



Water Affordability Needs Assessment

Capturing the Extent and Impact of Water Affordability
to Households and Utilities

January 16, 2025

Using Zoom



- Questions will be monitored through the **(1) Q&A Function**, chat is disabled.
- Participants will not be able to access their **(2) mic** and **(3) video**.
- To ask a question, type it in the **(1) Q&A Function**. Participants will be able to see and thumbs up questions.
- For subtitles, click on **(4) Captions**.
- To change your profile name, click on **(5) Participants**, toggle over your name, and select "Rename".

Opening Remarks



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Water Affordability Needs Assessment: Report to Congress

DECEMBER 2024
EPA 830-R-24-015



Today's Objectives

- Background and report drivers
- Overview of the **Key Findings**
- Overview of **Recommendations**
- Discuss **EPA's Plans for Future Affordability Work**
- **Questions and Answers**

Questions and Answers

- To ask a question, type it in the **Q&A Function**
- If you have a question that has already been entered in the function, no need to submit it again!
- We will respond to questions using the Q&A function and will also read and respond to some commonly asked questions at the end of the presentation.
- This is an **opportunity to ask about the Needs Assessment**- please keep questions centered around that work.
- **More webinars to come** that cover detailed aspects of affordability.



Water Affordability Needs Assessment Team

- **Water Affordability Workgroup:**
 - Addison Chau
 - Julie Hewitt
 - Matthew Hobby
 - Tiffany Fitzgerald
 - Myranda Laursen
 - Mindy Luetke (Co-lead)
 - Hollis Maye-Key
 - Jean Ray (Co-lead)
 - Rebecca Reilly-Lott
 - Beth Spink
 - Ellen Tarquinio
 - Richard Weisman
 - Will Wheeler
- **Contract Support** from Ross Strategic



What is Water Affordability?

Water affordability is a growing concern impacting households and utilities in every community

Affordability Challenges for Households



WATER AFFORDABILITY IS A CONCERN ACROSS THE COUNTRY.

