



# STAKEHOLDER ADVISORY GROUP

Board of Water Supply, City & County of Honolulu  
January 15, 2026  
Meeting 57



# WELCOME & INTRODUCTIONS

DAVE EBERSOLD, FACILITATOR

STAKEHOLDER ADVISORY GROUP MEETING 57

JANUARY 15, 2026

[WWW.BOARDOFWATERSUPPLY.COM](http://WWW.BOARDOFWATERSUPPLY.COM)



# MEETING OBJECTIVES

- Welcome and public comment
- Provide BWS updates
- 2025 Customer Satisfaction Survey Results
- 2026 WMP Update Roadmap
- Accept notes from meeting #55
- CIP Process and Prioritization
- Review SAG meeting dates for 2026



# PUBLIC COMMENT ON AGENDA ITEMS





# BWS UPDATES

Ernest Lau, PE  
Manager and Chief Engineer

[boardofwatersupply.com](http://boardofwatersupply.com)



The Board of Water Supply, in partnership with the Department of Environmental Services, has doubled some of its most popular WaterSensible rebates to help residents and businesses save money, while protecting our island's precious wai.

### RESIDENTIAL REBATES

Measure	New Rebate	Previous Rebate	Notes
ENERGY STAR Clothes Washer	\$150	\$75	
WaterSense-Labeled Toilet	\$200	\$100	
Smart Water Monitor	\$400	\$200	
Rain Barrel		\$40	No change

### COMMERCIAL REBATES

Measure	New Rebate	Previous Rebate	Notes
Cooling Tower – Conductivity Controller	\$2,000	\$1,000	
Cooling Tower – Flow Meter	\$2,000	\$1,000	
Cooling Tower – Overflow Alarm	\$1,000	\$500	
WaterSense-Labeled Toilet	\$200	\$100	
WaterSense-Labeled Urinal	\$100	\$50	
ENERGY STAR Clothes Washer	\$150	\$75	
Submeter – Multifamily Units	\$300	\$150	
ENERGY STAR Commercial Dishwasher	\$500	\$250	
ENERGY STAR Batch-Type Ice Machine	\$200	\$100	
Dipper Well	\$300	\$150	
Pre-Rinse Spray Valve	\$100	\$50	
Weather Based Irrigation Controller		\$100	No change
Soil Moisture Sensor		\$35	No change
Rain Barrel/Tote		\$150	No change

[www.boardofwatersupply.com/watersensible](http://www.boardofwatersupply.com/watersensible)

\*terms and conditions apply

Effective 01/01/2026



# REBATES DOUBLED!

*Save Water. Lower Bills.*



**Toilet**  
**NOW \$200**



**Clothes Washer**  
**NOW \$150**



**Smart Water Monitor**  
**NOW \$400**

**Commercial Customers**  
Double rebates on plumbing/kitchen  
products and Cooling Tower Equipment.



**WaterSensible**  
  
[www.boardofwatersupply.com/rebates](http://www.boardofwatersupply.com/rebates)





# 2025 CUSTOMER SATISFACTION SURVEY

Becki Ward  
Ward Research

[boardofwatersupply.com](http://boardofwatersupply.com)



**WARD RESEARCH**  
I N C O R P O R A T E D

# Understanding and Tracking Resident Perceptions of the Board of Water Supply

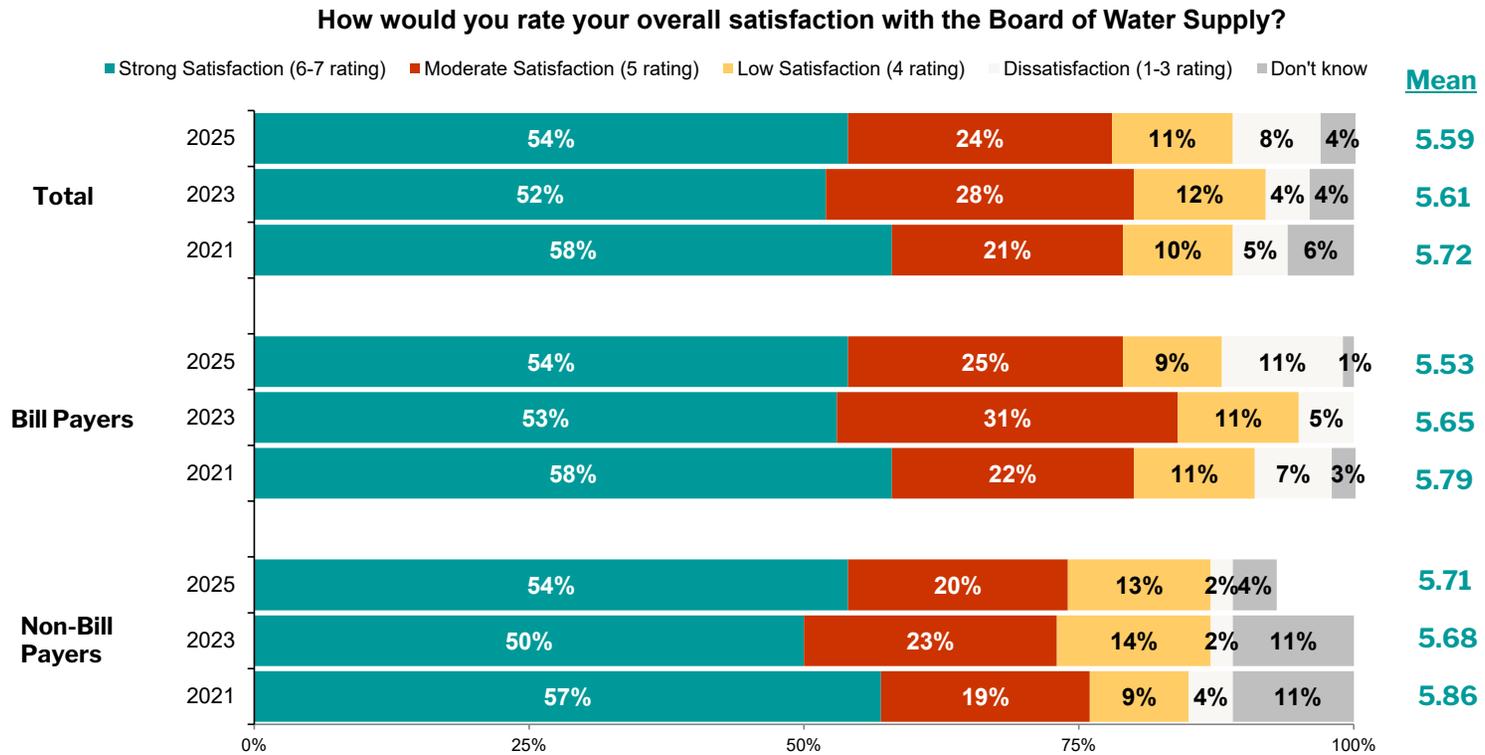
Prepared for:

**The Board of Water Supply**  
**September 2025**

# Objectives and Methodology

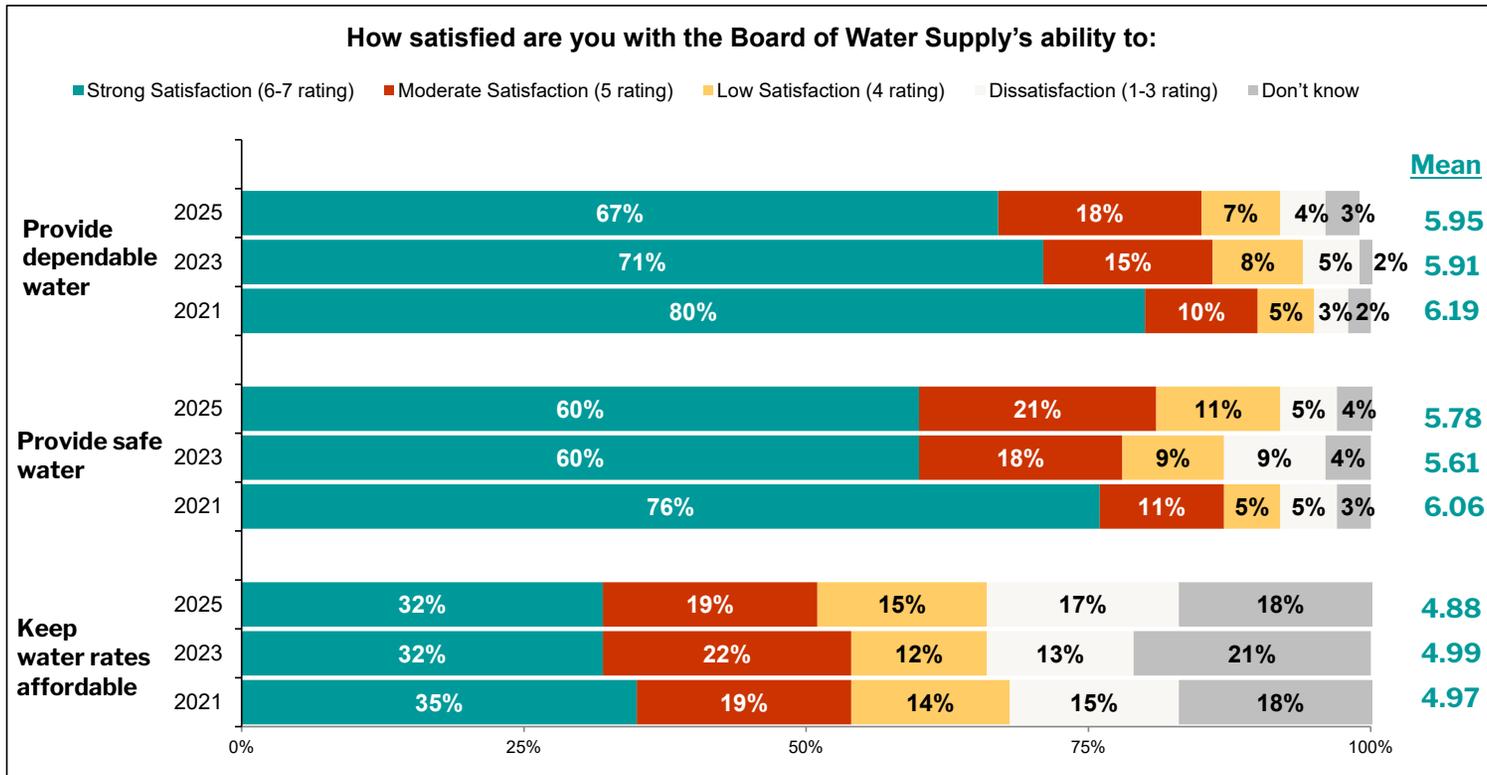
- Objective: **To track measures of satisfaction & other key metrics related to perceptions of BWS and fulfillment of its mission.**
- This is the sixth wave of the tracking study. The baseline measure was conducted in 2015, with corresponding studies conducted in 2017, 2019, 2021, and 2023.
- For the third consecutive study, a mixed methodology phone/online survey among O'ahu residents was utilized.
- n=409 surveys conducted online (July 28 to August 20, 2025)
- n=301 surveys conducted via telephone (July 28 to August 20, 2025).
- Total of 710 interviews completed with O'ahu residents. Maximum sampling error for sample of n=710 is +/-3.7%.
- Data weighted by age & ethnicity; allows for more accurate tracking of data given that previous data were also weighted by same standards.
- Due to change in methodology in 2021 — to phone + online — 2021 is new baseline

# Overall Satisfaction with the BWS



Base= Total: 2025=710, 2023=701, 2021=675; Bill Payers: 2025=482, 2023=471, 2021=423; Non-Bill Payers: 2025=228, 2023=230, 2021=252

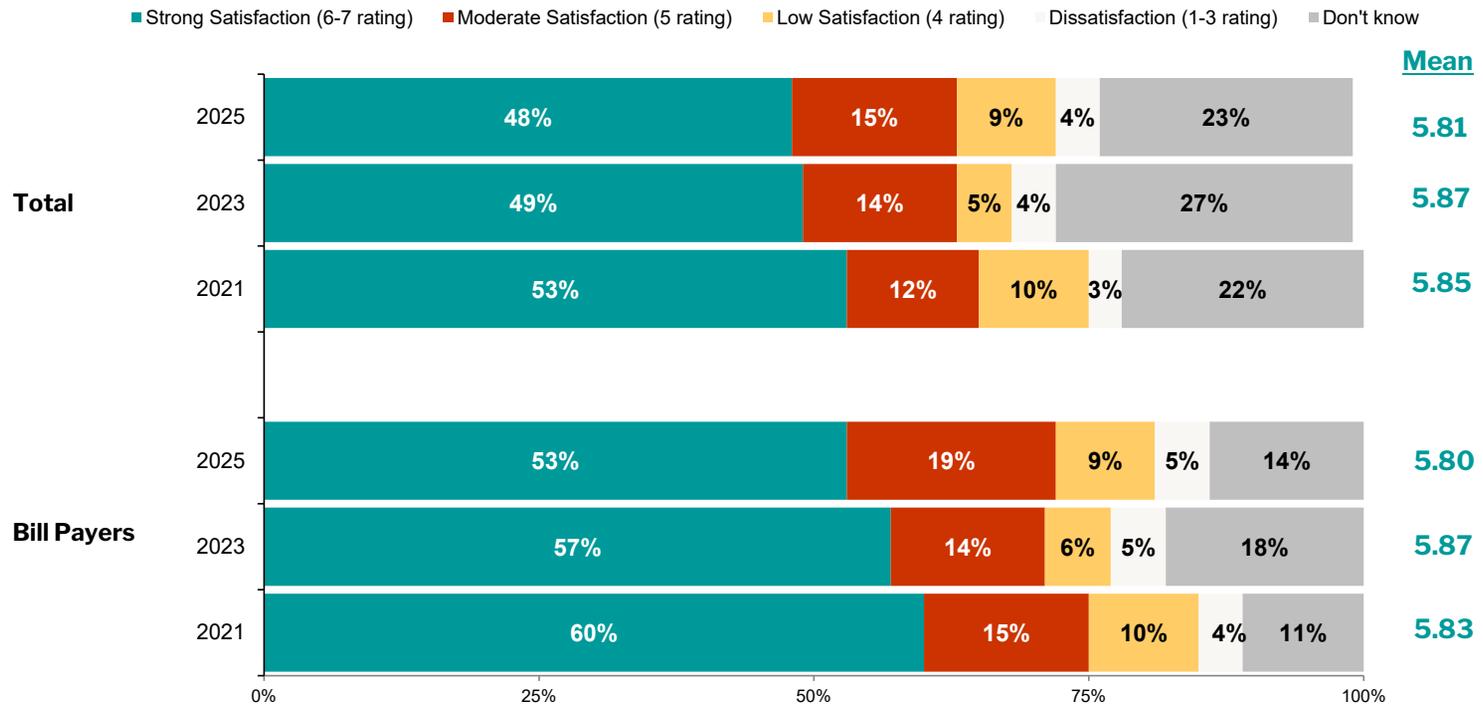
# The BWS Mission



Base= Total: 2025=710, 2023=701, 2021=675

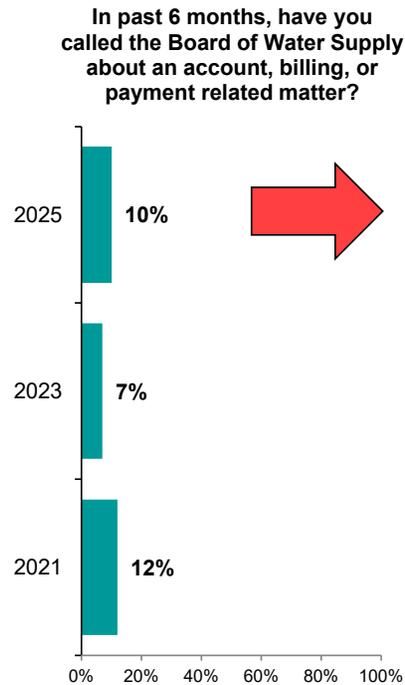
# Satisfaction with Overall Customer Service

How would you rate your satisfaction with the Board of Water Supply in terms of overall customer service?



