

ADDITIONAL RESOURCES: PARTIAL LEAD SERVICE LINE REPLACEMENTS¹

Proposed Revisions to the Lead and Copper Rule (LCR) & EPA Regulatory Framework

Government Accountability Office, *Drinking Water: EPA Should Strengthen Ongoing Efforts to Ensure That Consumers Are Protected from Lead Contamination* (Washington, D.C.: GAO, 2006), <http://www.gao.gov/assets/250/248883.pdf>.

The GAO examined EPA data and determined that the EPA did not have sufficient data to determine the Lead and Copper Rule's (Rule) effectiveness due to missing data and unmet reporting requirements. The GAO also concluded that numerous weaknesses in the Rule's regulatory framework undermine public health protection and made special note of the absence of schools and childcare facilities from regulatory testing leave young children at risk of exposure to lead contamination through drinking water at those facilities.

U.S. Environmental Protection Agency, *Lead and Copper Rule Revisions White Paper* (Washington, D.C.: EPA Office of Water, 2016), https://www.epa.gov/sites/production/files/2016-10/documents/508_lcr_revisions_white_paper_final_10.26.16.pdf.

The EPA received recommendations for strengthening the Lead and Copper Rule from the National Drinking Water Advisory Council (NDWAC) in late 2015. In October 2016, the EPA Office of Water issued its White Paper, in which it established key principles that would guide its consideration of Rule revisions and summarized and evaluated key NDWAC recommendations.

National Drinking Water Advisory Council Lead and Copper Rule Working Group, *Report of the Lead and Copper Rule Working Group to the National Drinking Water Advisory Council* (Washington, D.C.: NDWAC Lead and Copper Rule Working Group, 2015), <https://www.epa.gov/sites/production/files/2016-01/documents/ndwaclcrwgfinalreportaug2015.pdf>.

¹ These resources are offered as examples of what governmental, professional and industry organizations, and other jurisdictions have produced relevant to the information, findings, and recommendations in the *Lead Exposure and Infrastructure Reconstruction* report. This information is provided with no guarantees of its completeness, accuracy, or timeliness.

NDWAC established a Lead and Copper Rule Working Group and charged it with providing advice. The Working Group produced eight major recommendations for the EPA on “Long Term Revisions” to the Lead and Copper Rule.

Lead Service Line Replacement General Information/Recommendations

“Lead Service Line Replacement: Vital Tips from Leading Utility Managers” (YouTube video, 1:15:10, American Water Works Association conference on May 3, 2016, posted by AWWA, May 18, 2016), https://www.youtube.com/watch?v=fwq4_yPjHMs.

Video of AWWA conference on LSL replacement in which leading officials from four city water systems share their experiences, lessons learned, and suggestions to other municipal water systems.

LSLR Collaborative, www.lslr-collaborative.org.

The LSLR Collaborative’s mission is to “accelerate voluntary LSL replacement in communities across the United States.” Its website offers information on all aspects of developing programs designed to facilitate full LSL replacement including (1) a roadmap to help community leaders, officials, and water system managers get started; (2) replacement practices that provide the necessary tools, language, and information to develop a successful full LSL replacement program; (3) examples of policies that provide support to full LSL replacement initiatives; and (4) additional resources.

The Collaborative consists of 24 national health, environmental, and water industry organizations, including the American Water Works Association, the Association of Metropolitan Water Agencies, the Environmental Defense Fund, the National Center for Health Housing, the National Conference of State Legislatures, Clean Water Action, the Natural Resources Defense Council, and the Water Research Foundation.

“Lead Service Line Replacement,” Infrastructure Assistance Coordinating Council, Washington, November, 2016,
http://www.infracore.com/downloads/2016_Conference_Presentations/S50.pdf.

This document includes links to sample work notice forms, tips on how to identify lead free certification marks on water systems and plumbing parts, strategies to obtain customer acceptance of complete LSL replacement, and other resources from municipalities and professional organizations.

Water System/Municipality Websites with Access to Lead Information Displayed Prominently

“Lead Services,” Louisville Water, Louisville, KY, <http://www.louisvillewater.com/> and <http://www.louisvillewater.com/leadservices> and <http://www.louisvillewater.com/water-quality/lead/lead-service-line-replacement-program>.

The top of Louisville Water’s home page includes its “Lead Management Program,” in the side bar’s list of web pages. The “Lead Management Program” page includes a video of LSL replacement and a link to a YouTube video describing flushing techniques. Another link takes website visitors to a web page at which customers can access a map of planned lead service renewal projects and type in a customer account number to determine whether a property is serviced by LSLs.

