COZEN O'CONNOR

July 28, 2025

VIA E-FILING

Jonathan P. Nase
Direct Phone 717-773-4191
Direct Fax 215-372-2340
jnase@cozen.com

Matthew Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Second St.
Harrisburg, PA 17120

Re: Petition of Veolia Water Pennsylvania, Inc. for Approval of a Lead Service Line Replacement Program; Docket No. P-2023-3042107

Commission-Approved Modified Long-Term Infrastructure Improvement Plan (Including the Company's Lead Service Line Replacement Plan)

Dear Secretary Homsher:

In accordance with Ordering Paragraph 3 of the Opinion and Order entered on July 24, 2025 at Docket No. P-2023-3042107, Veolia Water Pennsylvania, Inc. ("VWPA") is today filing its Commission-Approved Modified Long-Term Infrastructure Improvement Plan (which includes VWPA's Lead Service Line Replacement Plan) at Docket Nos. P-2021-3028256 and P-2023-3042107.

Copies have been served as shown on the enclosed Certificate of Service.

Please contact me if you have any questions or concerns about the enclosed filing.

Sincerely,

COZEN O'CONNOR

By: Jonathan P. Nase
Counsel for *Veolia Water Pennsylvania, Inc.*

JPN
Attachments

cc: Per Certificate of Service
Larry Finnicum, Vice President and General Manager
Maryanne Hatch, Vice President – Rates and Regulatory Affairs

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Veolia Water Pennsylvania, Inc. For Approval of a Lead Service Line Replacement Program	: : :	Docket No. P-2023-3042107

CERTIFICATE OF SERVICE

I hereby certify that I have this 28th day of July, 2025, served a true copy of the foregoing **Commission-Approved Modified Long-Term Infrastructure Improvement Plan (Including the Company's Lead Service Line Replacement Plan)**, upon the parties of record in this proceeding, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant) in the manner and upon the persons listed below:

SERVICE BY E-MAIL ONLY

Harrison W. Breitman, Esq.
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923
HBreitman@paoca.org
Counsel for the *Office of Consumer Advocate*

Steven C. Gray, Esq.
Rebecca Lyttle, Esq.
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1sth Floor
Harrisburg, PA 17101-1923
sgray@pa.gov
relyttle@pa.gov
Counsel for the *Office of Small Business Advocate*

Respectfully submitted,

Jonathan P. Nase, Esq.
Counsel for *Veolia Water Pennsylvania, Inc.*

December 18, 2024

Veolia Water Pennsylvania, Inc.

Long Term Infrastructure Improvement Plan for Years 2022 through 2026 in Support of Water Distribution System Improvement Charge

TABLE OF CONTENTS

TABLES

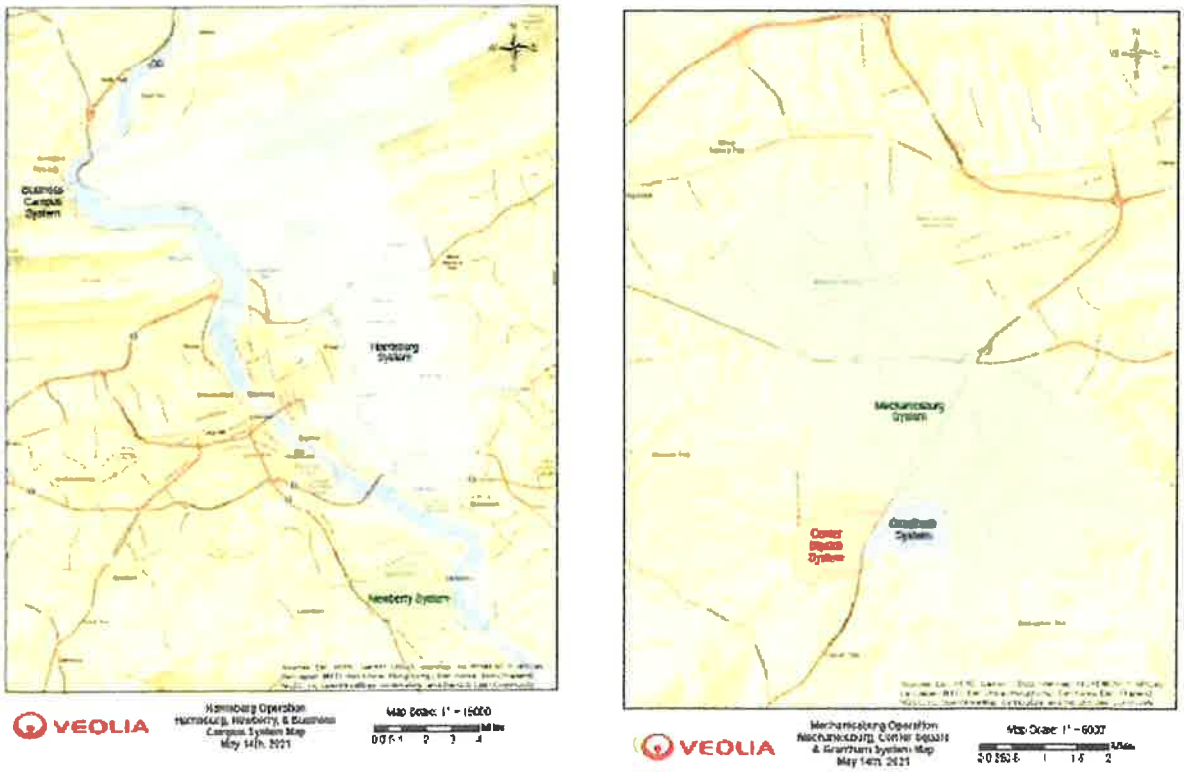
FIGURES

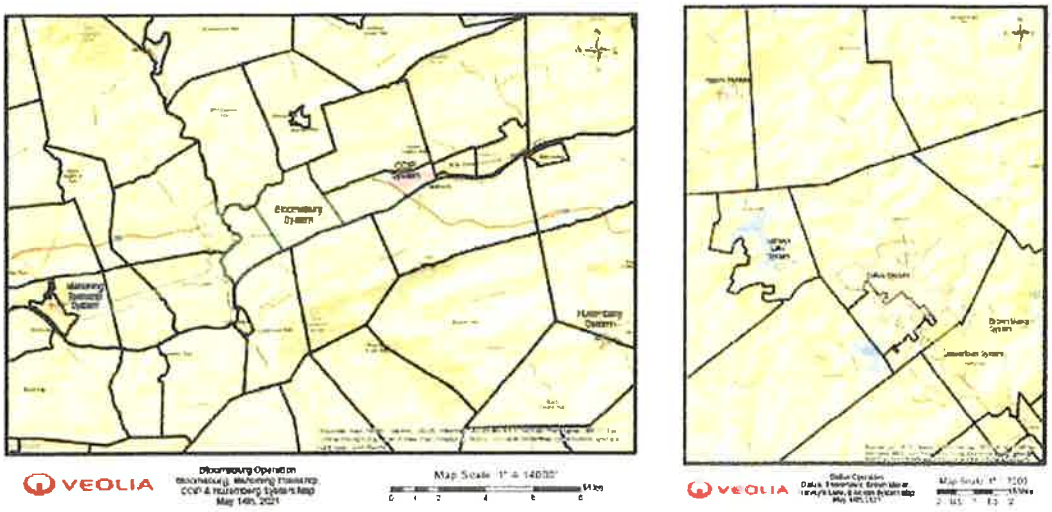
GRAPHS

Introduction

Veolia Water Pennsylvania, Inc. ("Veolia" or the "Company"), f/k/a SUEZ Water Pennsylvania Inc. provides water service to over 66,000 customers in nine counties throughout Pennsylvania: Columbia; Cumberland; Dauphin; Franklin; Luzerne; Perry; Schuylkill; Wyoming; and, York Counties. *See* **Figure 1** for a map of its four major service territories.

Figure 1 Map of Veolia's Service Area by County





The distribution system is made up of approximately 925 miles of main, 13,750 main line valves, 3,669 fire hydrants, 68,146 service lines, and 64,389 meters. Veolia has four operating areas, the largest of which is Harrisburg/Newberry which serves 61.4% of the Company's customer base. Its Mechanicsburg system provides service to 22.2%, and the Bloomsburg and Dallas systems in northeast Pennsylvania serve the remaining 16.4%.

The current Harrisburg System was originally incorporated as Dauphin Consolidated Water Company in 1903 as the result of the merger of three companies. From 1962 to1994, it expanded by acquiring 11 smaller private and municipal systems, including Newberry Water Company in 1985. The Company's Mechanicsburg System was acquired in 1954 and later expanded its service area when the Grantham Water Company was acquired in 1989 and the Center Square System was acquired in 2000. The Bloomsburg System in Columbia County was originally incorporated in 1877 and was acquired in 1986. The Bloomsburg operation also includes two small systems: (a) Columbia County Industrial Park (CCIP) and Nuremburg, as well as (b) the Mahoning water (and wastewater) system purchased in 2019. The Dallas System was formed

through the acquisition of four small companies in 1990. **Table 1** provides a breakdown of customers by operation.

Table 1 - Number of Customers by Operation

Operation Area	Customer Count	Percentage
Bloomsburg	7,241	10.9%
Dallas	3,650	5.5%
Harrisburg/Newberry	40,713	61.4%
Mechanicsburg	14,713	22.2%
TOTAL	**66,317**	100.0%

The Company's customer base in all four operations is predominantly residential. **Table 2** provides a breakdown of the Company's customers by classification.

Table 2 - Number of Customers by Classification

Customer Classification	Customer Count	Percentage
Commercial	5,016	7.6%
Industrial	54	0.1%
Public Authority	235	0.4%
Fire (PRP)	881	1.3%
Residential	60,131	90.7%
TOTAL	**66,317**	100.0%

Veolia received approval to charge a DSIC capped at 5% on March 2, 1998 at Pennsylvania Public Utility Commission ("Commission") Docket No. R-00984265. The first DSIC charged by Veolia was 0.15% of billed revenues, effective April 1, 1998. Then, on October 23, 2013, the Company petitioned the Commission to increase the DSIC cap from 5% to 7.5% at Docket No. P-2013-2389331. The Commission approved the Company's request for an increase to the DSIC in a final order entered December 19, 2013. In the Company's filing of Supplement No. 36 to Tariff Water - PA PUC No. 7, Ninth Revised Page 3A, on January 13, 2014, the Company reached its 7.5% cap. The cap was reset to zero as a result of a joint settlement of the Company's 2018 general

base rate case. *See Pa. Pub. Util. Comm'n v. Suez Water PA Inc.*, Docket No. R-2018-3000834 (Order entered Dec. 6, 2018). Since resetting the DSIC to 0% as a result of the base rate case, the Company has not requested an increase to its DSIC surcharge.

Section 1: Types and Age of Eligible Property

The assets that are DSIC-eligible include mains, valves, hydrants, and meters. Other DSIC-eligible property includes the tie-in of dead-end mains, the rehabilitation of mains via cleaning and lining, underground infrastructure replacement, the unreimbursed costs of relocating facilities due to highway projects, and other related capitalized costs. 66 Pa. C.S. § 1351 (definition of "eligible property" (3)).

Tables 3 through 5 describe the Company's' current main inventory. **Table 6** sets forth the valve inventory. **Table 7** identifies the number of services by material type. **Table 8** lists the hydrant inventory by decade installed. **Tables 9 and 10** describes the Company's meter inventory.

Table 3 - Linear Footage/Mileage of Main by Diameter

Diameter	Feet	Miles	Percent
<4"	214,180	41	4%
4"	241,331	46	5%
6"	1,044,947	198	21%
8"	2,122,851	402	43%
10"	113,320	21	2%
12"	913,159	173	19%
>12"	235,707	45	5%
Total	4,885,495	925	100%

Table 4 - Miles of Main Installed by Material in Each Decade

Material	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019	Total Miles
Unlined CI	18	8	8	17	20	18	46	6	0	0	0	0	141
Galvanized	0	1	1	2	1	4	2	0	0	0	0	0	11
Asbestos Cement	0	0	0	0	2	39	75	94	6	0	0	0	216
Ductile Iron	0	0	0	0	0	0	0	1	6	20	43	106	177
PVC & PET	0	0	0	0	0	0	0	6	98	126	110	41	381
	18	9	9	19	23	60	123	107	109	146	154	147	925

Table 5 - Average Age of Mains

Material	Year - Average Installed	Average Age
Unlined CI	1944	77
Galvanized	1945	76
Asbestos Cement	1965	56
Ductile Iron	2009	12
PVC & PET	1997	24
Total Water Main	1984	37

Table 6 - Number of Valves by Size and Decade Installed

AGE	<4"	4"	6"	8"	10"	12"	>12"	Total
< 1910	6	74	59	4	22	17	0	182
1910 - 1919	12	29	1	12	1	1	5	61
1920 - 1929	9	24	16	1	22	0	14	86
1930 - 1939	31	47	101	30	7	7	2	225
1940 - 1949	23	69	89	38	0	13	14	246
1950 - 1959	51	90	271	97	24	27	3	563
1960 - 1969	38	30	534	212	36	97	59	1,006
1970 - 1979	51	40	552	315	11	173	35	1,177
1980 - 1989	188	17	323	727	6	285	10	1,556
1990 - 1999	295	42	167	1294	10	440	36	2,284
2000 - 2009	375	75	152	1815	20	562	43	3,042
2010-2019	427	105	106	1509	7	447	113	2,714
2020+	58	17	38	399	1	90	5	608
Total	*1564*	*659*	*2409*	*6453*	*167*	*2159*	*339*	13,750

Table 7 - Number of Services by Material Type

Material	Total	Percentage
Asbestos Cement	170	0.2%
Cast Iron	74	0.1%
Copper	24,875	36.5%
Ductile Iron	210	0.3%
Galvanized	905	1.3%
Plastic	19,637	28.8%
Lead	0	0.0%
Unknown	22,275	32.7%
Total	68,146	100.0%

Table 8 - Number of Hydrants Installed by Decade

Age	Total	Percentage
1900 - 1909	64	1.7%
1910 - 1919	9	0.2%
1920 - 1929	26	0.7%
1930 - 1939	66	1.8%
1940 - 1949	78	2.1%
1950 - 1959	217	5.9%
1960 - 1969	445	12.1%
1970 - 1979	428	11.7%
1980 - 1989	438	11.9%
1990 - 1999	622	17.0%
2000 - 2009	707	19.3%
2010 - 2019	438	11.9%
2020+	131	3.6%
Total	3,669	100%

Table 9 - Number of Meters by Size

Size	Number
0058	59,835
0075	1,286
0100	1,749
0150	633
0200	631
0300	52
0400	72
0600	83
0800	41
1000	7
Grand Total	64,389

Table 10 - Number of Meters by Age

Year	Meter Age
Pre 2000	2,084
2001	1,093
2002	1,250
2003	1,295
2004	1,189
2005	1,436
2006	3,729
2007	2,290
2008	2,200
2009	1,584
2010	2,275
2011	1,651
2012	2,264
2013	6,775
2014	6,361
2015	3,451
2016	8,518
2017	3,404
2018	2,428
2019	3,281
2020	4,482
2021	1,349
Total	64,389

The types of mains vary from system to system. The Harrisburg and Mechanicsburg systems were originally owned by General Waterworks, which almost exclusively used asbestos cement ("AC") pipe during the 1950's through the 1970's. Currently, AC pipe represents 23.2 percent of the total miles of mains. All but less than one mile of the 216 miles of asbestos cement main resides in these two systems. Galvanized pipe was primarily used in the 1930's through the 1960's, while unlined cast iron pipe was used from around 1900 until about 1980. All four of these types of material have varying challenges and life cycles and, therefore, each requires a unique replacement strategy -- which is discussed in Section 6 below.

Since the 1980's, the Company has been installing both ductile iron and polyvinyl chloride ("PVC") pipe -- which represents 60.8% of the total miles of mains. Recently, the Company has shifted to ductile iron as its primary choice; ductile iron main is used exclusively when high pressure is encountered and when mains are installed in state highways, stream crossings or critical intersections.

