

WEBINAR

Tapping into the TiR Toolkit: Unlocking Financial Solutions for Lead Line Replacement

TIME

November 12 at 10:30am PST

LOCATION

From your computer or phone



Agenda

- About WaterNow
- Tap into Resilience
- TiR Toolkit
- Lead Service Line Replacements
in Action
- Q&A Session



Today's Speakers



CAROLINE KOCH

WATER POLICY DIRECTOR
WATERNOW ALLIANCE



AMY BARRILLEAUX

PUBLIC INFORMATION OFFICER,
MADISON WATER UTILITY



TOM NELTNER

CHEMICALS POLICY DIRECTOR,
ENVIRONMENTAL DEFENSE FUND

WATERNOW ALLIANCE

WEBINAR

Tapping into the TiR Toolkit: Financial Solutions for Lead Replacement

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November 12 at 10:30am PST

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Q&A

You ask: 13:05
How do I use these awesome tools?

Joshua Jones answered: 13:06
You are already using one of the most awesome tools. We'll discuss the rest right away.

Please input your question

☐ Send Anonymously Send

Audio Settings



Chat



Raise Hand



Q&A



Polling

Leave Meeting



WHO IS READY FOR A POLL?

WaterNow Alliance



WHO ARE WE?

WaterNow Alliance is a forum and network of local water leaders supporting sustainable, affordable, and climate resilient water strategies



WaterNow Alliance Members

WHY LOCAL LEADERS?

95%



Local Leaders
95%

LOCAL AGENCIES ACCOUNT FOR
95% OF WATER SPENDING OF
DRINKING, WASTEWATER,
STORMWATER – NATIONWIDE

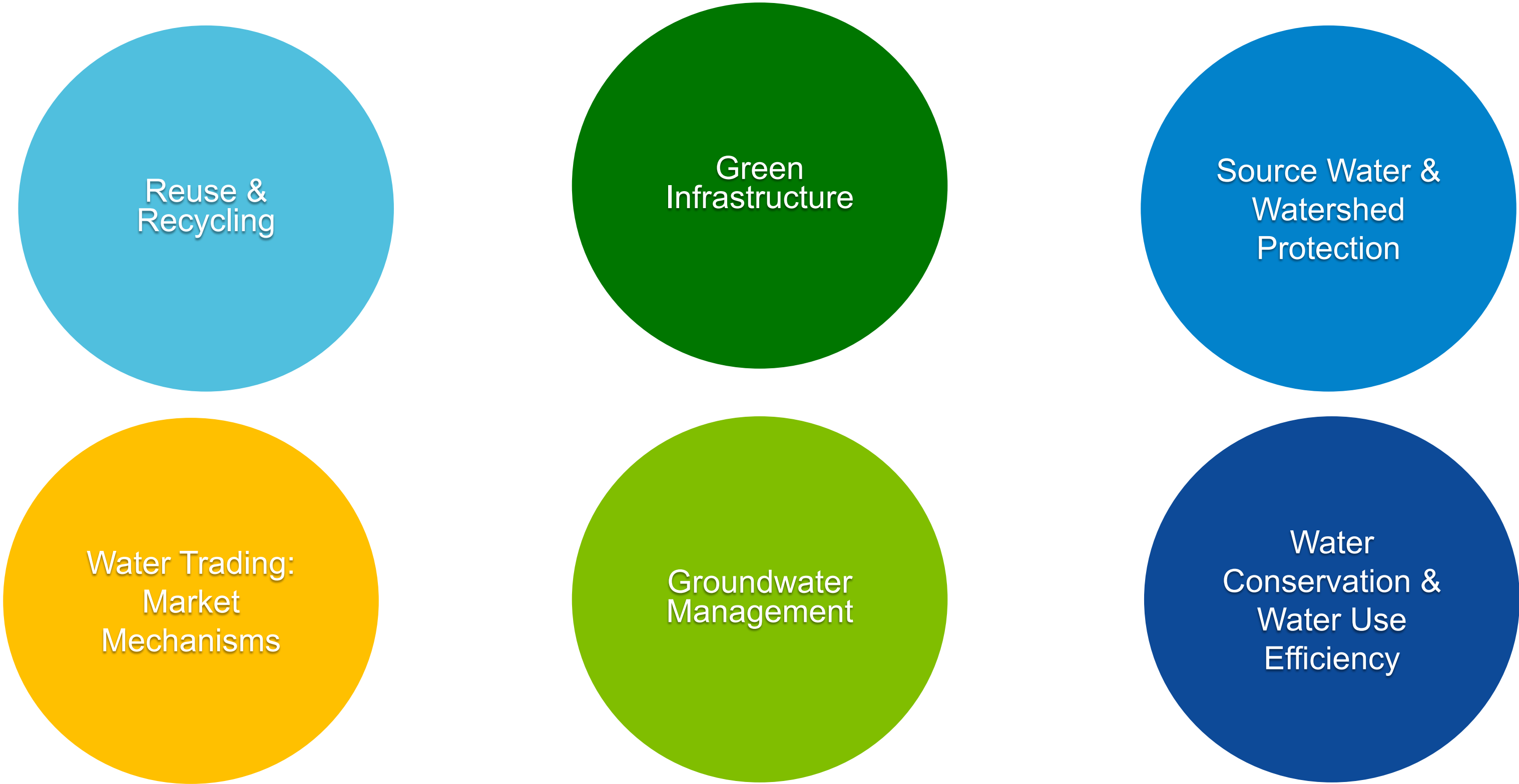
Rand, Not Everything Is Broken The Future of U.S. Transportation and Water
Infrastructure Funding and Finance, 2017

What do we mean by sustainable?



Providing safe, healthy, and affordable water services for people while preserving the integrity of water resources and the environment for future generations.

SUSTAINABLE WATER SOLUTIONS



The diagram consists of six colored circles arranged in a 2x3 grid. Each circle contains text representing a sustainable water solution. The colors of the circles are light blue, dark green, medium blue, yellow, lime green, and dark blue.

Reuse &
Recycling

Green
Infrastructure

Source Water &
Watershed
Protection

Water Trading:
Market
Mechanisms

Groundwater
Management

Water
Conservation &
Water Use
Efficiency

INTRODUCING TAP INTO RESILIENCE



WaterNow's new initiative to advance investment in localized, onsite, and distributed water strategies.

tapin.waternow.org



WHAT IS ONSITE, LOCALIZED, DISTRIBUTED WATER INFRASTRUCTURE?