The “Lead Management Program” page also enables customers to request a water quality test kit on line. Another linked page provides answers to “Commonly Asked Questions about Our Lead Service Line Replacement Program.” Finally, the site has a web page devoted to “Safety in Schools,” which outlines Louisville Water’s work with schools to educate and train staff and assist schools in implementing EPA guidance for monitoring lead in drinking water and taking corrective action when necessary.

“Lead and Household Water,” Saint Paul Regional Water Services, Saint Paul, Minnesota: The most livable city in America, <https://www.stpaul.gov/departments/saint-paul-regional-water-services>.

The first subtitle on Saint Paul’s Regional Water Services home page on the City website is “Lead and Household Water,” which includes links to the website’s page dedicated to that topic. The page includes a printable brochure on “Lead in Drinking Water” and links to videos focused providing information on “reducing exposure to lead in drinking water” and “scratch testing your plumbing for lead.”

“Lead Awareness,” Greater Cincinnati Water Works, Cincinnati, Oh, <http://cincinnati-oh.gov/water/lead-information/>.

Greater Cincinnati Water Works includes a link to “Lead Awareness,” the third link in the left-hand sidebar menu at the top of its home page. Color images on the “Lead Awareness” page link topics related to lead in drinking water on to additional pages, including an LSL map FAQ page; a page at which a customer can sign up for a free test kit or let the GCWW know their test sample is ready for pick-up; a page on lead testing in schools that explains GCWW’s role in school testing based on the EPA’s 2006 *3Ts for Reducing Lead in Drinking Water in School*:

Revised Technical Guidance, including FAQs; a page on GCWW’s water testing assistance to childcare centers, including FAQs; a GCWW newsletters page; and a “Links and Additional Information” page.

At the bottom of the “Lead Awareness” page is a bold “Get Ahead—No More Lead” sign with links to the interactive map through which customers can find out if they have a LSL on either the public or the private side and a page with information about relevant federal drinking water quality regulations.

“Lead,” City of Philadelphia Water, <http://www.phila.gov/WATER/Pages/default.aspx> and <http://www.phila.gov/water/wu/drinkingwater/lead/Pages/default.aspx>.

Philadelphia’s “Water” main page prominently features a “Lead in Water” link at the top of its right-hand sidebar menu. The “Lead in Water” page includes links to additional pages titled “Checking Your Home for Lead,” “What Can I Do If I Have Lead Pipes?”, “Programs for Lead Line Replacement,” “Lead Testing in Philadelphia,” and “Lead FAQs.” Each of the pages also include fixed modules that link to information about water quality testing, customer resources (daily flushing tips that emphasize the danger of lead in water, checking for lead pipes, and a community presentation on lead in drinking water), and how to get your water tested for contaminants.

“Programs for Lead Line Replacement” describes a zero-interest loan for customers who wish to replace a lead service line with an accompanying information sheet.

“City of Chicago Department of Water Management,” City of Chicago, <https://www.cityofchicago.org/city/en/depts/water.html> and <http://www.chicagowaterquality.org/>.

Chicago’s Department of Water Management posts spreadsheets with results of lead water quality testing on the “Results” page at <http://www.chicagowaterquality.org/>. The first sheet in the workbook provides results of three samples tested (first-draw, post-3-minute of flushing, and post 5-minutes of flushing) for almost 2,000 homes tested. The second sheet provides follow-up testing results for homes where lead levels exceeded the action level. Follow-up testing included 12 sequential draws.

“MLGW [Memphis Light, Gas, and Water],” Memphis, TN, <http://www.mlgw.com/>.

Memphis Light, Gas, and Water’s website includes a module under the main banner at the top of the home page that links to their lead service database. The lead service database page includes options for either a searchable or pdf version of a database showing the locations of

more than 36,000 lead service lines installed in the early 1900s. MLGW states that it will determine the current locations of the city's LSLs by 2020. The page also includes a lengthy list of FAQs and links to additional information and services.

"PGH2O," Pittsburgh, PA, www.pgh2o.com.

Pittsburgh's banner at the top of its home page opens to a large graphic with a link to PWSA's Water Service Line Map. The page includes links to FAQs about Pittsburgh's curb box inspection program and its Urban Redevelopment Authority's Replace Old Lead Lines (ROLL) program, a loan program for low income residents sponsored by the URA to facilitate the replacement of private service lines. Another link takes residents to a page where they can fill out a form for a free lead test kit. Additional links in the sidebar on the right of the page include additional information about lead in drinking water, including lead facts, community meetings on lead, and lead filters.