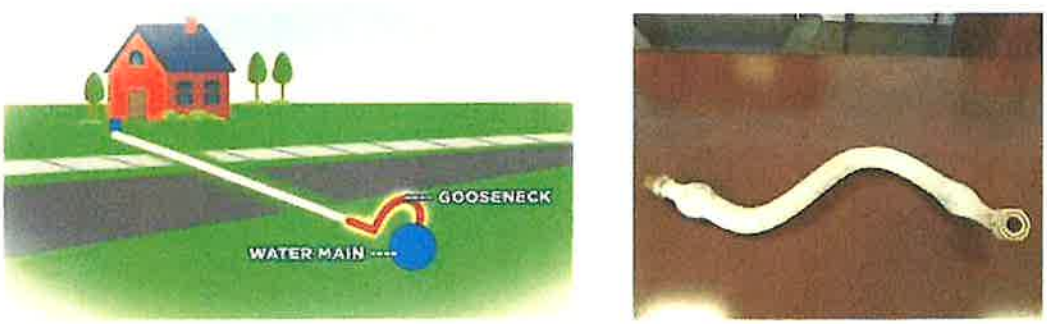
The 13,750 main line valves are exercised and inspected via the Company's valve maintenance program. Currently, the Company uses its hydraulic models to perform a valve analysis which identifies which valves are critical and should be inspected on a more frequent basis and potentially replaced. The Company also has 72 pressure reducing valves that ensure proper pressures are maintained in areas that experience high pressure. Due to the criticality of these valves, they are replaced on a more frequent basis.

The Company's service lines, by definition, represent the line from the main to the curb stop or valve which is located at or close to the customer's property line. The replacement of these service lines is a DSIC-eligible expense. The customer's service line is that line which extends

from where the Company's responsibility ends (curb stop or valve) to the customer's facility. In the past and currently, the Company does not maintain, repair or replace the customer's service line.

The Company, at present, is unaware of any lead service lines in its inventory and is currently updating its service inventory for company-owned service lines and customer-owned service lines. While **Table 7** indicates that the material on 22,275 of the service lines is unknown, the Company has interviewed its long-term field employees to determine their experience in encountering lead services. They have indicated that, while they may infrequently encounter a lead gooseneck on a galvanized service, they have not come across any lead services. The Company's policy is to replace any lead goosenecks when encountered. See **Figure 2** for an illustration and picture of a gooseneck.

Figure 2 - Lead Gooseneck

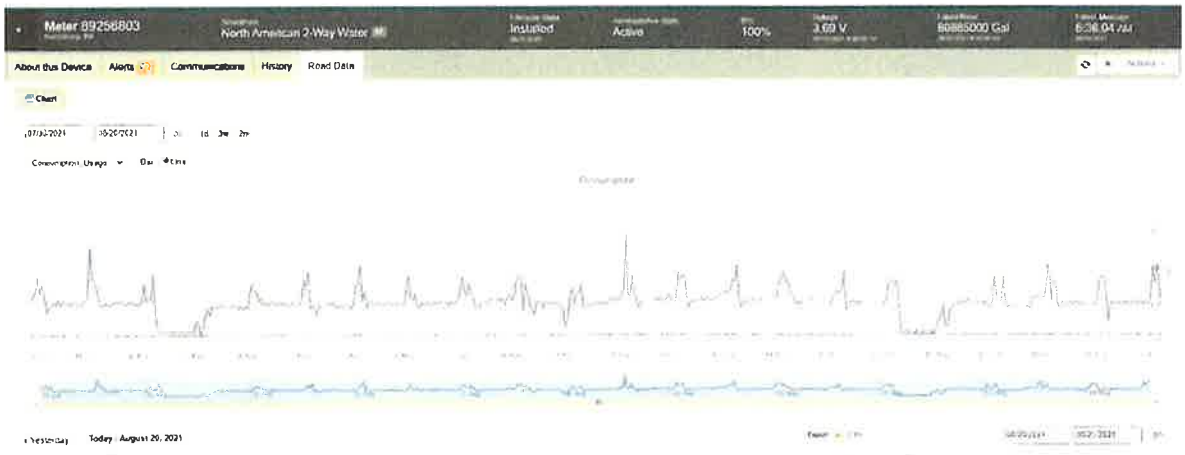


The 3,669 hydrants located throughout the system are inspected and the Company's goal is to exercise each hydrant once per year during the Company's flushing program. This annual inspection will identify any inoperable hydrants that would need to be replaced. Hydrants are also replaced as a part of the Company's main replacement program. The Company can also use its

hydraulic models to identify hydrants that could be relocated to an adjacent larger main, thus improving fire flows.

The Company is currently installing an AMI system. This project involves replacing the Itron end points with Sensus endpoints that enable meters to be read on an hourly interval and displayed in real time. The Company currently has replaced 20,200 end points and has a goal of having all its customers equipped with AMI by 2026. The AMI technology has multiple benefits, from improving customers' service to improved tracking of non-revenue water ("NRW"). **Figure 3** illustrates an example of water flow trends provided by Sensus.

Figure 3 - Daily Flows from Large Apartment Complex



Section 2: Schedule of Planned Repairs and Replacement

Each year the Company prepares a five-year strategic capital plan which includes all the DSIC-eligible properties. The budgets are based on "blanket" approvals but include specific project categories. As related to DSIC-eligible property, the project categories include the following:

Replacement Fire Hydrants - Project number CYYD501. This project category is for the replacement of fire hydrants not included as a part of the main replacement projects (D600's). These are budgeted utilizing historical trends and any known new initiatives.

Replacement Short Main and Valves - Project number CYYD502. This project category is for the replacement of valves and capitalized main breaks. While historical trends are used, there has been an increase from the past in this category due to the Company's increased NRW efforts in locating leaks as well as the cost of repairs due to increased restoration costs required by the local municipalities.

Replacement Services - Project number CYYF501. This project category is for the replacement of services not included as a part of the main replacement projects (D600's). The Company's policy is to replace the Company portion of the service in its entirety, as opposed to repairing a service leak.

Replacement Lead Services - Project number CYYF502. This project category is for the replacement of lead services not included as a part of the main replacement projects (D600's). The Company's policy is to replace the Company portion of the service in its entirety.

Replacement Customer Lead Services - Project number CYYF504. This project category is for the replacement of customer owned lead services. The Company's policy is to offer to replace the Customer portion of the service in its entirety.

Replacement Fire Services - Project number CYYF503. This project category is for the replacement of fire services not included as a part of the main replacement projects (D600's). The Company continues to monitor its unmetered fire services and, when unauthorized use is occurring, the Company is requiring the customer to retrofit the fire line with a meter.

Replacement Meters - Project number CYYG501. This project category is for the replacement of aged, damaged and stopped meters as well as meter pits (moving a meter from inside the house into a meter pit) installed as a part of the main replacement projects (D600's).

Main Replacements - Project number CYYD600. This project category is for the replacement of DSIC-eligible mains. An analysis of the Company's current assets is conducted to arrive at a detailed list of projects, which, in turn, is rolled into a single budgetary number.

Highway Projects - Project number CYYD700. This project category is difficult to budget as it depends heavily on the Pennsylvania Department of Transportation ("PennDOT") and local municipality projects. The Company meets with representatives of these entities to formulate a more-accurate plan; however, schedules often change -- which means that this category is sometimes either over- or under-budgeted. Typically, by the end of the first or second quarter of each year, the Company knows what highway projects are going forward for that given year and the Company is required to adjust its main replacements schedule and budget.

New Mains – Project number CYYD100. This project category is for the installation of mains to eliminate dead-ends.

A summary of the budgeted amount for 2022 through 2026 is included in **Table 11**. The amounts represent net dollars without overheads or any inflation adjustments and are subject to final budget approvals by Veolia's parent companies.

Table 11: DSIC Expenditures for 2022 through 2026 ($1000s)

Table 11 - DSIC Expenditures for 2022 through 2026 ('000s)

PROJECT ID	PROJECT TITLE	2022	2023	2024	2025	2026
CYYD502_002	Replacement Short Mains & Valves - DSIC	$900	$900	$900	$900	$900
CYYD501_002	Replacement Fire Hydrants - DSIC	50	50	50	50	50
CYYD 700_002	High Main Projects DSIC	1,500	1,500	1,500	1,500	1,500
CYYD100_002	New Mains - DSIC	1,000	1,000	1,000	1,000	1,000
CYYD600_002	Replacement Main Projects - DSIC	7,500	7,500	7,500	7,500	7,500
CYYF501_002	Replacement Domestic Services - DSIC	500	500	500	500	500
CYYF502_002	Replacement Lead Services - DSIC	0	0	0	579	579
CYYF503_0002	Replacment Fire Services - DSIC	25	25	25	25	25
CYYF504_002	Replacement Customer Lead Services	0	0	0	360	360
CYYG501_002	Replacement Customer Meters - DSIC	2,100	2,100	2,100	2,100	2,100
	TOTAL NET DSIC	$13,575	$13,575	$13,575	$14,514	$14,514
	TOTAL NET BUDGET	23,999	42,857	29,147	33,647	38,692
	Percent DSIC	57%	32%	47%	43%	38%

Please note for projects, CYYF502_002, Replacement Lead Services - DSIC and CYYF504_002, Replacement Customer Lead Services, any portion of the annual budgetary allotment that is not spent on Customer Lead Services replacements in a given year may be used to fund Customer lead services replacements or Company-owned LSL replacements.

Section 3: Location of Eligible Property

The DSIC-eligible property is located throughout Veolia's four operational areas: Harrisburg, Mechanicsburg, Bloomsburg and Dallas. These assets are tracked via the Company's GIS system, which is updated frequently with better data and the location of facilities. Each field employee is equipped with a GPS unit linked to their smart tablet which allows them to locate facilities on a continuous basis and upload data to the GIS system. **Table 12** is a summary of all DSIC-eligible assets by operation and **Table 13** provides a detailed list of mains by material for each operation.

Table 12: Summary of DSIC-Eligible Assets by Operation

Inventory	Harrisburg	Mechanicsburg	Bloomsburg	Dallas	Total
Water Main (Miles)	571	181	114	60	925
Services	42,126	15,406	7,257	3,634	68,423
Valves	8,523	2,983	1,371	873	13,750
Fire Hydrants	2,439	676	460	94	3,669
Meters	40,717	14,784	7,241	3,650	66,392

Table 13: Linear Footage of Main by Material in each Operation

Operation	Material					Total LF	Total Miles
	ACP	CI	GALV	DI	PVC		
Bloomsburg	48,899	255,193	10,777	166,121	122,549	603,539	114
Dallas	4,068	47,194	18,387	61,392	183,886	314,927	60
Harrisburg/Newberry	847,937	382,068	25,960	504,145	1,253,200	3,013,310	571
Mechanicsburg	241,676	60,191	1,198	203,133	447,562	953,760	181
Total Footage	1,142,580	744,646	56,322	934,791	2,007,197	4,885,536	925
Total Mileage	216	141	11	177	380		

Section 4: Estimate of the Quantity of Eligible DSIC Property

Based on the capital amounts included in the budget (see **Table 11** in Section 2 above), the estimated DSIC property to be replaced is provided in **Table 14** below.

Table 14: Estimated Miles of Main to be Installed/Replaced 2022 to 2026

Year	D100	D600	D700	Total Miles
2022	1.0	7.5	1.5	10
2023	1.0	7.5	1.5	10
2024	1.0	7.5	1.5	10
2025	1.0	7.5	1.5	10
2026	1.0	7.5	1.5	10
Total	5.0	37.5	7.5	50

For valves, services and hydrants, the number of units retired depends largely on the main replacement program. It is estimated that the Company will replace approximately 1,250 services per year, 250 valves per year, and 100 hydrants per year.

The number of meters replaced depends on several factors, including: size; age of meter; failure rate; new technology; and, to some degree, the main replacement program. The Company estimates that it will replace between 3,000 and 3,500 meters per year.

Section 5: Projected Annual Expenditures to Implement the Company's Cost-Effective Infrastructure Plan

The Company's annual expenditures are included in **Table 11** of Section 2 above - *DSIC Expenditures for 2022 through 2026.* The Company continues to implement a continuous improvement process to ensure that capital expenditures are being deployed in a prudent and cost-effective manner consistent with the requirements of the Pennsylvania Public Utility Code ("Code"). The following are examples of how the Company is improving its processes:

- The Company has done extensive work to improve GIS system accuracy. Each field employee has a GPS unit that enables locating facilities in the field and updating data into the GIS system. In addition to upgrading its GIS system, the Company installed KloudGin – an asset management system that interfaces with GIS – in the second quarter of 2021.

- Currently, the Company has gone paperless for many of its field activities. Field employees are supplied with smart tablets, which allows them to access GIS, locate facilities via GPS, record all data, and communicate with their supervisor or other employees via FaceTime.

- The Company has implemented an aggressive NRW program that has a direct correlation to DSIC projects. In addition to the traditional leak surveys, the NRW program includes: installation of data loggers throughout the distribution system

(which detect leaks via monitoring noise), utilization of satellite imaging, establishment of district metering zones (which allows for more precise NRW monitoring), optimization of pressure management, smart metering, fire line management and SCADA night flow data. In the past five years, the Company has been able to reduce its NRW by 14.8%, which is equivalent to 415 million gallons per year or 1.13 million gallons per day.

- The Company has enhanced its hydraulic modeling, which is utilized for design as well as prioritizing infrastructure replacement based on water quality, pressure management, and fire protection.

- Veolia has access to its parent Company's research and technical resources.

- The Company is continually evaluating which services are best to be performed internally and which are best to be outsourced. For example, flagging and traffic control is mostly outsourced to Flagger Force, a company that specializes in traffic control. This has proved to be a safer and more-efficient use of our internal work force. Another example is outsourcing of the inspection of water mains to engineering firms.

- Succession planning and hiring practices are also a priority -- especially when considering the Company's aging workforce. Hiring employees with the right skills is critical in ensuring efficient deployment of capital dollars -- particularly in light of being a "smart utility."

- The Company's bidding process utilizes a list of pre-qualified contractors, which is evaluated and updated annually. The Company evaluates which infrastructure projects could be done internally with its own forces. The Company also evaluates which projects could be bid on an individual basis and which projects could be bundled. This is becoming more important due to an increase in the amount of DSIC projects expected over the next five years.

- Veolia's parent company leverages its corporate buying power. Materials such as pipes, meters, hydrants, valves, etc., are bid annually by the parent company's Corporate Procurement Department. This approach provides Veolia with better pricing than it could obtain locally or as a stand-alone company. The Company has a Commission-approved master services affiliated interest agreement in place for such services.

Section 6: Accelerated Replacement

The Company in the past ten years has replaced a total of 84 miles of main, which represents 9.0 percent of its mains and is equivalent to a 110-year replacement cycle. **Table 15** sets forth the Company's historic replacement rate.

Table 15: Historical Miles of Main Replaced

Period	Years	Total	Average
10 years	2011 - 2021	84	8.4
5 years	2016 - 2021	61	12.2
3 years	2018 - 2021	31	10.3
2 years	2019 - 2021	20	10.0

While the 100-year replacement rate is an industry guideline, other factors influence the replacement rate. The age and material of distribution system components play an integral role in the replacement rate. For example, a brand new system consisting of all ductile iron main would not require replacement of any mains in the near future.

Veolia's average age of mains is only 37 years – as compared to the much older systems operated by other water utilities in the Commonwealth with more-accelerated DSIC programs. See **Table 5** (*Average Age of Mains*) in Section 1 above. Of the Company's 925 miles of main, approximately 28% of the main is greater than 50 years old, 48 percent is less than 30 years old, and 41 percent is ductile iron or PVC pipe. See **Table 4** (*Miles of Main Installed by Material in Each Decade*) in Section 1 above. Indeed, it would be imprudent and detrimental to ratepayers to replace DSIC-eligible property before it has even neared its useful life. Infrastructure improvement programs must be dynamic and adjusted (either accelerated or slowed down) on a periodic basis in order to meet the specific needs of the system. This LTIIP reflects the Company's focus on portions of its system that are nearing the end of their useful life or otherwise require attention.

In response to the anticipated needs of its system, the Company plans to continue its main renewal program over the next five years. See **Table 14** (*Estimated Miles of Main to be Installed/Replaced 2022-2026*) in Section 4 above and **Graph 1** below. The Company's focus for the next five years with respect to main replacement concerns Galvanized pipe, unlined Case Iron and the AC pipe. The five-year plan proposes to replace the entire 11 miles of Galvanized main. This represents an average replacement rate of nine miles per year. See **Graph 1** and **Table 16** below. **Table 17** below sets forth the projected average age of main.