- Distributed over many properties, public and private
- Not owned and operated by city/utility/water agency
- Serve same functions as conventional infrastructure
- Operate in concert with built infrastructure

BIOSWALES



PERMEABLE PAVEMENT



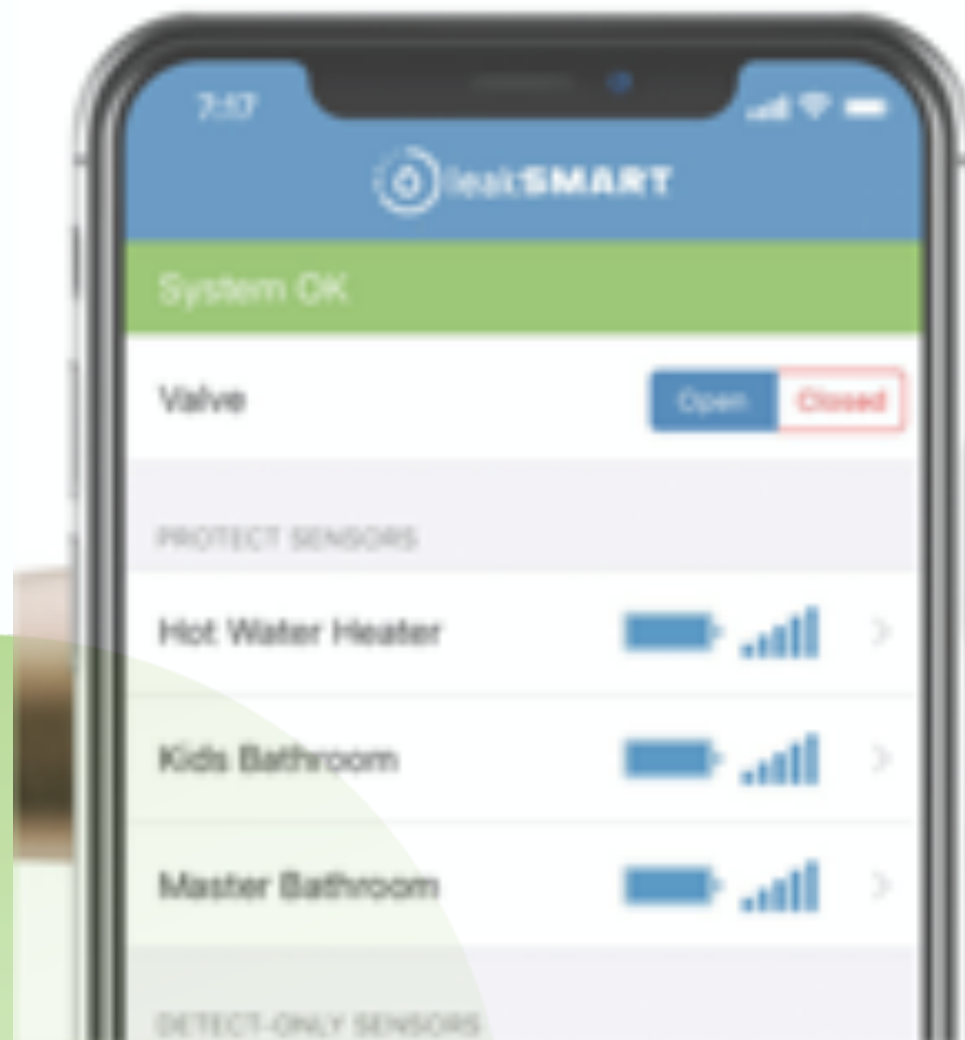
GREEN ROOFS



NATIVE LANDSCAPING & TURF REPLACEMENT



LEAK DETECTION DEVICES



HIGH EFFICIENCY APPLIANCES & FIXTURES



LEAD SERVICE LINE REPLACEMENTS





Graywater reuse systems



High efficiency appliances



Leak detection devices



Enable non-potable reuse systems



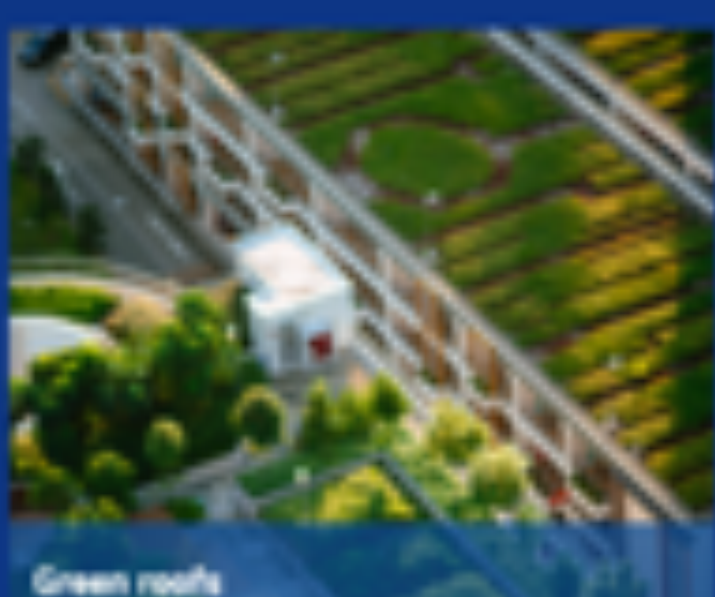
Turf replacement



Smart irrigation controllers



Bioswales



Green roofs



Rainwater harvesting



Constructed wetlands



Private sewer lateral replacement



Blue roofs



Lead service line replacements



Green streets



Permeable pavement

BUT ARE THESE STRATEGIES
INFRASTRUCTURE ...?
WE SAY YES



Big picture benefits of localized strategies



More affordable than rebuilding or repairing centralized infrastructure



Less time-intensive to install than centralized infrastructure



Work with the natural environment to enhance water supply resilience and health



Provide visibility, access, and direct economic benefits to ratepayers

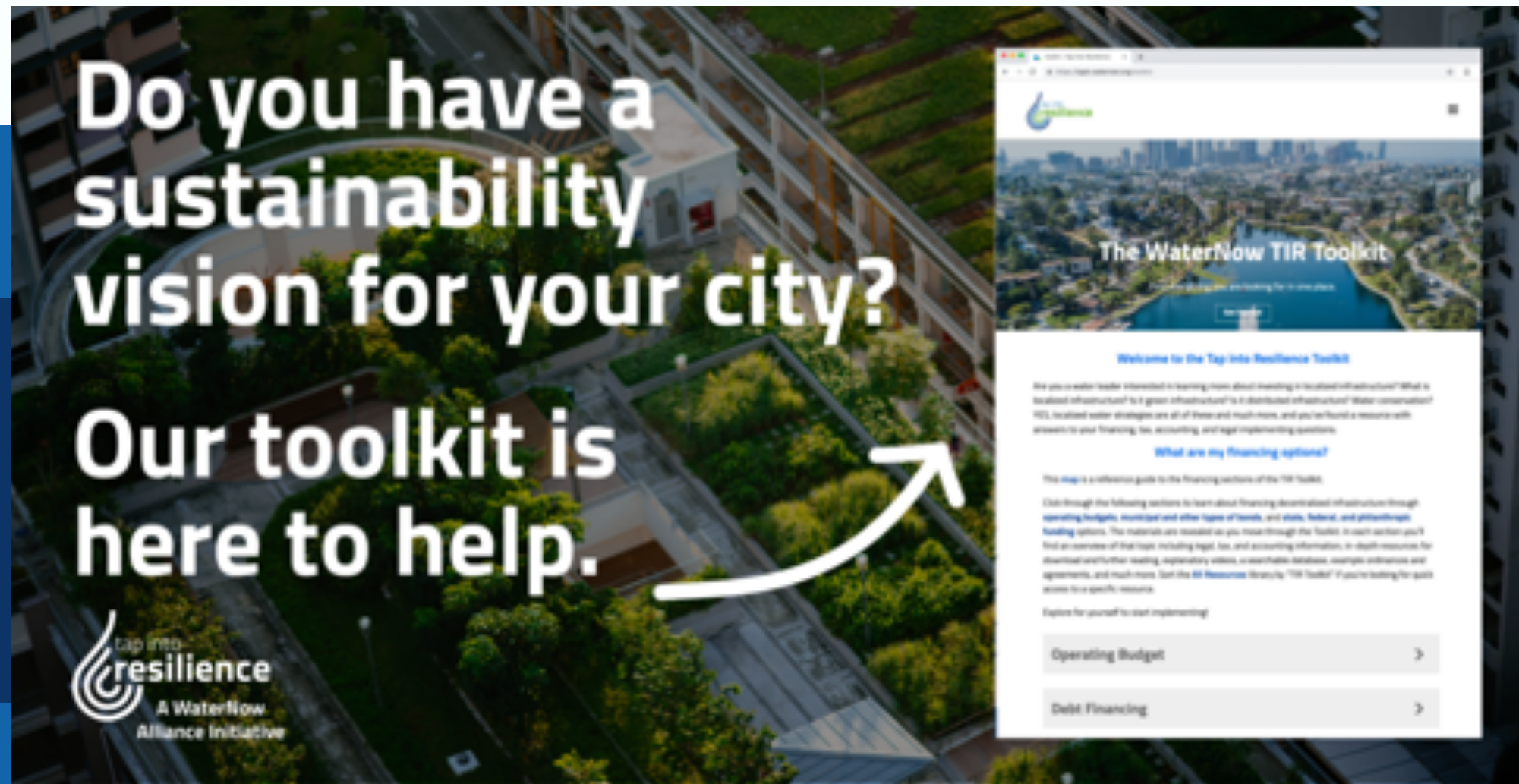


TAP INTO RESILIENCE

Cars aren't the same as they were 50 years ago, so why is our water infrastructure? It's time for a water transformation



TAP INTO RESILIENCE TOOLKIT



Visit tapin.waternow.org/toolkit to view full toolkit



WATERNOW ALLIANCE

TOOLKIT CONTENT



ONLINE
MODULES



SUCCESS
STORIES



DOWNLOADS



VIDEOS



RESOURCE
LIBRARY



EXPERT
PANEL



ANOTHER POLL?
GREAT!

ONLINE MODULES

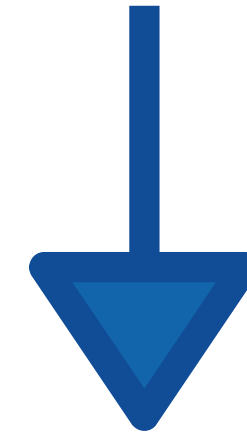
**Interactive &
Customizable**



- Finance, tax, accounting, and legal "how-tos"
- Motivate ratepayers with mandates and incentives
- Steps to securing long-term benefits



ONLINE MODULES



What are my financing options?



Utility Costs & Revenue Sources



Debt Financing Localized Infrastructure



Accessing state, federal, and philanthropic funding



ONLINE MODULES

Localized water infrastructure
implementation strategies



Public Non-Utility Property Localized Infrastructure



Private Property Localized Infrastructure



SUCCESS STORIES



Case studies

Philadelphia Water Department

Participation in PWD's grants program to install green infrastructure on private property and bring multiple benefits to vulnerable communities.