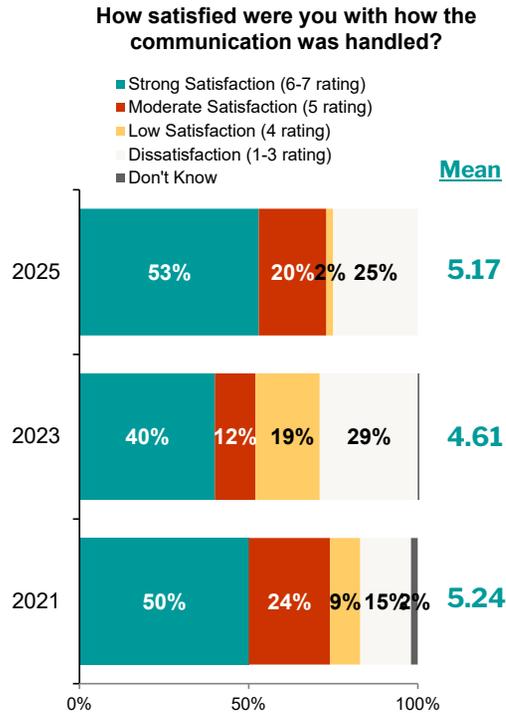
Base= Total: 2025=710, 2023=701, 2021=675; Bill Payers: 2025=482, 2023=471, 2021=423; Non-Bill Payers: 2025=228, 2023=230, 2021=252

# Contacting the BWS – Bill Payers Only

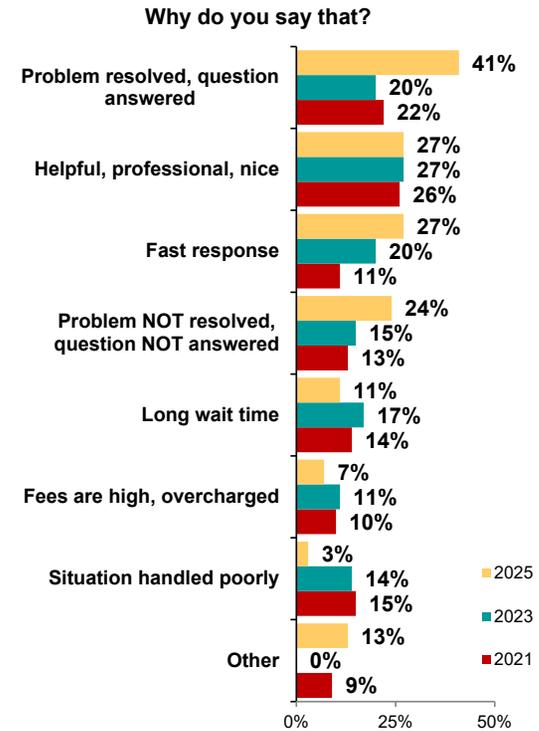


Note: Prior to 2021, question was worded “Did you contact the Board of Water Supply about a bill in the past six months?”

Base= Total: 2025=482, 2023=471, 2021=423

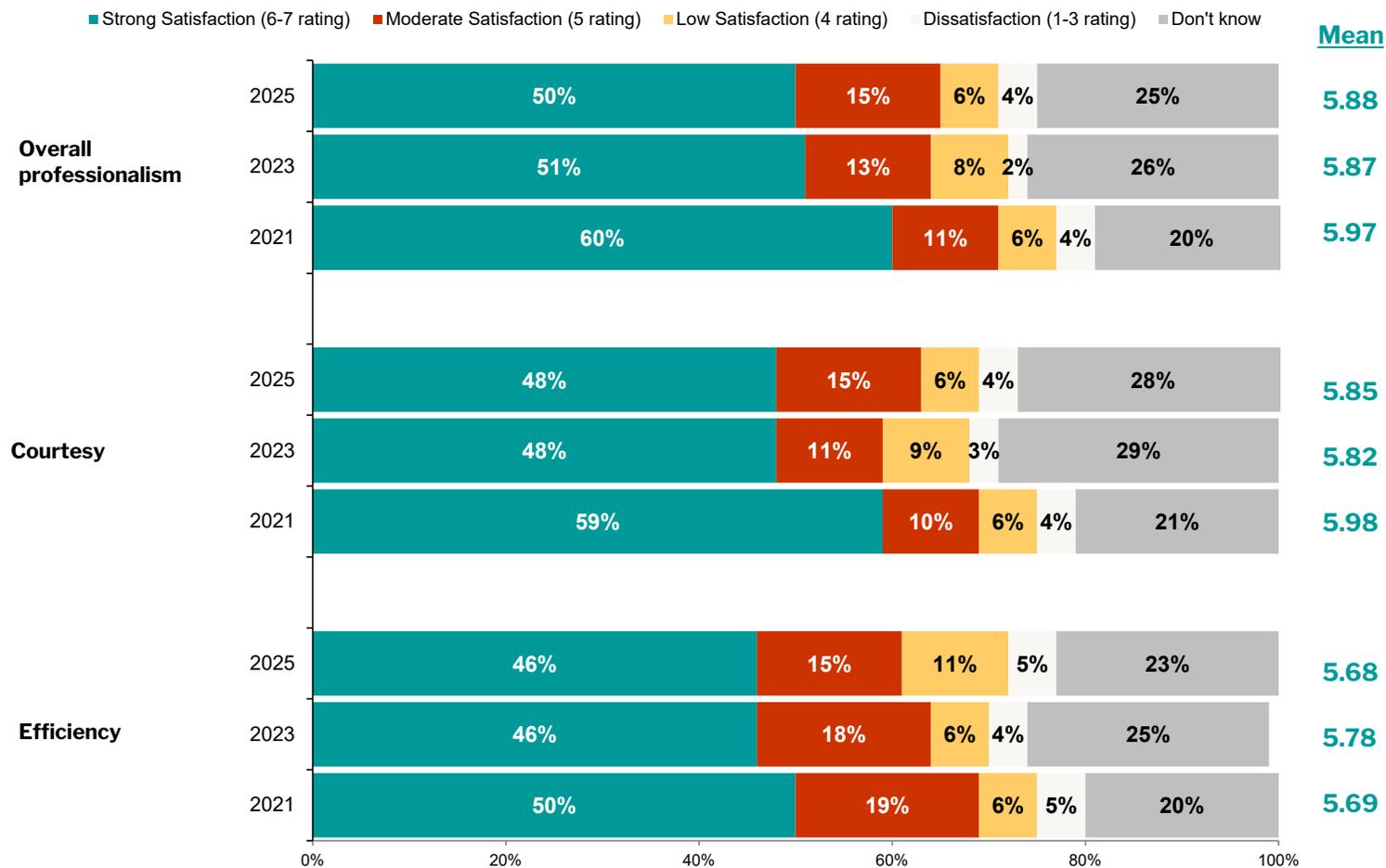


Base= 2025=50, 2023=34, 2021=52



Base= 2025=50, 2023=34, 2021=52

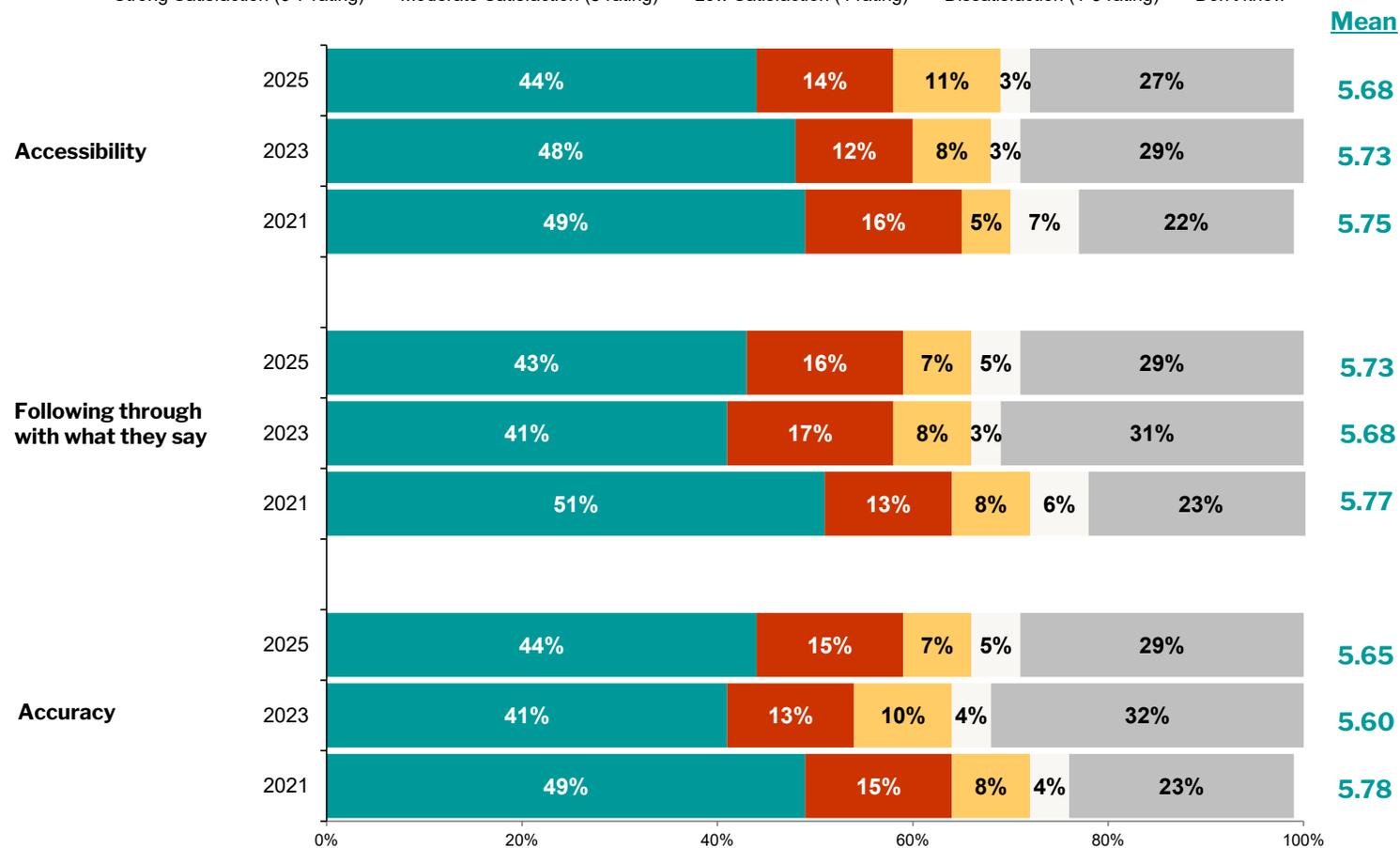
# BWS Employees



Base= Total: 2025=710, 2023=701, 2021=675

# BWS Employees

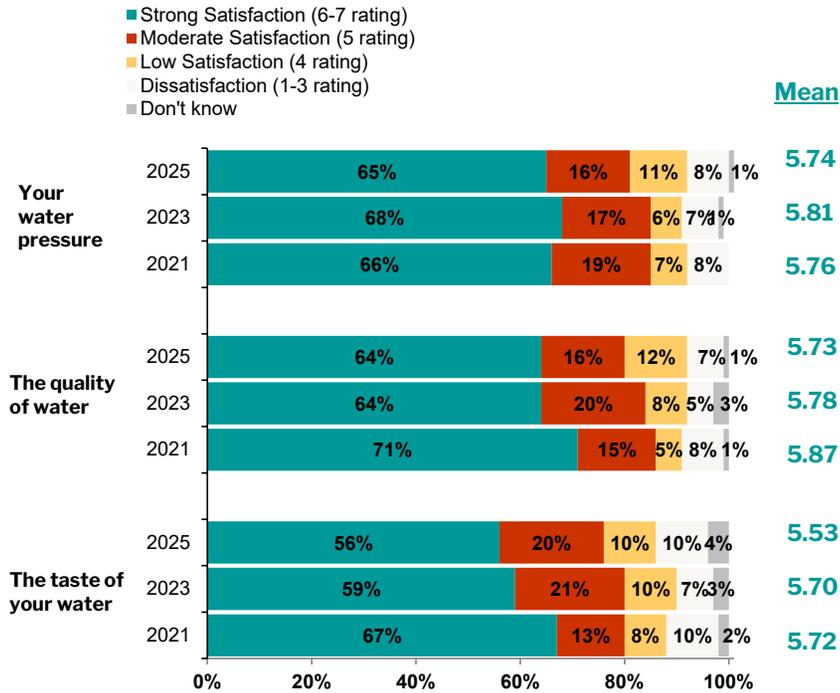
■ Strong Satisfaction (6-7 rating) 
 ■ Moderate Satisfaction (5 rating) 
 ■ Low Satisfaction (4 rating) 
 ■ Dissatisfaction (1-3 rating) 
 ■ Don't know



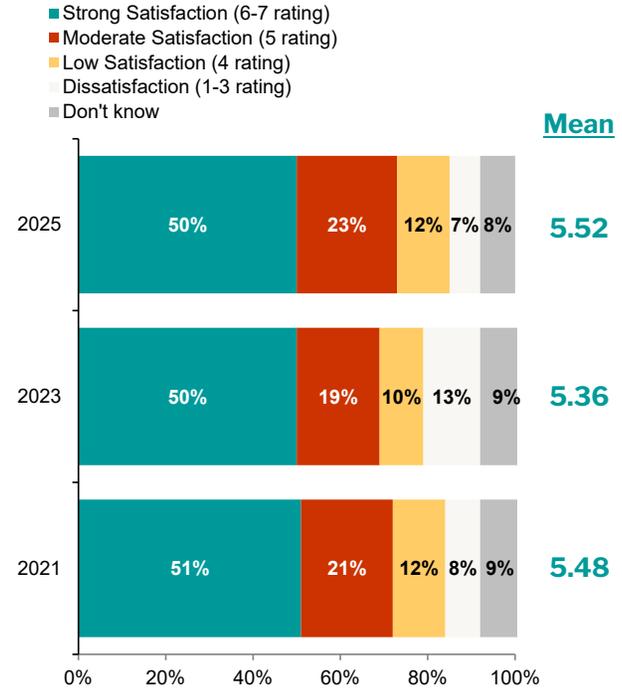
Base= Total: 2025=710, 2023=701, 2021=675

