



# Community Based Lead Service Line Replacement Program

Newark, New Jersey

Background



Inventory



Mapping



Equity



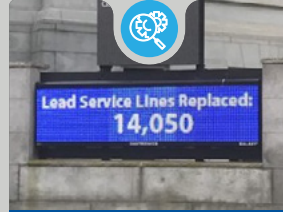
Communications

## Components of Newark's Successful Lead Service Line Replacement Program

There are several vital components leading to the success of Newark's Lead Service Line (LSL) Replacement Program. The following components are highlighted on the next few pages. Click on the links below:



Education



Transparency



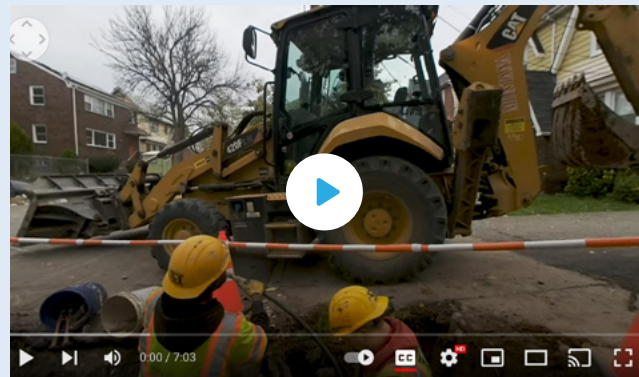
Technology



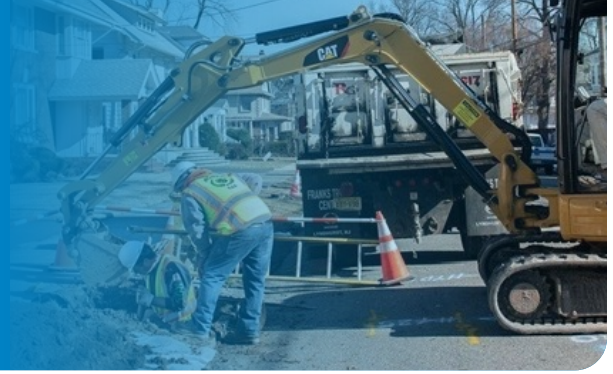
No House Left Behind



*The City of Newark is committed to provide clean, safe and reliable drinking water to all Newark residents. To support this mission, the city has developed the Lead Reduction Program. The program includes a series of actions that Newark is undertaking to reduce or eliminate lead in drinking water at the customers' tap. The program also aims to educate the public on actions they can take to reduce their exposure to lead in drinking water.*