[Read more](#)



Case studies

Madison Water Utility

Madison Water Utility implemented the nation's first city-wide lead service line replacement program saving \$2.5 million in ongoing treatment costs.

[Read more](#)

DOWNLOADS



Download the ordinance

[Click here](#)



Washington D.C. Department of Energy and the Environment: Local Stormwater Ordinance

In Washington, D.C., the Department of Energy and Environment (DOEE) requires that development or redevelopment activity that disturbs a land area of 5,000 square feet or more must deploy localized stormwater infrastructure capable of managing the first 1.2 inches of rainfall (the 90th percentile rainfall event in the region). One distinctive feature of DOEE's onsite stormwater management requirements is that property developers have the option to comply with the stormwater management requirements onsite, or to meet half of their stormwater requirements onsite and purchase "credits" that represent stormwater management elsewhere in the District. For an overview of stormwater credit trading programs click [here](#).

DOEE's onsite stormwater management requirements were put into place in 2013. DOEE reports that since 2013 over 700 projects have been successfully designed in compliance with the regulations, designing runoff-reducing green infrastructure that will capture stormwater from more than 770 acres of the District, while the annual average number of development projects increased by approximately 20%.

DOEE is currently in the process of updating these regulations for 2019. According to DOEE, though the regulations have generally achieved DOEE's intent, compliance has been a disproportionate burden for certain types of projects such as affordable housing projects building single- and two-family houses, as well as projects to install or maintain playing fields, trails for walking and biking, and landscaping maintenance. The proposed rulemaking provides compliance flexibility and exemptions to these projects for which compliance with the 2013 Stormwater Rule is a disproportionate burden. The amendments also make changes to the credit trading program among other changes.

Download the Proposed Amendments to the DOEE's Stormwater Management Regulations by clicking the link below.

Example: Washington D.C. Department of Energy and the Environment: Local Stormwater Ordinance

