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Convening Identifies Key Resources for Communities Replacing Lead Service Lines

By Nathan Anderson, Maria Castro, Elizabeth Cisar, Karen Cuenca, Suchi Saxena

Lead Service Line Replacement Community Development Regional Economy Public Economics

Communities across the United States are beginning to map and replace lead service lines (LSLs) to comply with new state and federal safe drinking water policies aimed at reducing the risk of lead exposure through drinking water.¹ The states in the Federal Reserve Bank of Chicago’s Seventh District—Illinois, Indiana, Iowa, Michigan, and Wisconsin—are estimated to have over 2 million lead pipes, according to a September 2023 report to Congress by the U.S. Environmental Protection Agency’s (EPA) Office of Water; Illinois and Wisconsin rank among the top ten states with the most lead pipes, and Michigan and Indiana among the top 15 (see exhibit 2.8 of that report). Replacing the millions of lead pipes in our region will be expensive and complex.² Total costs for each community will differ depending on factors such as the number of LSLs, but lead service line replacement (LSLR) will be a significant financial undertaking for most communities, as shown in that same September 2023 report from the EPA’s Office of Water (see, e.g., exhibit 1.4). The expense and complexity may be particularly daunting for communities with limited staff and financial resources.

The Joyce Foundation and the Federal Reserve Bank of Chicago jointly convened 25 regional and national leaders in LSLR in January 2024 to identify key information and research needs that, if met, could help communities overcome economic and financial challenges to LSLR. To summarize key issues and research needs discussed at the convening, we at the Joyce Foundation and Chicago Fed prepared a longer article titled “Identifying information gaps to help communities navigate lead service line replacement.”

In this article, we report the list of existing online resources about lead service line replacement that the participants at the convening provided us while identifying gaps in LSLR information and research (see figure 1). After this list of resources, we present the list of the 25 regional and national experts who participated in the January 2024 convening (see figure 2). This group included municipal water system officials, government agency staff, private engineering consultants, nonprofit leaders, and public finance and private capital market specialists.

1. Resources to help communities with lead service line replacement

Author	Title	Notes
American Water Works Association	<u>Managing lead in drinking water</u>	Provides communications, technical, and public policy resources for LSLR
Denver Water	<u>Lead Reduction Program</u>	Denver Water’s comprehensive online resource about its LSLR program
Elevate	<u>Tapping into success: Strategies for effective lead service line replacement communications</u>	Aimed at municipalities, communications and outreach recommendations informed by national research

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Environmental Defense Fund	<u>State efforts to support LSL replacement</u>	Summary of state policies related to LSLR, including those where funding from increased water rates may be used for the replacement of the private side of the service line
Environmental Policy Innovation Center	<u>Echoing Newark: How American cities can replicate Newark's success in replacing over 23,000 lead pipes in under three years</u>	Blog post with ten recommendations for accelerating LSLR
	<u>From the ground up: A guide to replacing the nation's toxic lead pipes over the next decade</u>	Report outlining best practices for LSLR for municipalities, utilities, and policymakers
	<u>State SRF policies to help communities fully take up the new federal funding for lead service line replacement</u>	Three recommendations to states to make it easier for communities to access new funding from state revolving fund (SRF) programs for LSLR
Lead Service Line Replacement Collaborative	<u>About the Lead Service Line Replacement Collaborative</u>	Tools and resources communities need when replacing lead pipes
Local Infrastructure Hub (program partners consist of National League of Cities, United States Conference of Mayors, Results for America, Delivery Associates, Jacobs Urban Tech Hub at Cornell Tech, U.S. Digital Response, Accelerator for America, and Urban Sustainability Directors Network)	<u>Local Infrastructure Hub's resources</u>	Online set of resources available to help local towns and communities make the most of the Bipartisan Infrastructure Law.
NRDC (Natural Resources Defense Council)	<u>Model ordinance for the replacement of lead service lines</u>	Model ordinance based on a Newark, NJ, ordinance
New Jersey Future	<u>Lead in drinking water: A permanent solution for New Jersey.</u>	Collection of resources aimed at different LSLR challenges
	<u>Primer for mayors—Let's get the lead out of our drinking water: Lead service line efficiency measures</u>	Primer for mayors includes an overview of ten LSLR efficiency measures to ensure equitable, cost-effective, and efficient LSLR programs
	<u>Improving a program that works: Prioritizing New Jersey Water Bank projects in disadvantaged communities</u>	Policy recommendations to improve water infrastructure financing for all of New Jersey's disadvantaged communities