# Background



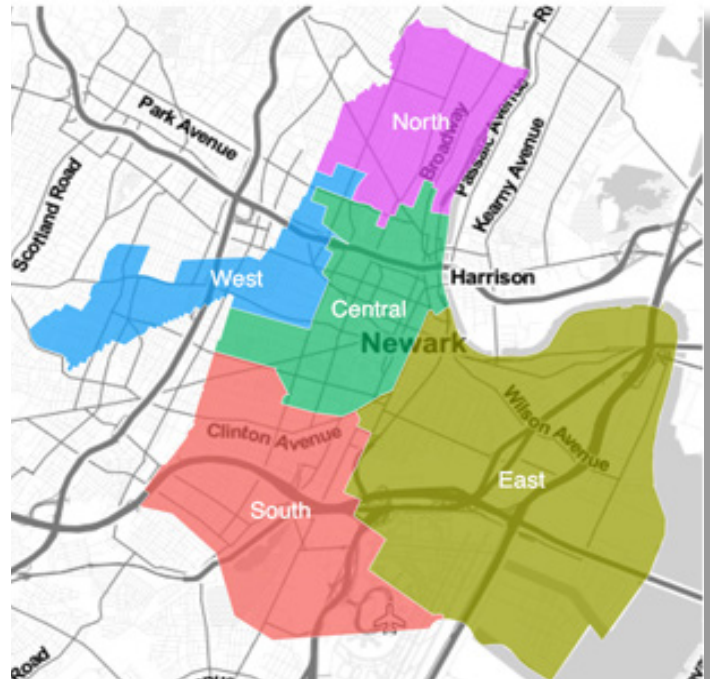
## Background

- 300,000 customers in five geopolitical wards within Newark and portions of neighboring cities.
- Estimated 24,000 lead service lines (LSLs).
- Compliance Requirements:
  - Newark exceeded the EPA's lead action level in 2017 and 2018 prompting a review of corrosion control treatment (CCT) and initiating a LSL Replacement Program

## LSL Replacement Goals



- Initial 8-year timeline at cost of up to \$1,000 per line to customer.
- Ramped up to a 3-year timeline to remove all LSLs at no cost to customers ensuring an equitable program for all residents.
- Newark's Lead Reduction Program included:
  - Filter distribution
  - Ordinances that required mandatory LSL replacement and allowed tenants to provide access for replacements
  - Customer outreach
  - Test pits to confirm service line material
  - LSL replacements
  - Program management and data tracking
  - Post-replacement water sampling
  - Paving program



Newark's 5 wards (shown above) have over 30,000 customers and 24,000 LSLs.





# Education



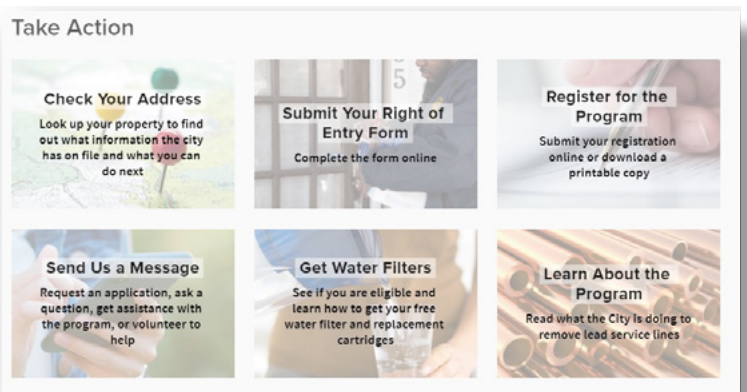
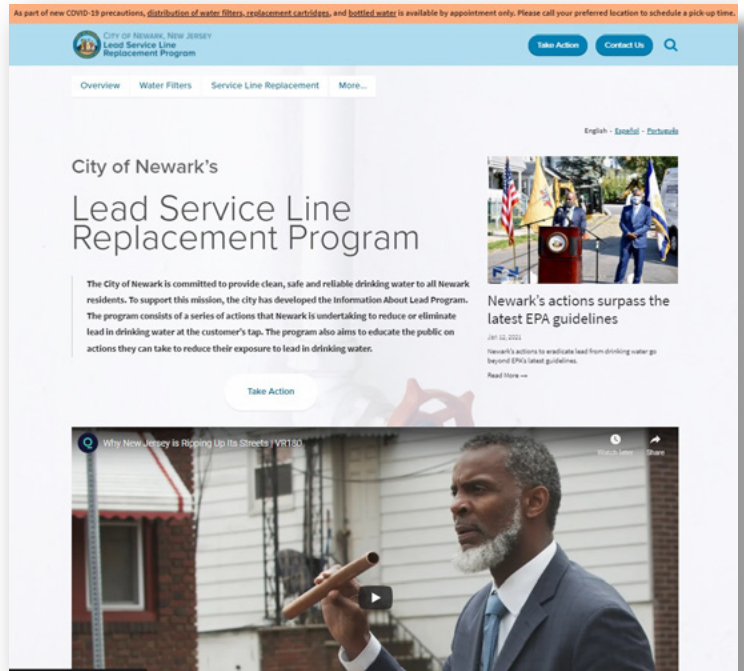
Equity



Communications

Newark developed a communication campaign using many different forms of media to get the word out about the risks of lead in drinking water and about their Lead Service Line Replacement Program. The website includes a significant amount of information to provide transparency

on the project's status as well as an address lookup tool which allows residents to sign up for the program and check their replacement schedule.