# The Quality of Water

## How satisfied are you with:



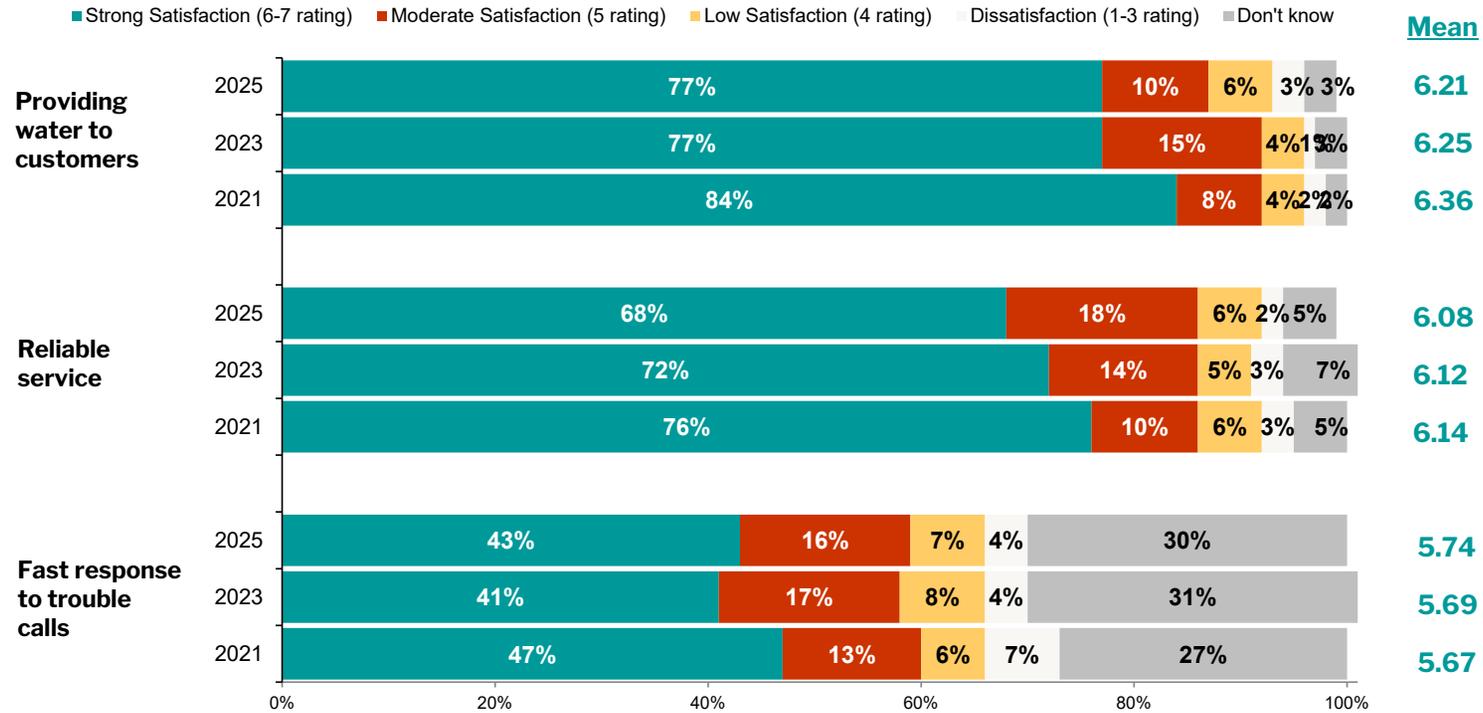
## How satisfied are you with the job that the Board of Water Supply is doing protecting, managing, and sustaining O'ahu's water resources?



Base= Total: 2025=710, 2023=701, 2021=675

# The Delivery of Water Service

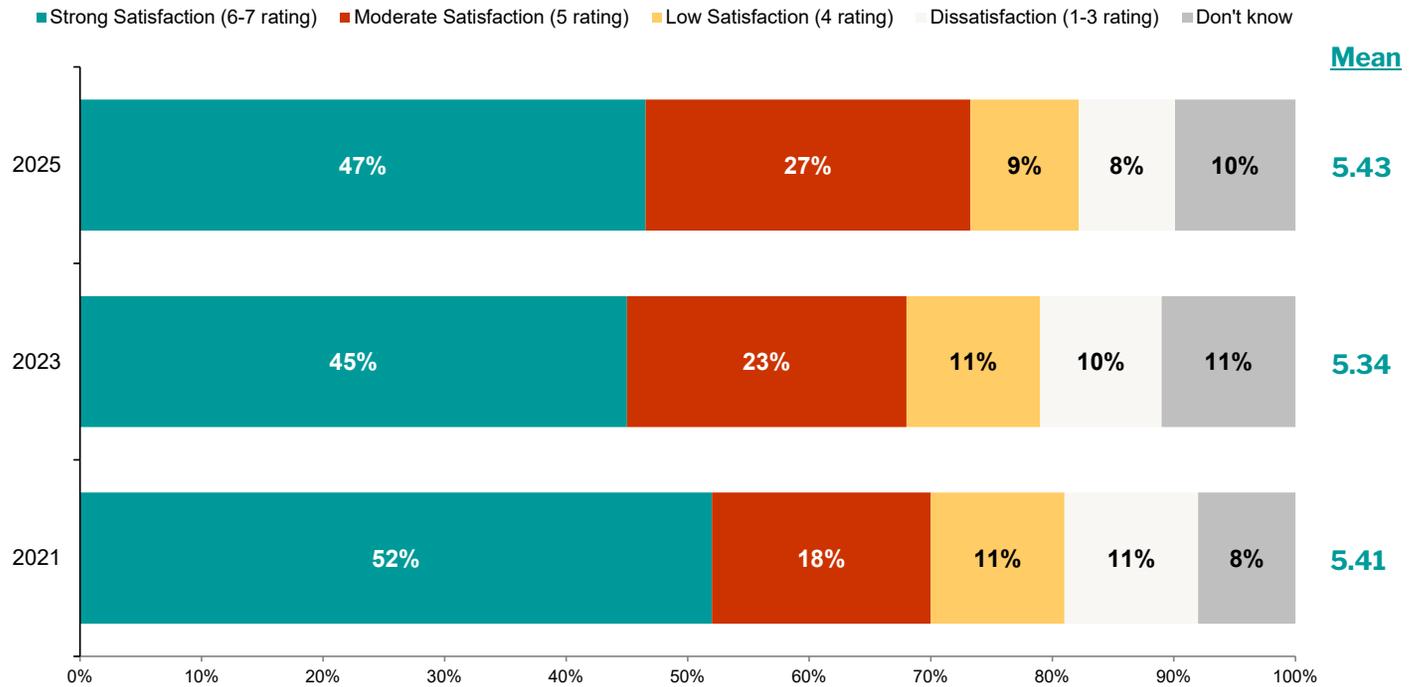
How would you rate your satisfaction with the Board of Water Supply in terms of:



Base= Total: 2025=710, 2023=701, 2021=675

# The Water Delivery System

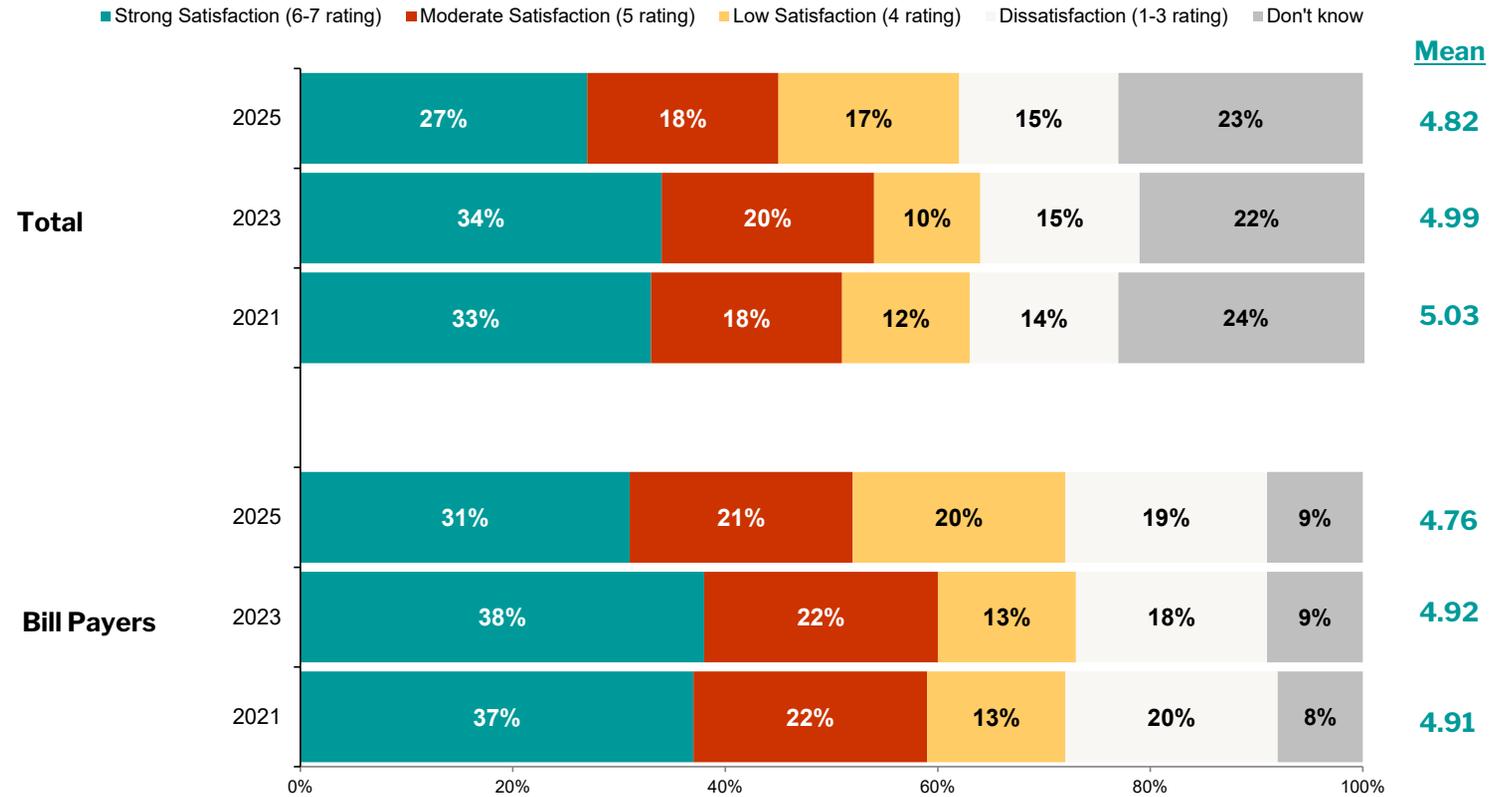
How satisfied are you with the job that the Board of Water Supply is doing repairing, maintaining, and replacing O'ahu's water delivery system?



Base= Total: 2025=710, 2023=701, 2021=675

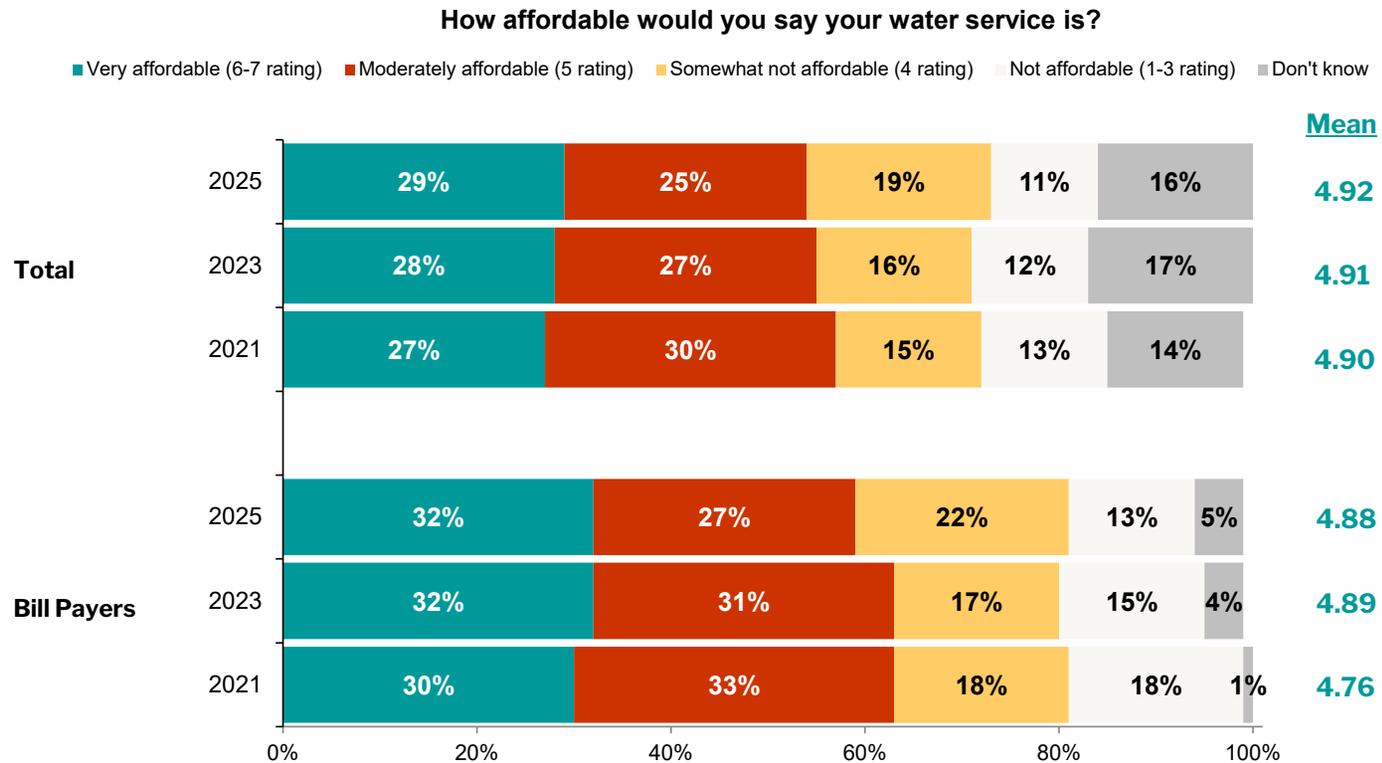
# Fairness of Water Rates

How would you rate your satisfaction with the Board of Water Supply in terms of fairness of water rates?