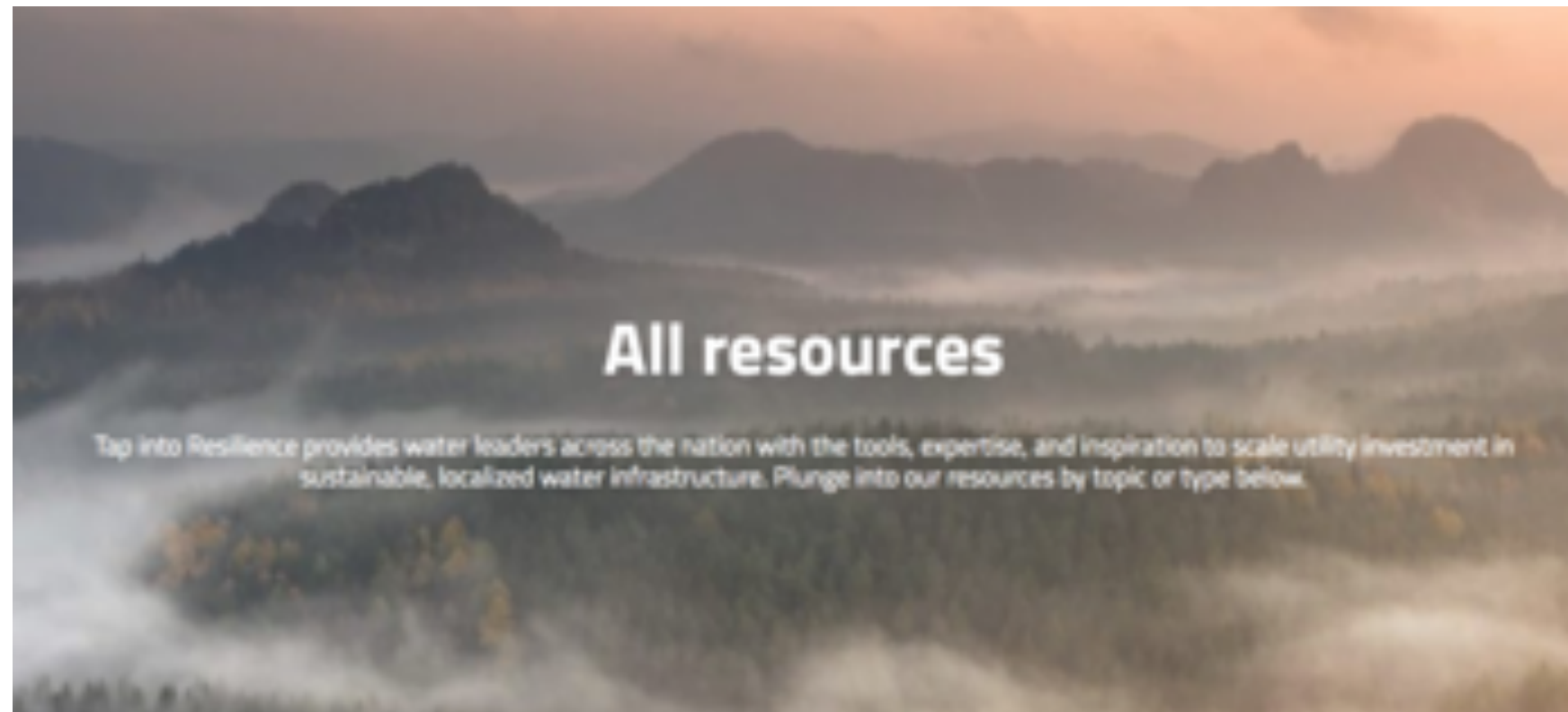
VIDEOS



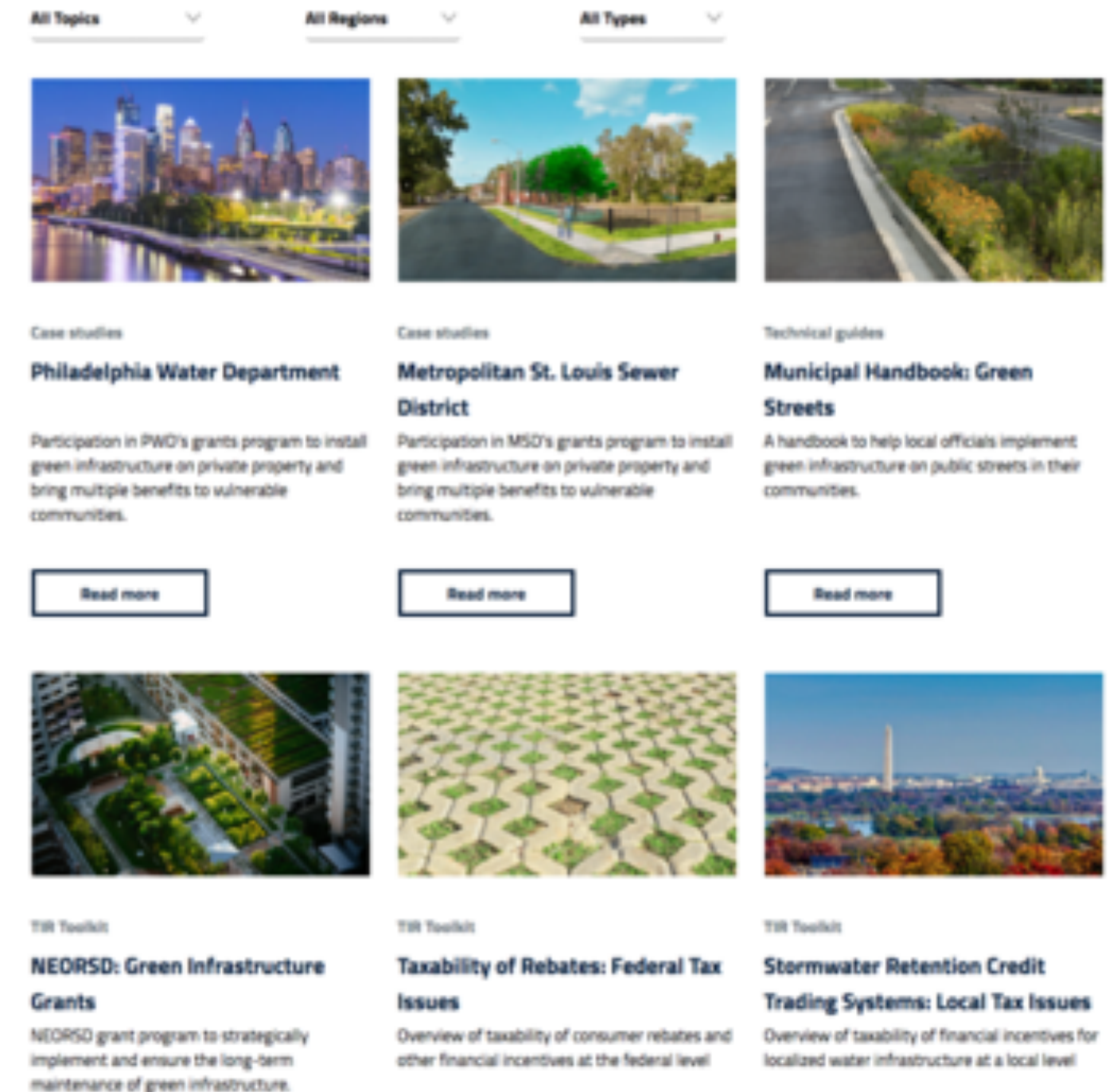
Video with Quantified Venture's Eric Letsinger explain how EIBs work available online



RESOURCE LIBRARY



Plunge into our resources by topic or type
on our website!



EXPERT PANEL

Have a project that needs support? Our team of experts is here to help

 **Ask an expert**



Ask an expert

Whether you have a project that needs support or are just dipping your toe in, our team of experts is here to help.