Risk Communication; Strategies for Communicating About Lead Service Lines

"Lead Communications." American Water Works Association, <https://www.awwa.org/resources-tools/water-knowledge/lead/lead-communications.aspx>.

AWWA provides numerous resources related to communicating about lead in drinking water in the following categories: reach your customers, tell the whole story, engage partners, and help schools. Each focus area includes editable sample brochures and informational documents, articles from the AWWA Connections on-line journal, and samples from other water systems. "Lead in Drinking Water: Talking to Your Community" provides an overview with general tips for effective communication.

American Water Works Association, *Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement* (Denver, CO: American Water Works Association, 2014), iii, <https://www.awwa.org/Portals/0/files/resources/publicaffairs/pdfs/FINALLeadServiceLineCommGuide.pdf>.

American Water Works Association, *Strategies to Obtain Customer Acceptance of Complete Lead Service Line Replacement* (Denver, CO: American Water Works Association, 2005), <https://www.awwa.org/Portals/0/files/legreg/documents/StrategiesforLSLs.pdf>.

EPA, *Seven Cardinal Rules of Risk Communication* (Washington, D.C.: EPA, 1988), https://archive.epa.gov/care/web/pdf/7_cardinal_rules.pdf.

EPA, *Risk Communication in Action: The Risk Communication Workbook* (Washington, D.C.: EPA, 2007), <https://nepis.epa.gov/Exe/ZyPDF.cgi/%2060000I2U.PDF?Dockkey=60000I2U.PDF>.

Examples of Brochures and Flyers from Other Municipalities

Denver, CO brochure on flushing lines titled “After Lead Service Line Replacement,” <https://www.denverwater.org/sites/default/files/lead-line-replacement-handout.pdf>.

Dayton, OH flyer titled “Advice about Lead in Drinking Water,” <http://www.daytonohio.gov/DocumentCenter/View/2784>.

Saint Paul Regional Water Services, “Information on lead service lines and partial lead service line replacements,” https://www.stpaul.gov/sites/default/files/Media%20Root/Water%20Services/2016_SPRW%20Partial%20Lead%20Brochure.pdf.

Saint Paul Regional Water Services “Keeping Lead Out,” <https://www.stpaul.gov/sites/default/files/Media%20Root/Water%20Services/GetTheLeadOut.pdf>.

Saint Paul Regional Water Services, “Information on water quality, delivery and lead in drinking water,” <https://www.stpaul.gov/sites/default/files/Media%20Root/Water%20Services/SPRWS%20Lead%20Brochure.pdf>.

Guidance for Schools and Day Care Centers

American Water Works Association, *Assisting Schools and Childcare Facilities in Addressing Lead in Drinking Water* (Denver, CO: American Water Works Association, 2005), https://www.awwa.org/portals/0/files/resources/water%20knowledge/rclead/assistingschoolslead2005_disclaimer.pdf.

The AWWA’s document on reducing lead in school drinking water compares EPA guidance to schools and childcare facilities under the Lead Contamination Control Act to that of the Lead

and Copper Rule. It provides an overview of monitoring for lead in these facilities and recommends remediation procedures.

It includes a step-by-step process for compiling necessary information in preparation for communicating—and possibly collaborating—with health departments and water utilities, developing an action plan that addresses both technical and communications concerns. Key elements of an action plan include a plumbing profile, sampling plan, interpretation of results, action in response to the findings, follow-up sampling, and communicating the results and actions to be taken. An example of a plan is included in [additional resources](#) available on the OIG website.

U.S. Environmental Protection Agency, *3Ts for Reducing Lead in Drinking Water in Schools* (Washington, D.C.: U.S. EPA, 2006), https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf.

This EPA manual suggests steps for reducing lead in school drinking water systems. The manual provides guidance on assessing school plumbing and forming a strategy for sampling, recommendations for sampling procedures, suggested control measures and permanent remedies, and approaches for informing the public about lead. The [OIG website](#) includes a list of resources, information about water coolers, and sample forms and processes.

Certification of Water Filters

“Public Guide for Lead in DW,” NSF International, http://info.nsf.org/Certified/DWTU/listings_leadreduction.asp?ProductFunction=053|Lead+Reduction&ProductFunction=058|Lead+Reduction&ProductType=&submit2=Search.

In response to an increased demand for information on home water filters certified to reduce lead in drinking water, NSF International developed this list of all NSF-certified filters that reduce lead in water. The guide also explains NSF International’s standards and certification process.