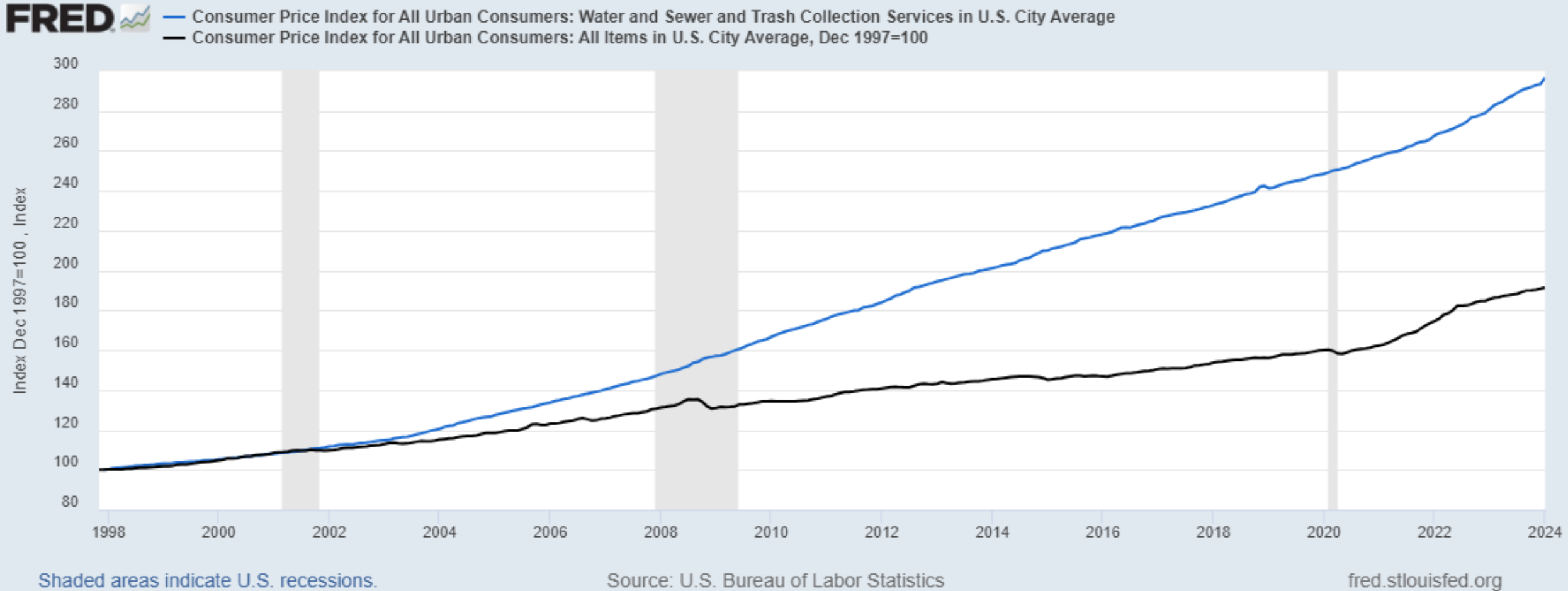


MANY HOUSEHOLDS STRUGGLE TO PAY BILLS.

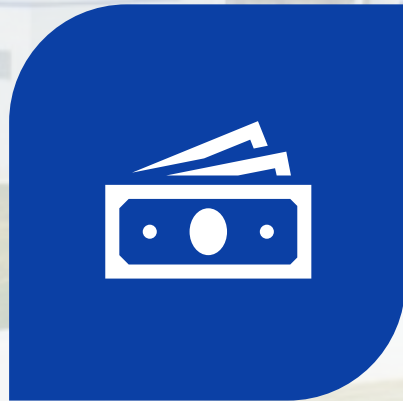


WATER IS ESSENTIAL TO LIFE, REGARDLESS OF ABILITY TO PAY.

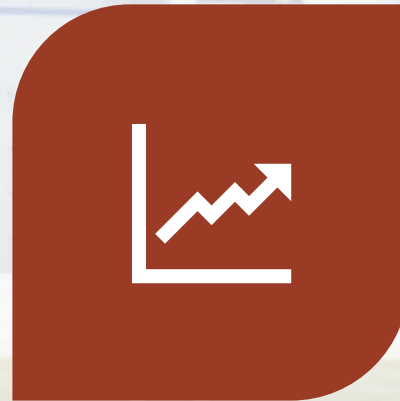
CPI for Water, Sewer, and Trash vs Inflation



Affordability Challenges for Utilities



**RISING COSTS FOR
OPERATIONS AND
MAINTENANCE**



**RISING COSTS FOR
UPGRADES TO AGING
INFRASTRUCTURE**



**DEFERRED MAINTENANCE
AND IMPROVEMENTS**

Water Affordability Needs Assessment

Congress (IIJA 50108) directed EPA to conduct a Needs Assessment that has three key components:

- Prevalence of utilities that service a **disproportionate number of households in need**
- Definition of the term “**lack of affordable access to water services**”, and then a “**determination of the prevalence of a lack of affordable access to water services**”;
- **Recommendations** regarding the best methods to increase affordable access to water services, including associated cost.

Report Structure



Overview of key work in this space



Affordability analysis including definition, estimated need, number of households with high water burden



Analysis of utilities with a disproportionate percentage of qualifying households



Discussion of disconnection, arrearages, tax liens



Areas for further analysis



Recommendations, including estimated cost of long-term federal customer assistance program



Case Studies

Prevalence of Utilities that Serve a Disproportionate Number of Households in Need

- 23% of community water systems service a disproportionate percentage of qualifying households
- “Disproportionate” was determined to mean $> 40\%$ of households in the service area being qualifying households.
- Within utility size categories (very small, small, medium, large) the average qualifying households served ranged from 30-33%.
- Tribal utilities had an average qualifying household percentage of 45%.

