Lead Reduction Program

Land Use, Transportation and Infrastructure Committee August 22, 2023





Today's presenters

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Community Relations Sr. Specialist

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Agenda



- Denver Water overview.
 - Collection system, long-term sustainability.
- History of lead in drinking water.
- Lead Reduction Program.
- Progress to date & what's next.
- Other Denver Water construction.
- Resources & Questions.

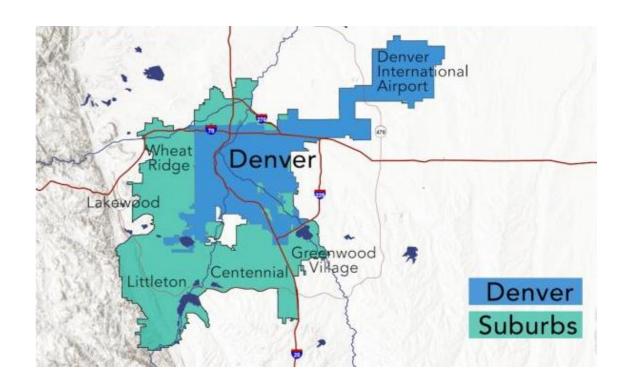
Who is Denver Water?





Denver Water overview

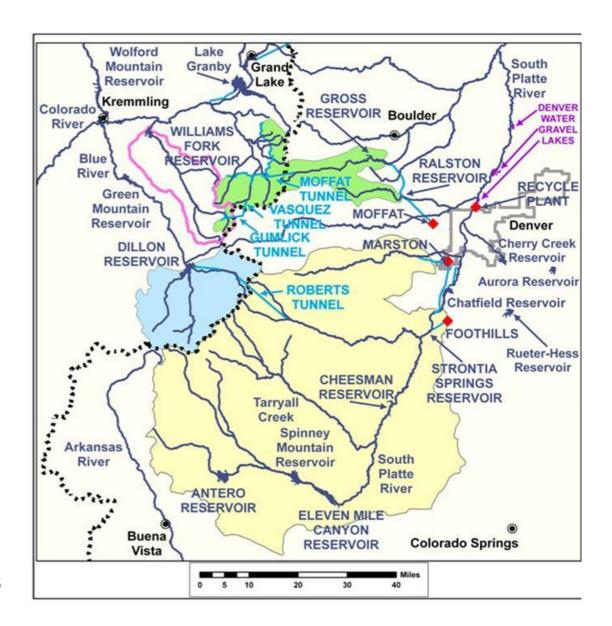
- Established in 1918.
- Serves 1.5 million people
 (25% of state's population) with less than 2% of water used in the state.
- Water supply comes from Rocky
 Mountain snowmelt feeding the
 South Platte and Colorado Rivers.





Denver Water collection system

- Large, complex system that consists of collection, treatment, distribution.
- Water comes from the West Slope and Front Range.
- Water served to our customers is (mostly) surface water.







Long-term water sustainability







Conservation and efficiency

- A leader in conservation since early 2000s.
- Evolving from conservation to water efficiency.

Water reuse

 Recycled water program reduces demand on potable water.

New supply

- Help prevent shortfalls during droughts.
- Provide environmental benefits to area rivers and streams.



A HISTORY OF LEAD IN DRINKING WATER

1951

Denver Water changes standards to allow galvanized steel and copper pipes.

1986

Lead pipes banned nationally through updates to Safe Drinking Water Act.



2012

Denver Water testing of lead service lines exceeds EPA action level by 2 parts per billion (ppb).



2019

Denver Water proposes and EPA approves a variance to the Lead and Copper Rule creating the Lead Reduction Program as alternative to orthophosphate.



Lead as industry standard for water service lines and plumbing.



1971

Denver Water bans use of lead in service lines.



1991-1992

New EPA Lead and Copper Rule sets water testing requirements and action levels.

2012-2017

Denver Water conducts public education campaign and study on protecting against lead exposure from lead pipes.