Graph 1: Water Main Replacement Rate in Miles Per Year 2017 to 2026

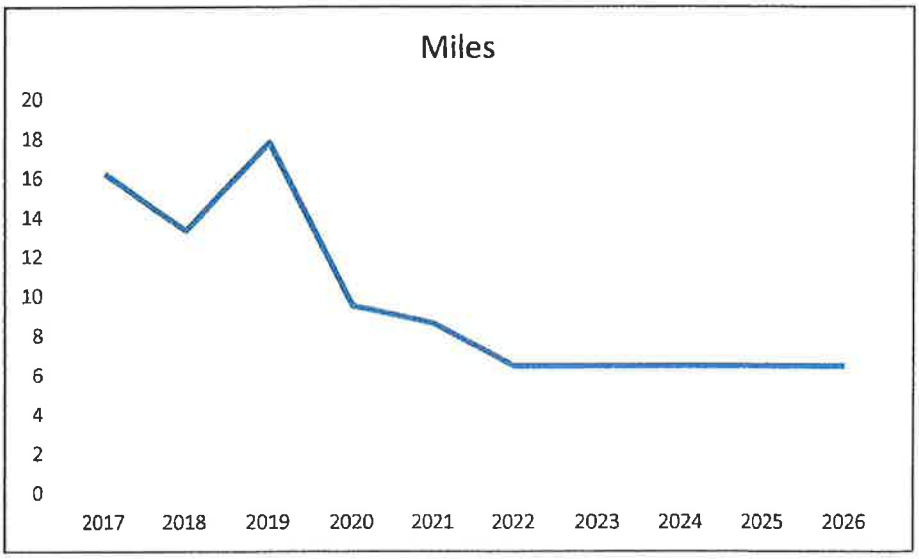


Table 16: Miles of Main by Material 2022 vs Projected 2026

Material	2022	2026
Unlined CI	141	135
Galvanized	11	0
Asbestos Cement	216	198
Ductile Iron	177	210
PVC & PET	381	382
Total Miles	925	925

Table 17: Projected Average Age of Main 2021 vs 2026

Material	Current		2026 Projected	
	Average Year	Average Age	Average Year	Average Age
Unlined CI	1945	77	1947	81
Galvanized	1945	76	0	0
Asbestos Cement	1968	56	1969	60
Ductile Iron	2009	12	2014	11
PVC & PET	1997	24	2004	17
TOTAL Water Main	1984	37	1989	36

In 2018, the American Society of Engineers gave Pennsylvania's water systems a D grade -- estimating that the systems have a $10.2 billion funding gap. However, the DSIC mechanism has allowed Veolia and the other private water companies (as opposed to municipal and authority-owned systems) to make the necessary investments in infrastructure since its inception. The investments that the Company has made and plans to make in the future will provide its customers with a more-sustainable and reliable water service. The number of main breaks per miles of main is one metric that is a good indicator of reliability of service. In 2020, the Company's main break per mile of main was 0.147 (135 main breaks) compared to the 2015 rate of 0.237 (209 main breaks).

Another indicator that shows the effectiveness of the DSIC investments is the reduction in the amount of NRW. The Company through its NRW program has reduced its NRW consistently over the past five years.

Section 7: Workforce Management and Training

The Company continually evaluates both its internal workforce and its utilization of external contractors to ensure that it has in place a safe and efficient workforce to complete its

infrastructure replacement program. A contactor must be prequalified, which requires evaluation of past performance, adherence to company specifications, attendance at the Company's annual training and review of the contractor's safety record before it can perform any work for the Company. In 2021, the Company had 31 companies attend its annual Contactor Meeting where the Company goes over its detailed specifications and safety requirements.

In addition to contracting out the installation of mains, the Company contracts out the inspection of its main replacements to engineering firms that specialize in water main installation. The Company has also outsourced paving restoration and the majority of traffic control. Having this work outsourced allows the employees of Veolia to focus more on the Company's core business of providing high quality water service. The Company's workforce primarily focuses on capitalized main breaks, replacement of valves, services and hydrants under its annual programs, and the majority of meter replacements.

A safe work culture, whether it involves the Company's employees or contractor employees, is a core value of the Company. The Company has an Environmental, Health and Safety ("EHS") Manager. The Company tracks both lagging and leading indicators to monitor the effectiveness of the safety program. Lagging indicators, such as recordable accidents, lost time accidents and vehicle accidents, are measured and monitored daily via the Company's Intelex software. All accidents must be reported within one day and a review call depending on severity is required within one day to twenty-one days. Leading indicators, such as near misses or unsafe work conditions, are tracked and remedial measures are implemented as appropriate. In 2020, the Company reported 209 near misses and, depending on the severity of the near miss, an action plan is required.

In addition to requiring employees to wear the proper personal protective equipment, all jobs require that a safe work plan be filled out prior to the commencement of the work. This is now a paperless process, as the report is filled out on the employee's smart tablet. This has made it easier for the field employee to complete the process and allows for better data retention.

All employees are required to take the appropriate safety training. Below is a list of training that the field employees received in 2020:

- Asbestos awareness;
- Cold stress;
- Confined space;
- Demolition/cut-off saw training;
- PennDOT, shipper;
- Electrical safety;
- Emergency response and action plans;
- Environmental awareness;
- Excavation and trenching safety – competent person;
- Extinguisher and fire safety;
- Fall protection awareness;
- Fire prevention plan and evacuation plan;
- Flagger training;
- Globally harmonized system of classification and labeling;
- Hand and power tool safety;
- Hazard communication;
- Hearing conservation awareness;
- Heat stress recognition and prevention;
- Industrial ergonomics;
- Job hazard analysis, safe work plan;
- Ladder safety;
- Lead pipe and material identification training;
- Lockout/tagout;
- Machine guarding;
- Overhead crane/hoist training;
- Permit required confined space entrant/attendant training;
- Portable fire extinguishers;
- Preventing back injuries;
- Proper handling of asbestos pipe (2 day);
- Proper storage, labeling and disposal of universal waste;
- Resource Conservation and Recovery Act ("RCRA") training; and,

- Respiratory protection.

In 2020, neither the Company nor any of its contractors had any recordable injuries related to any infrastructure replacement project. Safety is a top priority for Veolia.

Section 8: Outreach and Coordination with Other Utilities and Entities

The Company recognizes the importance of maintaining good communications with PennDOT, the municipalities Veolia serves, and other utilities. The replacement of aging infrastructure leads to disruptions as work is performed in the rights of way of roads and streets. In order to ease and alleviate these interruptions, VEOLIA works with PennDOT, local municipalities, and other utilities to accumulate information as to their intentions to undertake paving and other public works within the budget year. VEOLIA recognizes that, by working and communicating with these entities, disruptions are minimized. Moreover, it ensures that infrastructure replacement is efficient and cost-effective. Each relationship is unique and involves different opportunities and challenges.

VEOLIA's interactions with PennDOT involve dealings with three different regional offices. The Company maintains a list of PennDOT's proposed projects, which is used in gauging the magnitude of replacement work that is required for each project. The challenge is the timing of these projects. While the Company may be aware of the project, there are times that the Company needs to begin relocating its facilities within months of when PennDOT gives notice to the Company of its intent to proceed.

VEOLIA's relationship with municipalities involves dealing closely with each municipality's Public Works Director to know what work is being planned within the municipality's jurisdictional

boundaries. Projects range from paving to major sewer replacements. The paving projects are evaluated to determine if replacement of VEOLIA's facilities is warranted based on their age and maintenance history. The more-extensive projects require a different evaluation and often require the Company to relocate its facilities as a result of the project. However, the timing and notification of this work does not always coincide with the Company's budget and work schedule. The time afforded the Company to commence its work often precludes the Company from finalizing designs and scheduling the work with its contractors.

VEOLIA's relationships with other utilities have become more important -- especially since the other utilities are also replacing a significant amount of their infrastructure under their DSIC programs. Of particular concern is the coordination of work with gas utilities to ensure that the work being designed and the co-location of facilities does not pose any safety risks. VEOLIA is making an effort to coordinate with these other utilities through direct outreach.

Regardless of the entity with which the Company is dealing, VEOLIA utilizes Pennsylvania's one-call system during the Company's initial phase of project design and before the first dig. This system allows for accurate coordination of the design by avoiding conflicts with other buried utilities during construction. VEOLIA recently purchased a Hydro Excavator, which allows the Company to locate other facilities utilizing a safer and more efficient process.

Finally, VEOLIA keeps its customers informed about water disturbances by issuing door-to- door notifications, issuing press releases, posting VEOLIA website banners, making social media posts, and mailing informational letters notifying customers and communities affected by the work. The Company has a very extensive community outreach program headed by the Company's Public Affairs Manager.

CONCLUSION

VEOLIA's LTIIP sets forth a reasonable plan for the prudent repair and replacement of DSIC- eligible property for the years 2022 through 2026. The Company is committed to maintaining its main replacement by focusing on the assets that have the greatest need for remediation. VEOLIA will continue to support and enhance its safety program that is critical in protecting both its employees and contractors. Coordination with local municipalities and other utilities in order to realize project efficiencies will also be a key component of the Company's' LTIIP. Finally, since 1998, the Company's DSIC has proven successful in accelerating the repair and replacement of eligible distribution system assets and should be permitted to continue as set forth herein.

December 18, 2024

Veolia Water Pennsylvania, Inc.
Lead Service Line Replacement Plan

Introduction

Veolia Water Pennsylvania, Inc. ("VWPA" or the "Company") provides water service to customers in portions of Columbia; Cumberland; Dauphin; Delaware; Franklin; Luzerne; Montour; Perry; Schuylkill; Wyoming; and, York Counties.

This Lead Service Line Replacement Plan is filed pursuant to 66 Pa. C.S. § 1311(b) and 52 Pa. Code § 65.54(a) in order to allow the Company to replace customer-owned lead service lines ("COLSLs") free of charge to the customer/property owner when identified.

To date, no COLSLs have been identified in VWPA's system. Consequently, portions of the Plan are still being developed.

Service Line Inventory

1. **Entities subject to this chapter shall submit to the Commission a service line inventory that complies with United States Environmental Protection Agency regulation at 40 CFR 141.1—143.20 as enforced by the Department of Environmental Protection, inclusive of future changes as those regulations may be amended. 52 Pa. Code § 65.56(a)(1).**

The Company is in the process of taking an inventory of all service lines in its service territory. This inventory is in compliance with current EPA regulations.

Currently, the inventory is approximately 53% complete for Company owned service lines and approximately 37% complete for COLSLs. The Company anticipates completion of its inventorying efforts by 2026.

The Company's inventorying process includes the following customer touchpoints:

Inventory data is collected;

- Meter and main replacement;
- Backflow/cross connection inspections;
- Customer surveys with photographic documentation; and,
- Other customer contacts including site visits related to customer surveys.

The Company is also developing a machine learning algorithm to establish predictive modeling data.

A full inventory by service address will be available through the Company's GIS system and is available to the Pennsylvania Public Utility Commission for review upon request.

A summary of the inventory results as of June 30, 2023, follows:

Veolia Water Pennsylvania, Inc.
Including recently consolidated Bethel

	Company Side			Customer Side		
Material Type	VWPA	Bethel	VWPA Total	VWPA	Bethel	VWPA Total
Asbestos Cement	170		170	52		52
Copper	29,318	159	29,477	16,317	56	16,373
Plastic	1,883	1,763	3,646	20,258	20	20,278
Brass	47		47	4		4
Ductile Iron	235	15	250	229		229
Steel	0		0	0		0
Cast Iron	80		80	43		43
Galvanized	965		965	257		257
Wrought Iron	0		0	0		0
Concrete	1		1	2		2
Lead/Leadlined	0		0	0		0
Unknown	33,276	787	34,063	28,813	2,648	31,461
Total	65,975	2,724	68,699	65,975	2,724	68,699

In the event the Company finds lead in a Company-owned or customer-owned service line, the Company will provide a report detailing the location, number of affected pipes, and estimated remediation time for the lead service lines to the Commission, the Office of Consumer Advocate ("OCA") and the Office of Small Business Advocate ("OSBA") within 60 days of the discovery of the lead service line. Upon the completion of the lead service line replacement inventory, the Company will replace all of the existing Company-owned and customer-owned lead service lines with three years of completion of the inventory. As indicated in the above table, the company has identified 965 galvanized Company side lines and 257 galvanized customer side lines that will require placement under this LSLR program.

2. **An entity acquiring a water distribution system shall provide to the Commission a service line inventory for the acquired system upon completion of the acquisition or as part of the entity's service line inventory under paragraph (1), whichever is later. An entity may rely on a previously completed service line inventory for an acquired system if the entity updates the service line inventory to meet the requirements of paragraph (3). 52 Pa. Code § 65.56(a)(2).**

The Company will comply with this paragraph when it acquires water distribution systems in the future. *See also* ¶ 9 under the Planning and Replacements Section, below.

3. **An entity's service line inventory must comply with the timing and direction of United States Environmental Protection Agency regulation at 40 CFR 141.1—143.20 as enforced by the Department of Environmental Protection, inclusive of future changes as those regulations may be amended. 52 Pa. Code § 65.56(a)(3)**

See ¶ 1 above.

4. **An entity shall identify assumptions in its service line inventory to the Commission. 52 Pa. Code § 65.56(a)(4).**

The following assumptions are made in connection with the inventorying process:

- Water mains installed for replacement and developer after 1985 are plastic or ductile iron;
- Company services installed since 1985 are copper or plastic;
- Company services not previously replaced off of cast iron mains are galvanized;
- Company services in Mahoning are plastic off of ductile iron;
- T&D replacements of company services in Bloomsburg, Mechanicsburg and Harrisburg are plastic;
- T&D replacement company services in Dallas are mostly copper and plastic;
- Company-owned and customer-owned service lines in all structures built post January 6, 1991 are non-lead; and,
- If some homes in a development have records, the rest of the development is considered to be of the same composition.

The Company has no information regarding if or how many galvanized service lines are downstream of line of unknown material. As a result, the Company is considering all identified galvanized service lines to be "Galvanized Requiring Replacement" and will replace such lines.

5. **Until the inventory is complete, an entity shall provide detailed information regarding the progress of its service line inventory as part of its annual LSLR program report under § 65.59 (relating to LSLR program reports). 52 Pa. Code § 65.56 (a)(5).**

The Company will include a detailed progress report of its service line inventory as part of its annual LSLR Program report.

6. **After an entity's service line inventory is complete, it must be incorporated into the entity's next LSLR plan update under § 65.57 (relating to periodic review of LSLR plan). 52 Pa. Code § 65.56(a)(6).**

After the inventory is complete, the Company will incorporate the complete inventory into its next LSLR Plan update.

Planning and Replacements

1. The entity's projected annual investment in LSLRs with an explanation of the entity's anticipated sources of financing. 52 Pa. Code § 65.56(b)(1).

Currently, the Company has identified 257 Customer-owned galvanized lines requiring replacement ("COGRR") and 965 Company-owned ("CGRR)s The Company's *pro forma* tariff supplement provides for a maximum budgeted amount of $360,000 per year for Customer-owned lines and $579,000 per year for Company-owned lines, with unused funds rolling over to the following year.
The Company anticipates the funding for potential COLSL replacements to be incorporated into the requirements of its capital plan and in claims made in the Company's future base rate cases. The source of such funding is anticipated to be general corporate funds.

2. The entity's projected number of LSLRs per calendar year with an explanation of how the entity's projection was determined and a statement that this number is consistent with the entity's annual cap on LSLRs. 52 Pa. Code § 65.56(b)(2).

The projections were determined based upon an estimated 90 replacements per year at $4,000 per COGRR and 193 replacements per year at $3,000 per year at $3,000 per CGRR utilizing the estimated replacement cost detailed in the following tables.

Customer Side LSLR Cost Estimate

Labor/Materials	Quantity	Cost	Unit Cost
Pipe & Materials	1	$780.00	$780.00
Labor & Equipment	1	$1700	$1700.00
Permit	1	$300.00	$300.00
Paving/Concrete Restoration	1	$800.00	$800.00
Sod Restoration	1	$300.00	$300.00
		Total	$3880.00

The estimated cost to replace a company owned LSL is as follows:

Company Side LSLR Cost Estimate

Labor/Materials	Quantity	Cost	Unit Cost
Pipe & Materials	1	$300.00	$300.00
Labor & Equipment	1	$925.00	$925.00

Permit	1	$300.00	$300.00
Paving/Concrete Resoration	1	$800.00	$800.00
Sod Restoration	1	$300.00	$300.00
Administration Time	1	$100.00	$100.00
		Total	$2725.00

Replacements per year	Estimated Cost	Total
90	$3,880	$349,200
193	2,725	525,925
		$875,125

The projected number of LSLRs per calendar year is consistent with Veolia Water's annual cap on LSLRs.
Any portion of the annual budgetary allotment described above that is not spent on COLSL replacements in a given year may be used to fund COLSL replacements or Company-owned LSL replacements.