Defining and Measuring Household Affordability



NO SINGLE APPROACH

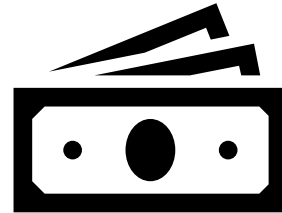
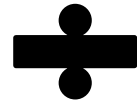
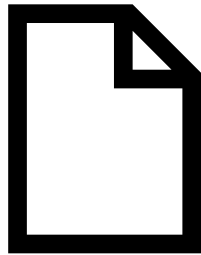


**QUALITATIVE
DEFINITIONS**



**QUANTITATIVE
MEASUREMENTS**

Household Level Affordability



**COST OF DRINKING WATER
AND WASTEWATER**

HOUSEHOLD INCOME

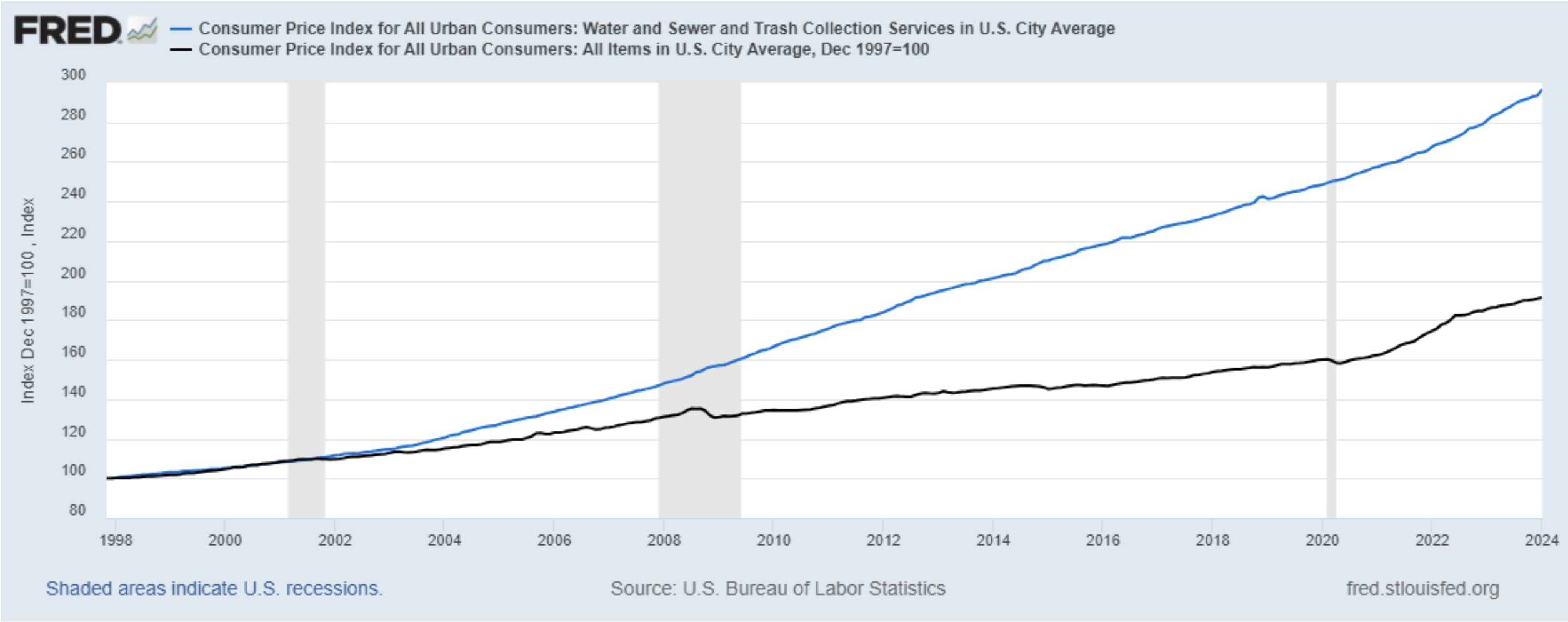
**PERCENT OF INCOME
NEEDED FOR WATER
NEEDS**



*How much water per person?
How many people per household?*

*Gross income?
Disposable income?*

CPI Water, Sewer, and Trash vs Inflation



Water Use Assumptions

- If household-level water use data cannot be collected, water use must be assumed
- Monthly water use was calculated using a basic water use value of 50 gallons per person per day, multiplied by 30 days per month, and multiplied by the average household size of the CBG.



Measuring Affordability for a Community

- Cost of basic water use
- Utility Service areas
- Household income
 - MHI
 - LQI
 - Individual Household income