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# Education



Equity



Communications

The program website and education materials were distributed in English, Spanish and Portuguese to improve communication. Newark also partnered with local community and environmental groups including Clean Water Action to go door-to-door with flyers, doorhangers to promote the program, sign up residents and instruct residents on the proper use of the point of use filters. Lawn signs, bus and billboard ads and message boards were also strategically placed throughout the City.



**DRINKING WATER ALERT!**  
IMPORTANT INFORMATION

**Water Filter and Replacement Cartridge Distribution Program**

The City of Newark is distributing free NSF-certified faucet-mounted water filters, water filtering pitchers, and filter replacement cartridges to eligible residents in single and multi-family homes in order to reduce lead exposure. Filters that are properly installed and maintained are over 99% effective at reducing lead to below 10 parts per billion (ppb) when filtering follows flushing the tap for at least 5 minutes. Reference this flyer and the website: [www.newarkleadservice.com/filtersusing-your-filter](http://www.newarkleadservice.com/filtersusing-your-filter), for best practices when using these devices in your home.

- 1 INSTALL**  
Visit the City program website: [www.newarkleadservice.com/filtersusing-your-filter](http://www.newarkleadservice.com/filtersusing-your-filter)
- 2 USE**  
Run cold water for at least 5 minutes to flush out lead before using your water filter, and after an extended period of non-use of water.
- 3 MAINTAIN**  
Change your faucet filter cartridge every 3 months, your pitcher cartridge every 2 months, or when the indicator light turns red for either type of filter.  
  - Replace filter cartridge every 3-4 weeks.
  - Remember to clean the faucet aerators/screens every 3-4 weeks.



**FLUSHING + PROPER USE = 99.5% effective\***

**RESOURCES:**  
[www.newarkleadservice.com/filters](http://www.newarkleadservice.com/filters) YouTube: "type in "fill water filter" search bar for video instructions.  
 Testing: Residents can have their water tested at no charge by contacting the Department of Water and Sewer Utilities at (973) 733-8383 or emailing [waterandsewer@city.newark.nj.us](mailto:waterandsewer@city.newark.nj.us) to request an inspection.

\*99.5% Effective at reducing drinking water lead levels to 10 ppb or below when using Newark flushing the tap for at least 5 minutes.

**My lead service line was REPLACED FOR FREE!**

**NEWARK'S LEAD SERVICE LINE REPLACEMENT PROGRAM**

To sign up or for more information, visit: [newarkleadservice.com](http://newarkleadservice.com)

YOUR CITY AT WORK

MAYOR RAJ J. BARAKA AND THE MEMORIAL COUNCIL

**Acompanhe o progresso da água!**

**PROGRAMA DE AMOSTRAGEM DA QUALIDADE DA ÁGUA DA CIDADE DE NEWARK**

Toda residência participante do programa de substituição da linha de serviço de chumbo em Newark receberá um kit **GRATUITO** após 6 meses da substituição da linha, que será enviado pela companhia [2WaterNJ.com](http://www.2WaterNJ.com).

**O que você precisa fazer? Siga as simples instruções incluídas no kit.**

- 1 Faça a coleta da água** (de acordo com as instruções)
- 2 Feche o frasco** (de acordo com as instruções)
- 3 Envie pelo correio** (de acordo com as instruções)



**Do You Have a Lead Service Line?**

The City has initiated a program to replace lead water service lines that provide water to homes throughout the City. Water service lines are located between the home and the water main in the street (as shown in the figure below). This program, known as the Lead Service Line Replacement Program, offers homeowners the opportunity to replace their service line at a discounted rate of up to \$1,000 to be paid in interest-free monthly installments for a period of 12 months.