First Name

Last Name

Email

Organization

Phone

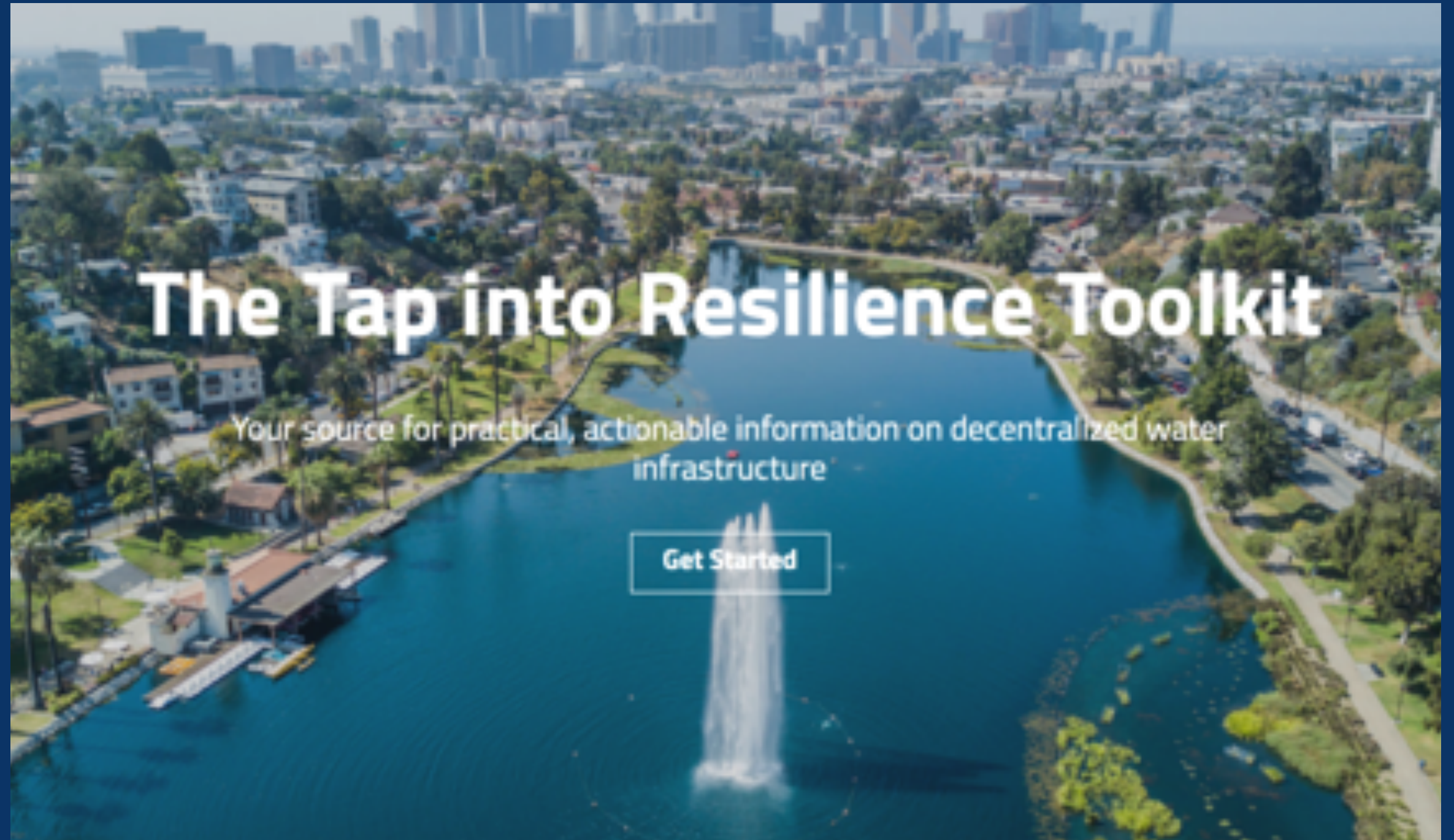
I'm looking for (choose all that apply)

- | | |
|--|---|
| ☐ General Implementation Advice | ☐ Bond council |
| ☐ Bond buyers | ☐ CPA |
| ☐ Auditors | ☐ Impact Investing |
| ☐ Success Stories | ☐ Other |

Message

Submit

HOW
DOES
IT
WORK?



Visit tapin.waternow.org/toolkit



IT'S POLL TIME!

AMY BARRILLEAUX



Public Information Officer
Madison Water Utility



Replacing Lead Services in Madison 2000-2012

- More than 8,000 Lead Services Replaced
- 2,400 Utility-Only Side
- 5,600 Included Property-Owners' Side
- Cost to utility: \$15.5 million
- Cost to property owners approx. \$3.8 million
- 80% of replacements completed in first 6 years of the program



EPA Lead & Copper Rule



- 90th percentile lead level: 16 ppb
- EPA Action Level: 15 ppb



**Madison
Water Utility**



**Madison
Water Utility**



**Madison
Water Utility**



**Madison
Water Utility**

What we needed – Support & Money

Buy-in:

- Regulators: EPA / Wisconsin Department of Natural Resources
Public Service Commission of Wisconsin
- Lawmakers
- General Public

Funding:

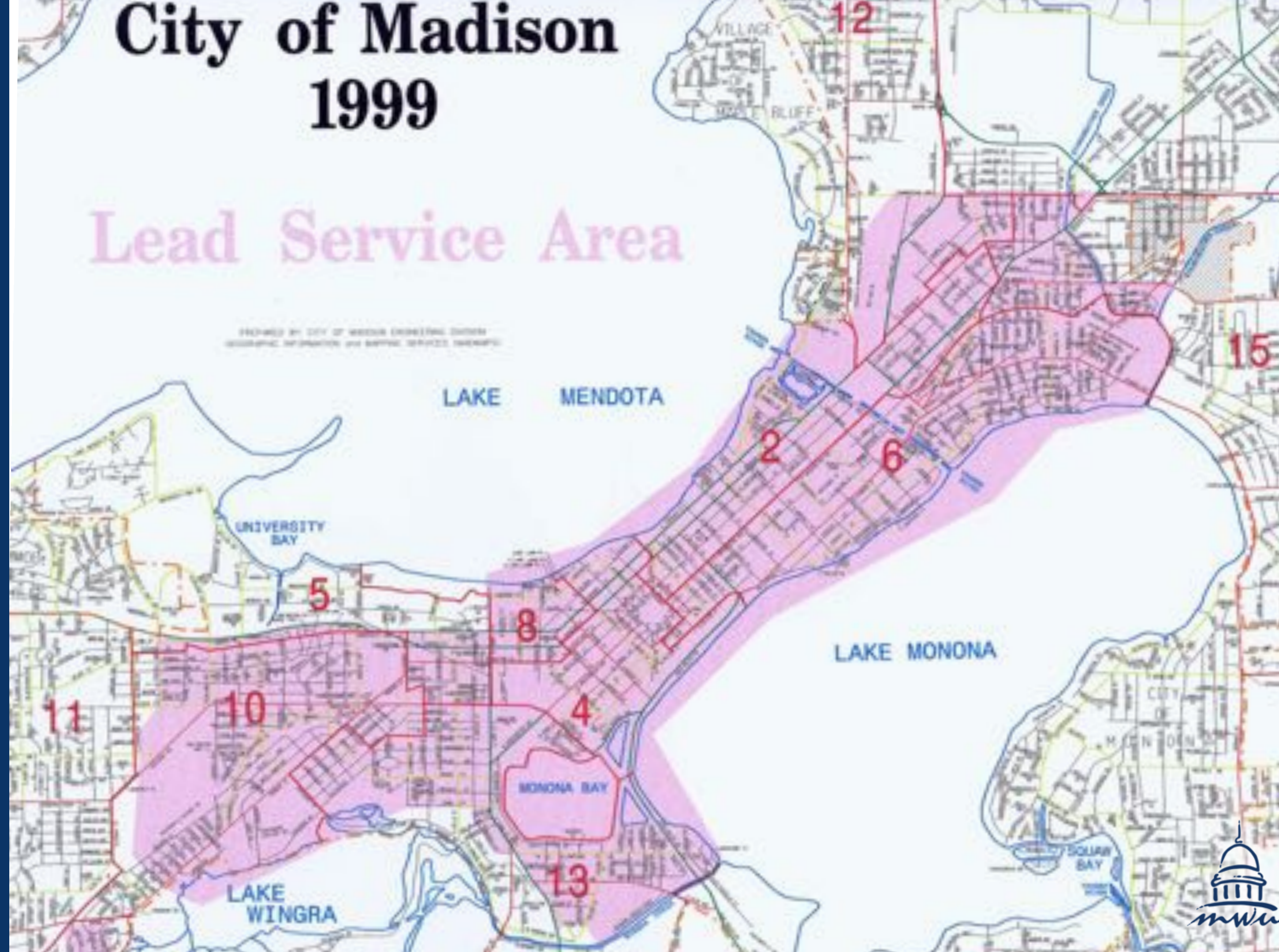
- Water Utility Side - Debt service financing, similar to water main replacement program
- Customer side - Refund customers half the cost of replacement up to \$1,000