Base= Total: 2025=710, 2023=701, 2021=675; Bill Payers: 2025=482, 2023=471, 2021=423

# Perceptions about Affordability of Water Service

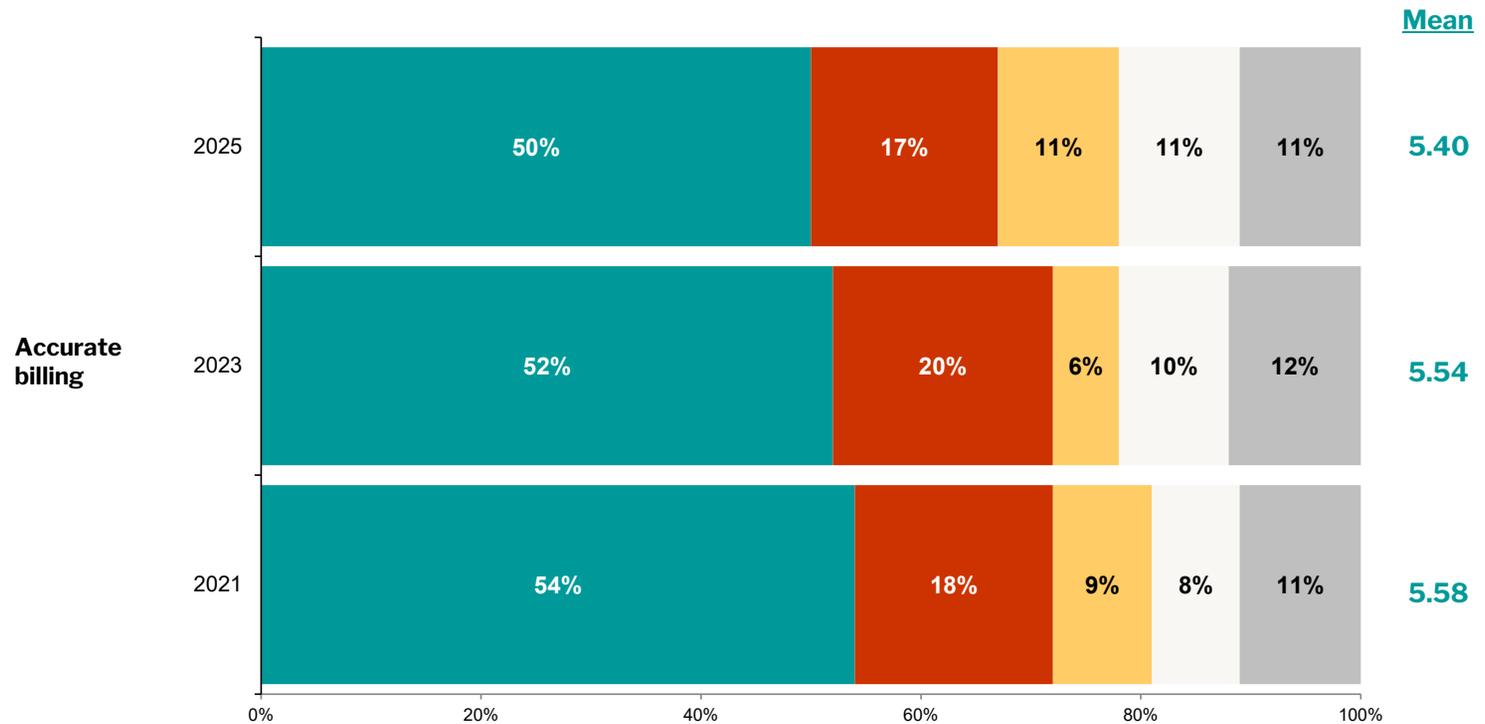


Base= Total: 2025=710, 2023=701, 2021=675; Bill Payers: 2025=482, 2023=471, 2021=423

# About the Bill – Bill Payers Only

How satisfied are you with:

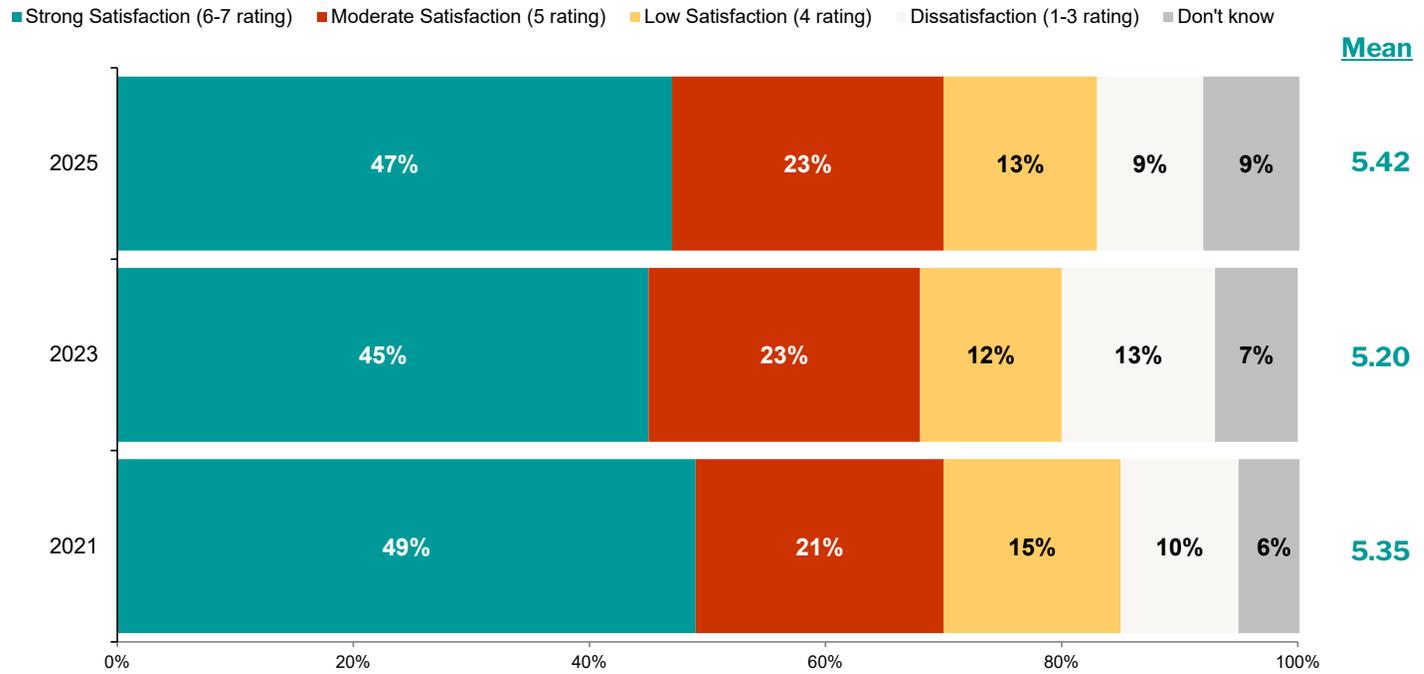
■ Strong Satisfaction (6-7 rating) 
 ■ Moderate Satisfaction (5 rating) 
 ■ Low Satisfaction (4 rating) 
 ■ Dissatisfaction (1-3 rating) 
 ■ Don't know



Base= Bill Payers: 2025=482, 2023=471, 2021=423

# Water Conservation

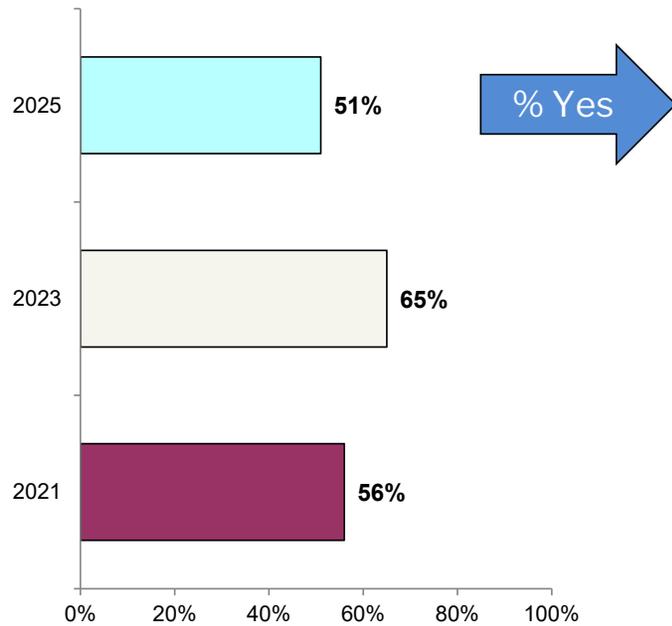
How would you rate the Board of Water Supply in terms of their efforts to inform residents how to conserve water and keep their bills lower?



Base= Total: 2025=710, 2023=701, 2021=675

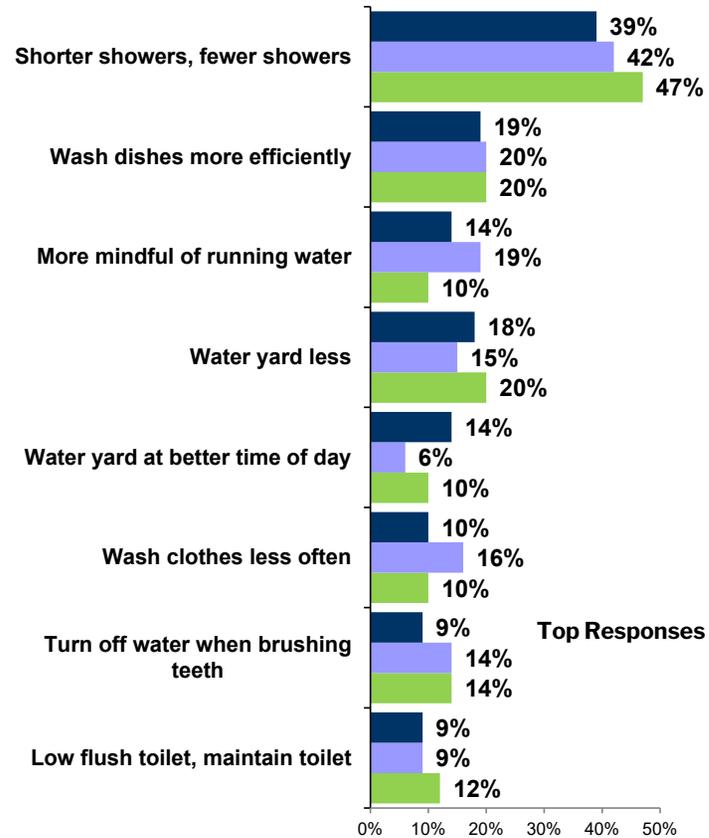
# Changes in Daily Routines To Conserve Water – (added in 2021)

In the past year or two, have you made any changes in your daily routines to conserve water?



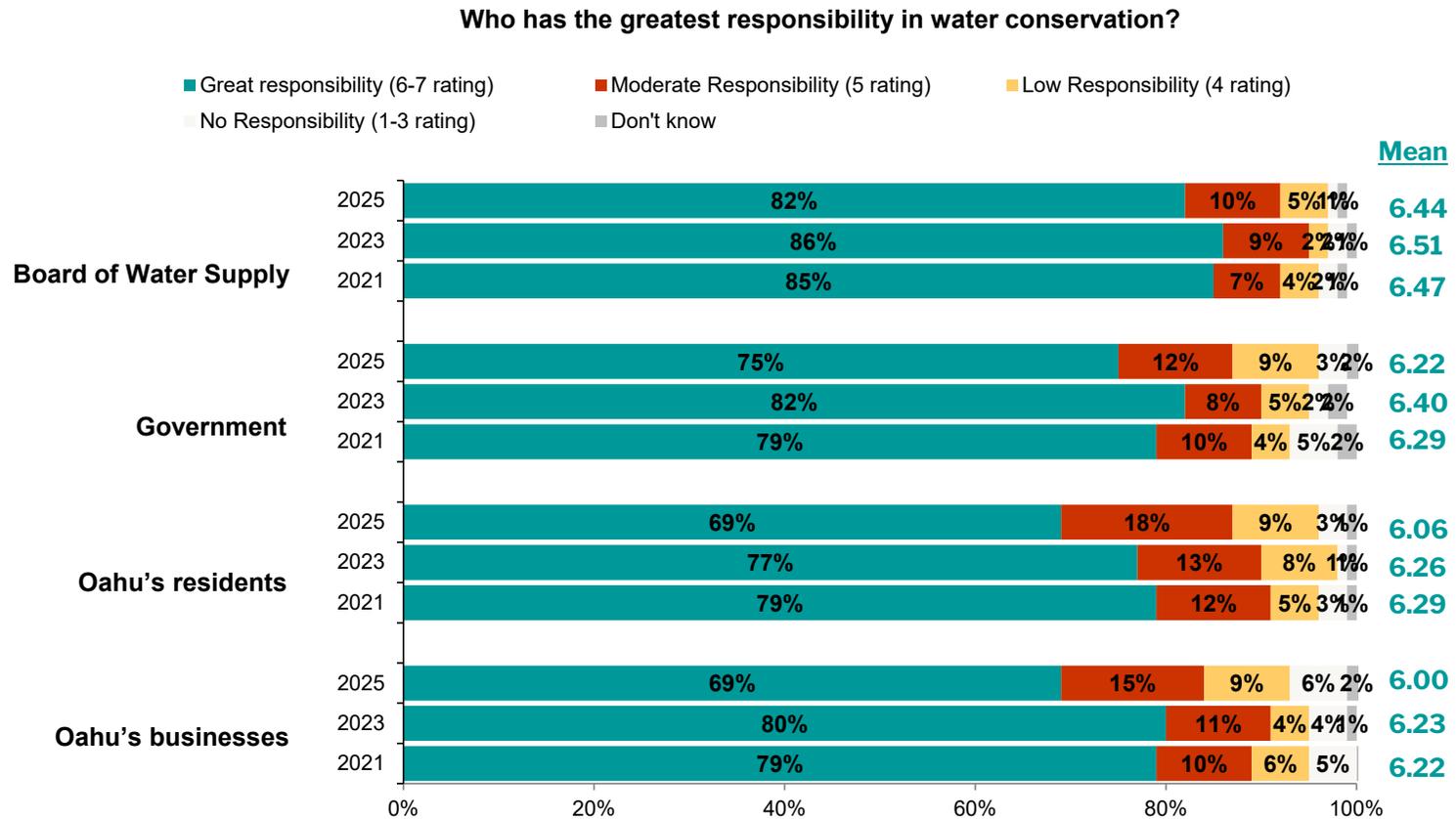
Base= Total: 2025=710, 2023=701, 2021=675  
 \*Question was added in 2021

What kinds of changes have you made?



Base= Total: 2025=710, 2023=701, 2021=379  
 \*Question was added in 2021

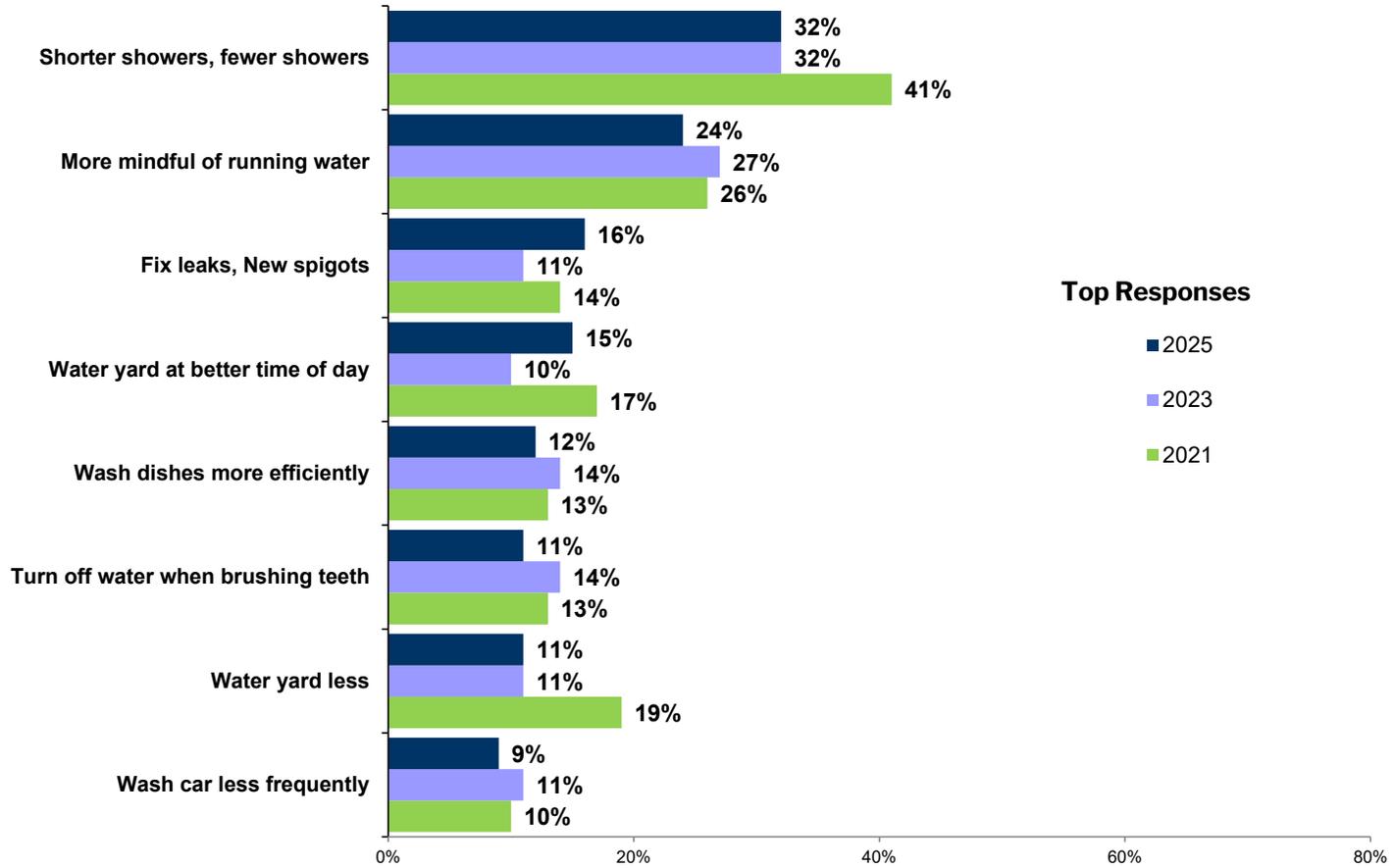
# Responsibility in Water Conservation – (added in 2021)



