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ORDINANCE NO. 230204

Drinking Water Service Line Materials Inventory

Authorizing a \$1,779,000.00 professional, specialized or technical services contracts with AECOM Technical Services, Inc., for the Drinking Water Service Line Materials Inventory project.

March 8, 2023

Transportation, Infrastructure & Operations Committee

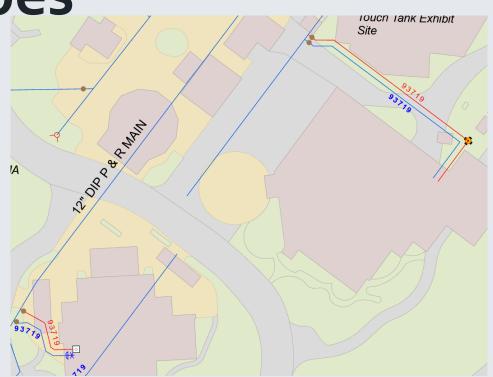




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Water Main Material Types

Main Type- MATERIAL	Miles
Cast Iron Pipe	1,313.65
Copper Pipe	0.79
Ductile Iron Pipe	1,302.11
Polyvinyl Chloride Pipe	58.94
Prestressed Concrete Cylinder Pipe	161.31
Steel Pipe	7.16
Internal Plant Assets	7.52
Grand Total	2,851.49



3



EPA Regulatory Compliance

COMPLIANCE OBLIGATIONS

- Develop the initial inventory by October 16, 2024
 - Make updates annually (or triennially)
- Publish the inventory if you serve more than 50,000 people
- Develop a lead service line replacement plan

USE THE INVENTORY

- Use the inventory to select sample sites for compliance sampling
 - Start sampling in 2025
- Use the inventory to plan and prioritize replacements
- Implementation of the prioritized replacement plan depends on the performance of the water system
 - When the Trigger Level is exceeded (P90 > 10 ppb)
 - When the Action Level is exceeded (P90 > 15 ppb)



Process to Build a Lead Service Line Inventory

- Five phases to develop and advance an inventory
- Industry progress based on usage, risk, and LCRR compliance



Capture Available Information Data comes from various departments, formats, perform surveys

Organize Information

Various sources, formats, consistency, confidence

Evaluate the Inventory/Adopt Analytics Evaluate for confidence, gaps, trends, predictive model analytics

Validate Assumptions

Increased level of efforts to refine inventory, model, known/ unknown service line materials

Refine through Targeted Efforts

Refine inventory from field data and new records



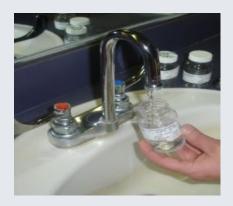
Phase 5 – Refine Through Targeted Efforts

- Outreach
 - Fill in gaps to understand all properties
- Investigations
 - Complete targeted investigations
 - Focus on community in addition to the data
- Predictive Model
 - Increase inventory knowledge utilizing predictive modeling. Statistical techniques using current and historical data to forecast service line materials.

Meter Inspection



Water Sampling



Potholing



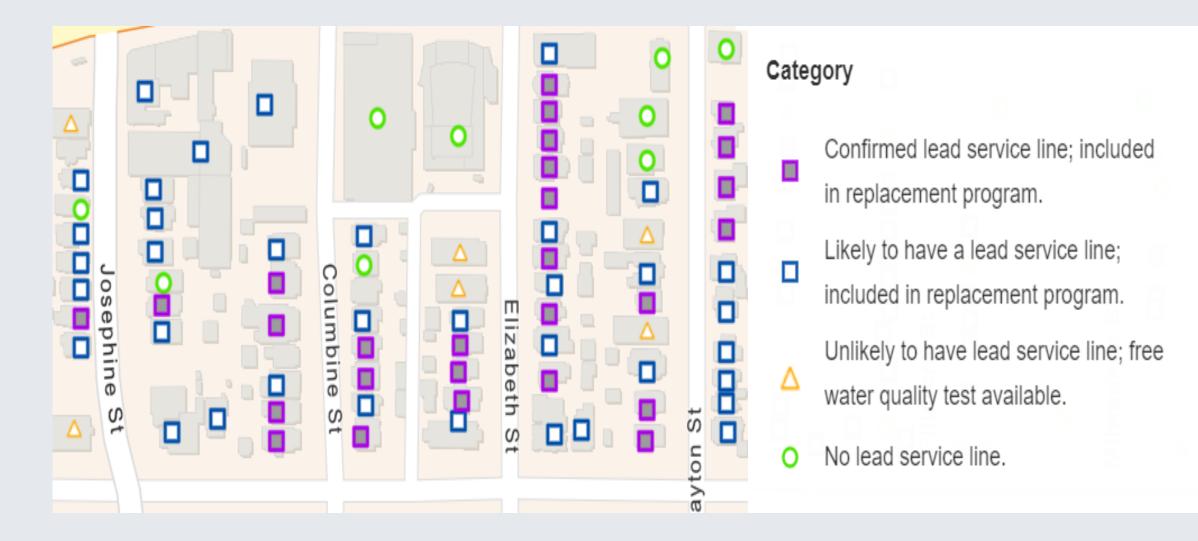
Replacements





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Sample Inventory Website





Next Steps- Revised Lead & Copper Rule Program Development

- Service Line Replacement Plan
- Revise Existing Sampling Plan
 - Current Sampling plan will be updated based on inventory and updated criteria.
- Increase communications and lead awareness
 - Increase awareness of fixtures and internal plumbing materials.



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THANK YOU