3. The prioritization criteria considered by the entity when developing its LSLR schedule. 52 Pa. Code § 65.56(b)(3).

VWPA will continue to perform LSLR's in the order that they are identified, except for cases where the LSL is one that serves a sensitive population (childcare facility, schools and high LSL concentration areas if identified). In the cases where a LSL services a sensitive population, identification and replacement of LSLs are the highest priority for the benefit of those customers.

4. An explanation of the entity's processes and procedures to address emergency repairs or replacements which reveal LSLs. 52 Pa. Code § 65.56(b)(4).

In an emergency situation where there is immediate danger to the public, property and surrounding areas, VWPA will conduct an emergency LSLR for company-owned services in order to minimize any further damages. For customer-owned LSL emergencies, when a property owner is able to be contacted and opt-in, VWPA will contact a third party contractor to complete the customer-owned LSLR. In instances where the property owner cannot be contacted, VWPA will provide its best effort to maintain water service to the property via a hose-to-hose connection where feasible. If a hose-to-hose connection is not feasible, water service to the property will be terminated until the property owner opts-in to a VWPA funded LSLR. Partial replacements are not allowed. The PADEP Risk Mitigation Measures for Water Systems Conducting Lead Service Line Replacements will be followed. (See Exhibit 1).

5. **The entity's processes and procedures to obtain acceptance of a LSLR prior to LSLR project commencement if the customer is the property owner, and the entity's processes and procedures to obtain acceptance prior to LSLR project commencement if the customer is not the property owner. 52 Pa. Code § 65.56(b)(5).**

Upon identification of the property owner, the Company anticipates a simplified process whereby the Company will contact customers individually either personally (i.e. hand delivered where possible) or via mail providing an "opt-in" letter explaining the Program as well as the associated risks of not allowing replacement. The Company also expects to provide customers with a copy of the Lead Service Line Customer Notification Form, provided by the PADEP (See Exhibit 2). If there is no response within ten (10) days, an opt-in letter will be sent via certified mail to the listed property owner. If there is no response from the property owner within fourteen (14) days, a phone call will be attempted to the property owner.

Upon an unsuccessful attempt to obtain acceptance to replace a lead service line pipe, the Company will follow the following protocol:

- If there is no response within ten days, an opt-in letter will be sent via certified mail to the listed property owner.
- If there is no response from the property owner within fourteen days, a phone call will be attempted to the property owner.
- Following unsuccessful attempts to obtain acceptance from the property owner, the Company will make a phone call to the property owner.
- In cases where the property owner is also the customer, if the call is successful, an in-person meeting can be scheduled at the property to go over the opt-in letter. If there is no answer, a voicemail will be left noting the findings at the owned property and a direct call-back number to a VWPA employee will be left.
- If there is no response within five days, a second attempt phone call will be made and if unsuccessful, another voicemail will be left.
- In cases where the property owner is not the customer, the customers will also be notified and used as an avenue to make contact with the owner of the property.

6. **The entity's processes and procedures based upon acceptance of a LSLR, including:**

(i) **A consent agreement form by which the customer or property owner, if the customer is not the property owner, will authorize the LSLR.**

(ii) **A brief description of the entity's process for LSLRs under normal conditions and under atypical conditions.**

(iii) **An explanation of the entity's process for coordination with the customer, and property owner, if the customer is not the property owner, and the**

information the entity will provide to the customer and the property owner throughout the LSLR process.

(iv) **The entity's process for addressing LSLR completion or closeout, or both, with the customer and property owner, if the customer is not the property owner. 52 Pa. Code § 65.56(b)(6).**

(i) The customer or property owner will be required to enter into an Agreement for the Replacement of the COLSL, on a form provided by the Company or contractor, prior to the initiation of any work by the Company or its contractors to replace a COLSL. Please see Exhibit 4. The customer or property owner must allow the Company access to the property, in order to replace the COLSL.

(ii) Under normal conditions, VWPA will attempt to perform all LSLRs via a trenchless excavation method (e.g., cable pulling, pipe splitting, horizontal boring, horizontal directional drilling etc.). For atypical conditions, VWPA will look at alternative methods such as open trenching via backhoe or hydro excavation.

(iii) Once a signed opt-in letter is received from the property owner, VWPA will assign a third party contractor to reach out to the customer in order to schedule the LSLR. Time frames and scheduling will be coordinated between the customer and third party contractor. Prior to any work taking place, a signed contract between the property owner and third party contractor describing the work to take place and warranty of the work must be completed. VWPA will provide the customer with a LSLR fact sheet (Exhibit 6) and NSF pitcher water filtration system with a six month supply of filters in preparation for the LSLR. The Company will also provide assistance with flushing at the customer's request.

(iv) Prior to the LSLR, VWPA will provide the customer with a LSLR fact sheet (Exhibit 6) and NSF pitcher water filtration system with a six month supply of filters. The LSLR fact sheet will describe the proper steps to flush the property after LSLR. Restoration and warranty information will be established in the contract between the customer and third party contractor. The warranty will begin immediately upon completion of the replacement work. The Company will provide instruction for flushing to the customer within the LSLR fact sheet (Exhibit 6). Three to six months after the completion of the replacement work the Company shall offer to collect a water sample with consent of the customer.

7. **The entity's lead/material recycling and disposal efforts, including a description of what the entity will do with proceeds from recycling and disposal efforts. 52 Pa. Code § 65.56(b)(7).**

The Company's current expectations are for a very limited number of replacements. In addition, the Company anticipates leaving lead pipes in the ground as full removal would be

cost prohibitive. Therefore, the Company anticipates recycling and disposal effort to be minimal and without significant proceeds.

During LSLR replacements, VWPA uses common industry standards to perform the work. VWPA's goal is to disturb as little property as necessary when performing a LSLR. When site conditions allow, the existing LSL will be pulled and removed. If site conditions do not allow for the "pulling" method of LSL removal, the LSL will be abandoned in place using common trenchless excavation methods (e.g., pipe splitting, horizontal boring, horizontal directional drilling etc.). Although not removed from the earth, all lead is disconnected and removed from the service line and drinking water supply to the property.

8. The industry-accepted practices that the entity plans to use to replace entity-owned and customer-owned LSLs. 52 Pa. Code § 65.56(b)(8).

Please see Exhibit 5, AWWA C810-17 - Replacement and Flushing of Lead Service Lines.

9. A detailed explanation of how the entity's acquisition of water distribution systems will be integrated into the entity's efforts to complete LSLRs throughout its water distribution systems. 52 Pa. Code § 65.56(b)(9).

In accordance with ¶ 2 under the Service Line Inventory Section above, the Company will complete a service line inventory for the acquired system or update a previously completed service line inventory for the acquired system. If any LSLs are identified in that inventory, the Company will expeditiously replace them in accordance with this LSLR Plan.

10. The procedure for documenting refusal of, or failure to accept, the offer by the entity to replace a LSL, including the entity's duty to:

(i) Provide the customer and property owner, if the customer is not the property owner, with a complete disclosure of the known health hazards from the continued use of a LSL.

(ii) Inform the customer or property owner, if the customer is not the property owner, that refusal or failure to accept will require replacement of the customer-owned LSL, at the customer or property owner's expense, within 1 year from LSLR project commencement for the customer or property owner, if the customer is not the property owner, to be eligible for reimbursement.

(iii) Communicate to the customer and property owner, if the customer is not the property owner, that failure to allow the entity to complete the LSLR or to replace the customer-owned LSL concurrent with the entity replacing the entity-owned LSL will lead to termination of water service under the provisions of the entity's tariff. 52 Pa. Code § 65.56(b)(10).

(i) Please see Item 6 above. The customer will be provided with the information in Exhibits 1 through 3 and the "Opt-in form" (Exhibit 4).

(ii) Such information will be provided via certified letter to each customer or property owner included as Exhibit 7.

(iii) Such information will be provided via certified letter to each customer or property owner included as Exhibit 7.

Communications, Outreach and Education

1. **The entity's LSLR plan must include copies of all printed and broadcast material to be distributed under the entity's LSLR program. 52 Pa. Code § 65.56(c)(1).**

Considering that no LSLs have been identified in the Company's system as of this date, print and broadcast materials are still being developed. Such materials will follow EPA requirements for communications, outreach, and education. When developed, VWPA will share the communications materials with the OCA and the OSBA, and will report periodically upon request the effectiveness of such materials.
Copies of printed and broadcast materials will be included in the Company's annual LSLR program report, as they are finalized. In addition, the Company will make written information about the Lead Service Line Replacement Plan available on its website at at the web link provided below.

https://storymaps.arcgis.com/stories/912f9c10e7344f0f953eeaa75accf05b

VWPA will make all documents implementing the Lead Service Line Replacement Plan available in English with a notation in Spanish, Portuguese, Korean, Gujarati, and Arabic as to how to request the documents in a preferred language. VWPA will also make its translation services available to customers who call its customer service line and request translation of the written information into other languages.

2. **A Class A public utility or an authority shall develop a LSLR section of its web site within 12 months of Commission approval of its LSLR program. The website must contain, at a minimum:**

(i) An online tool describing the replacement schedule by geographic location, at least 6 months into the future.

(ii) Information regarding the reimbursement requirements and a secure online tool that provides customers or property owners, if the customer is not the property owner, the ability to determine whether the customer or property owner may be eligible for a reimbursement.

(iii) Information that provides the ability to determine whether a property may have a LSL, delineating the known or reasonably anticipated material

types for the entity-owned and customer-owned portions of the service line and a method to request assistance to determine if a service line is a LSL.

(iv) **Information and resources relating to health risks associated with lead and LSLs, the status of current efforts to replace LSLs and community meetings and advisory committees hosted by the entity. 52 Pa. Code § 65.56(c)(2).**

The Company's website at https://mywater.veolia.us/new-york/pennsylvania/water-in-my-area/pa-service-line-information already describes the health effects of lead and the customer's and the Company's responsibility related to service lines. It also includes a link to the self-identification survey, explains how lead exposure in the home can occur, and outlines steps a customer can take to reduce lead exposure and provides contact information for customer questions. Finally, the Company's website includes a service line material lookup interactive map.

Once approved, the Company will add any additional information required by the regulation. The Company also expects to add information about eligibility for replacement and replacement scheduling related to the LSLR Program.

VWPA will periodically update this Lead Service Line Replacement Plan as required by 52 Pa. Code § 65.57, and will submit lead service line program reports in compliance with 52 Pa. Code § 65.59.

Exhibit 1

Risk Mitigation Measures for Water Systems Conducting Lead Service Line Replacements

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Risk Mitigation Measures for Water Systems Conducting Lead Service Line Replacement

While working to complete service line improvements to your drinking water distribution system, it is important to note that the United States Environmental Protection Agency (EPA) has stated that lead service line replacements (LSLR) are associated with short-term elevated drinking water lead levels for some period of time after replacement. In accordance with 25 Pa. Code § 109.4(4), public water suppliers shall take whatever investigative or corrective action is necessary to assure that safe and potable water is continuously supplied to the users. Therefore, to comply with this regulation and address concerns associated with elevated lead levels, any water system that conducts LSLR, including galvanized requiring replacement service lines, or that removes a lead pigtail, gooseneck or connector, is expected to follow the risk mitigation measures outlined in this document for the associated customer(s). For additional information on completion of risk mitigation measures, water suppliers may reference the American Water Works Association (AWWA) Standard C810, *Replacement and Flushing of Lead Service Lines*.

The following three steps are to be completed in conjunction with replacement of each lead service line, galvanized requiring replacement service line, and the removal of lead pigtails, goosenecks or connectors.

1) Provide notice to the owner of the affected service line, or the owner's authorized agent, as well as non-owner resident(s) served by the affected service line **before** the affected service line is returned to service. The notice must meet the following requirements:
   a. Include the following mandatory health effects language established by the EPA under 40 CFR 141.85(a)(1).

      "Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems."

   b. Explain that consumers may experience a temporary increase of lead levels in their drinking water due to the replacement of their service line.

   c. Include information about removing and cleaning faucet aerators, flushing service lines and re-installing cleaned faucet aerators before the affected service line is returned to service.

   d. Include the following informational statement in Spanish regarding the importance of the notice.

      "ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA."

   e. Contain information regarding the importance of the notice in the appropriate non-Spanish language(s) if either of the following criteria are met:
      i. A system serving at least 1,000 people has a non-English-speaking group other than Spanish that exceeds 10% of the community residents.
      ii. A system serving less than 1,000 people has a non-English-speaking group other than Spanish that exceeds 100 community residents.

f. In lieu of providing information in Spanish and other language(s) as specified in (d) and (e), the notice may contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the notice or to request assistance.

g. In instances where multi-family dwellings are served by the lead service line to be replaced, the water system may elect to post the information required in (a)-(f) at a conspicuous location instead of providing individual notification to all residents.

A template that includes all of the language required for this notification can be found on DEP's eLibrary at www.depgreenport.state.pa.us/elibrary/ (select "Forms", then "Safe Drinking Water", then look for "Lead Service Line Replacement Information 3930-FM-BSDW0089"; or use the eLibrary "Search" tool to search by document name or number).

For more information on communicating with consumers on LSLR, please reference the following AWWA guide *Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement.*

2) Provide the consumer(s) with the following before the affected service line is returned to service:

   a. A pitcher filter or point-of-use device that is NSF/ANSI 53 certified to reduce lead in drinking water.

   b. Six months of replacement cartridges.

   c. Instructions for use of the filter and replacement cartridges.

   d. If the affected service line serves more than one residence, such as a multi-unit building, or a non-residential unit, the water system shall provide the items listed in (a)-(c) to every residence in the building.

3) Offer to collect one set of follow-up **first draw and 5th liter** tap samples that must be taken between three months and six months after completion of the full LSLR.

   a. If either of the follow up samples exceed 15 µg/L of lead, the water system shall provide the results of both samples to residents as soon as practicable but no later than three calendar days after becoming aware of the result(s).

   b. If neither of the follow up samples exceeds 15 µg/L of lead, the water system shall provide the results of the sample(s) to residents within 30 days after receiving the results.

   c. The following information must accompany the sample results provided to the applicable resident:

      i. An explanation of the health effects of lead.

      ii. A list of steps consumers can take to reduce exposure to lead in drinking water.

      iii. Contact information for the water system.

      iv. The maximum contaminant level goal and the action level for lead and the definitions for these two terms specified by the EPA in 40 CFR 141.153(c).

   d. The follow up sample results and accompanying information must be delivered to persons served by the tap that was sampled through one of the following methods:

      i. Electronically

      ii. By mail

      iii. By phone

      iv. Hand delivery

      v. Another method approved by the Pennsylvania Department of Environmental Protection

For more information, visit www.dep.pa.gov.

Exhibit 2

Lead Service Line Customer Notification Form

3930-FM-BSDW0089 12/2022
Form

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

LEAD SERVICE LINE REPLACEMENT INFORMATION

ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA.

Veolia Water Pennsylvania is replacing your lead service line. This notice provides information you need to know regarding the replacement and why it is important.

The pipe that connects your household plumbing to the water main in the street is called a service line. Veolia Water Pennsylvania is replacing your service line because it either contains lead, is galvanized iron/steel and was or is currently downstream of lead, or there is a lead gooseneck, pigtail or connector on your service line. Lead from your existing pipes can leach into the water you drink. While it's important for the long term quality of your drinking water to remove these lead pipes, studies have shown that when lead service lines are disturbed, in the short-term they can release lead for weeks or months after the disturbance. There are steps you can take to protect you and your family from exposure to lead in tap water which are explained below.

What should I do?

- After the service line is returned to service but before using the water for consumption, remove and clean all faucet aerators, flush your service line and all internal plumbing by opening all taps and letting the water run for at least 30 minutes, and re-install the cleaned aerators.
- To conserve water instead of simply running the water for 30 minutes, other household/non-potable water usage activities such as washing clothes, showering, flushing the toilet and running the dishwasher are effective methods of flushing the pipes.
- After the initial flush, run the water for 3-5 minutes before using and use cold water for cooking and drinking to reduce your exposure to lead in the water.
- In addition to flushing the lines, you are being provided with a pitcher filter that is certified to remove lead and six months of replacement cartridges. This filter may be used for water that will be used for drinking and cooking.