Base= Total: 2025=710, 2023=701, 2021=675 \*Question was added in 2021

# Suggestions For Conserving Water – (added in 2021)

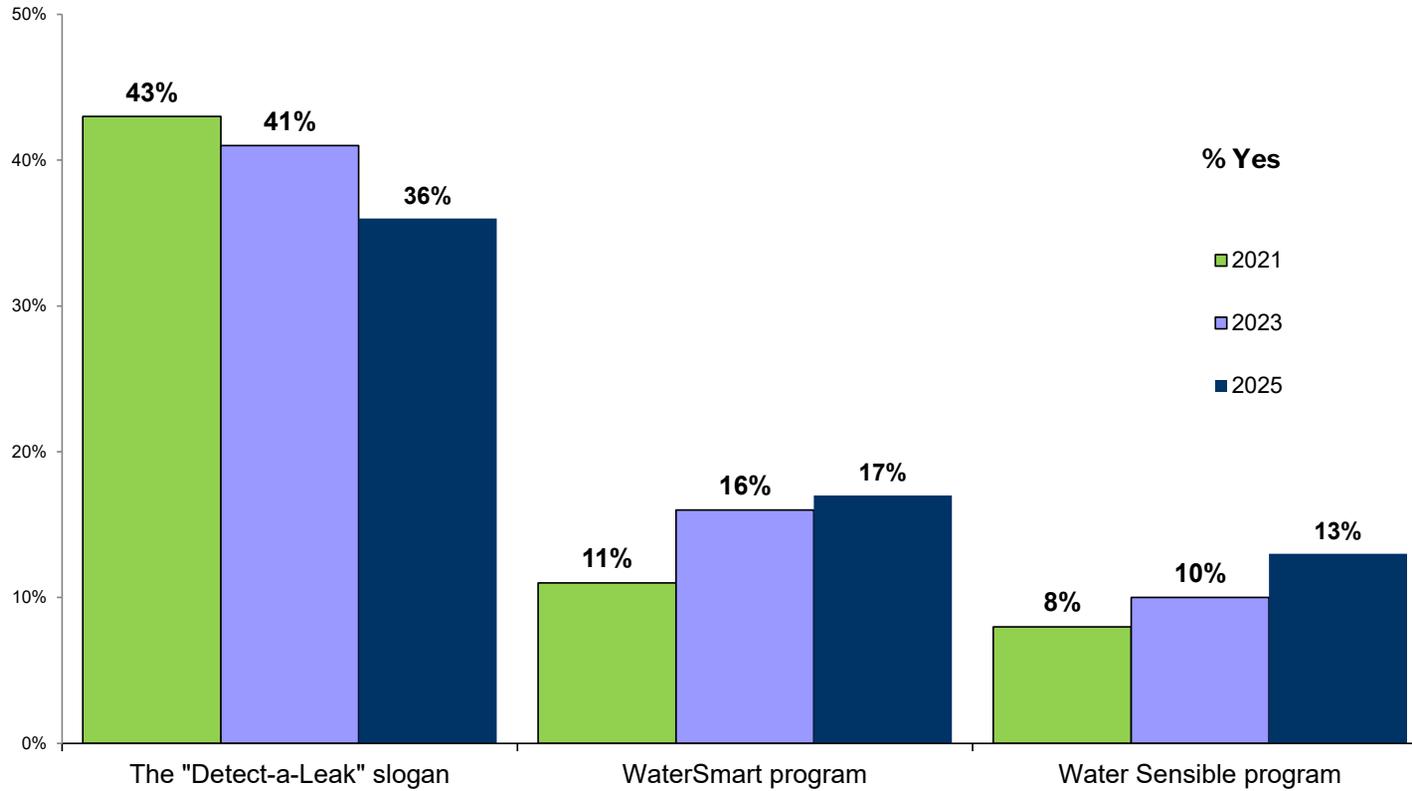
If someone asked you what are some of the ways that you could conserve water, what would you say?



Base= Total: 2025=710, 2023=701, 2021=675 \*Question was added in 2021

# BWS Programs (added in 2021)

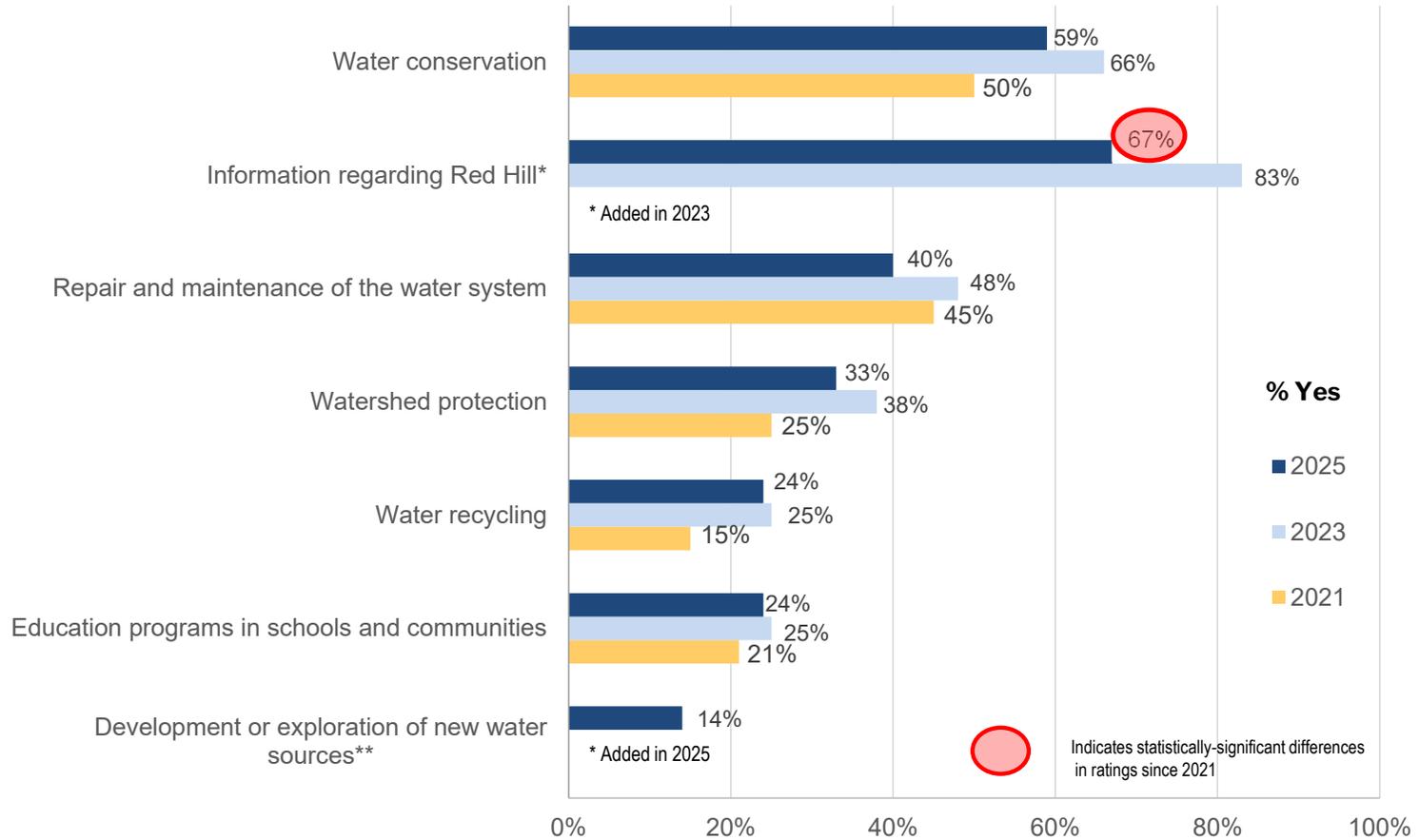
Have you ever seen, read, or heard of...



Base= Total: 2025=710, 2023=701, 2021=675  
\*Question added in 2021

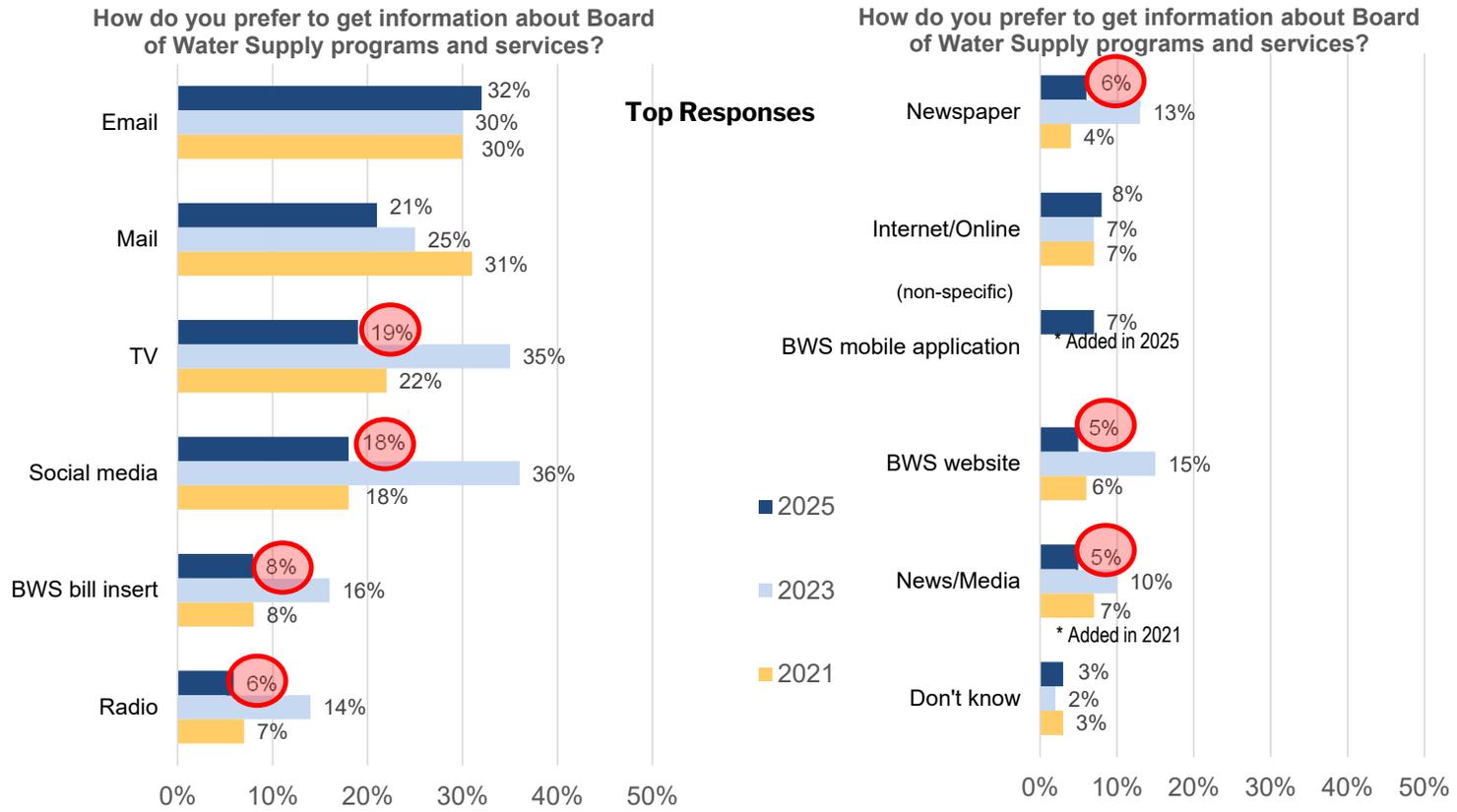
# BWS Programs and Activities

Have seen or heard of the BWS's activities and programs in the following areas



Base= Total: 2025=710, 2023=701, 2021=675

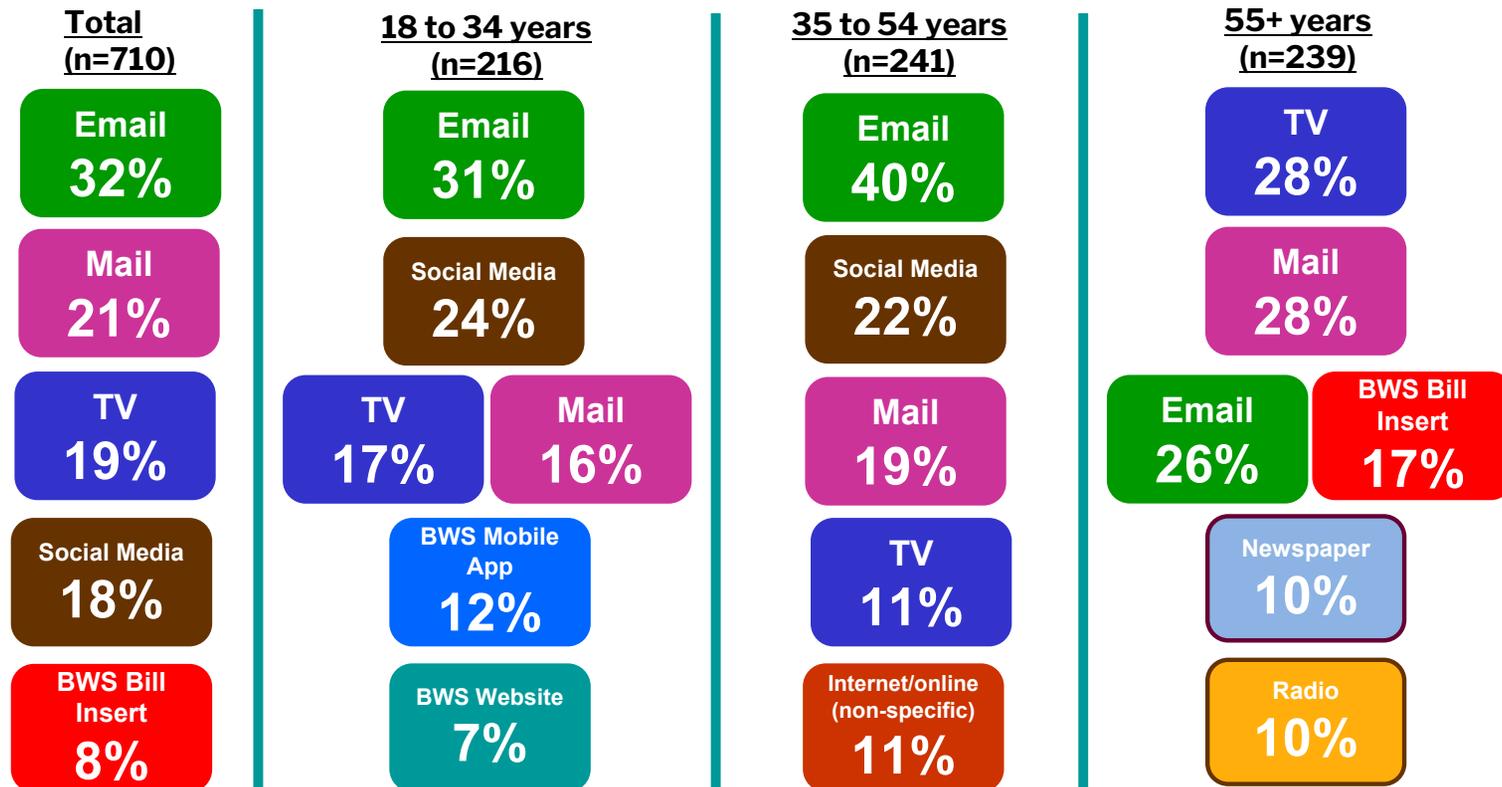
# Communication from the BWS



Base= Total: 2025=710, 2023=701, 2021=675

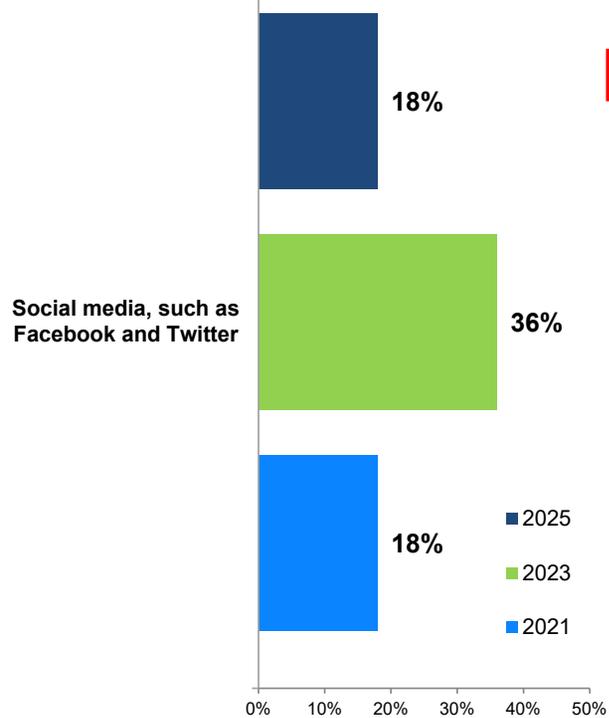
# Communication from the BWS (by Age Segments)

How do you prefer to get information about Board of Water Supply programs and services?

