



**Date:** September 5, 2023

**To:** Wanda S. Page, City Manager  
**Through:** Bertha T. Johnson, Deputy City Manager  
**From:** Donald F. Greeley, Director, Department of Water Management  
**Subject:** Resolution to Authorize an Application for a Drinking Water State Revolving Fund Lead Service Line Replacement No-Interest Loan and Grant

### **Executive Summary**

The City of Durham Department of Water Management (DWM) is conducting an inventory of the material makeup of public and private water service lines throughout the City to comply with EPA's revised Lead and Copper Rule. Service lines are the buried pipelines that connect a building's plumbing to the City-owned water main in the right of way. The NC Department of Environmental Quality (NC DEQ) is making Bipartisan Infrastructure Funds available as both no-interest loans and grants (i.e., principal forgiveness) to assist with this inventory work, particularly in areas identified by the state as disadvantaged. DWM is applying for a \$1 million loan/grant that will aid in the inventory of about 950 service lines of unknown material in Department's service area identified to be in disadvantaged areas by NC DEQ.

### **Motion**

To adopt the resolution authorizing an application for funding for a service line inventory field verification project for disadvantaged areas through a \$1,000,000 Drinking Water State Revolving Fund loan and grant.

### **Background**

In late 2021, the Environmental Protection Agency finalized the Lead and Copper Rule Revisions, by which drinking water utilities across the country are responsible for enhancing programs to prevent the occurrence of lead in drinking water. A component of the rule revisions requires utilities to take inventory of the material make-up of the buried pipe in their service area, including the publicly and privately owned portions of drinking water service lines. Service lines are the buried pipelines that connect a building's plumbing to the City-owned water main in the right of way. Generally, the water meter separates the City-owned portion of the service line from the privately-owned service line. DWM has contracted with CDM Smith to assist with the City's preparation for compliance with the Lead and Copper Rule Revisions, including the development of an inventory of the service lines in the service area.

The purpose of the inventory is to identify if there are any lead service lines in our service area. (Thus far, DWM is not aware of any lead service lines.) While the entire service area is currently undergoing an inventory, this funding request applies to field verifications for the inventory within a defined subset of the larger service area. This focused project area is the portion of the service area that is classified as disadvantaged areas based on the "Potentially Underserved Block Groups 2019" (current) map layer

from NC DEQ's Community Mapping System. The project area is presented in Exhibit 1 titled "Disadvantaged Areas and Unknown Material Service Lines Durham, North Carolina."

The City has completed a preliminary inventory of service lines based on available data including system GIS database, historical plumbing permits, facility construction dates, system as-built drawings, service line maintenance records, customer billing records, historical City construction specifications, and documented visual inspections. With the assistance of CDM Smith, the City intends to incorporate the preliminary inventory results into a machine learning model to predict the lead status of additional service lines.

### **Issues and Analysis**

Based on the preliminary inventory, there are a total of 11,905 service lines within areas identified to be disadvantaged that have an unknown lead status, on either the City-owned side or the private-owned side, or both. The requested funding will support field investigations within disadvantaged areas, which have service lines with an unknown lead status, to identify potential lead service lines and optimize the machine learning model results for the remaining unknown service lines. Field verifications to be completed under this effort will be comprised primarily of vacuum excavation (i.e., potholing). Vacuum excavation is one of the most accurate methods of service line verification. Vacuum excavation will be performed by open cut or by hydro-jetting, on both the City- owned side and the private-owned side, as needed.

DWM has a contract with CDM Smith to conduct a limited number of field verifications. If funding is awarded, we anticipate utilizing this contract to expand the number of field verifications conducted in the City within the disadvantaged areas.

### **Alternatives**

City Council can choose not to pursue no-interest/grant funding to assist with the completion of the inventory. The completion of the inventory is required by federal law. The alternative to pursuing these state funds is to fund the effort with water and sewer rate payer funds.

### **Financial Impact**

The estimated cost of conducting field verifications is approximately \$1,044 per property. If awarded, this funding will cover the costs of conducting about 950 field verifications. The terms of the funding are anticipated to be 0% interest over a five year term, with up to 50% grant (i.e., principal forgiveness). There will be a 2% loan fee (\$20,000) associated with the funding.

### **Equal Business Opportunity Summary**

Due to the nature of this agenda item, a review by the Finance - Underutilized Business Compliance division was not required.

### **Contractor Workforce Diversity & Hiring Practices**

Due to the nature of this agenda item, obtaining Contractor Workforce Diversity & Hiring Practices information is not applicable.

### **Attachments**

Exhibit 1, Disadvantaged Areas and Unknown Material Service Lines in Durham, North Carolina  
Exhibit 2, Resolution by City of Durham City Council to Submit Application for Funding for a Service Line Inventory Field Verification Project for Disadvantaged Areas and Corresponding Form for Certification