2018

CDPHE designates additive orthophosphate as method to reduce risk of lead in drinking water.

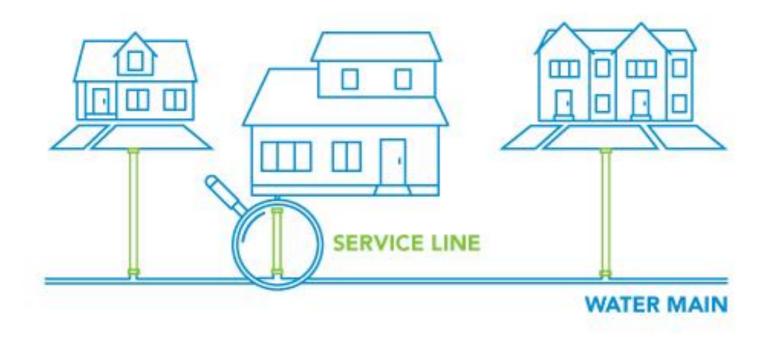


2020

Denver Water launches Lead Reduction Program to permanently replace lead service lines.



Where is the lead?



Lead Reduction Program

Year 4.







Five components of the Lead Reduction Program





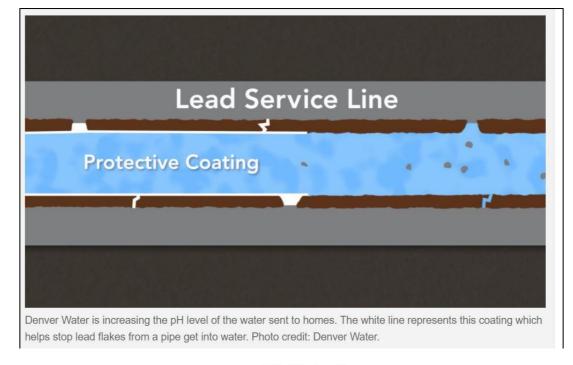


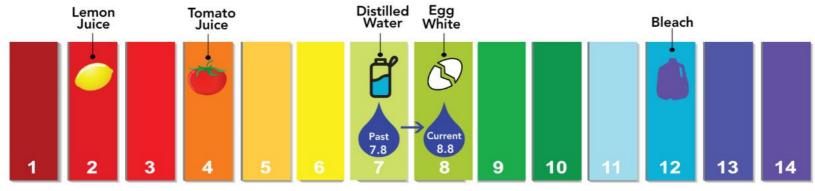






Corrosion control treatment - pH

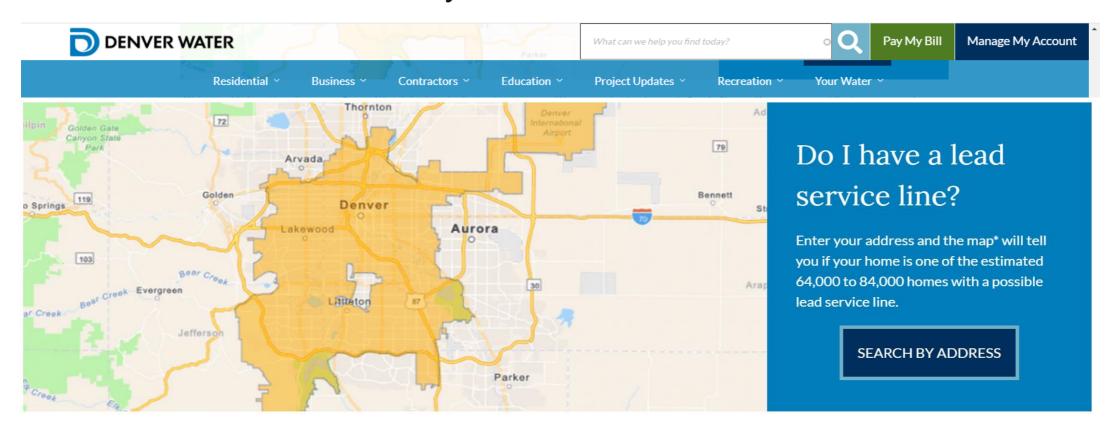




Acidic



Lead service line inventory





Is it really lead? Service line investigations

Denver Water must use a variety of methods to confirm a service line contains lead before scheduling replacement.