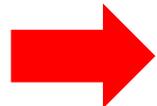


# Digital Information

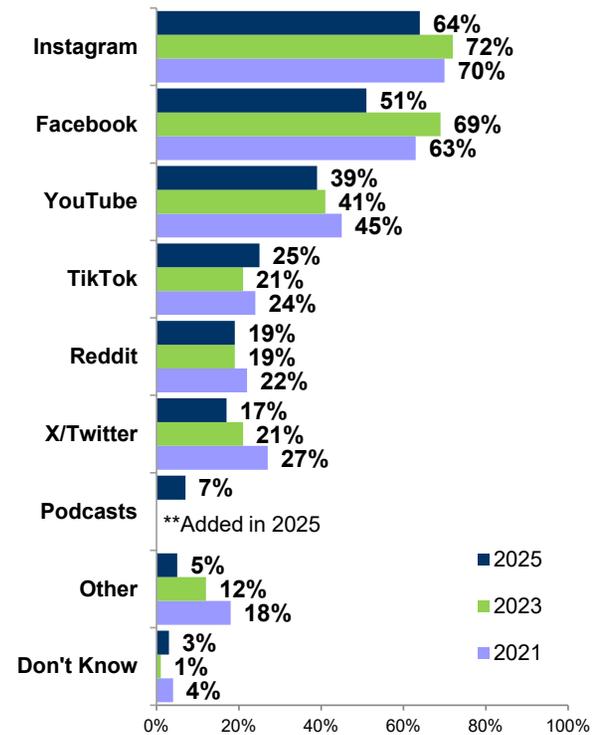
How do you prefer to get information about Board of Water Supply programs and services?



Base= Total: 2025=710, 2023=701, 2021=675



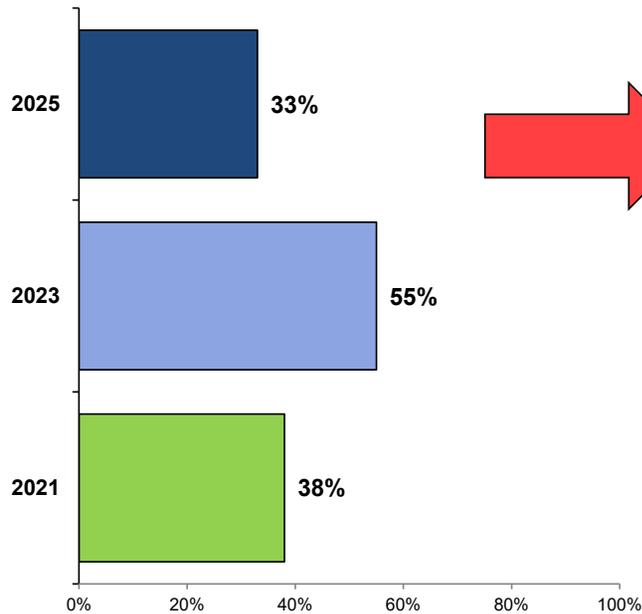
Where do you get your digital information?



Base= Total: 2025=128, 2023=254, 2021=120

# Message Recall

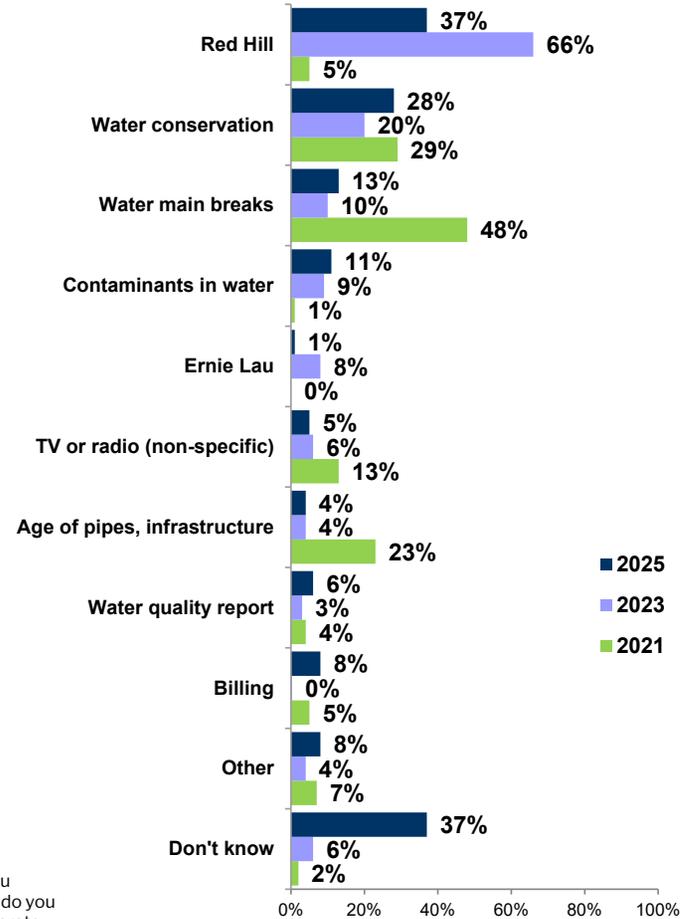
In the past 6 months, do you remember seeing or hearing any messages or news stories\* from the Board of Water Supply?



Base= Total: 2025=710, 2023=701, 2021=675

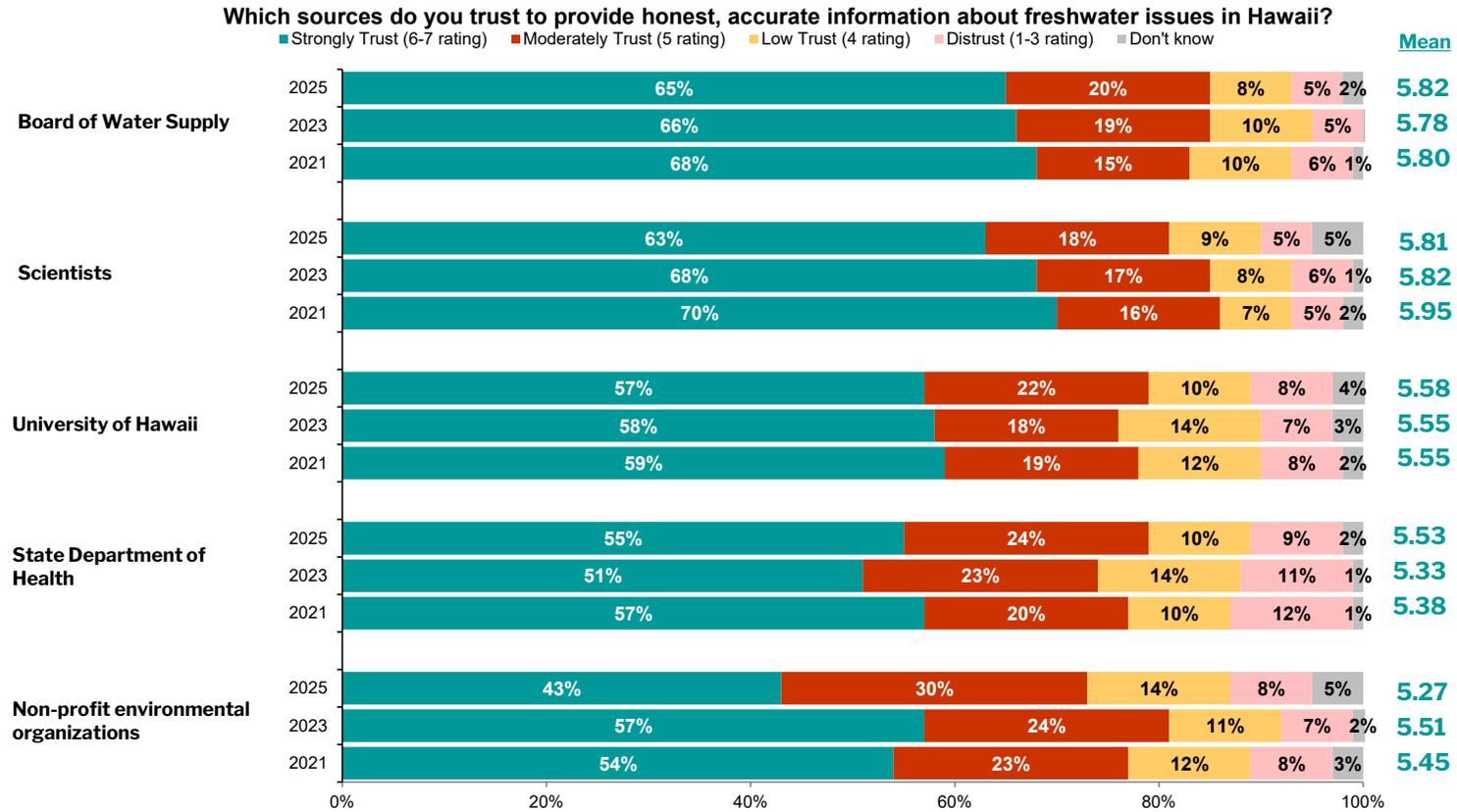
Note: \*Prior to 2021, there were two separate questions --- "In the past 6 months, do you remember seeing or hearing any messages from the BWS?" and "In the past 6 months, do you remember seeing or hearing any stories in the news concerning the BWS?" --- with separate follow-up questions "What do you remember seeing or hearing?"

What do you remember seeing or hearing?



Base= Total: 2025=234, 2023=387, 2021=256

# Sources of Information about Freshwater Issues (1 of 2)



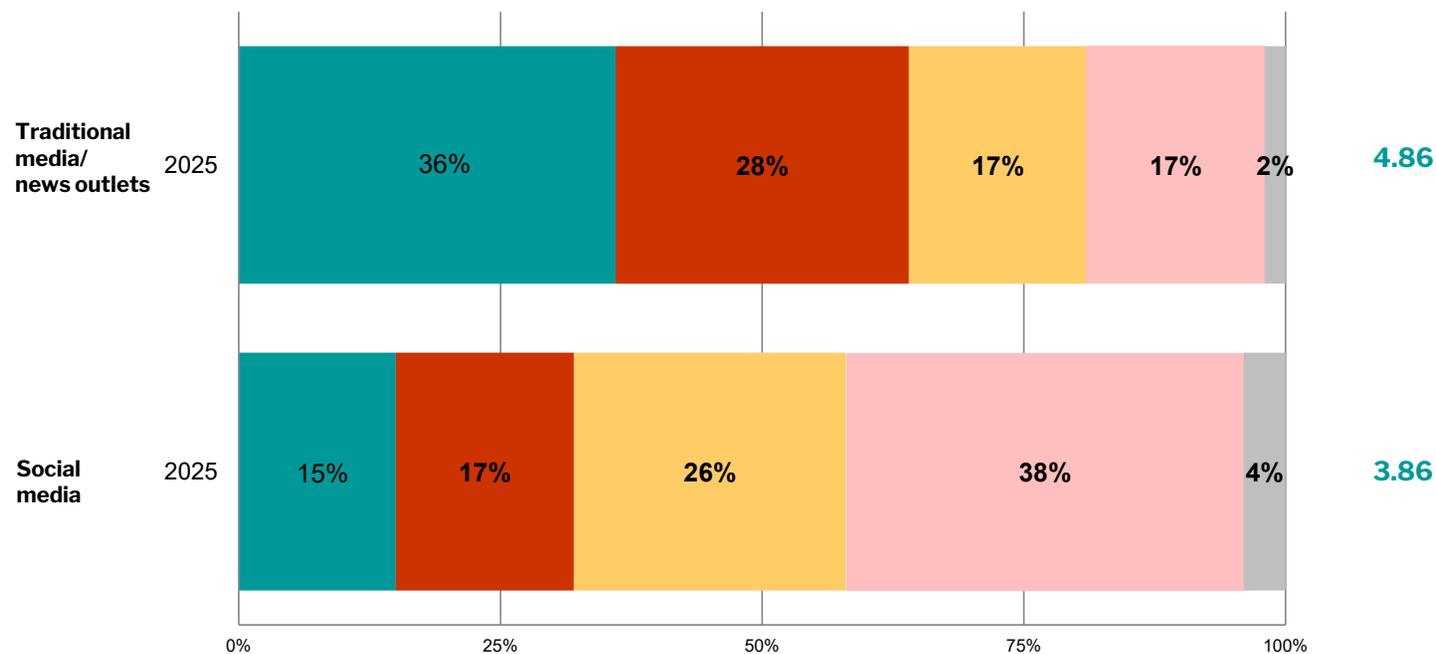
Base= Total: 2025=710, 2023=701, 2021=675

## Sources of Information about Freshwater Issues (2 of 2)

Which sources do you trust to provide honest, accurate information about freshwater issues in Hawaii?

■ Strongly Trust (6-7 rating) 
 ■ Moderately Trust (5 rating) 
 ■ Low Trust (4 rating) 
 ■ Distrust (1-3 rating) 
 ■ Don't know

Mean



Base= Total: 2025=710

# Conclusions

- Message recall of information regarding Red Hill has dropped significantly since the last wave of this study.
- Satisfaction levels remained relatively unchanged in ratings of the BWS's ability to provide 1) dependable water and 2) safe water; with some slippage (not statistically significant) also noted in satisfaction ratings for the quality of their water.
- Although residents believe that everyone holds great responsibility in water conservation, they place slightly greater responsibility on the BWS; as compared to the Government, O'ahu's residents, and O'ahu's businesses.
- Residents still indicated that they equally trust the BWS and scientists the most to provide honest, accurate information about freshwater issues in Hawai'i (versus social media, traditional news/media outlets, the State Department of Health, the University of Hawai'i, and non-profit environmental organizations).
- The proportion strongly satisfied with the Board's ability to keep water rates affordable; fairness of water rates; accuracy of their water bill; and perceptions about the affordability of water service all held relatively steady in 2023 and 2025

# Conclusions

- Resident perceptions remained steady in terms of the BWS's efforts to protect, manage, and sustain O'ahu's water resources; as well as the job the BWS is doing repairing, maintaining, and replacing O'ahu's water delivery system.
- Mention of water conservation messages, activities and programs were cited quite frequently. However, there was a significant decrease in those who said that they have made changes in their daily routines (in the past year or two) in order to conserve water; with half of those surveyed now reporting concerted efforts on their part --- namely taking shorter showers/fewer showers or washing dishes more efficiently.
- Survey data now suggests that email communication is preferred for information about BWS programs and services, significantly outpacing mentions of mail, TV, and social media. Email is now the preferred mode of communication with BWS among residents aged between 18 and 54, while 55+ year olds prefer TV.