Why should I do it?

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risk of heart disease, high blood pressure, kidney, or nervous system problems.

Please share this information with all the other individuals who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact Veolia Water Pennsylvania at 1-888-299-8972.

Exhibit 3

Field Result Letter

VEOLIA

INFORMATION ABOUT YOUR WATER SERVICE LINE

Date: _____ Property Address: _____

Veolia WO#: _____

Este es un aviso de Veolia. Comuníquese con nosotros al [redacted] si necesita una copia traducida de esta carta.

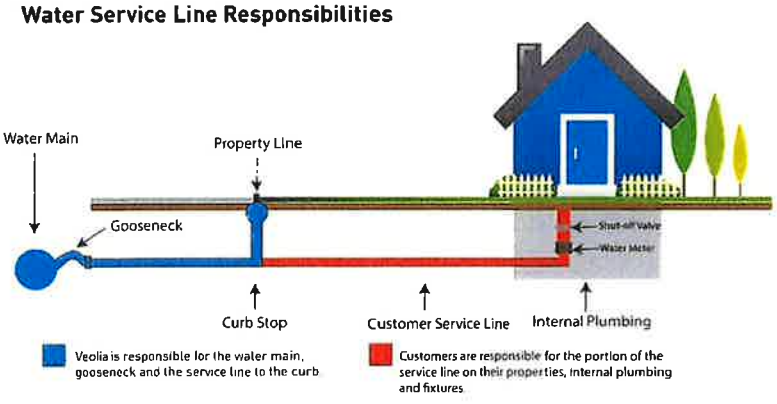
At Veolia, our goal is to provide you with premier water service. The purpose of this notice is to inform you that Veolia performed a field investigation by excavating at the property line and exposing the water service line, which carries water from the main to your home. Our personnel found:

_Both the Veolia side and the portion you own are made of lead or galvanized material. **We will replace your line at no cost to you.** If you haven't previously received a notice, you will be receiving an Opt-In form, which provides information about our **free replacement program.**

_The Veolia side is made of lead or galvanized material, but we did not see lead or galvanized material on the portion that you own. Veolia will be replacing its portion of the service line. If you haven't received a notice previously, you will be receiving a pre-construction form before we replace our line.

_The Veolia side is not made of lead or galvanized material, but we did see lead or galvanized material on the portion that you own. **We will replace your pipe at no cost to you.** If you haven't previously received a notice, you will be receiving an Opt-In form, which provides information about our **free replacement program.**

_We did not see lead or galvanized material on either the Veolia owned portion or the portion you own*. Veolia will will return if final restoration was not yet performed.



If you are interested in replacing your service line, please notify us at PARegulatedLeadandCopperGroup@veolia.com or 1-888-299-8972.

*Please note that, if Veolia did not find lead or galvanized material on the portion owned by you, this does not mean that all portions of the service line that you own are not lead or galvanized material. Veolia strongly recommends you consult a licensed plumber to verify if the portion of the service line you own (see illustration

on next page) and/or plumbing fixtures in your home contain lead or are of a galvanized material. If so, it is best to replace them.**WHAT CAN YOU DO TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER?**

Below is a list of steps Veolia recommends you take to reduce your exposure to lead in drinking water. A similar list of steps and further information can be found at PADEP's website:

https://www.dep.pa.gov/Citizens/My-Water/PublicDrinkingWater/pages/lead-in-drinking-water.aspx

- ***Run the cold water to flush out lead.*** Let the water run from the tap before using it for drinking or cooking any time the water in the faucet has gone unused for more than six hours. The longer the water resides in plumbing the more lead it may contain. Flushing the tap means running the cold-water faucet. Let the water run from the cold-water tap based on the length of the lead service line and the plumbing configuration in your home. In other words, the larger the home or building and the greater the distance to the water main (in the street), the more water it will take to flush properly. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.
- ***Use cold, flushed water for cooking and preparing baby formula.*** Because lead from lead-containing plumbing materials and pipes can dissolve into hot water more easily than cold water, never drink, cook, or prepare beverages including baby formula using hot water from the tap. If you have not had your water sampled or if you know your water has lead, it is recommended that bottled or filtered water be used for drinking and preparing baby formula. If you need hot water, draw water from the cold tap and then heat it.
- ***Do not boil water to remove lead.*** Boiling water will not reduce lead; however, it is still safe to wash dishes and do laundry. Lead will not soak into dishware or most clothes.
- ***Look for alternative sources or treatment of water***. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters.
- ***Determine if you have interior lead plumbing or solder.*** If your home/building was constructed prior to 1987, it is important to determine if interior lead solder or lead pipes are present. You can check yourself, hire a licensed plumber, or check with your landlord.
- ***Replace plumbing fixtures and service lines containing lead.*** Replace brass faucets, fittings, and valves that do not meet the current definition of "lead free" from 2014 (as explained above). Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures.
- ***Periodically clean your aerators.*** Over time, particles and sediment can collect in the aerator screen. Regularly remove and clean aerators screens located at the tip of faucets and remove any particles.
- ***Test your water for lead.*** Contact an independent lab to have the drinking water tested for lead. The PADEP maintains a list of certified labs. To access the list please visit https://www.dep.pa.gov/Citizens/My-Water/PublicDrinkingWater/pages/lead-in-drinking-water.aspx
- ***Get your child tested.*** Contact your local health department or healthcare provider to find out how you can get tested for lead if you are concerned about lead exposure.
- ***Have an electrician check your wiring.*** If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.
- ***Water softeners and reverse osmosis units*** will remove lead from water but can also make the water more corrosive to lead solder and plumbing by removing certain minerals; therefore, the installation of these treatment units at the point of entry into homes with lead plumbing should only be done under supervision of a qualified water treatment professional.

VEOLIA

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure.

Exhibit 4

Opt-in Form

VEOLIA

LEAD PIPE REPLACEMENT AT YOUR PROPERTY

Date: _____ **Property Address:** _____

Work Order # _____

Este es un aviso de Veolia. Favor de Comunicarse con nosotros al 888-299-8972 si necesita una copia de esta carta traducida.

At Veolia, the quality of your drinking water is our priority. The portion of the service line owned by you (the pipe that runs from curb to your home or business) contains lead materials and should be replaced.

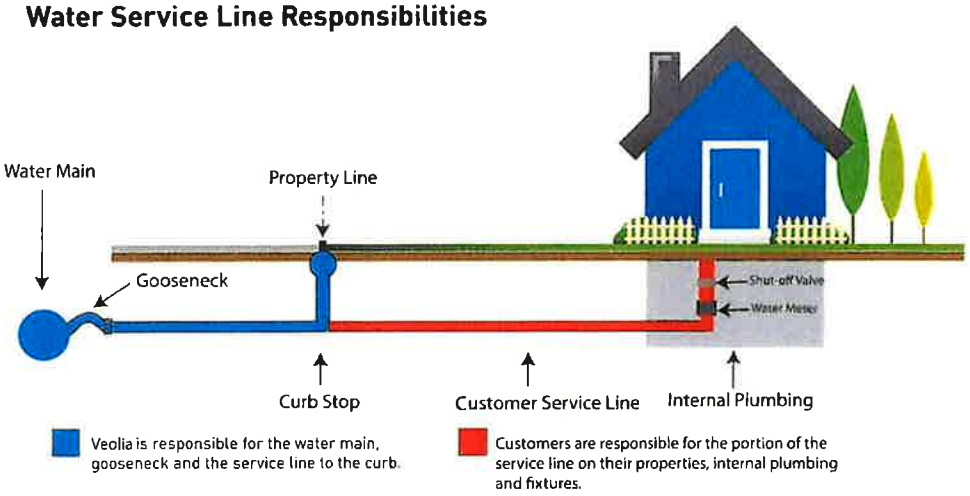
We will replace the pipe at no cost to you.

Property owners: Please fill out the form on the next page within the next 10 days so this important work can proceed. If you are not the property owner, please contact us at (888) 299-8972 to provide the appropriate contact information. Only the property owner can agree to work on their property.

A few details:

- **Replacement will protect you and your family from the potential for exposure to lead.**
- Veolia owns the service line from the main to the curb while the property owner owns the portion from the curb to the building. Due to recent legislation, we are allowed to offer free replacement of the customer-owned portion, **a savings of thousands of dollars for you.**
- If you choose not to have your line replaced, you may be exposed to higher levels of lead in the drinking water.

Water Service Line Responsibilities



Thank you and please contact us at 888-299-8972 if you have any questions.

VEOLIA

CONFIRMATION FORM

PROPERTY OWNERS, please return this completed form to Veolia Customer Service, 8189 Adams Drive, Hummelstown, PA 17036 or by email: PARegulatedLeadandCopperGroup@veolia.com

CHECK ONE:

____ **Yes - I would like Veolia to replace the portion of the service line that I own for free.** After we receive this signed notice, we will schedule an appointment for an assessment of the project. We will need access to your home to complete the new connection and the work will require some excavation outside, which we will repair in-kind. After the replacement, you will need to run water in your home to flush out any particles that were disturbed during the removal of the lead line.

____ **No – I decline to have my portion of the service line replaced at this time.** I understand the health risks associated with having a lead service line and do not hold Veolia accountable for any future health-related concerns that may result from my lead service line.

_____

_____ _____

Printed Name of Property Owner | Signature of Property Owner

_____ _____

Date | Daytime Telephone Number

_____

Email Address

_____ _____

Property Address | City, State, Zip

_____

Veolia Work Order Number:_____

Program Type: ☐ Road Paving ☐ Targeted ☐ Other_____

VEOLIA

WHAT CAN I DO TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER?

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults.

Steps you can take to reduce exposure to lead in drinking water:

- ***Run the cold water to flush out lead.*** Let the cold water run from the tap before using it for drinking or cooking any time the water in the faucet has gone unused for more than six hours. The longer the water resides in plumbing the more lead it may contain. The larger the home or building and the greater the distance to the water main in the street, the more water it will take to flush properly. Although flushing the toilet or showering flushes water in part of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.
- ***Use cold, flushed water for cooking and preparing baby formula.*** Because lead from lead-containing plumbing materials and pipes can dissolve into hot water more easily than cold water, never drink, cook, or prepare beverages, including baby formula, using hot water from the tap. If you have not had your water sampled or if you know your water has lead, it is recommended that bottled or filtered water be used for drinking and preparing baby formula.
- ***Do not boil water to remove lead.*** Boiling water will not reduce lead; however, it is still safe to wash dishes and do laundry. Lead will not soak into dishware or most clothes.
- ***Look for alternative sources or treatment of water***. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters.
- ***Determine if you have interior lead plumbing or solder.*** If your home/building was constructed prior to 1987, it is important to determine if lead solder or lead pipes are present inside your home. You can check yourself, hire a licensed plumber, or check with your landlord.
- ***Replace plumbing fixtures and service lines containing lead.*** Replace brass faucets, fittings, and valves that do not meet the current definition of "lead free" from 2014 (as explained above). Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures.
- ***Periodically clean your aerators.*** Over time, particles and sediment can collect in the aerator screen. Regularly remove and clean aerators screens located at the tip of faucets and remove any particles.
- ***Test your water for lead.*** Contact an independent lab to have the drinking water tested for lead. The PADEP maintains a list of certified labs. To access the list please visit https://www.dep.pa.gov/Citizens/My-Water/PublicDrinkingWater/pages/lead-in-drinking-water.aspx
- ***Get your child tested.*** Contact your local health department or healthcare provider to find out how you can get tested for lead if you are concerned about lead exposure.
- <u>Health Effects of Lead</u>

  Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Contact your local health department or healthcare provider to find out how you can get your child tested

for lead if you are concerned about lead exposure.

Exhibit 5

AWWA C810-17 - Replacement and Flushing of Lead Service Lines

ANSI/AWWA C810-17
(First Edition)

American Water Works Association
Dedicated to the World's Most Important Resource®

AWWA Standard

Replacement and Flushing of Lead Service Lines

Effective date: Nov. 1, 2017.
First edition approved by AWWA Board of Directors June 11, 2017.
This edition approved by AWWA Board of Directors June 11, 2017.
Approved by American National Standards Institute Sept. 1, 2017.

AWWA Standard

This document is an American Water Works Association (AWWA) standard. It is not a specification. AWWA standards describe minimum requirements and do not contain all of the engineering and administrative information normally contained in specifications. The AWWA standards usually contain options that must be evaluated by the user of the standard. Until each optional feature is specified by the user, the product or service is not fully defined. AWWA publication of a standard does not constitute endorsement of any product or product type, nor does AWWA test, certify, or approve any product. The use of AWWA standards is entirely voluntary. This standard does not supersede or take precedence over or displace any applicable law, regulation, or code of any governmental authority. AWWA standards are intended to represent a consensus of the water industry that the product described will provide satisfactory service. When AWWA revises or withdraws this standard, an official notice of action will be placed on the first page of the Official Notice section of *Journal – American Water Works Association*. The action becomes effective on the first day of the month following the month of *Journal – American Water Works Association* publication of the official notice.

American National Standard

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. An American National Standard is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an American National Standard does not in any respect preclude anyone, whether that person has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard. American National Standards are subject to periodic review, and users are cautioned to obtain the latest editions. Producers of goods made in conformity with an American National Standard are encouraged to state on their own responsibility in advertising and promotional materials or on tags or labels that the goods are produced in conformity with particular American National Standards.

CAUTION NOTICE: The American National Standards Institute (ANSI) approval date on the front cover of this standard indicates completion of the ANSI approval process. This American National Standard may be revised or withdrawn at any time. ANSI procedures require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of publication. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036; 212.642.4900; or emailing info@ansi.org.

ISBN-13, print: 978-1-62576-269-6 eISBN-13, electronic: 978-1-61300-453-1

DOI:http://dx.doi.org/10.12999/AWWA.C810.17

Committee Personnel

The AWWA Standards Subcommittee on Lead Service Lines, which developed this standard, had the following personnel at the time of approval:

J. Eisnor, Halifax Water, Halifax, N.S., Canada (AWWA)
J.A. Fleming,* Standards Council Liaison, Greater Cincinnati Water Works, Cincinnati, Ohio (AWWA)
T.C. Gilbert, Onondaga County Water Authority, Syracuse, N.Y. (AWWA)
S. Gould, Atkins, Austin, Texas (AWWA)
M.E. Grahek, Los Angeles Department of Water and Power, Mojave, Calif. (AWWA)
K.C. Morgan, KCM Consulting Services LLC, Phoenix, Ariz. (AWWA)
K. Oberoi, Charleston Water System, Charleston, S.C. (AWWA)
P.J. Olson,* Staff Advisor, American Water Works Association, Denver, Colo. (AWWA)
S.D. Osborne, OSD LLC, Lexington, Mass. (AWWA)
R.W. Roost, Lansing Board of Water and Light, Lansing, Mich. (AWWA)
M.K. Schmelling, DC Water, Washington, D.C. (AWWA)
R. Slabaugh, Arcadis, Indianapolis, Ind. (AWWA)
F. Trinchini, City of Toronto–Toronto Water, Toronto, Ont., Canada (AWWA)
C. Van Der Kolk, Zeeland Board of Public Works, Zeeland, Mich. (AWWA)
S.H. Via, American Water Works Association, Washington, D.C. (AWWA)
A.J. Weiss, Onondaga County Water Authority, Syracuse, N.Y. (AWWA)

The AWWA Standards Committee on Distribution System Operations and Management, which reviewed and approved this standard, had the following personnel at the time of approval:

Kanwal Oberoi, *Chair*

General Interest Members

M.N. Agbodo, URS Corporation, Temecula, Calif. (AWWA)
M.L. Altland, Hatch Mott MacDonald, Iselin, N.J. (AWWA)
D.M. Flancher,* Standards Engineer Liaison, AWWA, Denver, Colo. (AWWA)
S. Gould, Atkins, Austin, Texas (AWWA)

* Liaison, nonvoting

H. Huddle, NAVFAC—Washington Public Works Department, Washington Navy Yard, D.C. (AWWA)
S.R. Mason, Kimley-Horn and Associates Inc., Fort Worth, Texas (AWWA)
B. McDonald, HDR Engineering, Phoenix, Ariz. (AWWA)
K.C. Morgan, KCM Consulting Services LLC, Phoenix, Ariz. (AWWA)
S.D. Osborne, OSD LLC, Lexington, Mass. (AWWA)
P. Rogers, Georgia Southern University, Statesboro, Ga. (AWWA)
D.S. Schwartz,* Standards Council Liaison, City of Waynesboro, Waynesboro, Va. (AWWA)
A.J. Weiss, GHD Inc., Cazenovia, N.Y. (AWWA)

Producer Members

D.A. Feuer, Woolpert Inc., Englewood, Colo. (AWWA)

User Members

J.S. Czarnecki, Greenville Water, Travelers Rest, S.C. (AWWA)
J.E. Dyksen, Suez Water, North Haledon, N.J. (AWWA)
W.C. Gedney, Golden State Water Company, Ontario, Calif. (AWWA)
M.E. Grahek, Los Angeles Department of Water, Los Angeles, Calif. (AWWA)
C. Morissette, Ville de Montreal, Montreal, Que., Canada (AWWA)
K. Oberoi, Charleston Water System, Charleston, S.C. (AWWA)
G. Ramon, Little Rock Wastewater, Little Rock, Ark. (AWWA)
D. Spencer, Powdersville Water District, Powdersville, S.C. (AWWA)
J.W. Swertfeger, Cincinnati Water Works, Cincinnati, Ohio (AWWA)

* Liaison, nonvoting

Contents

All AWWA standards follow the general format indicated subsequently. Some variations from this format may be found in a particular standard.