Author	Title	Notes
	<u>Lead in drinking water in child care facilities: Ensuring the future for New Jersey's children</u>	Identifies ten priority recommendations to protect young children from lead in drinking water in the state's regulated childcare facilities
Rockefeller Foundation	<u>Lead-free water for all: Making the case for rapid lead pipe removal across the U.S.</u>	Report with case studies outlining six steps to secure funding for and to fast-track lead pipe replacement
University of Michigan Water Center	<u>Supporting implementation of Michigan's revised Lead and Copper Rule</u> <u>Elected officials: Questions to ask</u> <u>The Mid-Michigan Drinking Water Consortium (MMDWC): Collaborating to purchase water supplies</u> <u>Policy brief: Financing lead service line replacement in Michigan</u>	Although written to support implementation of Michigan's Lead and Copper Rule, the tools, guides, explainers, and other materials are helpful with the implementation of LSLR generally
U.S. Department of Agriculture, U.S. Environmental Protection Agency, U.S. Department of Health and Human Services, and U.S. Department of Housing and Urban Development	<u>Interagency memorandum</u> (outlining best practices for developing Preliminary Engineering Reports to support water infrastructure funding applications)	Guidance for preparing Preliminary Engineering Reports to support funding applications for the development of drinking water, wastewater, stormwater, and solid waste facilities
WaterNow Alliance	<u>Case studies: Denver Water</u>	Case study assessing financing and funding strategies that allow Denver Water to accelerate its LSLR program

2. January 2024 convening participants

Name	Title and organization
Amrou Atassi	Senior Project Manager, CDM Smith
Cathy Bailey	Executive Director, Greater Cincinnati Water Works
Elin Betanzo	President and Founder, Safe Water Engineering
Margaret Bowman	Principal, Bowman Environmental Consulting
Deborah Carroll	Director, University of Illinois Chicago, Government Finance Research Center
Andrea Cheng	Commissioner, City of Chicago, Department of Water Management

Name	Title and organization
Maureen Cunningham	Chief Strategy Officer and Director of Water, Environmental Policy Innovation Center
Kim Gleffe	Program Officer, Environment, Charles Stewart Mott Foundation
Angela Guyadeen	Director, Safe Water Initiative, NRDC (Natural Resources Defense Council)
Erik Helm	Senior Economist, U.S. Environmental Protection Agency (EPA), Office of Water
Shawn Kerachsky	CEO and President, Community Infrastructure Partners
Darrell King	Bureau Chief, City of Evanston, Water Production Bureau
Cynthia Koehler	Executive Director, WaterNow Alliance
Ellen Kohler	Director of Applied Research and Programs, University of Pennsylvania, Water Center
Steve Marquardt	Branch Chief of EPA Region 5, U.S. Environmental Protection Agency
Rebecca Morley	Consultant to Robert Wood Johnson Foundation
Tom Neltner	Executive Director, Unleaded Kids
Caroline Packenham	Director, Water Programs, Elevate
Juliana Pino	Policy Director, Little Village Environmental Justice Organization (LVEJO)
Alan Roberson	Executive Director, Association of State Drinking Water Administrators (ASDWA)
Diane Schrauth	Policy Director, Water, New Jersey Future
Christine Spitzley	Principal, OHM Advisors
Tee Thomas	CEO, Quantified Ventures
Angela Tovar	Chief Sustainability Officer, City of Chicago
Justin Williams	Senior Manager, Metropolitan Planning Council

This January 2024 convening was part of the [Lead Service Line Replacement project](#), which staff at the Federal Reserve Bank of Chicago began in 2022 to provide research resources to help communities determine how they want to tackle the problem of LSLR. This initiative leverages the Chicago Fed staff's expertise in public policy, finance, and community economic development under the Federal Reserve’s broader mission to foster a strong and inclusive economy and promote an efficient financial system. With recent policy changes, communities are facing the urgent task of figuring out how to replace LSLs safely and efficiently by governmental deadlines. By convening experts, staff at the Chicago Fed are working with others to better understand the economic and financial challenges of rapid lead pipe replacement across communities.

The Chicago Fed’s staff is committed to working with those engaged in LSLR to help facilitate positive change for communities in our region and throughout the nation. We invite people to write to us at CHI.Lead.Service.Lines.Project@chi.frb.org to share their insights on what it would take to rapidly replace LSLs and offer their own questions for exploration. We value varied views and hope a diverse set of partners—from inside and outside our

region and from both small and large cities and water systems—will share their insights. Through our research and by synthesizing and sharing insights, we hope to help identify new windows of opportunity to overcome economic and financial barriers to rapid and widespread replacement of LSLs.

The Joyce Foundation continues to explore ways to support LSLR efforts in the Great Lakes region. More information about its work to address drinking water safety and access is [available online](#).

Details for Nathan Anderson, Maria Castro, Karen Cuenca, and Suchi Saxena are available on their Chicago Fed online profiles (accessed by clicking their names in the byline). [Elizabeth Cisar](#) is the director of the Environment Program at The Joyce Foundation.

Notes

¹ A summary of some of these policy changes is provided in an [article published in February 2022](#) for the Chicago Fed Lead Service Line Replacement project.

² Read more about the complexities associated with lead service line replacement in an [article published in May 2022](#) for Chicago Fed Lead Service Line Replacement project.

Opinions expressed in this article are those of the author(s) and do not necessarily reflect the views of The Joyce Foundation, the Federal Reserve Bank of Chicago, or the Federal Reserve System.