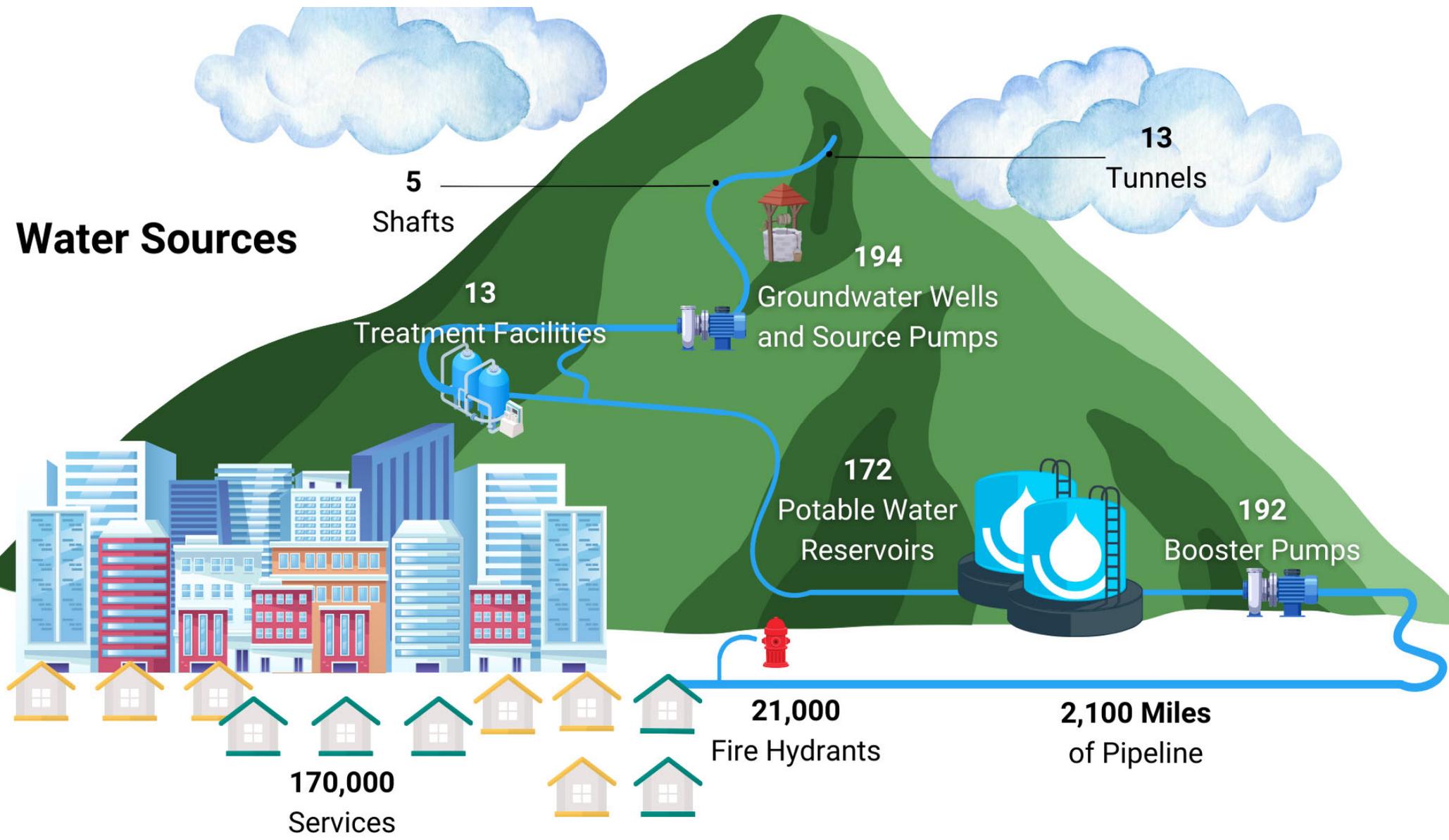
# 2026 WATER MASTER PLAN ROADMAP

David Ebersold  
CDM Smith

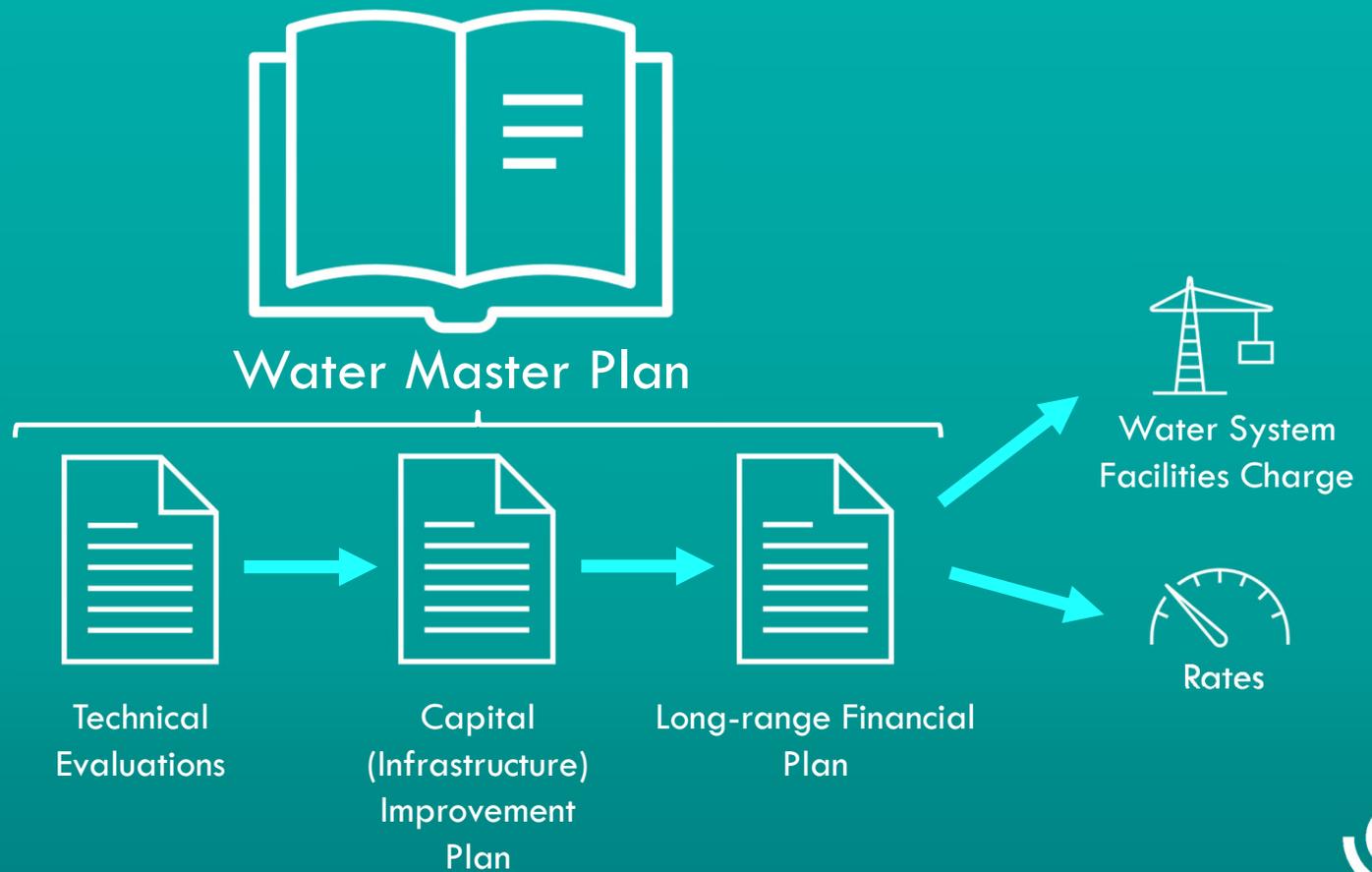
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# Water Sources



# THE WMP IS MADE UP OF SEVERAL EFFORTS...

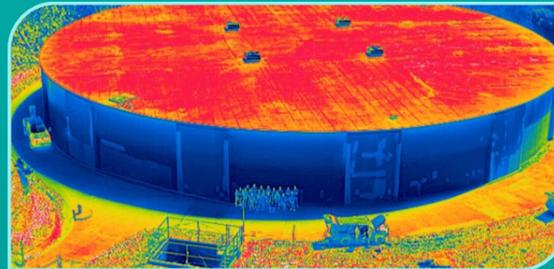


# TECHNICAL EVALUATIONS FORM THE CORE GUIDANCE, FEED THE CIP



## DEMAND AND CAPACITY

Water Demand Projections  
Transmission Capacities



## CONDITION ASSESSMENT

Physical Condition Inspections  
Climate Vulnerability Assessment



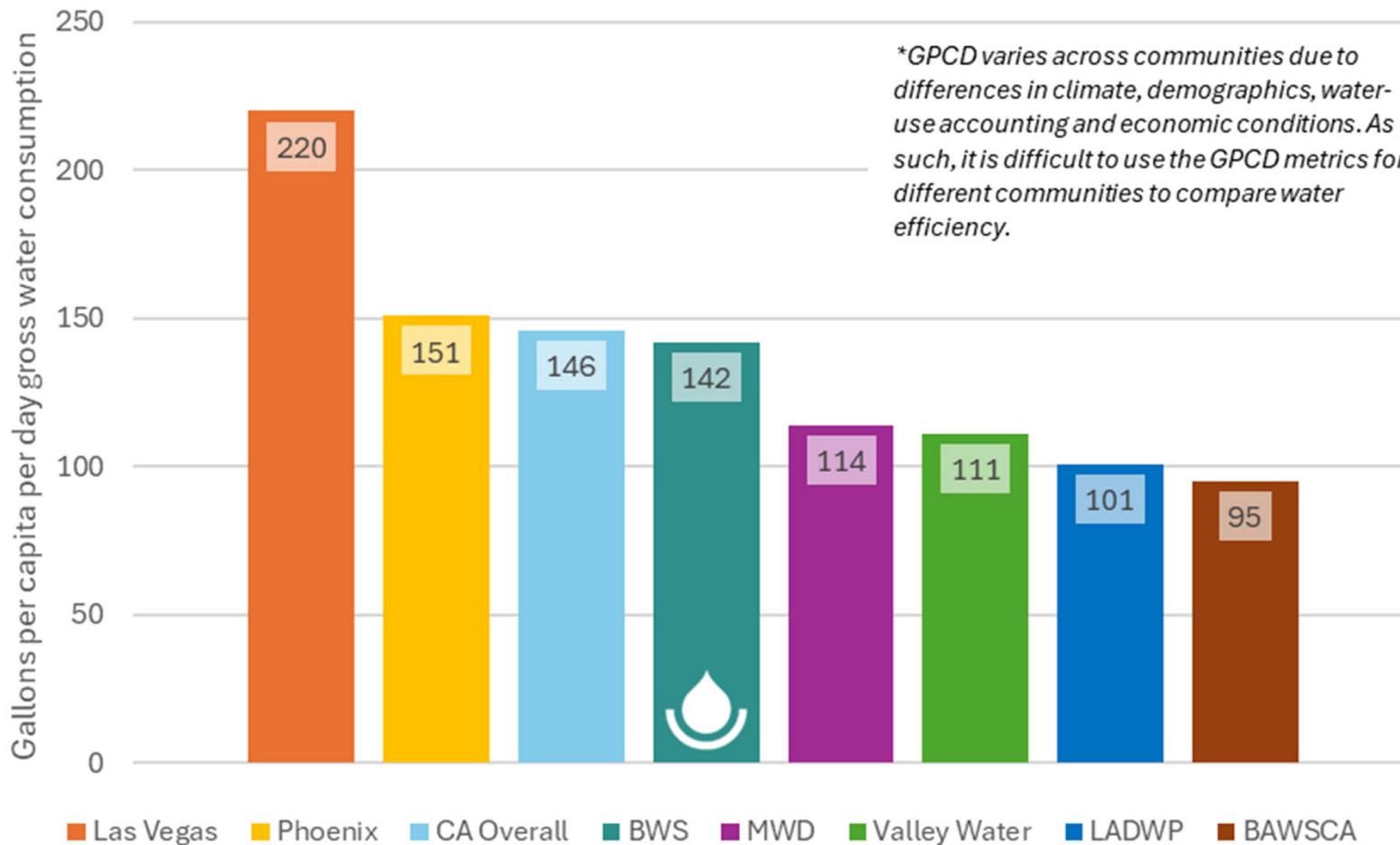
## SOURCE ASSESSMENT

Water Resource Evaluation  
New Source Requirements  
Water Quality and Treatment Needs

Climate Modeling, Impact, Mitigation



## Consumption Across Several Western Utilities



**MWD:** Metropolitan Water District (greater Los Angeles)

**LADWP:** Los Angeles Dept of Water and Power

**Valley Water:** Santa Clara Valley (south San Francisco Bay)

**BAWSCA:** Bay Area Water Supply and Conservation Agency (central San Francisco Bay)



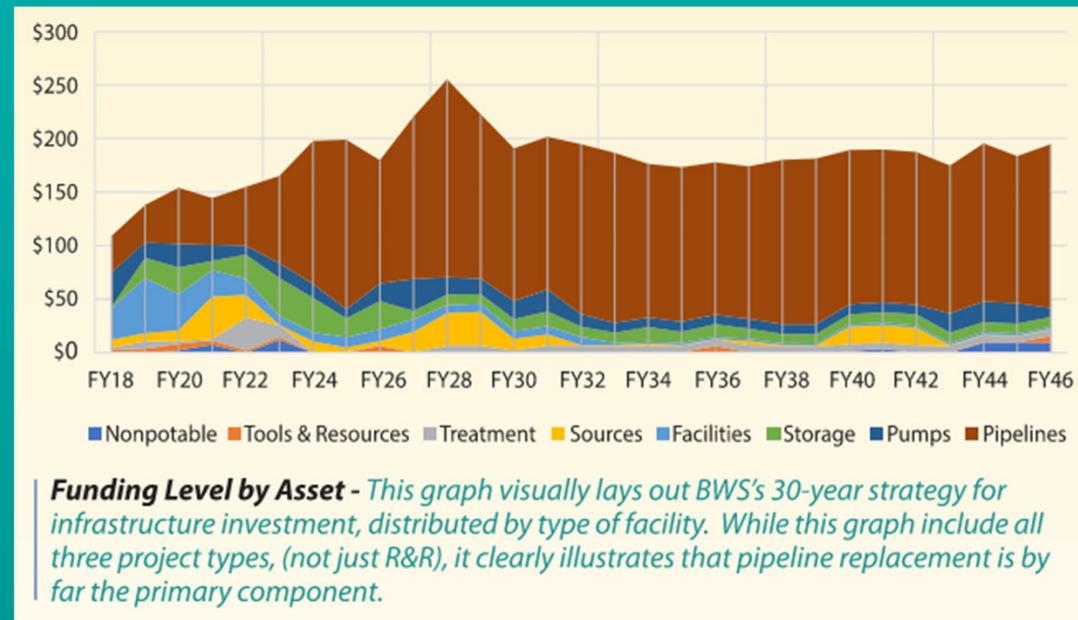
# CAPITAL IMPROVEMENT PLAN SETS CAPITAL COSTS FOR LONG RANGE FINANCIAL PLAN

**Capacity Expansion** – Growth related capacity expansion projects

**Renewal & Replacement** – On-going rehabilitation and replacement

**Research & Development** – Planning, studies, and software

- ✓ Costs are estimated for all projects
- ✓ Projects scored for priority
- ✓ Anticipated timelines are developed