This page intentionally blank.

Foreword

This foreword is for information only and is not a part of ANSI/AWWA C810.*

I. Introduction.

I.A. *Background.* Replacement of lead service lines and subsequent flushing are important processes for ensuring the delivery of safe drinking water. The AWWA Policy Statement on Lead Service Line Management supports protecting public health through the reduction of exposure to lead in drinking water and encourages communities to develop a lead reduction strategy that includes identifying and removing all lead service lines over time. This standard is intended to describe essential procedures for the replacement of lead service lines, including the following elements: appropriate tools and techniques; flushing a service line after replacement; factors to consider in optimizing flushing; instructions to inform customers affected by the replacement, including additional risk reduction measures; and verification of lead level management prior to return to service. Although partial replacements should be discouraged, this standard also describes procedures for partial replacement and repair situations where full service line replacement is not possible or practical.

This is the first edition of this standard and will likely result in valuable feedback from first users of the standard. As such, it is anticipated that a second edition with additional information and guidance will be necessary and issued well before AWWA's regular five-year revision schedule for standards.

I.B. *History.* Development of this standard was authorized by the AWWA Standards Council in 2015 and was assigned to the AWWA Standards Committee on Distribution Systems Operations and Management. A Subcommittee on Lead Service Lines was formed to draft the standard. This first edition of the standard was approved by the AWWA Board of Directors on June 11, 2017.

I.C. *Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for direct and indirect drinking water additives. Other members of the original consortium included the Water Research Foundation (formerly AwwaRF) and the Conference of State Health and Environmental Managers (COSHEM). The

* American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036.

American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including

1. Specific policies of the state or local agency.
2. Two standards developed under the direction of NSF†: NSF/ANSI 60, Drinking Water Treatment Chemicals—Health Effects, and NSF/ANSI 61, Drinking Water System Components—Health Effects.
3. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,‡ and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with NSF/ANSI 60 and 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdictions. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to NSF/ANSI 60 and 61 do not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

ANSI/AWWA C810 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

---

* Persons outside the United States should contact the appropriate authority having jurisdiction.

† NSF International, 789 North Dixboro Road, Ann Arbor, MI 48105.

‡ Both publications available from National Academy of Sciences, 500 Fifth Street, NW, Washington, DC 20001.

II. Special Issues.

II.A. *Prioritizing Lead Service Line Replacement.* Suggested items to consider when prioritizing lead service line replacement follow (not in order of priority):

- Any lead service line that is physically disturbed by dig-ins, excavations, repairs, or similar activities.
- Existing partial lead service line replacements.
- Lead service lines supplying schools, day care centers, or other identified sensitive populations as defined by the USEPA.
- Lead service lines where sample results are more than 15 ppb or other established health levels.
- Lead service lines located in scheduled underground infrastructure work or street restoration work zones that could be replaced concurrently, minimizing any negative impact to customers.
- Multiple lead services within a compact area (cost containment).
- Length of lead pipe present in a particular service line.
- Consideration of presence of lead goosenecks and galvanized service lines.

II.B. *Optimizing Corrosion Control Treatment.* Corrosion of piping and solder can be a primary source of lead contamination in drinking water. Optimizing corrosion control treatment may help a utility to minimize this source of lead contamination. Utilities may consider appropriate corrosion control treatments that include pH adjustment, alkalinity adjustment, addition of corrosion inhibitors, and other corrosion control treatments. Additional guidance on applying corrosion control treatments can be found in the AWWA Manual of Water Supply Practice M58—*Internal Corrosion Control in Water Distribution Systems*, the AWWA "Optimized Corrosion Control Treatment Primer," and the 2015 *Journal - AWWA* article "Strategies for Assessing Optimized Corrosion Control Treatment of Lead and Copper" (these documents are available through the AWWA Lead Resource page: www.awwa.org/lead).

II.C. *Reuse or Replacement of Service Line Fittings, Valves, and Water Meters.* The scope of this standard covers replacement of lead service lines. Utilities may choose to reuse or replace the related fittings, valves (corporation stops and curb stops), and water meters, based on the site-specific age and condition of those components and based on the utility-specific replacement schedules and practices. The Reduction of Lead in Drinking Water Act requires that all newly installed pipes, fittings, and fixtures meet the current definition of "lead free." The reuse of existing fittings (that may or may not meet the current definition of "lead free") is allowed by the Reduction of Lead in Drinking Water Act if reused in their original locations.

II.D. *Utility Communication Planning for Lead in Drinking Water.* Water utilities are facing a new communications challenge related to lead in drinking water. Currently, utilities are required under the Safe Drinking Water Act to communicate lead risks when there is an exceedance of the lead action level as defined in the Lead and Copper Rule and annually as part of their consumer confidence reports. Utilities conducting mandatory lead service line replacements must meet specific outreach requirements targeting affected households. Beyond these requirements, many utilities also communicate lead exposure risks proactively in consumer confidence reports, on websites, and through other means.

Water utilities should be planning to communicate lead exposure risks in a proactive and targeted manner not only when lead service lines are repaired or replaced but also when routine maintenance work on water mains may disturb lead service lines. This change may dramatically alter the frequency of direct-to-customer lead communications and requires a new level of planning by utility managers and communicators.

Although the water utility and public health communities have made significant strides in reducing lead exposure, public health advocates and regulatory agencies are looking closely at the contribution of lead at the tap from lead service lines—particularly lead service lines that have been disturbed. Three typical scenarios raise concerns about elevated lead levels: lead service line replacement when required by the Lead and Copper Rule or proactively performed by the utility; infrastructure replacement when full or partial lead service line replacement occurs when other utility work is under way, such as during water main rehabilitation; and repairs to lead service lines.

Water providers should consider building on current communication plans to provide additional information to customers regarding lead and lead service line replacement. AWWA has assembled *Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement* as a tool for preparing and expanding these communications (http://www.awwa.org/Portals/0/files/resources/publicaffairs/pdfs/FINALeadServiceLineCommGuide.pdf).

This guide is designed to help water utilities build on current communication strategies to address these new areas of concern and manage the increased frequency of communication with customers. It provides utilities with customizable messages and templates to communicate with customers in a variety of ways to better protect public health. For brevity, the content of the guide will not be repeated here.

Additional guidance on utility communications can be found on the Lead Service Line Replacement Collaborative website: http://www.lslr-collaborative.org/.

II.E. *Grounding of Electrical Circuits on Piping.* If the lead service line is replaced with a nonmetallic pipe or if a nonconductive plastic coupling (dielectric coupling) is used within a few feet of the home, the home owner may need to take additional measures to ensure the structure has sufficient grounding. Historically, connection to the home piping system was used for grounding the home's electrical system. By removing the underground metal piping, an alternative grounding strategy may be needed.

All metal water systems should be "bonded." Failure to adequately bond the potable water piping systems to the electrical system increases the potential for both fire and electrocution should the piping system become energized (see National Electric Code).

III. Use of This Standard. It is the responsibility of the user of an AWWA standard to determine that the products and/or processes described in that standard are suitable for use in the particular application being considered.

III.A. *Purchaser Options and Alternatives.* This standard is written as though the replacement and flushing work will be performed by the purchaser's (generally the utility's) personnel. Where the work is to be performed using a separate contract or as part of a contract for replacing service lines,* appropriate provisions should be included in the purchase documents to ensure the constructor is specifically instructed as to its responsibilities. The following information should be provided by the purchaser:

1. Standard used—that is, ANSI/AWWA C810, Replacement and Flushing of Lead Service Lines, of latest revision.
2. Whether compliance with NSF/ANSI 61, Drinking Water System Components—Health Effects, is required.
3. Details of other federal, state or provincial, and local requirements (Section 4).
4. Method of replacement to be used—open cut, trenchless on new route, or trenchless using existing route (Sec. 4.1).

III.B. *Modification to Standard.* Any modification of the provisions, definitions, or terminology in this standard must be provided by the purchaser.

IV. Major Revisions. This is the first edition of this standard.

V. Comments. If you have any comments or questions about this standard, please call the AWWA Engineering and Technical Services at 303.794.7711; write to the department at 6666 West Quincy Avenue, Denver, CO 80235-3098; or email at standards@awwa.org.

* Refer to other AWWA standards and manuals for design criteria for various service line materials.

This page intentionally blank.

American Water Works Association
Dedicated to the World's Most Important Resource®

ANSI/AWWA C810-17
(First Edition)

AWWA Standard

Replacement and Flushing of Lead Service Lines

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard describes essential procedures for the replacement of lead water service lines and flushing following replacement. Essential procedures include the following: appropriate tools and techniques; flushing a service line after replacement; factors to consider in optimizing flushing; and instructions to provide customers affected by the replacement, including additional risk reduction measures. This standard also describes procedures for partial replacement and repair situations where complete lead service line replacement is not possible or practical.

Sec. 1.2 Purpose

The purpose of this standard is to define the minimum process requirements for the replacement of lead service lines and for flushing following replacement.

Sec. 1.3 Application

This standard can be referenced in the purchase documents for the replacement of lead service lines and can be used as a guide for the appropriate replacement tools and techniques, flushing practices and procedures, communications with customers, and verification of successful completion. The stipulations of this standard apply when this document has been referenced and only to the extent referenced.

SECTION 2: REFERENCES

This standard references the following documents. In their latest editions, they form a part of this standard to the extent specified within the standard. In any case of conflict, the requirements of this standard shall prevail.

AWWA—*Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement.*

Safe Drinking Water Act (SDWA), 42 USC* 300.

USEPA†—Lead and Copper Rule (LCR), 40 CFR 141.

SECTION 3: DEFINITIONS

The following definitions shall apply in this standard:

1. *Constructor:* The party who provides the work and materials for placement or installation.

2. *Corporation stop:* A valve attached to the water main to which a service line is connected. It is used to interrupt flow during installation or maintenance of the service line (see Figure 1).

3. *Curb stop:* A valve installed in the service line, generally at the property line, and accessible for operation from the surface of the ground for routinely interrupting flow through the service line (see Figure 1).

4. *Customer:* The person, company, or organization receiving potable water service from the utility to a specific premise.

5. *Gooseneck:* A sweeping bend in a service line where it connects to the water main, resembling the shape of a goose's neck, that will allow soil movement without damaging the service line (see Figure 1).

6. *Manufacturer:* The party that manufactures, fabricates, or produces materials or products.

7. *Potable water:* Water that is safe and satisfactory for drinking and cooking.

8. *Purchaser:* The person, company, or organization that purchases any materials or work to be performed.

* United States Code, 732 North Capitol Street, NW, Washington, DC 20401-0001.

† US Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.

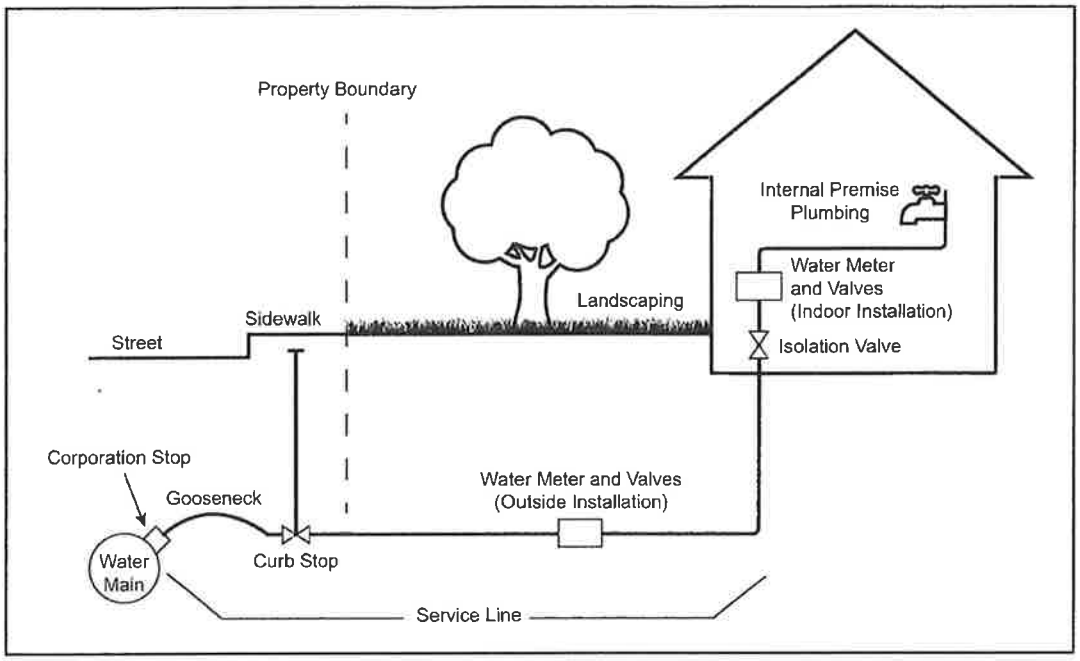


Figure 1 Typical water service line components

9. *Service line:* The pipe that runs between the utility's water main and the specific premises' plumbing, including both the portion owned by the utility, if any, and the private service line owned by the property owner (see Figure 1).

10. *Utility:* The organization or entity with the primary purpose of providing a designated area with potable water service.

11. *Water main:* The water pipe from which the domestic water supply is delivered by the utility to the service pipe leading to specific premises (see Figure 1).

12. *Water meter:* An instrument used for recording the quantity of water passing through the service line to specific premises. Water meters are typically installed with valves on inlet and outlet sides of the meter (see Figure 1).

SECTION 4: REQUIREMENTS

Materials shall comply with the requirements of the Safe Drinking Water Act and other federal regulations for potable water systems as applicable.

Water can be naturally corrosive and often dissolves lead as a result of water's contact with the service line as well as other plumbing components. A number of sampling and analytical techniques are available for customers to determine the

level of lead in their drinking water. Some of these tests are collected and/or analyzed by the local water provider. Other tests may be conducted by the customers themselves but should be in compliance with sampling and analytical techniques accepted by the local utility. The data captured from the various tests can be used to assist the utility in adjusting the water chemistry by modifying the application of corrosion control chemicals.

Utility personnel should consider that the level of dissolved and particulate lead within the homes and/or businesses of their customers may be greater than the levels within their system based on the potential leaching from service lines and internal premise plumbing components. Lead service lines potentially represent the largest mass of lead in regular contact with potable water, hence the interest in removing lead service lines in their entirety. Utilities should also consider that lead levels may vary based on chemical and physical conditions, level of disturbance to the piping, sampling technique, and other factors when determining the number of samples to be collected. A single sample may not be adequate in determining how much lead is being released.

For planned lead service line replacements, the utility shall establish replacement agreements to be reviewed with and accepted by the customer before any work being accomplished. These agreements should detail the responsibilities of the customer as well as those of the utility and should be intended to reduce any ambiguity about what is to be accomplished and by whom. Any financial requirements essential to the completion of the project should also be identified.

Sec. 4.1 Location and Replacement of Lead Service Lines

The replacement of lead service lines can be generally accomplished by one of the following ways:

- Open cut full replacement—traditional technology with excavation on the full length of service line to be replaced.
- Trenchless replacement on new routes—methods such as directional drilling or pneumatic or hydraulic ramming tools (boring tools) to pull in the new service line on a new route (cutting and leaving the existing lead service in place and replacing it using a new service line).
- Trenchless replacement on existing routes—methods such as pipe splitting and/or pulling the existing lead service that is being replaced with a new pipe using the existing service line route (pipe splitting leaves the existing lead service in the ground, pulling removes the existing lead service line).