MEDIAN HOUSEHOLD INCOME



LOWEST QUINTILE INCOME



INDIVIDUAL HOUSEHOLD INCOMES

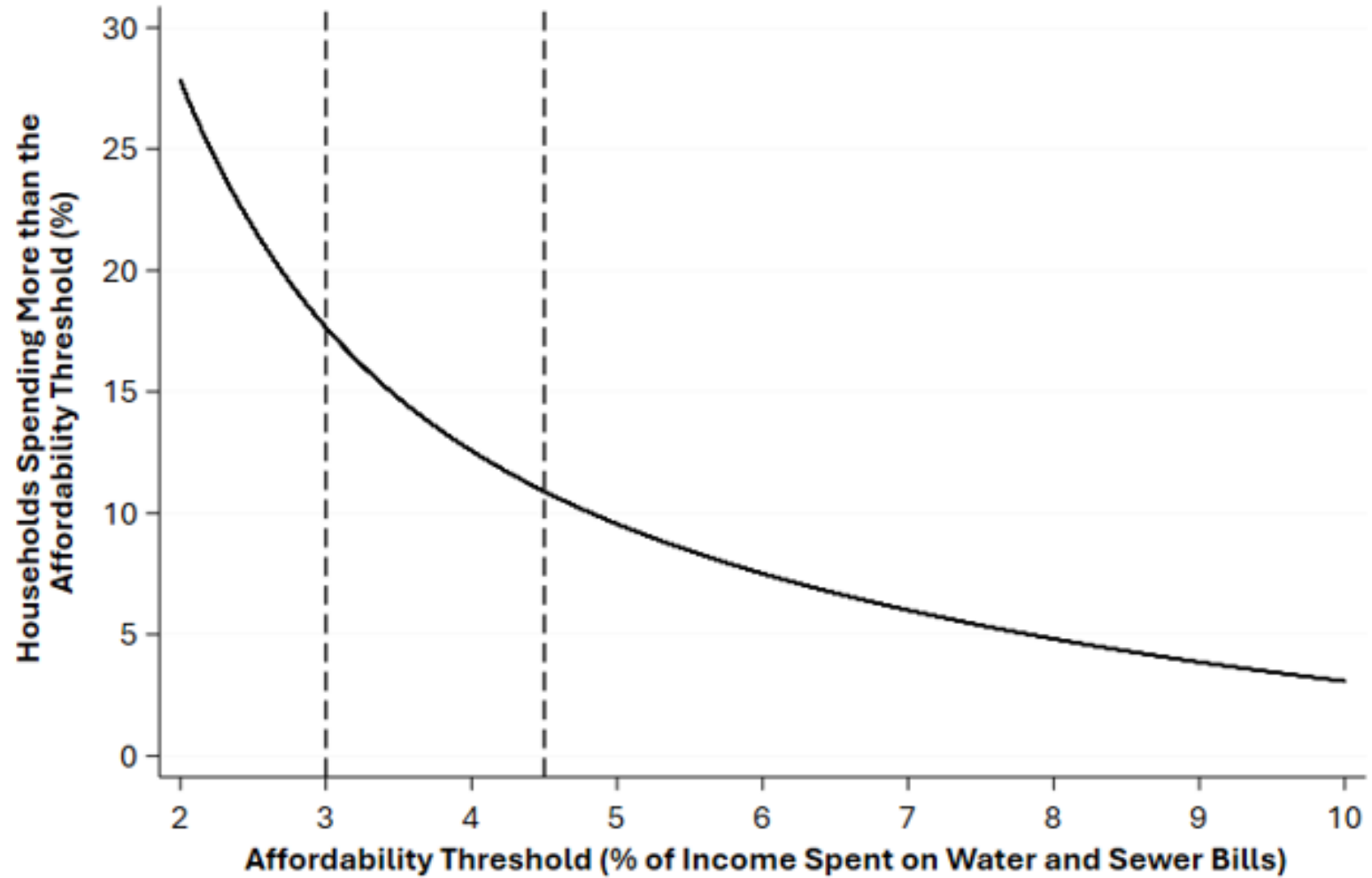


EPA's Approach to Defining Affordability for this Report

- Cost of basic water services as a percent of Individual Household Income
- Compare to Affordability Thresholds
 - 3%
 - 4.5%