To assist Newark in the completion of this program, we ask that you verify the pipe material that provides water to your home. This process should take 15 to 20 minutes to complete. Instructions on how to verify your water service line material are provided below.

If your home has a lead service line, you will be eligible for Newark's Lead Service Line Replacement Program where you will be able to have your service line replaced at a reduced cost as per the payment plan above.



**SURVEY FORM MAILING INSTRUCTIONS**  
 Upon completion of the material verification test, please send your results via email or mail to: [info@newarkleadservice.com](mailto:info@newarkleadservice.com)

**LIMPEM O CHUMBO**

**Aviso importante do Departamento de Água e Esgoto**

**CLEAN WATER ACTION**

Os registros da Cidade de Newark indicam que sua casa tem uma linha de serviço de água de chumbo. A exposição ao chumbo na água potável pode causar sérios problemas de saúde, incluindo danos nos rins e no cérebro. Bebês, crianças e mulheres grávidas estão especialmente em risco.

A cidade tem dois programas para ajudar a proteger sua família da exposição do chumbo na água potável.

**Programa de distribuição de filtro de água**  
 Newark está distribuindo litros de água **GRATUITOS** para os residentes elegíveis. Você pode verificar se está qualificado para um filtro em [newarkleadservice.com](http://newarkleadservice.com).

**Programa de substituição da linha de serviço de chumbo**  
 A cidade está oferecendo substituições de linhas de serviço de chumbo para residentes a um custo com **DESCONTO** até \$1,000. Sua linha de serviço de

**Material Verification Test Instructions**

**WHAT YOU'LL NEED**

- A house key or coin
- A magnet

**TESTING YOUR WATER SERVICE LINE MATERIAL**

- Find the water meter on your property. Water meters are typically located in the front side of the home in the basement, garage or crawlspace.
- Locate the water service line that comes through the outside wall or floor of your home and connects to your meter.
- Expose the metal surface of the pipe by using a key or coin to gently scratch the pipe. If the pipe is painted, use sandpaper to expose the metal that you would scratch a subway track. If the pipe is galvanized steel pipe, it needs to be scratched.
- Observe your pipe material. Please refer to the pipe material verification test guidance on the back side of this page for assistance. Use a magnet to verify galvanized steel pipe if needed.
- Once the pipe material is verified, complete the Lead Pipe Material Survey Form and return it to the City. (See mailing instructions in the blue box to the right).

If you have any questions or concerns, please contact the Newark Department of Water and Sewer Utilities at (973) 733-8383 or via email at [waterandsewer@city.newark.nj.us](mailto:waterandsewer@city.newark.nj.us). Free inspections are available upon request.



# Transparency



Equity



Communications

Newark uses their website as a repository of information for customers to obtain information about the Lead Service Line Replacement Program including registration paperwork and contract assignments, most recent lead

tap sample results, and water filter distribution and replacement. The website is supplemented with neighborhood meetings, virtual town halls, flyers and door-to-door outreach. Newark partnered with Clean Water Action, The United Way, and local established community groups to help gain the community's trust, increase communication, and get the residents engaged and signed up for the program to have their LSL replaced.



## Activity



### Tele - Town Hall Meeting tonight at 7pm (Wednesday 10/17/18)

Nextdoor Advocate Zakia Bilal from Office of The Mayor · 17 Oct 18

18

Mayor Baraka will conduct a live Tele-Town Hall meeting over the phone at 7 p.m. to discuss the distribution of water filters to residents with lead service lines and plumbing containing lead. This tele-town hall will be held from 7 p.m. to 8:30 p.m. tonight.

To participate, you may call 855-756-7520, Extension 43424# or simply pick up your phone when we call around 7 p.m. The meeting will be aired on Facebook Live and Newark TV Channels 28 & 78 respectively.



