water System plans to:

Develop a local funding program that may include grants and loan options.