City of Madison 1999

Lead Service Area

PREPARED BY CITY OF MADISON ENGINEERING DIVISION
GEOGRAPHIC INFORMATION AND SUPPORT SERVICES DIVISION



**Madison
Water Utility**

City to subsidize lead pipe project

■ After heated debate, City Council votes to have everyone share in the expense.

By Dean Westman
City government reporter

The city of Madison is subsidizing property owners

Lead pipe options explored

Wednesday, Feb. 2, 2000

Close vote, but pipes have to go

By Dean Westman
City government reporter

State looks at taking financial burden of pipe replacement off homeowners

By Dean Westman
City government reporter

In a surprise turn, the state will explore options to share thousands of dollars' worth of lead pipe replacement costs with homeowners.

LOCAL/STATE

Homeowners, start scratching those water pipes

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Safe water and clean lakes

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

It's time to stand up to EPA

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Council delays decision on lead pipe assistance

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Lead pipe vote a thriller

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

The Capital Times ■ The Weekend of March 25-26, 2000

So how much will taxpayers shell out for landlords' pipes?

By Dean Westman
City government reporter

Madison taxpayers are expected to spend thousands of dollars

Private pipes don't need public money

By Dean Westman
City government reporter

It's a letter to the editor published in the Capital Times, the city of Madison's newspaper, that says the city should not pay for the replacement of private pipes.

Lead pipes may still be in use

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Council can't decide who'll pay for pipe repairs

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Lead pipe removal could prove costly for homeowners

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Meeting goes for nearly nine hours

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

It's lead pipe decision time

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Council agenda lengthy tonight

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Lead pipe risk rings hollow

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Council OKs lead pipe replacement

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.

Readers react to lead-pipe controversy

By Dean Westman
City government reporter

The city of Madison is looking at a plan to replace lead pipes in homes. The plan would require homeowners to pay for the replacement of their own pipes, while the city would pay for the replacement of pipes in public buildings and schools.