FOR MORE INFORMATION PLEASE SEE ATTACHED FLYER

17 Oct 18 · Subscribers of Office of The Mayor in Safety

THANK | 2

REPLY | 1

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# Transparency



Equity



Communications

Transparency and accountability are imperative in the pursuit of diversity, equity and inclusion. In executing the LSL Replacement Program, the City identified affirmative action goals to establish fair access to employment opportunities and create a program to reflect the demographics of the City. In doing so, the program not only was

an economic benefit to the City of Newark, but also the State of New Jersey.

## Affirmative Action Goals

- Opportunity for all to participate in the economic mainstream.
- Fair and equitable treatment for all in award of all contracts and protection from discrimination for all in hiring process.
- Support union membership in craft trades for minorities and women.
- Award 25% or more of total contract value to minority-owned businesses and 7% to women-owned businesses.

## Achievements:

1. Workforce Development - training program with local laborer and operator union for 67 Newark Residents.
2. Outreach to certified M/WBE Contractors.
3. Over 60% of awarded contracts provided to certified M/WBE Contractors.
4. Over \$60-mil of work completed by Newark based Contractors with \$5-mil of work performed by Newark based M/WBE Contractors.

CITY OF **NEWARK**  
Mayor Ras J. Baraka  
**ATTENTION CERTIFIED !!!**  
**MINORITY (MBE) AND WOMEN (WBE)**  
**CONSTRUCTION CONTRACTORS**

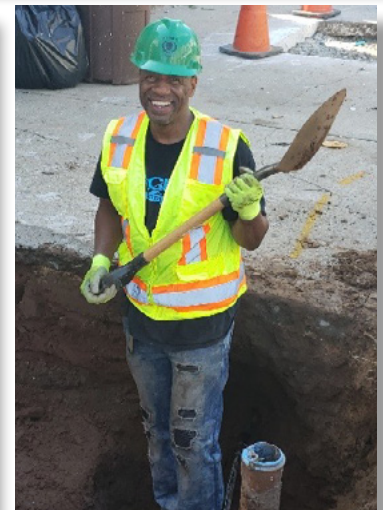
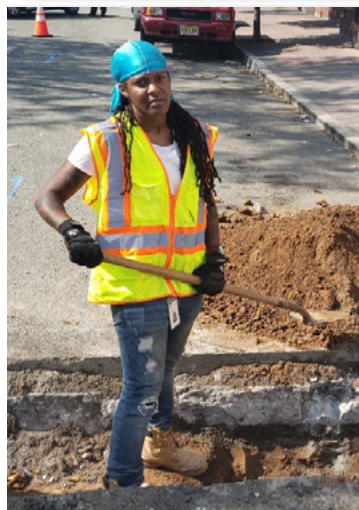


**LEARN MORE ABOUT LEAD SERVICE**  
**REPLACEMENT LINE CONTRACT AND SUPPLY OPPORTUNITIES**  
CONTRACT & SUPPLY OPPORTUNITIES AVAILABLE: SUPPLIERS, TRUCKING, PAVING ETC.....

**THURSDAY, OCTOBER 3, 2019 - 6PM - 8PM**



NEWARK CITY HALL PRESS ROOM  
920 BROAD STREET NEWARK NJ





# Technology



Inventory



Mapping

The Newark program used innovative tools to plan, communicate, track and report replacements. The technology used improved efficiency, accuracy and lowered costs.

## Inventory Development:

1. Started with billing records, parcel information and digitizing all tap cards using a low cost scanning solution.
2. Prediction model applied to materials using age of home, and line size.
3. Verified assumptions with test pits and found model to be more accurate finding lead than assuming not lead.



## Data Management:

1. Centralized cloud-hosted database.
2. Purpose-built applications for managing program data.
  - a. public access map
  - b. field app for GPS of newly installed lines
  - c. executive dashboard for real-time progress tracking
  - d. Mobile application for on-site access and data entry
  - e. digital customer access agreements
  - f. prioritization map to review equity distribution to elderly, school-age children, disadvantage communities
  - g. bottled water and filter distribution application
  - h. post replacement sample sent out after 6-months investigation performed on samples > 15 ppb
3. Integration with construction management and water sampling tools.