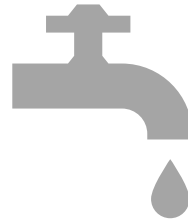
Data Sneak Peek: All Households



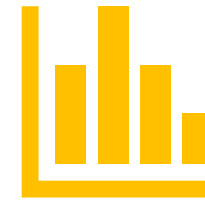
General Challenges with Available Data



Water rates data is from different years



Rates are different structures and data are collected in different formats



Lack of a nationally representative data

Dataset Sources Used for EPA's Analysis

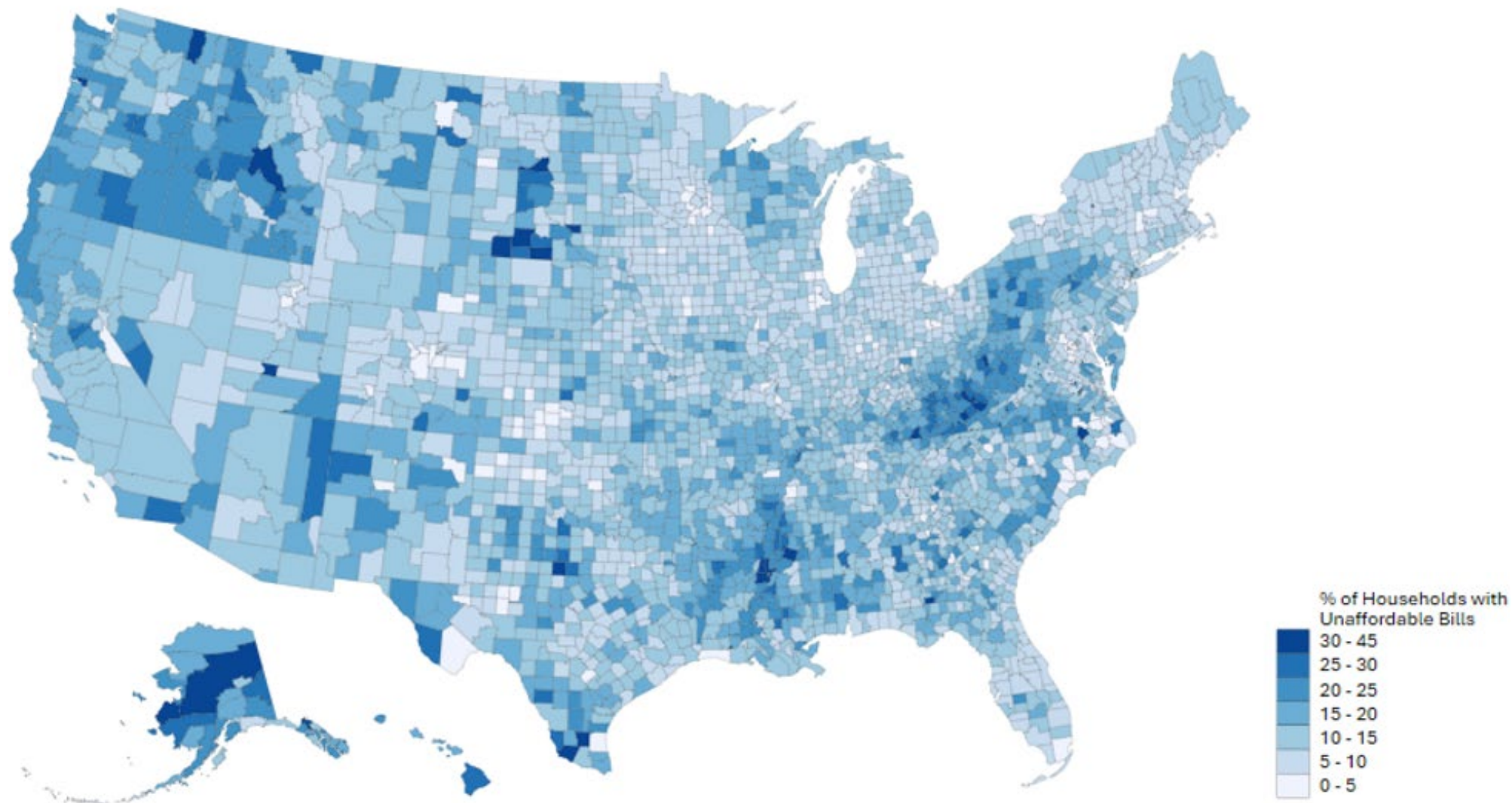
Cardoso and Wichman clean data

Duke rate data

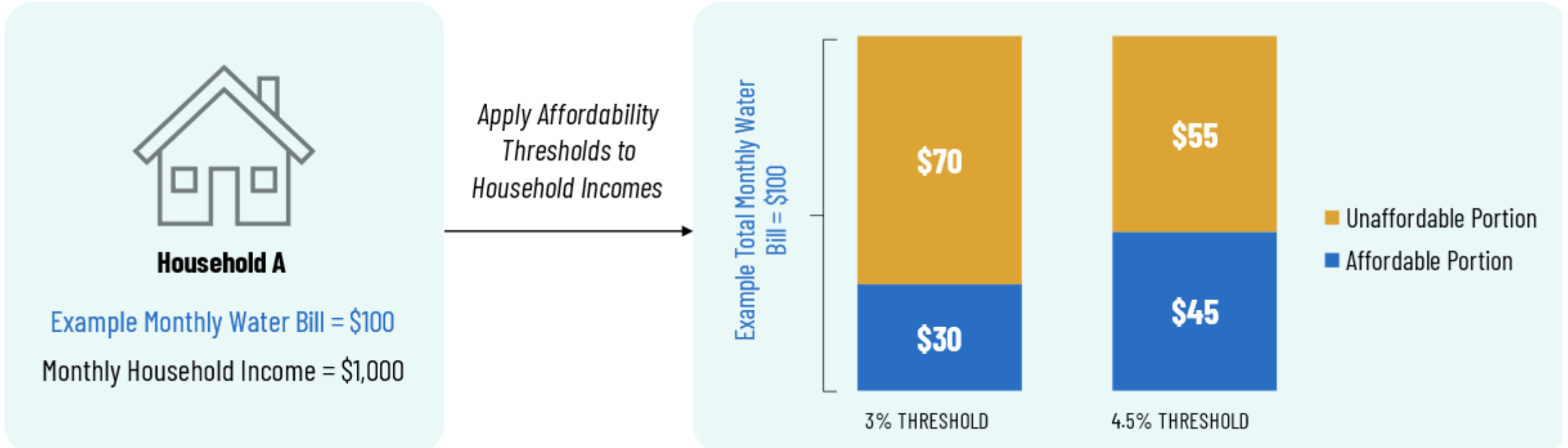
Wisconsin water rates data

Estimated Percent of Households with Unaffordable Bills



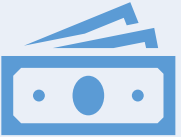
(areas missing rate data imputed)