4.1.1 *Locating lead service lines.* In order to replace the existing lead service line, the line must be appropriately identified and located. Some agencies have a database detailing the locations of their lead service lines. Such a record simplifies that portion of the replacement process. Other water providers do not have accurate records reflecting the locations of the lead assets. In this case, other means of identification shall be employed. It is highly recommended that utilities use more than one method of confirming the actual locations of the lead service lines. Utilities should record the service line material when observed during repairs, inspections, or other quality reports. Utilities should be aware that it is at times difficult to verify that a service line contains no portions made of lead, and that some degree of uncertainty may exist in a utility's inventory of lead service lines.

4.1.1.1 Identifying lead service lines at the meter, corporation stop, curb stop, or service box. Lead service lines can sometimes be identified at the main, curb stop, or meter box outside the house or adjacent to the meter inside the house. Typically, lead service lines have a distinctive "bulb-looking" section near the end at a brass, galvanized, compression, or other fitting that connects the service. The absence of the "bulb" section does not confirm the absence of lead. The observation of lead pipe in one location does not confirm the entire service line is lead. It is possible a portion of the lead service was previously replaced during repair or maintenance activity.

4.1.1.2 Using the scrape test to confirm the lead service line. Lead is a gray, nonmagnetic (a magnet will not stick to lead pipe), and relatively soft material compared with other pipe products. A coin scraped along the exterior of a lead pipe will create an indent and reveal a shiny-silver color. Care must be taken not to go too deep to avoid puncturing the pipe. Workers should use appropriate personal protective equipment, such as gloves and eye protection, to prevent exposure to lead. The scrape test identifies solid lead service lines. It will not identify lead-lined iron pipe.

4.1.1.3 Identifying lead service lines by water quality sampling. The concentration of lead found in the water sample can indicate if a lead service line is likely. A sample of the water from the service line should be taken to determine the level of lead. The line should be allowed to sit with no flow for at least 6 hours before sampling. Whether the water meter is inside the building, outside the building, or in an area that is unmetered, it is critical to flush a specific amount of water and then take a sample to be tested. The amount flushed prior to sampling should flush at least the volume of premise plumbing between the service line and the sampling tap. A single test may not be the most effective indicator of the existence of a lead service. The

minimum lead concentration will be system specific, and multiple samples may be required to ensure the lead is not from lead solder or other internal plumbing sources. A low or nondetect lead sample cannot be used to verify the absence of a lead service line. Utilities should use care in interpreting water samples collected at one point in time because of the variability of lead occurrence in samples.

4.1.1.4 Utilizing hydro-excavation to determine the presence of lead. The hydro-excavation process creates a small boring hole to expose the service line at a depth at the water main, the curb box, and/or the meter box, allowing visual observation to identify whether the service line (or a portion) is lead or not. Care should be taken to minimize any physical disturbances to the pipe.

4.1.1.5 Full test-pit excavation. Dig or excavate a large pit down to the service line to expose the pipe. This method could physically disturb the pipe.

4.1.1.6 Other lead service identification techniques. A number of other techniques are used or offered for consideration to locate the presence of lead service lines. When considering other techniques, the utility should make sure such techniques minimize any physical disturbances to the pipe.

4.1.2 *Preparation.* Before the replacement of the lead service line, a number of related preparatory activities shall take place.

4.1.2.1 Customer notification. The impacted customers shall be notified to identify the process established for replacement, whether full or partial. Most agencies have agreements to be signed by both parties reflecting the responsibilities relative to the replacement effort. The type of replacement, the schedule, and other pertinent items shall be covered appropriately with the customer before the replacement activity. The customer notification should include any postreplacement responsibilities, such as flushing or the use of filters, and should include directions to the customer to make the workspace ready and safe prior to the replacement activity. Customers should also be made aware of the risks of a partial replacement, where applicable (see Sec. 4.2).

4.1.2.2 Underground utility locates. The location of other underground utilities shall be done prior to the work to avoid utility strikes and is critical to the success of the lead service line replacement. Locates shall be scheduled in a timely manner without disruption to the established work plan.

4.1.2.3 Lead service replacement plan. A replacement plan shall be established for the work crews to reflect the schedule of the effort, the typical amount of time the customers will be impacted, and so on. This information shall be used to inform the customer of the coming replacement activity and communicated to the customer in a timely manner.

4.1.2.4 Water shutoff and service line isolation. Prior to beginning the replacement work, the water supply to the service line and the customer shall be shut off to avoid release of particulate lead into the customer's premises caused by vibration of the service during any excavation. The service line to be removed shall be isolated by shutting off appropriate valves at each end of the area to be removed.

4.1.3 *Open-cut full replacement of lead service lines.* The open-cut full replacement approach to lead service line removal involves the extraction of all the surface treatment and earth material above the level of the pipe. Care must be taken because other underground utilities, including the water main, may have not been properly located.

4.1.3.1 Proper equipment and material usage for open-cut full replacement. The excavation equipment used for the open-cut full replacement approach shall be sized to accommodate the full depth of the hole. Safety precautions shall be taken in consideration of the customer's property as well as any local pedestrian and/or vehicular traffic.

4.1.3.2 Use of adequate trench safety. Based on the depth of the excavation, an adequate level of trench safety shall be used to guarantee compliance with applicable requirements.

4.1.3.3 Lead service line removal. Once properly exposed and identified, the existing lead service line shall be disconnected from the main as well as the customer's side of the connection. When a utility elects to remove the lead pipe from the ground, the discarded lead line shall be carefully cut or bent into manageable sections and taken for processing for ultimate disposal. The amount of lead removed and the location of the removal along with any other pertinent information shall be documented. If the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.3.4 Connecting the new service line. The new pipe shall be measured and placed with enough material to properly connect to the main as well as to the customer's side. The new pipe material shall comply with the requirements of the Safe Drinking Water Act and other federal regulations for potable water systems as applicable. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.3.5 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the course of the excavation.

4.1.4 *Trenchless replacement on new routes.* The directional drilling or pneumatic/hydraulic installation methods of replacing lead service lines make use of a pilot hole that is created by drilling or pneumatically or hydraulically pushing a rod into the soil from an open access pit at the main to an access pit at the meter box or at an area adjacent to the wall where the new service will be connected on the customer's side. In a number of these installation scenarios, the existing lead pipe is disconnected on either end and left in place. When the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.4.1 Required access pits. Based on the length of the service to be replaced, access pits shall be excavated down to the depth of the main on one side and to the depth of the service connection on the customer's side. As with any excavation, utility locates shall be requested and received prior to the work being performed, and all applicable trench safety devices shall be used. If the distance between the access pits is great or other underground utilities that are a cause for concern exist, an intermediate access pit may be required.

4.1.4.2 Proper use of boring tools. The boring tool shall be placed in the launching access pit level and pointed in the direction of the receiving pit. The horizontal and vertical directions of the tool shall be monitored until it reaches the receiving pit. Proper service line installation depth is critical and must be maintained in accordance with local requirements.

4.1.4.3 Connecting the new service line. Once the boring tool reaches the receiving pit, the new service line shall be connected to the boring tool and pulled through the bore hole with enough length of the new service pipe material to add fittings to connect to the main as well as on the customer's side. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.4.4 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in the access pits in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the extent of the excavation.

4.1.5 *Trenchless replacement on existing routes.* The pipe-splitting method employs the use of a tool pulled through the existing lead service line that splits the pipe. The existing lead service line remains in the ground and a new service line is pulled into place. Another related method is to disconnect the lead service on each end and to connect a fitting to one side with an extraction device and to connect

the new pipe material on the other end in order to pull the new service into place, while removing the existing lead service line.

4.1.5.1 Required pipe- splitting and -pulling access pits. As in the directional drilling and pneumatic/hydraulic installation approaches, access pits shall be excavated to the depth of the main on one side and to the depth of the service connection on the customer's side. Other underground utility locates shall be obtained prior to the work, and all applicable trench safety devices shall be used.

4.1.5.2 Use of the splitting tool. Care must be taken to disconnect the existing lead service line and to cut it in a manner that facilitates pushing a cable through it with the splitting tool attached. The splitting tool is then used to displace the existing lead pipe and draws the new pipe material through it to the other end of the project. When the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.5.3 Connecting the new service line. Once the splitting tool reaches the receiving access pit, the new service line shall be pulled through to allow enough material to adequately connect to both sides. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.5.4 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in the access pits in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the extent of the excavation.

Sec. 4.2 Partial Replacements

4.2.1 *General.* It may not always be practical or possible to replace all of a lead service line at the same time. Coordination among the utility, the property owner, and constructor could result in situations in which partial replacement may be unavoidable. Although every effort shall be made to avoid partial replacements, it may be necessary to accommodate partial replacement situations as an interim measure. Partial replacement is not desirable because of the potential for increased release of lead into the water. This section describes additional requirements and recommendations for partial lead service line replacements.

4.2.2 *Existing conditions.* For services where partial replacements have previously occurred and a portion of the service still contains lead pipe, it is recommended that these locations be identified and re-evaluated for removal of the remaining material. For example, some utilities, property owners, or constructors,

through the course of routine maintenance and repairs, may have replaced portions of lead services with alternative materials without having replaced the remainder of the service either to the main or into the property.

4.2.3 *Delayed replacement.* Situations will occur in which a lead service line might not be fully replaced and a portion is left for later replacement. Coordination among all stakeholders during a lead service line replacement is critical. When it is necessary to complete a total lead service line replacement where both the utility and the property owner are responsible for portions of the work (i.e., up to the property line and beyond the property line), all parties should perform the work in close succession to minimize the potential for utilization of the service before completion of the total replacement. However, there may be instances in which one party completes its portion of the work in advance of the other party being available or willing. The scope of replacement may be large for some communities, and thus the time required to complete all the work may be long. In either of the delay cases presented below, the utility shall record that all portions of the service have successfully been replaced after notification of successful completion of full replacement. Communications regarding the effect of partial service line replacement should occur as covered in Sec. 4.3.

4.2.3.1 Property owner delay. On completion of the utility-owned portion of a lead service line replacement, the property owner should complete replacement of their portion as well. However, given the logistics of this work and the likely need for the property owner to hire an independent contractor, there may be a period during which the old and new portions of the service will be connected to allow for the continued supply of water but the lead replacement is only partially complete. During the interim period, the property owner shall be provided clear guidance regarding the increased risk of lead entering the water associated with the partial-replacement condition. Refer to Sec. 4.3 with respect to communication during this period.

4.2.3.2 Utility delay. If a property owner replaces a portion or all of the service line from the home to the property line, the utility should make every effort to obtain documentation of the replacement for its inventory. In most cases the utility will learn of the work after it is completed. If the property owner notifies the utility in advance, the utility should try to schedule a mutually convenient time to perform its portion. When this is not achievable, the property owner shall be provided with clear guidance regarding the increased risk of lead entering the water associated with the partial-replacement condition. Refer to Sec. 4.3 with respect to communication during this period.

4.2.4 *Partial replacement.* It is possible that a portion of the service may contain lead, be out of the utility's responsibility, and subsequently not be replaced. This circumstance may exist for a variety of reasons including cost, miscommunication, misunderstanding of the issues, ambivalence, or social defiance.

4.2.4.1 Property owner refusal. Given the potentially high cost associated with service line replacement and the challenges that may arise with performing the work, it is conceivable to anticipate that some property owners may elect to do nothing. When this condition occurs, the utility shall follow the recommendations presented herein for dielectric connection of dissimilar metals, flushing, and testing. Documentation of the refusal, or at a minimum documentation that a portion of lead material remains (including its location and quantity), will be important for the utility to maintain complete records of the lead service line replacement progress/program. The customer should receive all necessary information regarding future risk.

4.2.4.2 Incentive program verification. If financing or incentive programs are available to property owners, utilities will need to be cautious about validating that property owner portions of lead services have been replaced, in their entirety or at all. A method for verifying work performed and recording completed work will be necessary.

4.2.4.3 Cutting of lead service lines. After customer notifications and utility locates have been accomplished, the specific location of the lead pipe to be cut shall be identified. The proper cutting tools shall be identified to reduce the amount of lead displaced from the cut. A cutting tool such as a pipe cutter or pipe shearing device that reduces lead particles and disturbance is preferred to other tools that use a sawing or other abrasive action. The necessary safety equipment shall be used, including safety glasses and/or goggles and safety gloves. Care shall be taken while cutting the lead pipe to reduce the amount of lead shards from traveling and/or accumulating in the remaining service line sections. The lead service line sections remaining shall be connected and secured to reduce or eliminate the possibility of water leakage. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion. The discarded lead service line shall be carefully cut or bent into manageable sections for processing for ultimate disposal. The replacement section should be a pipe material in compliance with all federal, state, and local requirements. The amount removed as well as specific locations of the remaining sections should be documented. The replaced service line shall be turned on and checked for leaks

in a manner that does not expose the customer's side to potential lead fragments. Flushing shall be accomplished in a manner consistent with Sec. 4.4.

Sec. 4.3 Communications and Instructions to Customers

4.3.1 *General.* It is important to inform all customers that may be affected by lead service line activities. The utility shall provide communication to customers regarding the following items:

1. Advanced notice of planned lead service line replacement projects (45 days prior is recommended).
2. Informational point-of-contact for the project.
3. Additional notice prior to actual planned work affecting service line (day prior).
4. On-site utility point-of-contact during construction.
5. Postconstruction instructions regarding customer flushing, use of a point-of-use (POU) filter or bottled water, water sampling, and testing to be completed.
6. Clear guidance regarding the increased risk of lead entering the water associated with a partial lead service line replacement condition (if a full-service line replacement was not completed). Customers with partial replacements should avoid consuming their water unless they are using a filter certified for lead removal or they should consume bottled water until sample results show that their lead levels are less than the regulatory guideline.

In addition to water shutoff and service-line-isolation actions (Sec. 4.1.2.4), customers should be advised not to use water during excavation and construction activities.

Additional guidance to utilities for completing these customer communications is available in the foreword of this standard and in the AWWA document *Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement.*

Sec. 4.4 Flushing Service Lines After Full or Partial Replacement

4.4.1 *Flushing by the utility immediately after lead service replacement.* After all connections have been completed, flush the water from an outside connection (such as hose-bib or hose leading from the house side of the meter installation) to remove any particles in the service line and near point-of-entry. The flushing is best done, if possible and practical, before the meter is connected in the service using a "jumper" or straight pipe in place of the meter. The straight pipe will allow for a higher velocity flush and protects the meter from potential damage from lead pipe and other construction-related fragments. Flush at full velocity for at least

10 minutes. If the meter was replaced with a "jumper," it may be reconnected in the service after utility flushing. Following completion of flushing by the utility, the customer shall flush the interior premise plumbing as described in Sec. 4.4.2.

In situations where flushing by the utility is not performed, the customer should be notified with instructions to flush before using any water.

4.4.2 *Flushing by the customer after lead service replacement.* The customer should flush all interior premise plumbing the same day or before next water use following the replacement. Subsequent flushing by the customer should be done once every two weeks for three months or at other intervals based on monitoring results if available. Utilities may want to encourage best times to flush based on water demand and operations (for example, when neighbors' water usage is low, e.g., midmorning to dinner time or late at night). Customers shall be advised to not use hot water in the premise plumbing until initial flushing is completed to prevent sedimentation of lead particles in premise hot water tanks.

4.4.2.1 Suggested instructions for customers.

1. Find all the faucets that will drain, including the basement and all floors in your house.
2. Remove aerators and screens whenever possible, including the shower heads, from all faucets you plan to flush.
3. Include the laundry tubs, hose-bibs, bathtubs, and showers as flushing points.
4. After all the aerators are off, open the faucets in the basement or lowest floor in the house. Leave all faucets running at highest rate possible, using cold water.
5. After the faucets are all open in lowest floor, open the faucets on next highest floor of the house. Continue until faucets are open on all floors.
6. After all faucets are opened, leave the water running for at least 30 minutes.
7. After 30 minutes, turn off the first faucet you opened and continue to turn off other faucets in the same order you turned them on.
8. Clean aerators/screens at each faucet. You may need to replace screens/aerators if too old or worn.