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# Technology



Inventory



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Registration and Right of Entry

To help expedite the City's replacement of your lead service line, you can complete the Right of Entry form online. While the program is mandatory, the City is requesting that all affected property owners sign-up and provide the City and its representatives with the right to enter your property. Completing this form will register you for the program.

## Online Registration:

- Residents provided mailer with QR codes.
- Registration by property owner or tenant in multiple languages.
- Information in GIS for distribution to contractor for scheduling inspection and replacement.

## Address Lookup Tool:

- LSL program status provided by address with contractor information and scheduling.
- Water filter and bottled water eligibility.
- Water sampling results.

Newark LSL Right of Entry Form

Contact Information

Approver\*

Owner  Tenant

First Name\*

Last Name\*

Phone Number\*

Enter in a 10 digit phone number. E.g. 982440880

WHAT YOU'LL NEED

If you are a property owner, you should receive a letter from the City that includes your unique "Survey Code". Be sure you have your letter handy.

If you don't have a Survey Code, you may enter your Account Number and address in the form instead.

WAYS TO SUBMIT YOUR RIGHT OF ENTRY FORM

1. Fully fill out and submit the form on this page.
2. Complete, sign and email a scanned or photographed copy of the form and send it to [waterandsewer@ci.newark.nj.us](mailto:waterandsewer@ci.newark.nj.us)
3. Complete and sign the mailed form, and return it immediately to the Department of Water Sewer Utility.

[Download the form](#)

If you're having trouble using the form on this page, please try opening just the form in a new window.

Legend Info

104 LYONS AVE

Our records show this residence has a lead service line, was built before 1986, and is connected to the Pequanmock system.

Water Sampling: No water sampling results found.

Program Status: The City's replacement program has been impacted by the COVID-19 Pandemic causing some homes to be reassigned to different contracts. Therefore your contract and replacement date may have changed. It of the lead service line tied to Contract 39, scheduled to be replaced by July 2021. To sign the work, please visit the entry form at [www.ci.newark.nj.us/leadservice/line](http://www.ci.newark.nj.us/leadservice/line)

Trenton Water Works  
Lead Service Line Replacement Program

**YES** You have successfully signed up for the program.

**YOUR NEXT STEP:** To determine if your water service line is LEAD (or GALVANIZED STEEL which can contain lead)

Scratch the pipe located between your water meter and where it enters your house

Snap a photograph of the pipe with the scratch mark and email the photo with your property address to: [twleadprogram@trentonnj.org](mailto:twleadprogram@trentonnj.org)

For more guidance: [www.twleadprogram.com/check-your-line/](http://www.twleadprogram.com/check-your-line/)

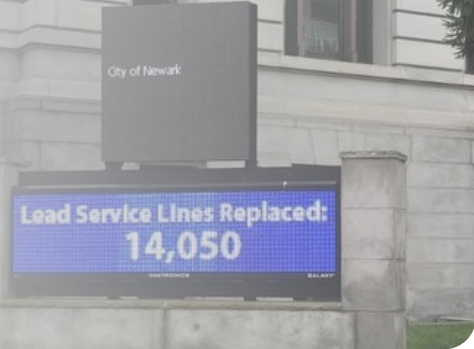
TWW employees are currently going door-to-door in your neighborhood if you need assistance identifying your material.

Note: Program duration is 8 years. Replacements are scheduled based on paving project schedules and density of replacements in your area. By registering for the program, you are signed up to have your lead line replaced during that 8 year window.