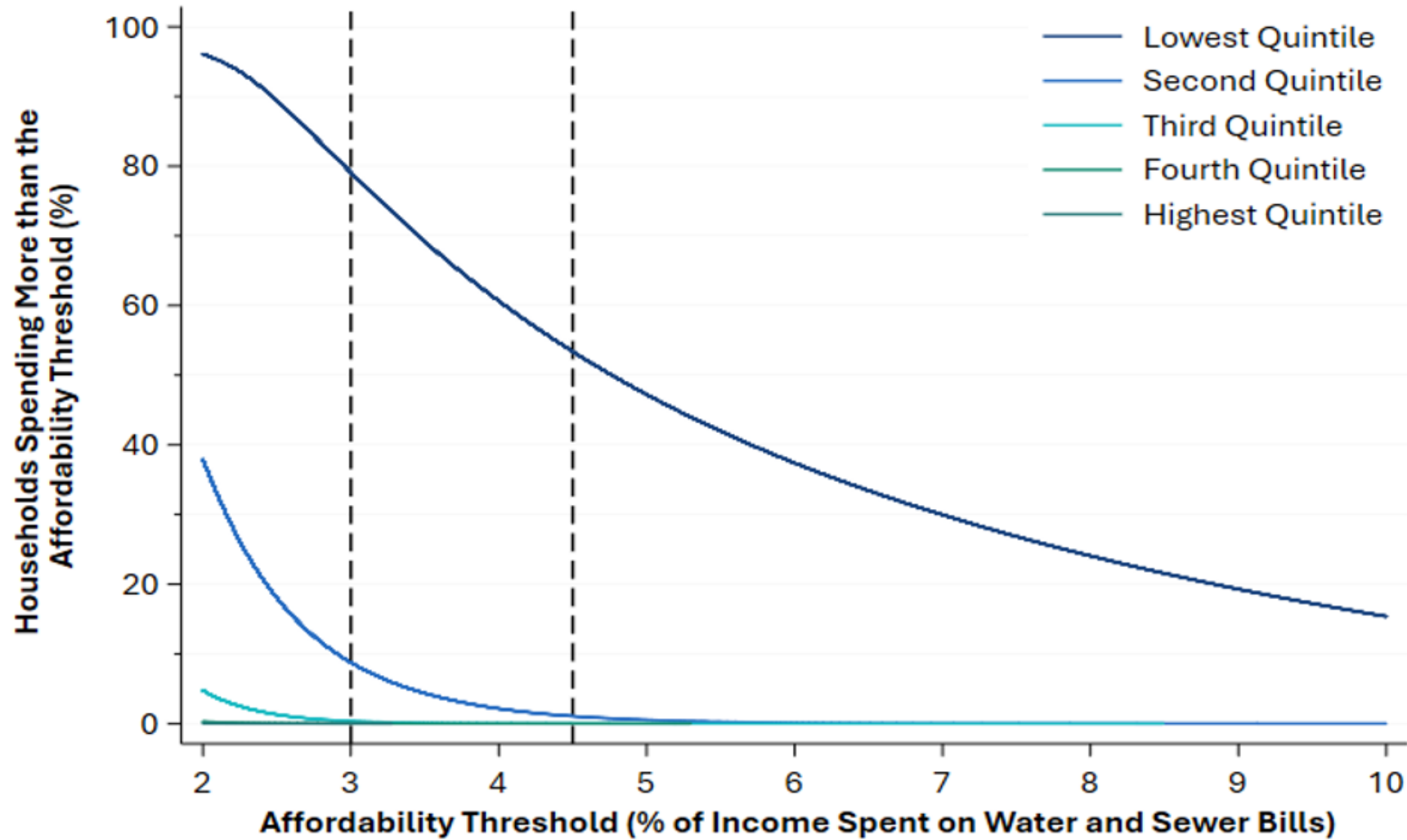
Calculation Methodology



Key Findings

Metrics		3%	4.5%
	Total Households with Unaffordable Water (in Millions)	19.2	12.1
	Average Yearly Per Household Assistance Costs for Households with Unaffordable Water (in Dollars)	\$456.8	\$421.1
	Total Unaffordable Yearly Assistance Costs (in Billions of Dollars)	\$8.8	\$5.1

All Households by Quintile



Recommendations

These Recommendations were identified during the affordability analysis and from discussions with stakeholders.



The Recommendations* fall into three broad categories:

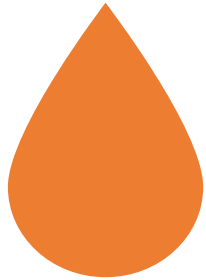
Establishing a Federal Water Assistance Program

Increasing Education, Outreach and Knowledge Around Solutions to Address Affordability

Increasing Ways to Reduce Water Infrastructure Capital and Operating Costs

*Please be aware that many of the recommendations will require input from entities outside of EPA.

Recommendation: Establishing a Federal Water Assistance Program



Recommendation 1:

Establish a Federal Water Assistance Program (e.g. IJJA 50109)

Recommendation 2:

Evaluate best practices and creative program structures to increase assistance to all socioeconomic groups.

Recommendation 3:

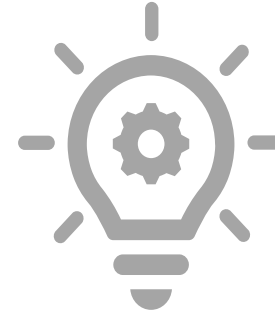
Evaluate the need for a Federal Household Water Efficiency and Plumbing Repair Grant Program.

Recommendation: Increasing Education, Outreach and Knowledge Around Solutions to Address Affordability



Recommendation 4:

Promote tools, resources, and best practices on water affordability



Recommendation 5:

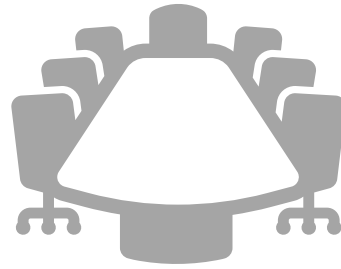
Increase awareness and best practices of successful funding approaches for utility supported Customer Assistance Programs (CAPs)

Recommendation: Increasing Ways to Reduce Water Infrastructure Capital and Operating Costs



Recommendation 6:

Promote the use of low-cost federal funding and financing for water infrastructure



Recommendation 7:

Incorporate, where appropriate, recommendations from the Environmental Financial Advisory Board (EFAB)



Recommendation 8:

Continued research and understanding of water affordability

Further Analyses



- Expanded water affordability rates analysis
- Water Affordability highlights of specific groups
 - Tribal areas
 - Renters
 - Fixed income households

Further Analyses (Continued)



- Evaluations of potential **future** costs
 - Drought conditions
 - Water availability
 - Aging infrastructure
 - Upgrades needed to protect public health and the environment
 - Other costs



Further Analyses (*Continued*)



- Impacts of deferred maintenance
- Effectiveness of disconnection moratoriums

Open to suggestions for other potential analyses!



Questions or Comments?

Please engage with us!



Questions or comments
on the Report or this
presentation



Ideas about ways that we
can engage in future work
in this space



Any other questions or
comments!

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