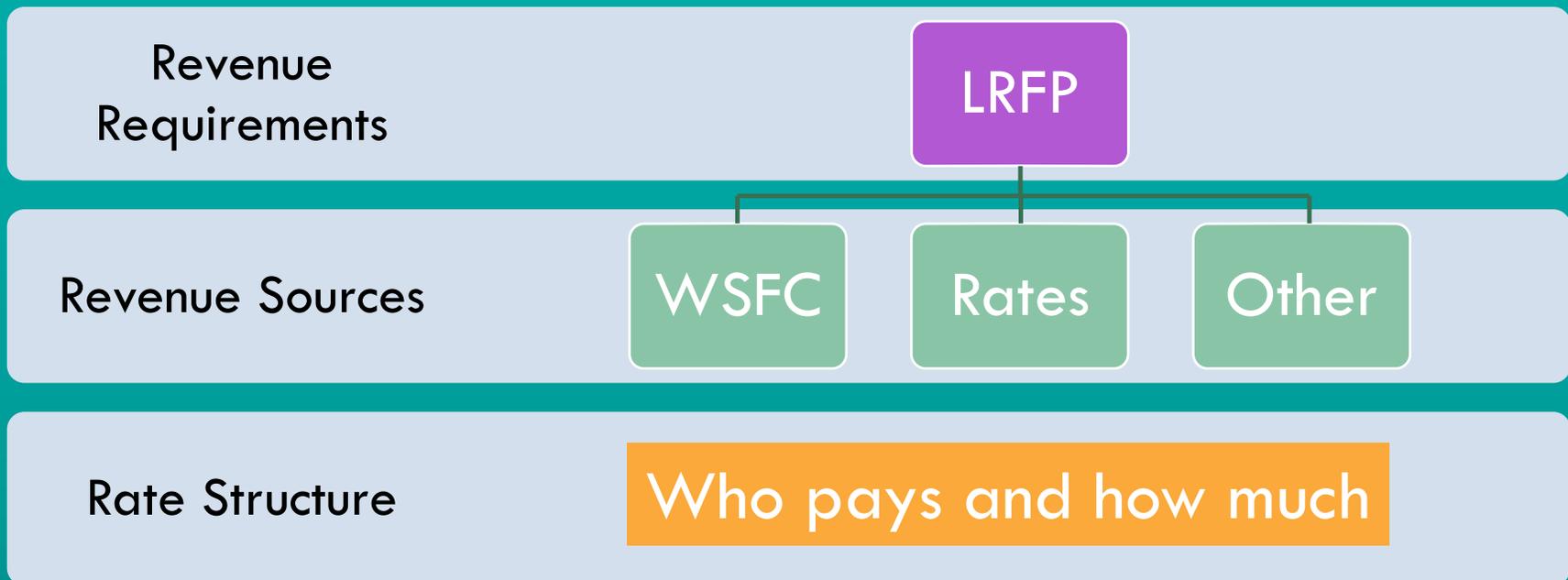
2016 Infrastructure Investment Plan



# LONG RANGE FINANCIAL PLAN IDENTIFIES THE REVENUE REQUIREMENTS



# WATER RATES AND CHARGES ARE THE MAJOR SOURCE OF REVENUE



# ROADMAP TOWARDS WMP ADOPTION

- In-person SAG
- Virtual SAG
- BWS Board



# STAKEHOLDER MEETINGS THROUGH 2026

Type	Date	Topic	Stakeholder Input
In-Person	15-Jan-26	2026 WMP Roadmap CIP Process and Prioritization	WMP Input Milestones CIP Priorities
Virtual	26-Feb-26	Existing scorecard update New Scorecard Objectives CIP Prioritization Methodology	New Scorecard Priorities
Virtual	19-Mar-26	Condition Assessment Results Preliminary Climate Resilience Options	Preferences for level of climate facility mitigation
In-Person	16-Apr-26	Demand Projections Potential Additional Supplies	Preferences for supply hardening and diversification
In-Person	16-Jul-26	Major Findings Draft CIP	Input on CIP Priorities and Funding Levels
Virtual	17-Sep-26	One Water Coordination	Feedback on One Water CIP Integration
In-Person	15-Oct-26	Draft Reports and Policy Feedback: WMP, CIP, LRFP, WSFC	Feedback on overall plan and policy recommendations to BWS Board
Virtual	19-Nov-26	Feedback and Discussion	Feedback on overall plan and policy recommendations to BWS Board
In-Person	15-Jan-27	Recommendations to the Board: WMP, CIP, LRFP, WSFC	Feedback on overall plan and policy recommendations to BWS Board
In-Person	15-Apr-27	Draft WMP Final Review	Concurrence with Board-approved Draft WMP
In-Person	15-Jul-27	Final WMP and Summaries (pending Board Adoption)	Recommendation for Board adoption of Final WMP





# ACCEPT MEETING NOTES FROM MEETING 55

David Ebersold  
Facilitator

[www.boardofwatersupply.com](http://www.boardofwatersupply.com)





# CAPITAL IMPROVEMENT PLAN PROCESS AND PRIORITIZATION

Carl Lundin  
CDM Smith

[boardofwatersupply.com](http://boardofwatersupply.com)



# CIP PROCESS

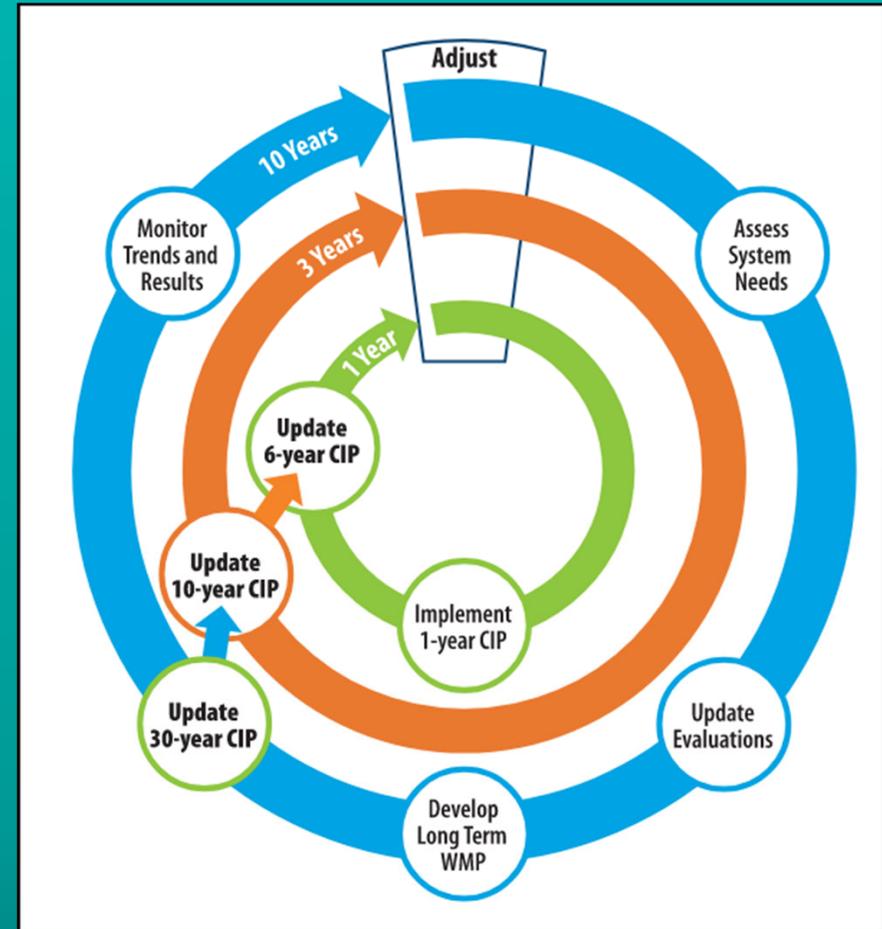
Tech Evaluations identify required projects

Costs/schedules are estimated

Prioritization score is developed

Projects are scheduled

Prioritized 30-year CIP

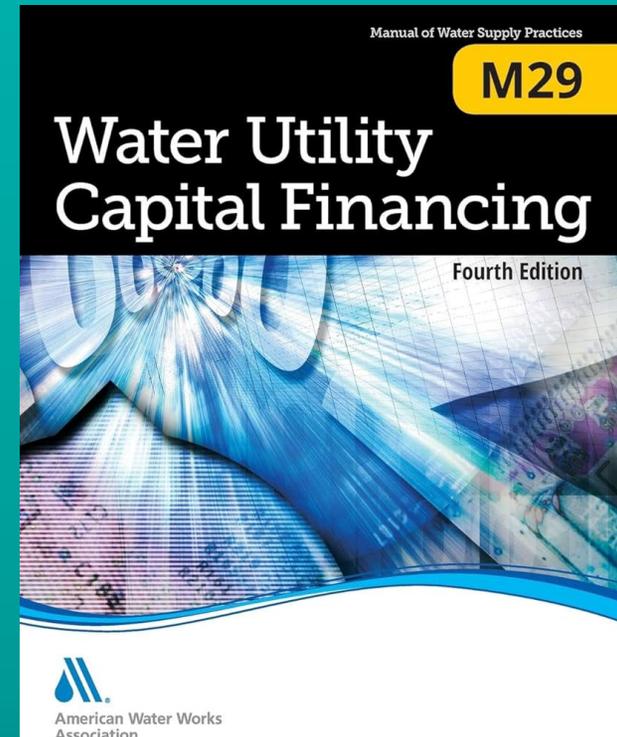


# PROJECT PRIORITIZATION

- 2016 CIP Prioritization was based on AWWA M29 best practices tailored to BWS-specific needs
- M29 metrics focus on risk-based scoring



→ Planning to maintain similar framework



# PROJECT PRIORITIZATION

- **Renewal & Replacement projects:** based on risk (likelihood of failure x consequence of failure) 
- **Research & Development projects:** risk and schedule-based
- **Capacity Expansion projects:** date they must be operational
- Condition assessment scoring is retained unless new data is available

Criteria	Metric	Safe	Dependable	Affordable
System Reliability	Outages		●	
	Loss of Redundancy		●	
	Excessive Surge		●	
System Adequacy	Fire Flows		●	
	Low Service Pressures		●	
	Use Restrictions		●	
Regulatory Compliance	Regulatory Violation	●		
	Water Quality	●		
	Health and Safety	●		
Cost and Efficiency	Energy Use			●
	Outside Match Funding			●
	Board Direct Financial Impact			●
	Reduced O&M Costs			●
Public Confidence	Billing or Collection Issues		●	
	Public Support	●	●	
	Customer Satisfaction	●	●	●
	Community Financial Impact		●	
	Security Breach	●	●	
Water Resource Sustainability	Reduced Water Resource Use		●	
	Watershed Protection	●	●	
	Water Resource Adequacy		●	
Agency Coordination and Other Considerations	Coordination Benefit			●
	Implementability			●
	Other Considerations			



Criteria	Metric	Measure
SYSTEM RELIABILITY	Outages	Loss of service caused by failure or deficiency
	Lack of Redundancy	Lack of redundant capacity where failure or deficiency causes immediate outage
	Excessive Surge	Positive or negative surge caused by subject facility. May be either operational, failure, or re-operational
SYSTEM ADEQUACY	Fire Flows	Inability to supply fire flow caused by failure or deficiency
	Low Service Pressures	Low supply pressure caused by failure or deficiency
	Use Restrictions	Reduced supply caused by failure or deficiency
REGULATORY COMPLIANCE	Regulatory Violation	Treatment or MCL violation caused by failure or deficiency
	Water Quality	Water quality issue caused by failure or deficiency
	Health and Safety	Health and safety incident caused by failure or repair
COST AND EFFICIENCY	Energy Use	Increased energy use caused by failure or deficiency, or failure to implement solution
	Outside Funding	Matching funds provided by outside entity. Higher of either total or percentage
	Board Direct Financial Impact	Additional cost of emergency (rather than planned) repair of failure or deficiency including claims against BWS
	Reduced O&M Costs	Payback period vs status quo. Includes reduced maintenance and reduced energy type projects (incl ESCO)
PUBLIC CONFIDENCE	Billing or Collection Issues	Billing or collection issue caused by failure or deficiency
	Public Support	Erosion of public opinion caused by embarrassment of BWS
	Customer Satisfaction	Complaints generated by failure or deficiency
	Community Financial Impact	Losses borne by community not reimbursed by the BWS
	Security Breach	Unauthorized access to the BWS facilities
WATER RESOURCE SUSTAINABILITY	Reduced Water Resource Use	Unrealized conservation or sustainability caused by failure to complete solution
	Watershed Protection	Not implementing the proposed project results in the following consequences
	Water Resource Adequacy	Failure or deficiency results in an impact to the yield of a source
AGENCY COORDINATION AND OTHER CONSIDERATIONS	Coordination Benefit	Reduction in total cost by coordinating two projects vs. completing project separately
	Implementability	Ease of implementing (planning, design, permitting, construction, etc.) of solution
	Other Considerations	Other considerations not otherwise included in the criteria. Add comment to describe

# INTERACTIVE ACTIVITY



# PRIORITIZATION

- You have 5 dots, place on the metrics you feel are most important (color doesn't matter)
- On a sticky note, write what criteria, metrics, or measures you feel should be modified or added.
- At the end, we'll discuss and summarize



# NOTES FROM PRIORITIES ACTIVITY



# STAKEHOLDER MEETINGS THROUGH 2026

Type	Date	Topic	Stakeholder Input
In-Person	15-Jan-26	2026 WMP Roadmap CIP Process and Prioritization	WMP Input Milestones CIP Priorities
Virtual	26-Feb-26	Existing scorecard update New Scorecard Objectives CIP Prioritization Methodology	New Scorecard Priorities
Virtual	19-Mar-26	Condition Assessment Results Preliminary Climate Resilience Options	Preferences for level of climate facility mitigation
In-Person	16-Apr-26	Demand Projections Potential Additional Supplies	Preferences for supply hardening and diversification
In-Person	16-Jul-26	Major Findings Draft CIP	Input on CIP Priorities and Funding Levels
Virtual	17-Sep-26	One Water Coordination	Feedback on One Water CIP Integration
In-Person	15-Oct-26	Draft Reports and Policy Feedback: WMP, CIP, LRFP, WSFC	Feedback on overall plan and policy recommendations to BWS Board
Virtual	19-Nov-26	Feedback and Discussion	Feedback on overall plan and policy recommendations to BWS Board
In-Person	15-Jan-27	Recommendations to the Board: WMP, CIP, LRFP, WSFC	Feedback on overall plan and policy recommendations to BWS Board
In-Person	15-Apr-27	Draft WMP Final Review	Concurrence with Board-approved Draft WMP
In-Person	15-Jul-27	Final WMP and Summaries (pending Board Adoption)	Recommendation for Board adoption of Final WMP



# SHOULD WE MAKE THE MEETING TIMES LATER?

- Keep the same
- 1 hr later
- 2 hrs later





# Mahalo!

Providing safe, dependable, and affordable drinking water, now and into the future.