# No House Left Behind



Equity



Communications

In Newark, the property owner owns the service line from the water main to the water meter. After 6-months, the program was ahead of schedule, however the program did not have the backlog of addresses to continue. The City quickly realized the plan to have residents pay up to \$1,000 for the replacement, only attracted residents who owned their own property with the means to pay. To

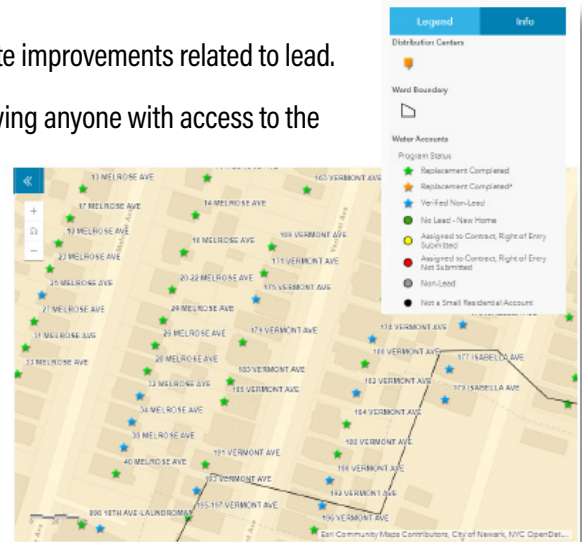
ensure the program was available and equitable to all impacted residents, the City modified the program to be free and mandatory and through a local ordinance allowed tenants to provide access to the City to perform LSL replacements.

### Free and Mandatory:

- State legislation was passed allowing public funds to be used for private improvements related to lead.
- Two local ordinances were passed making it free, mandatory and allowing anyone with access to the building (including tenants) to sign the right-of-entry agreement.

### Prioritization Approach:

- Work was performed simultaneously in all 5 Wards while focusing on the affected water supply area.
- All houses built prior to 1990 with a 2-inch or less service line were test pitted.
- Communities with higher density of housing and high lead levels were targeted first.
- Block by block approach was used to maximize efficiency and decrease disruptions to the community.



### Filter Distribution:

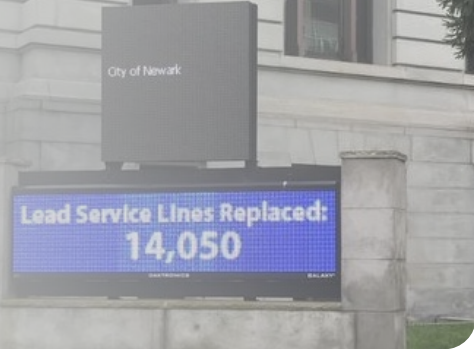
- To protect public health in the short-term while long-term solutions were implemented, Newark distributed over 41,000 filters and over 110,000 replacement cartridges to all residents with lead or suspected lead service lines in the affected water supply area.
- Distribution centers, door-to-door distribution for anyone that did not pick up a filter and a web and mobile application to track distribution and need for cartridge replacements.
- An extensive testing program was performed to test the effectiveness of the filters and the full report was posted on the website for transparency here: <https://www.newarkleadsviceline.com/updates/20191121-filter-study-announcement>
- A public education campaign included distribution of flyers in multiple languages and videos on the website for installing the filter cartridges properly.



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# No House Left Behind



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Communications



Mapping

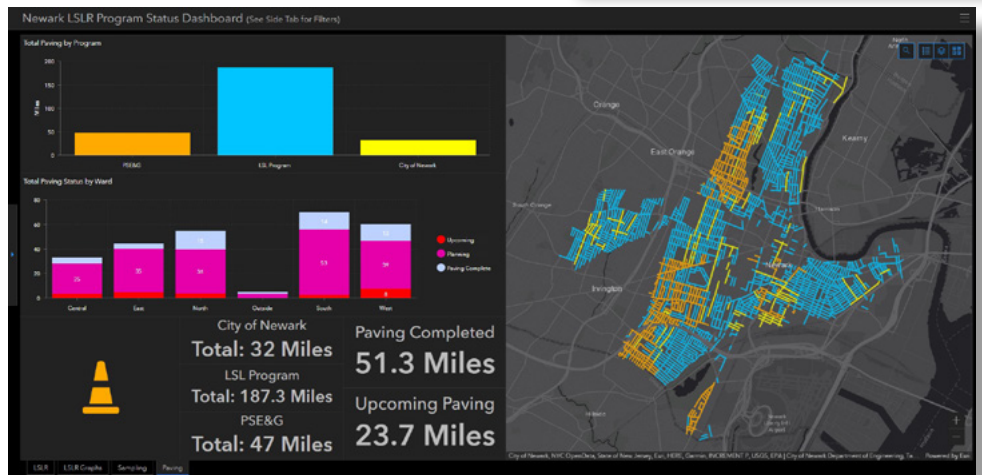
The City's LSL Replacement Program ensured that no lead service line will be left behind while creating

