

MEMO

To: Allen Carpenter, Richmond Water Department
From: Pat Smart, MSK Engineers
Date: March 22, 2023
Re: **Service Line Inventory & Lead Service Line Replacement Planning**

Requirement

In December 2021, the United States Environmental Protection Agency (USEPA) published federal lead and copper rule revisions (LCRR). These new regulations require every community water system in the country to prepare a service line (SL) inventory and lead service line (LSL) replacement plan by October 2024.

The service line inventory must classify pipe materials for the entirety of every service line connected to each water system's distribution piping, regardless of service line ownership, and each line must be classified *as lead, not lead, or unknown* pipe materials. The Vermont Department of Environmental Conservation (VTDEC) has [published guidance](#) directing public community water systems to prepare service line inventories using data obtained from records reviews and basement observations of pipe materials.

Background

Service lines are pipes that connect individual buildings to drinking water distribution mains, which are typically located in streets or rights-of-ways. Service lines constructed prior to 1987 (the effective year a federal prohibition on use of lead pipes for drinking water) may be comprised of lead pipe. Lead is a neurotoxin that poses a public health risk, especially for children and pregnant women. These lead service lines, when present, can be a significant source of lead exposure.

Funding

Through the bipartisan infrastructure law congress has allocated federal funding to identify service line materials and replace lead service lines throughout the country. Vermont's drinking water state revolving loan fund will receive \$28 million of this funding every year over the next five years and will make this money available to Vermont communities through the annual intended use plan (IUP). The [current IUP](#) identifies the town of Richmond as eligible for a **\$43,369** planning loan to finance preparation of a SL inventory and LSL replacement plan. The IUP indicates this planning loan will be subsidized through principal forgiveness for 100% of the loan amount by the DWSRF program.

Approach

MSK has been working with the town of Bennington, Vermont since 2017 to identify SL materials and replace LSLs. We have helped the town procure \$11 million in funding from the DWSRF program (loans subsidized by 100% principal forgiveness), and have comprehensively managed the financial, administrative, and technical aspects of this project from the initial scoping study phase through LSL replacements and construction completion. Through this project we have developed data management systems to organize, track, and analyze information gathered during record reviews, basement observations of pipe materials, and analysis of water quality samples. We are the first in the nation to implement a stepwise approach to SL identification that leverages multiple techniques to accurately identify SL materials in a cost-effective manner.

MSK is prepared to assist the Town of Richmond with procuring the available forgivable loan for service line inventory and LSL replacement plan development, and with preparing a service line inventory and lead service line replacement plan for your community's water system. Our statement of qualifications for this type of project is enclosed. We look forward to discussing this opportunity with you further at the Select Board meeting.