**Madison
Water Utility**

LEAD SCAM
NOV. 2, 2000
OLIVA



**Madison
Water Utility**



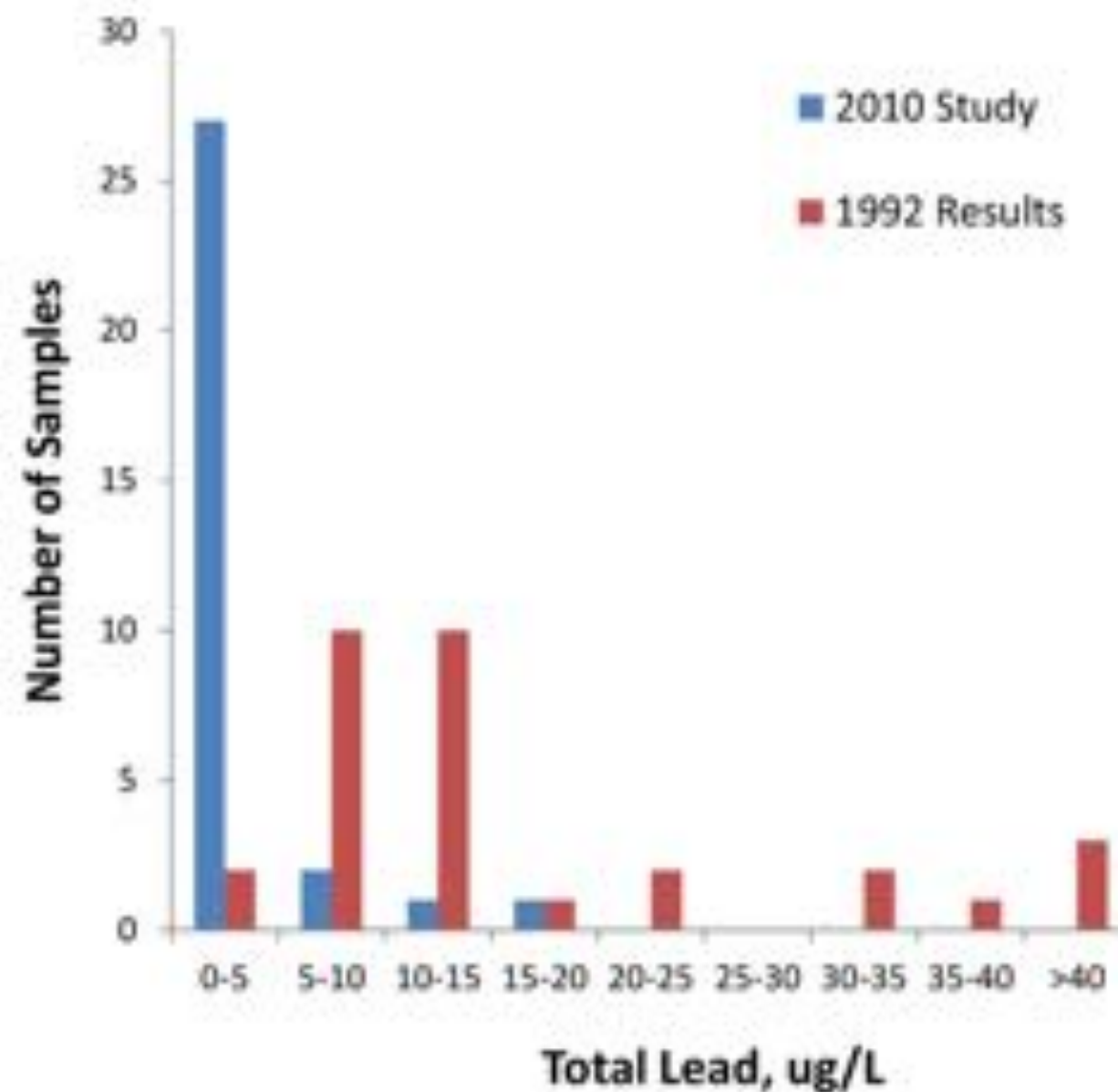
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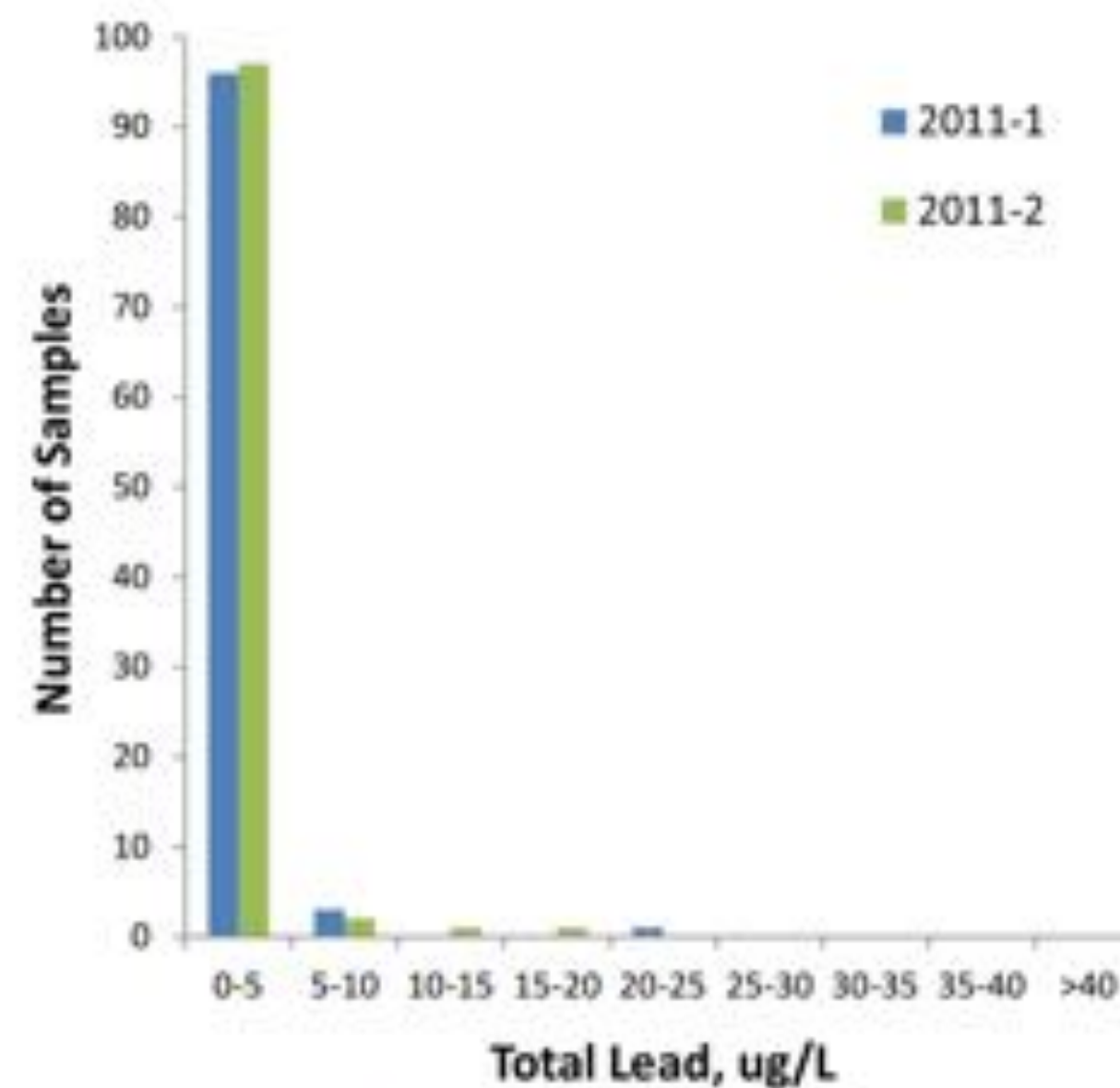
**Madison
Water Utility**

Recent Lead Monitoring Results

2010 Water Quality Study



2011 Compliance Monitoring



90th percentile lead was <5 ppb during both monitoring periods



**Madison
Water Utility**

TOM NELTNER



Chemicals Policy Director
Environmental Defense
Fund



Funding Options for Lead Service Line Replacement

Tapping into the TiR Toolkit: Unlocking Financial Solutions for Lead Line Replacement Webinar by WaterNow Alliance on November 12, 2019

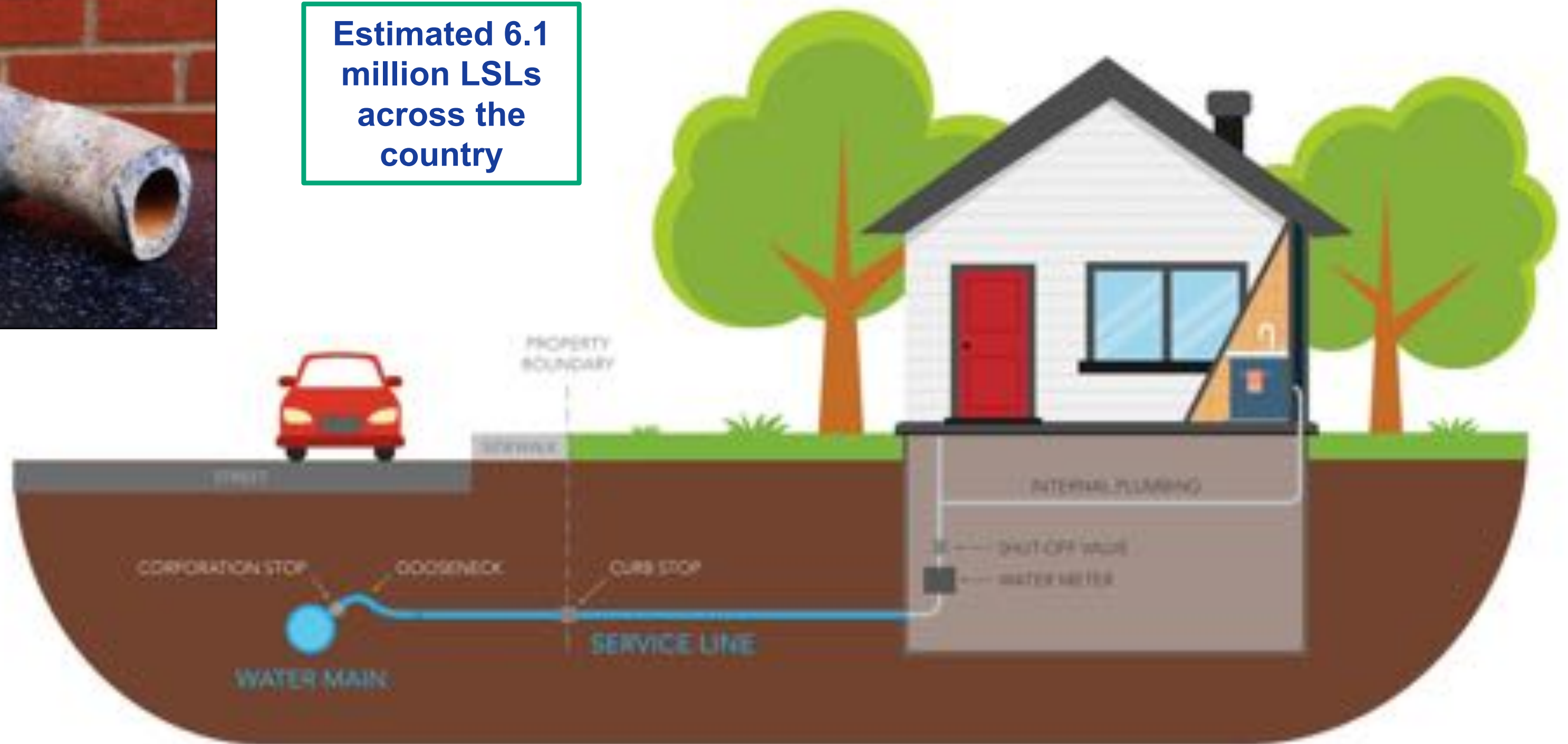
Tom Neltner
Chemicals Policy Director
Environmental Defense Fund