“Find WQA-Certified Water Treatment Products,” Water Quality Association, <https://www.wqa.org/find-products#/>.

“Drinking Water Treatment Units,” NSF International, <http://info.nsf.org/Certified/DWTU/>.


For water pitchers and filters: “NSF Product and Service Listings,” NSF International, <http://info.nsf.org/Certified/DWTU/Listings.asp?ProductFunction=053%7CLead+Reduction&ProductType=Pour+Through&submit2=Search>.

For faucet mounted filters: “NSF Product and Service Listings,” NSF International, <http://info.nsf.org/Certified/DWTU/Listings.asp?ProductFunction=053%7CLead+Reduction&ProductType=Faucet+Mount&submit2=Search>.

Saint Paul, MN Water Filter Replacement Reminder Tag, with translations.

**** Replace Your Filter ****

Please replace the filter in the water pitcher you received after the partial lead replacement.



About two months ago you received a water pitcher and two filters. Each filter lasts about two months. For best results, it is time to replace your water filter. This will help to remove any lead that might continue to exist in your water line.

Two months from now, you will need to replace your last filter from us. If you want additional filters, they can be purchased directly from most local big box stores.


If you have any questions, please feel free to contact our engineering service desk at 651-266-6270.

Hu rau SPRWS qhov chaw txais tas pab qhua ntauwm 651-266-6350 kom tau neeg pab. Peb muaj cov txhais lus rau koj.

Wac adeega macamiisha SPRWS oo laga halo 651-266-6350 si aad u heshid kaalmo. Turjubann waa la heli doonaa.

Comuníquese con el servicio de atención al cliente de SPRWS al 651-266-6350 para obtener más información. Un traductor estará disponible.

1900 Rice Street
Saint Paul, MN 55113



16_01_013

YouTube Videos and PPT Presentations Produced by Water Systems and Municipalities

City of Chicago Department of Water Management, <http://www.chicagowaterquality.org/>. Click on “Demo” for the video demonstrating Chicago’s water sampling process.

“Partial Lead Service Line Replacement,” (YouTube video, 4:56, City of Saint Paul Communications Services, published September 22, 2016), https://www.youtube.com/watch?v=fwq4_yPjHMs.

Saint Paul Regional Water System, “Drinking Water Presentation” (with lead service line information), <https://www.stpaul.gov/sites/default/files/Media%20Root/Water%20Services/SPRWS%20DrinkingWaterPresentation.pdf>.

Saint Paul Regional Water System, Spanish Language “Drinking Water Presentation” (with lead service line information), also available in Hmong, Somali, and Karen, https://www.stpaul.gov/sites/default/files/Media%20Root/Water%20Services/SPRWS%20DrinkingWaterPresentationn_Spanish.pdf.

Saint Paul Regional Water System, “Reducing Your Exposure to Lead in Drinking Water,” <https://www.youtube.com/watch?v=mMLlOp30B7E&feature=youtu.be>.

Saint Paul Regional Water System, “Lead Scratch Test,” <https://vimeo.com/156757234>.

Saint Paul Regional Water System, “Partial Lead Service Line Replacement: What to expect with a partial lead service line replacement and what you should do to reduce exposure to lead afterwards,” <https://www.youtube.com/watch?v=RDTv4t074vl&t=3s>.

Full LSL Replacement

David LaFrance, “Together, let’s get the lead out,” AWWA Connections, March 15, 2016, <https://www.awwa.org/publications/connections/connections-story/articleid/4081/together-lets-get-the-lead-out.aspx>.

Richard Gell and Michelle McEntire, “Strategies for Implementation of Full Lead Service Replacement Program” (Tifft Water Supply Symposium, September 22, 2016, <http://nysawwa.org/docs/pdfs/1474903108.pdf>.

“Construction Projects May Give You an Opportunity to Replace Your Lead Service Line,” DC Water and Sewer Authority, <https://www.dewater.com/construction-project-replacements>.

“Was your house built prior to about 1940?” York Water Company, York, PA, https://www.yorkwater.com/Check_Lead_Pipes.pdf.

“Programs for Lead Line Replacement,” City of Philadelphia, <http://www.phila.gov/water/wu/drinkingwater/lead/Pages/programs.aspx>.

Boston Water and Sewer Commission, "The Lead Replacement Incentive Program," http://www.bwsc.org/SERVICES/Programs/Lead_Brochure.pdf.

Boston offers residents 48-months without interest to repay cost of replacing their privately-owned lead service lines. Some restrictions apply; for example, only residents whose account is active and not delinquent are eligible.