RECORDS REVIEW

Properties built pre-1951 are likely to have lead service lines. These properties are included in the Lead Reduction Program.

Denver Water reviews documentation to check for previous service line replacement (from main to building).

If existing documentation does not provide clear evidence of service line material, additional investigation is required.



WATER TEST RESULTS

Denver Water provides free water test kits for collecting/returning water samples for analysis. Test results can indicate presence of lead and the location (or source of the lead), including service line, interior plumbing, etc.



INSIDE VISUAL OBSERVATION

Field crews conduct an interior inspection of the service line where it enters the building to verify material type.



OUTSIDE VISUAL OBSERVATION

Field crews dig to uncover and inspect the service line material underground.

This process can include digging two or more small holes for inspection.



Filters – what and when to use

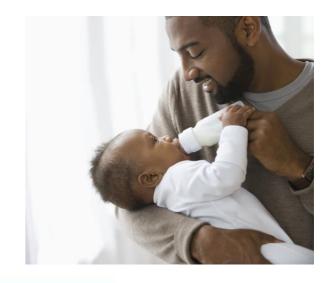
When do I need to use the water pitcher filter?







Use it to filter water used for drinking (including making tea and coffee), cooking (particularly when making foods like rice, beans and soup) and preparing infant formula.



ARE YOU A RENTER? DID YOU RECENTLY MOVE IN?

 If you didn't get a FREE water pitcher and filter from Denver Water, contact us at 303-893-2444 or lead@denverwater.org.



ARE YOU A LANDLORD OR PROPERTY MANAGER?

 If you have a tenant moving in, make sure they have a FREE water pitcher and filter by contacting Denver Water at 303-893-2444 or lead@denverwater.org.



denverwater.org/Filter denverwater.org/Filtro



Lead service line replacement

- Estimated 64,000-84,000 lead service lines.
- Work areas identified through use of planning model with weight towards equity and logistics constraints/opportunities.
- Increased data accuracy every year hence planning is done annually.
- Help customers understand the process through strong and ongoing communications and outreach.





Communication, outreach & education – strategies

- Traditional communications.
- Outreach tailored to our diverse population.
- Targeted outreach to specific audiences including renters.
- Community engagement.
- Ambassador Program.
- Learn by Doing.









Communication, outreach & education – tactics

- Newsletters.
- Direct mail.
- Robocalls.
- Emails.
- Community meetings.
- Community email lists.

- Social media.
- Media pitches.
- Bill inserts.
- Door to door.
- Website.
- Brand journalism.

Home > TAP Home > Español

Español





La apreciación por el Programa de reducción de plomo es profunda

Niños asombrados, árboles rescatados y otras historias de la comunitarias detallan de la gran iniciativa de salud pública de Denver Water.