Lead service lines (LSLs)



Estimated 6.1
million LSLs
across the
country



Central challenges

- LSLs routinely encountered when replacing a main under the street, fixing leaks, or during maintenance.
- Disturbing LSL is expected to increase exposure. Full replacement means less short-term increased exposure and significant long-term reductions.
 - In October, EPA proposed precautions utilities must take to protect consumers including advanced notice, providing three months of filters, and conducting post-replacement water testing.
- Full LSL replacement costs around \$3,500 to \$7,000 making total cost significant.
- Replacing lead service lines (LSLs) on private property may be considered an improvement to that property.
- Utilities and states have been reluctant to use rates paid by customers to support private improvements.
- Without support, partial replacements may occur resulting in potential health equity and environmental justice concerns.

Leveraging resources

- Allow rates to subsidize replacement.
- Use forgivable loans from State Revolving Loan Fund (SRF).
- Leverage Water Infrastructure Finance and Innovation Act (WIFIA) loan from EPA.
- Accept grants when available from federal, state and local.

Rationale:

- Protect public health from lead, especially from partial LSL replacement.
- Cost effectiveness of replacing entire line at once.

Federal support

- Department of Housing and Urban Development (HUD)
 - Community Development Block Grants
 - Lead Hazard Control Grants (focused on lead-based paint only)
- Medicaid Health Insurance
 - Dedicate portion of administrative expenses to support lead hazard control
 - Michigan, Indiana and Ohio (not focused on LSL replacement)
- State Revolving Loan Fund (SRF)
 - Default is low interest loan to be repaid
 - Limited forgivable principal and negative interest loans available
- EPA Water Infrastructure Finance and Innovation Act (WIFIA) loan
 - Missouri American Water for St. Louis area LSL replacement
- Special \$10M competitive grant offered by EPA soon

State support

- State's Revolving Loan Fund (SRF)
 - Wisconsin, Virginia, Vermont, and New Jersey
- General appropriations
 - New York
- Removing real or perceived barriers
 - Indiana, Missouri, Michigan, New Jersey, Pennsylvania, and Wisconsin

EDF tracks proactive state policies at
<https://www.edf.org/health/state-efforts-support-lsl-replacement>

Using rates to fund LSL replacement

- EDF and Harvard Law School's Emmett Environmental Law & Policy Clinic Report in April 2019
- Reviewed state laws and policies in 13 states with the most LSLs.
 - These states have an estimated 4.2 million LSLs, more than two-thirds of the nation's total.
- Found no explicit barriers to using rate funds to replace the lines on private property.
 - Publicly-owned utilities can act pursuant to existing state legislation by determining that the practice serves a public purpose—protecting public health.
 - Investor-owned utilities can do the same, but typically need approval of the state's utility commission.
 - Anticipate that laws and policies in other states are similar to the ones evaluated.

See <http://blogs.edf.org/health/2019/04/02/laws-states-support-rates-fund-replacement-private-property-new-analysis/>
for report and summary

Status of 13 states

State	Estimated No. of LSLs	Likelihood that state policy supports use of rate funds:	
		Publicly-owned utility	Investor-owned utility
Illinois	730,000	Likely	Uncertain but likely
Ohio	650,000	Likely	Uncertain
Michigan	460,000	Definite**	Definite**
New York	360,000	Likely	Uncertain but likely
New Jersey	350,000	Definite under specific conditions otherwise likely	Uncertain
Missouri	330,000	Likely	Definite
Indiana	290,000	Likely	Definite
Texas	270,000	Likely	Uncertain
Minnesota	260,000	Likely	Likely
Wisconsin	240,000	Definite	Definite
Massachusetts	220,000	Likely	Uncertain but likely
Florida	200,000	Likely	Uncertain but likely
Pennsylvania	160,000	Definite	Definite

The LSL Replacement Collaborative

- A diverse collaborative of national public health, water utility, environmental, labor, consumer, housing, and state and local government organizations
- Organized around the goal of accelerating voluntary full LSL replacement in communities across the United States



Collaborative Membership

Environmental

- Clean Water Action*
- Environmental Defense Fund*
- Natural Resources Defense Council
- Northeast Midwest Institute
- River Network

Housing

- Green and Healthy Homes Initiative
- National Center for Healthy Housing

Public Health

- American Public Health Association
- Children's Environmental Health Network*
- Learning Disabilities Association of America
- National Association of County and City Health Officials
- National Environmental Health Association
- Trust for America's Health
- United Parents Against Lead

* Steering Committee Members

State and Local Government

- Association of State Drinking Water Administrators
- National Association of State Utility Consumer Advocates
- National Conference of State Legislatures
- National League of Cities

Technical and Policy Assistance

- Justice and Sustainability Associates
- Rural Community Assistance Partnership

Water Utility

- American Water Works Association*
- Association of Metropolitan Water Agencies*
- National Association of Water Companies*
- National Rural Water Association
- Water Research Foundation

Labor

- Blue Green Alliance

Convener

- RESOLVE*

Resources

- Lead Service Line Replacement Collaborative - www.lslr-collaborative.org
- EDF Lead Resources - <https://www.edf.org/health/recognizing-efforts-replace-lead-service-lines>
- EDF Health Blog - <http://blogs.edf.org/health>

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VISIT OUR WEBSITE

Provides water leaders across the nation with
the tools to scale utility investment in
sustainable, localized water infrastructure

tapin.waternow.org



SAVE THE DATE

APRIL 15-16,
2020



WaterNow 5th Annual Summit

PHILADELPHIA, PA



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QUESTIONS?



THANK YOU

For more information please contact
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