Utilities and customers may consider an optional approach by coordinating a targeted flush of a few faucets at a time before opening all the faucets for the whole house flush. The targeted flush would start with a pattern of opening all faucets in a single area or single floor and then moving to the next to increase the flow velocities, followed by the whole house flush described above, with all faucets open.

4.4.2.2 Additional daily miniflush. As a precaution, the customer should do a miniflush of premise plumbing by running tap water each morning or when the water sits in the pipe for at least 6 hours. Flush for 5 minutes to displace water that has been sitting in the pipes inside the house and in the service line. This could include taking a shower, running the dishwasher, flushing a toilet, collecting water for plants/garden, or running the faucet. The customer should do this before using any water for drinking, cooking, infant formula, and so on. Daily miniflushes should continue for six months or until lead sample results show the lead level is below the regulatory guideline. The customer should clean debris from aerators and screens once a month for six months. After six months, clean debris twice a year.

4.4.2.3 Sampling. Water sampling and testing, following replacement and flushing, shall be conducted per Sec. 5.2.

SECTION 5: VERIFICATION

Sec. 5.1 Documentation of Construction Activities

Documentation of construction activities for each service line work activity may support verification that the lead service line has been fully or partially replaced. The following information shall be documented and recorded:

- Picture of home with house number
- Picture of test pits and meter pit showing new pipe or pipe ends and old lead pipe if in same location
- Length and material type of new pipe installed
- Type of pipe material the new pipe is connected to inside home
- Method of installation (trenchless, hand-excavation, etc.)
- Length and location of any abandoned lead service line pipe left in the ground

Flushing time and location(s) (for example, an outside hose-bib) shall be recorded. Some homes may not have an outside hose-bib turned on or other situations may arise that do not allow for postflushing by the utility. These situations shall be documented in field reports along with any communication attempted with the customer.

Sec. 5.2 Water Testing Following Replacement

Testing the water following the replacement shall be done to determine if appreciable lead is still present in the drinking water. Lead may still exist inside

home plumbing (lead solder, redeposited lead in scale of plumbing, and brass components) and could be disturbed during service line work. Therefore, lead present in the water following a full replacement does not mean the lead service has not been replaced. This condition should be explained to the customer. Flushing recommendations described in Sec. 4.4 can help remove released particles.

5.2.1 *Testing initiation.* Testing the water shall commence at least one month after the replacement to allow for sufficient in-house flushing and a period of normal use of water to occur. Utilities may consider initiating testing within the one-month period if supported by performance data. When only a partial replacement is completed and the lead service line replacement was mandatory as part of compliance with the Lead and Copper Rule (LCR), testing shall be conducted within 72 hours after the completion of the partial replacement of the service line per the requirements of the LCR.

5.2.2 *Test samples.* Testing shall include first-draw and second-draw samples. First-draw sample shall be the initial draw from the tap when it is turned on. Second-draw sample shall be collected with the objective of collecting water that stagnated in the service line, generally the fourth to seventh liter depending on site-specific conditions. Utilities may be able to omit the second draw sample if supported by documentation that the construction activities completely removed the lead service line and by acceptable first-draw lead data. Samples shall be collected from a frequently used tap inside the home, preferably the kitchen tap as the residents' consumption would likely be from the kitchen tap. Samples shall also be collected with the aerator on. Samples should be collected at the maximum flow rate of the tap and should be collected in wide-mouth bottles.

5.2.3 *Profile sampling.* Lead levels higher than expected from full lead replacements may occur and the utility or homeowner could investigate further with profile sampling. A profile is a series of bottles filled continuously following the stagnation period. The trend of lead concentrations coupled with measurements of the inside plumbing and service line will show which portion of plumbing or service contributes the highest lead by the liter number.

American Water Works Association

6666 West Quincy Avenue
Denver, CO 80235-3098
T 800.926.7337
www.awwa.org

Dedicated to the world's most important resource, AWWA sets the standard for water knowledge, management, and informed public policy. AWWA members provide solutions to improve public health, protect the environment, strengthen the economy, and enhance our quality of life.

ISBN 978-1-62576-269-6

1P–2M 43810-2017 (11/17) IW

Printed on Recycled Paper

Exhibit 6

LSLR Fact Sheet

VEOLIA

URGENT INFORMATION ABOUT YOUR SERVICE LINE REPLACEMENT

Este es un aviso de Veolia. Comuníquese con nosotros al 888-299-8972 si necesita una copia traducida de esta carta

___Today, Veolia replaced its portion of the service line. It was not made of lead or galvanized material and we did not see lead or galvanized material on the portion of the service line that you own. You should flush your service to remove any particulates. Simply turn on either an outside or inside faucet and leave it running at the highest rate possible. Flushing should continue for at least ten minutes (longer if there is visible appearance of particulates or other matter in the water being flushed). This is the only flushing you need to do.

___Today, Veolia replaced its portion of the service line. It was not made of lead or galvanized material, but we did see lead or galvanized material on the portion of the service line that you own. The work could cause a disturbance that could temporarily elevate lead levels in your drinking water. Please follow the flushing instructions below to reduce the potential for lead in your home's water. **We will be contacting you to arrange a date to replace your line at no cost to you.**

___Today, Veolia replaced its portion of the service line, which was made of lead or galvanized material. We did not see lead or galvanized material in the portion of the service line that you own. The work may temporarily increase lead levels by disrupting the redeposited lead in scale of premise plumbing. Because a lead replacement was performed, Veolia has provided you with a pitcher with a WQA-certified filter that removes lead. Please use the pitcher and follow the instructions below to reduce the potential for lead in your home's water.

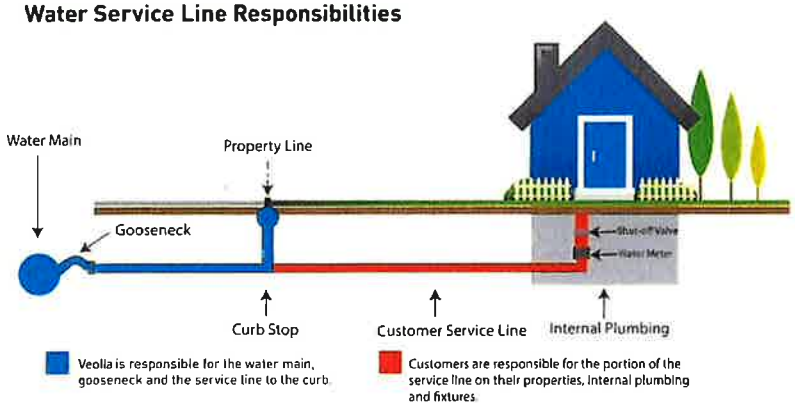
___Today, Veolia replaced its portion of the service line, which was made of lead or galvanized material. We saw lead or galvanized material in the portion of the service line that you own. The work may temporarily increase lead levels by disrupting the redeposited lead in scale of premise plumbing. Because a lead replacement was performed, Veolia has provided you with a pitcher with a WQA-certified filter that removes lead. Please use the pitcher and follow the instructions below to reduce the potential for lead in your home's water. **We will be contacting you to arrange a date to replace your line at no cost to you.**

___Today, Veolia replaced its portion of the service line, which was made of lead or galvanized material, as well as the portion you own, which was also lead or galvanized material. The work may temporarily increase lead levels by disrupting the redeposited lead in scale of premise plumbing. Because a lead replacement was performed, Veolia has provided you with a pitcher with a WQA-certified filter that removes lead. Please use the pitcher and follow the instructions below to reduce the potential for lead in your home's water.

___Today, Veolia replaced only the portion of the service line you own, which was made of lead or galvanized material. The work may temporarily increase lead levels by disrupting the redeposited lead in scale of premise plumbing. Because a lead replacement was performed, Veolia has provided you with a pitcher with a WQA-certified filter that removes lead. Please use the pitcher and follow the instructions below to reduce the potential for lead in your home's water.

VEOLIA

Water Service Line Responsibilities



Veoila owns the section from the water main to the curb (blue).

The property-owner owns the section from the curb to the home (red).

Do not consume any tap water or filtered water from your refrigerator prior to conducting the procedures on the following pages. Throw away any ice from your freezer. If you have an automatic icemaker, shut it off.

After a portion or all of the service line was replaced:

___We flushed your outside faucet. Follow **Steps 2-9 in Section A** and all other instructions.

___We were NOT able to flush your outside faucet. Follow **Steps 1-9 in Section A** and all other instructions.

Veolia strongly recommends following these instructions below, in accordance with AWWA Standards[1].

SECTION A — FLUSH YOUR HOME IMMEDIATELY

1. Turn on a faucet on the outside of your home and leave it running at the highest rate possible. Flushing should continue for at least ten minutes (longer if there is visible appearance of particulates or other matter in the water being flushed).
2. Locate all faucets, laundry tubs, sinks, bathtubs, showers, and hose bibs that have a proper drain. Remove all screens and aerators, including showerheads, and make sure all drains are clear. Fully extend flexible faucets for flushing.
3. Turn off or bypass any water softener or filtration system to allow for maximum flow.
4. Turn on the cold water faucets in the basement (or lowest floor). Leave all faucets running at the highest rate.
5. Turn on the cold water faucets on the next highest floor. Continue until all faucets are running on all floors.
6. Record the order in which the faucets were turned on.
7. Leave water running for at least 30 minutes.
8. Turn off the faucets in the same order they were turned on.
9. Clean or replace the faucet aerators and screens before you re-attach. Separate the individual parts and, if necessary, soak them in white vinegar for a few minutes and scrub with a brush.

Conduct the above flushing once every two weeks for three months.

[1] **Standard C810-17 Replacement and Flushing of Lead Service is available at AWWA's website at www.awwa.org/Store**

SECTION B — FLUSH DAILY FOR THE NEXT SIX MONTHS

For the next six months, Veolia recommends flushing your home daily in the morning or when the water sits in the pipe for six or more hours. Flush all faucets used for drinking, cooking, making infant formula or brushing teeth. Flushing could also include taking showers, washing clothes or dishes or collecting water for gardening.

Run the cold water for five minutes in any faucet where water has been sitting in the pipe for six or more hours before using it for drinking or cooking.

SECTION C — ROUTINELY CLEAN AERATORS AND SCREENS

Clean debris from aerators and screens (as described in Section A) once a month for six months. Thereafter, clean aerators at least twice a year.

ADDITIONAL STEPS TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER

- Replace the customer-owned portion of the service line if it is lead. Contact Veolia at 1-888-299-8972 or at PARegulatedLeadandCopperGroup@veolia.com if the line is replaced so Veolia can update its records to ensure compliance with the Federal and State Safe Drinking Water Acts.
- Use cold, flushed water for cooking and preparing baby formula. Because lead from lead-containing plumbing materials and pipes can dissolve into hot water more easily than cold water, never drink, cook, or prepare beverages including baby formula using hot water from the tap. If you have not had your water sampled or if you know your water has lead, it is recommended that bottled or filtered water be used for drinking and preparing baby formula. If you need hot water, draw water from the cold tap and then heat it.
- Determine if you have interior lead plumbing or solder. If your home/building was constructed prior to 1991, it is important to determine if interior lead solder or lead pipes are present. You can check yourself, hire a licensed plumber, or check with your landlord.
- Replace plumbing fixtures and service lines containing lead. Replace brass faucets, fittings, and valves that do not meet the current definition of "lead free" from 2014 (as explained above). Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures.
- If a portion of your service line is still lead, consider purchasing bottled water or a water filter. Be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on water filter performance standards. Maintain and replace a filter in accordance with the manufacturer's recommendations.
- Water softeners and reverse osmosis units will remove lead from water but can also make the water more corrosive to lead solder and plumbing by removing certain minerals; therefore, the installation of these treatment units at the point of entry into homes with lead plumbing should only be done under supervision of a qualified water treatment professional.

TESTING YOUR WATER FOR LEAD

Veolia recommends, in accordance with AWWA standards, that the property owner have their water tested by a certified laboratory at least one month after the replacement to allow for sufficient in-house flushing and a period of normal use of water to occur. Samples collected should be representative of first draw (initial water drawn from the tap after the water has been unused for at least 6 hours) and a flushed sample representative of water that was stagnant for at least 6 hours in the remaining lead portion of the service line.

Customers can contact an independent laboratory to have their water tested for lead. To access the PADEP's list of certified laboratories, please visit https://files.dep.state.pa.us/water/bsdw/DrinkingWaterManagement/PrivateWaterWells/zAccredited_Laboratories.pdf.

MORE INFORMATION

- If you have more questions, please contact Veolia at 1(888)299-8972 or cspa@veolia.com.
- Visit mywtaer.veolia.us or the EPA's website at http://www.epa.gov/lead.
- Contact your health care provider or call the National Lead Information Center at 800-424-LEAD or the Safe Drinking Water Act hotline at 1-800-426-4791.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure.

Exhibit 7

Via Certified Mail
[Customer Address]

[Date]

Re: Customer-Owned Lead Service Line Replacement Project (no Company Owned LSL) – Notice

Dear Customer,

Our records indicate that your property or place of residence has a customer-owned pipe made out of lead or galvanized material, and that you have elected to opt-out of Veolia Water Pennsylvania, Inc.'s ("Veolia" or the "Company") offer to replace your customer-owned lead service line, as indicated on your completed Lead Pipe Replacement Program Opt-In Form. Veolia's service pipe in that area does not contain any lead or galvanized material. As such, Veolia does not need to replace the Company-owned service line.

Please be advised that in accordance with 52 Pa. Code §§ 65.56(b)(10)(ii), if you, as the customer and/or property owner, refuse or fail to accept Veolia's offer to replace your service line, you will be required to replace the customer-owned lead service or galvanized material service line at your initial expense. If you have replaced your customer owned lead service line at your expense in the year prior to the commencement of the Lead Service Line Replacement ("LSLR") project, or within the year after the commencement of the LSLR project, you will be eligible for reimbursement of the costs of replacing your customer-owned lead service line. Reimbursement shall be in accordance with 52 Pa. Code §§ 65.58(d) and Veolia's Tariff. For the purpose of calculating the one year, Veolia's commencement for the project in your area is _____, 20__.

Pennsylvania Law prohibits partial replacements of lead service lines. Therefore, if a customer refuses Veolia's offer to replace the customer-owned lead service line resulting in a partial LSLR, Veolia must terminate water service until such time that the customer can show that its lead service line has been replaced. Where Veolia has reasonable evidence indicating service is being provided using a partial LSLR installed after July 22, 2022, the Company shall terminate service until such time as lead service lines are replaced.

Thank you for your attention to this important matter.

Sincerely,
Veolia Team

Via Certified Mail
[Customer Address]

[Date]

Re: Customer-Owned Lead Service Line Replacement Project (with Company Owned LSL) – Notice

Dear Customer,

Our records indicate that your property or place of residence has a customer-owned service line made out of lead or galvanized material, and that you have elected to opt-out of Veolia Water Pennsylvania, Inc.'s ("Veolia" or the "Company") offer to replace your customer-owned lead service line, as indicated on your completed Lead Pipe Replacement Program Opt-In Form. Veolia intends to replace its Company-owned lead service line in your area on _____, 20__.

Please be advised that in accordance with 52 Pa. Code §§ 65.56(b)(10)(iii) you, as the customer and/or property owner, may elect to replace the customer-owned lead service line at your initial expense. If you so elect, then you will be required to replace the customer-owned lead service line concurrently with Veolia's replacement of its utility-side lead service line. You will have to provide Veolia at least 90 days' notice prior to replacing your customer-owned lead service line. If you elect to replace your service line yourself and provide Veolia the 90 days' notice, you will be eligible for reimbursement of the costs of replacing your customer-owned lead service line. Reimbursement shall be in accordance with 52 Pa. Code §§ 65.58(d) and Veolia's Tariff.

However, if you do not replace your customer-owned lead service line and fail to allow Veolia to complete the LSLR project or replace your customer-owned lead service line, Veolia will replace the Company-owned portion of the lead service line in accordance with Veolia's LSLR plan and terminate your water service, in accordance with Veolia's tariff. Service shall be terminated until such time that you replace the customer-owned lead service lines.

Pennsylvania Law prohibits partial replacements of lead service lines. Therefore, if a customer refuses Veolia's offer to replace the customer-owned lead service line resulting in a partial LSLR, Veolia must terminate water service until such time that the customer can show that its lead service line has been replaced. Where Veolia has reasonable evidence indicating service is being provided using a partial LSLR installed after July 22, 2022, the Company shall terminate service until such time as lead service lines are replaced.

Thank you for your attention to this important matter.

Sincerely,
Veolia Team