March 10, 2021 | Bv: TAP Staff

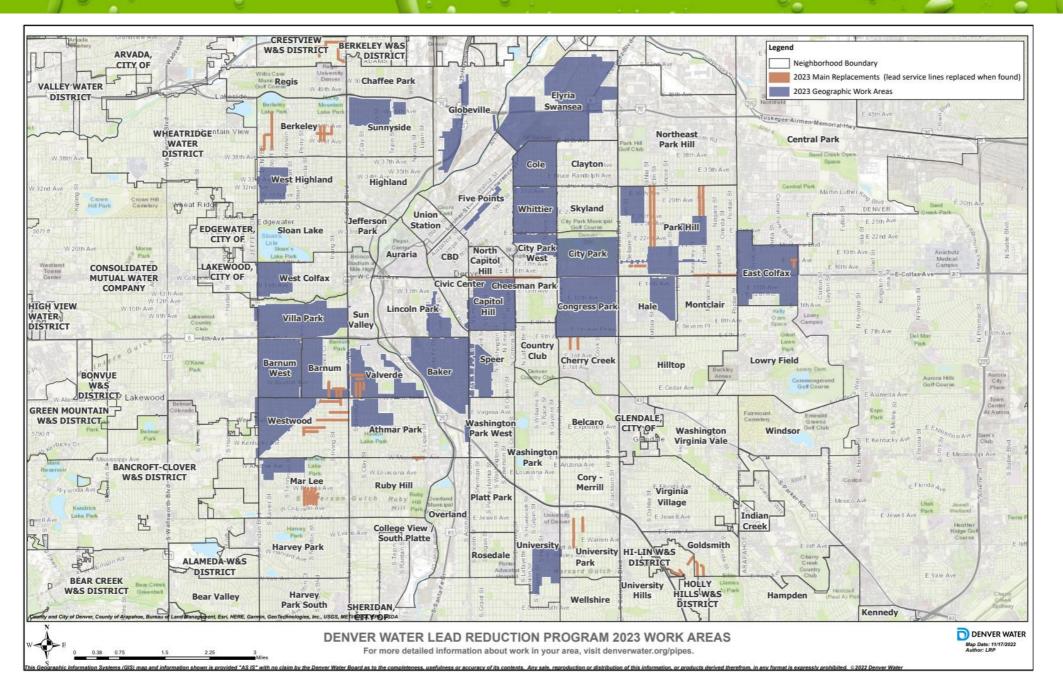


Programa de reducción de plomo en el 2020

La iniciativa de salud pública más grande en la historia de Denver Water reemplaza 5,200 líneas de servicio de plomo y logra mucho más ante la pandemia.

March 10, 2021 | By: TAP Staff







Learn by Doing

Gather evidence of current results

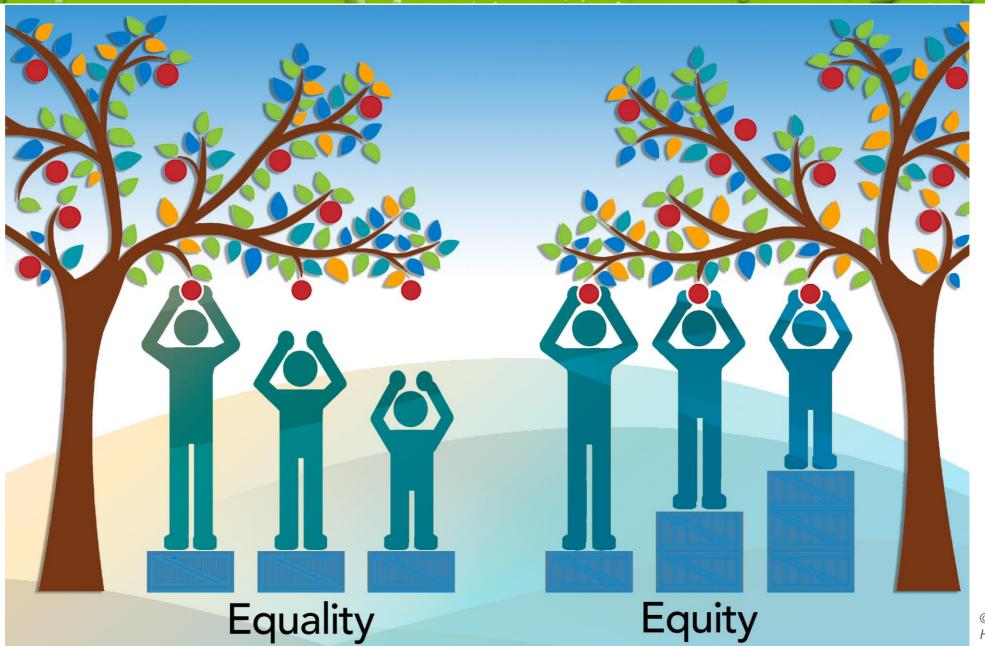
Apply new knowledge

Develop strategies to improve results

Analyze the impact of changes

Implement strategies





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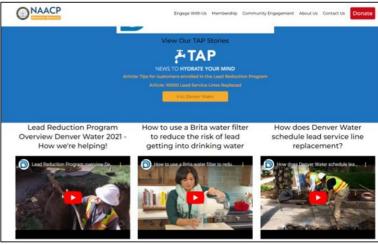
