a legacy for future generations. LSL replacement is almost complete citywide and includes final restoration and paving of roadways. The complete removal with a follow-up lead water sample 6 months afterwards provides insurance to residents that their water is safe to drink.



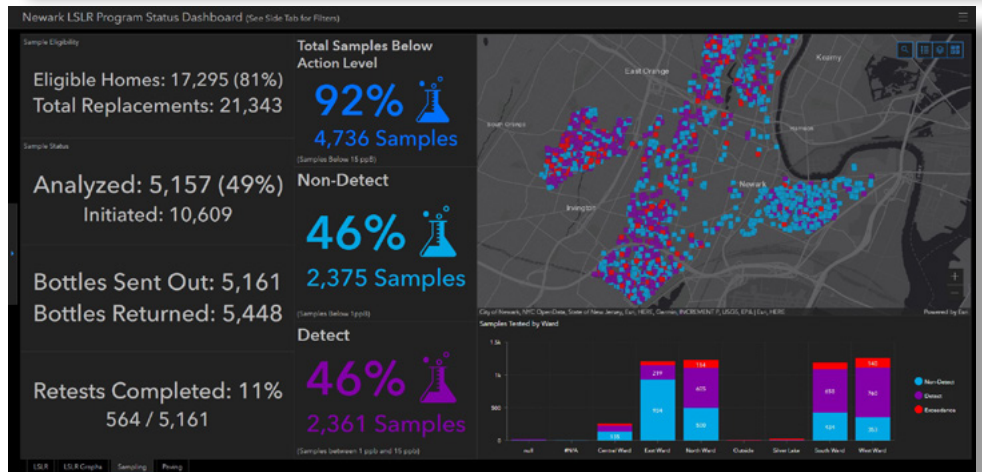
## Paving:

- Approximately 180-miles of streets impacted.
- GIS mapping to coordinate LSL, other utility work and City's ongoing paving.



## Post Replacement:

- Residents receive a sampling kit 6-months after replacement.
- GIS mapping to track sampling.
- Find and fix approach for any exceedances.





# Web Links

**Newark's Lead Service Line Replacement Program website**

<https://www.newarkleadserviceline.com/>

**CDM Smith News links**

<https://www.cdmsmith.com/en/News/Newark-Rounds-Corner-to-Complete-LSLR-Program>

<https://www.cdmsmith.com/en/Client-Solutions/Projects/Getting-the-Lead-Out-in-Newark-NJ>

**CDM Smith's corporate website**

<http://www.cdmsmith.com>

**Getting the Lead Out of Newark webinar**

<https://www.cdmsmith.com/en/Webinar/Newark-LSLRP>

**"Why New Jersey is Ripping Up Its Streets" video**

<https://youtu.be/V8hEYFpYsv4>

**City of Newark's filter announcement**

<https://www.newarkleadserviceline.com/updates/20191121-filter-study-announcement>

**City of Newark's Twitter link**

<https://twitter.com/CityofNewarkNJ/status/1309587289358688256>

**"LeadCAST": CDM Smith's new Lead Management and Communication software**

<https://www.trinnex.io/products/leadcast>