Ambassador Program Partners





























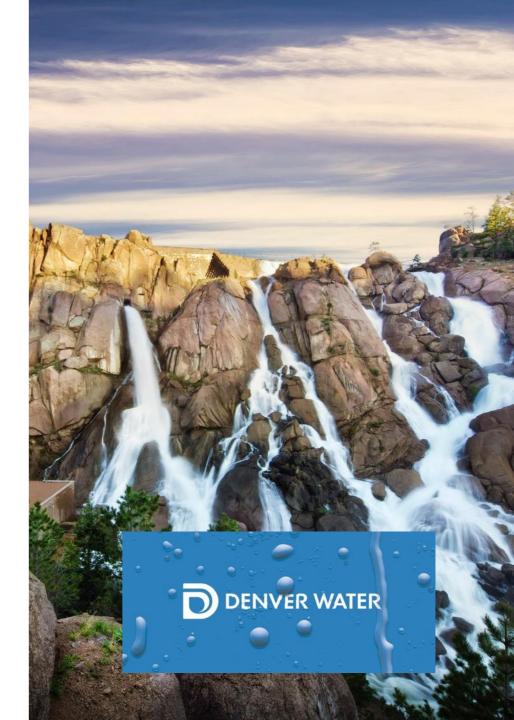
NATURE&SCIENCE







Lead Reduction Program Progress & Plans





Progress to date

- Over 19,000 lead service lines replaced across City and County of Denver.
- More than 100,000 filter pitchers distributed (to all enrolled customers).
 Ongoing distribution of free replacement cartridges.
- 83% filter adoption rate.
- Awarded \$76 million in federal funding to accelerate replacements.
- New Variance approved by EPA and CDPHE to continue program.



What's next

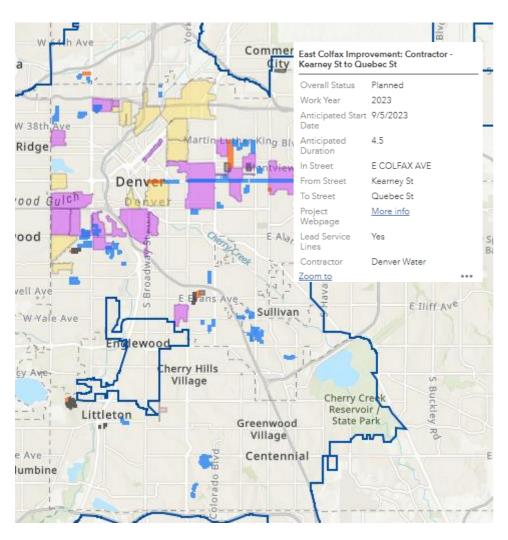
- Goal 4,477 lead service lines replaced across City and County of Denver *plus* replacing additional lines with federal funding.
- Increase investigations (water tests, potholing) to refine lead service line inventory.
- Continue to distribute replacement filters to all customers in LRP.
- Filter adoption survey.
- Continue to host virtual community meetings.



denverwater.org/Filter denverwater.org/Filtro



Current Denver Water Construction in the Denver Metro Area



- Denver Water replaces water mains for various reasons, including repairing or avoiding main breaks, replacing corroded pipe, alleviating water quality problems, increasing available hydrant flow and improving area delivery.
- We work closely with DOTI and other city agencies to plan and sequence construction.



Thank you (and resources)

Lead Reduction Program website denverwater.org/Lead (English) denverwater.org/Plomo (Spanish)

Denver Water newsroom denverwater.org/TAP

Sign up for updates on both.

Questions?

About the program

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- 303-893-2444

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