



STAKEHOLDER ADVISORY GROUP

Board of Water Supply, City & County of Honolulu

July 21, 2022

Meeting 43 - Virtual

WELCOME & INTRODUCTIONS

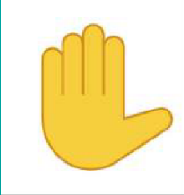
DAVE EBERSOLD, FACILITATOR

STAKEHOLDER ADVISORY GROUP MEETING 43

JULY 21, 2022



VIRTUAL MEETING BEST PRACTICES

- Please stay muted unless you are speaking
- Use  or meeting chat to let us know you want to ask a question
- If you don't have the “raise hand” function or meeting chat, unmute your mic/phone and speak
- Speak one person at a time
- Expect something to go wrong



MEETING OBJECTIVES

- Discuss Mohala I Ka Wai
- Accept notes from meeting #42
- Receive Update on BWS Water Conservation Program
- Discuss results of 2021 BWS Customer Satisfaction Survey
- Receive BWS updates



PUBLIC COMMENT ON AGENDA ITEMS





MOHALA I KA WAI

Cynthia Rezentes

Board Member

July 21, 2022

boardofwatersupply.com

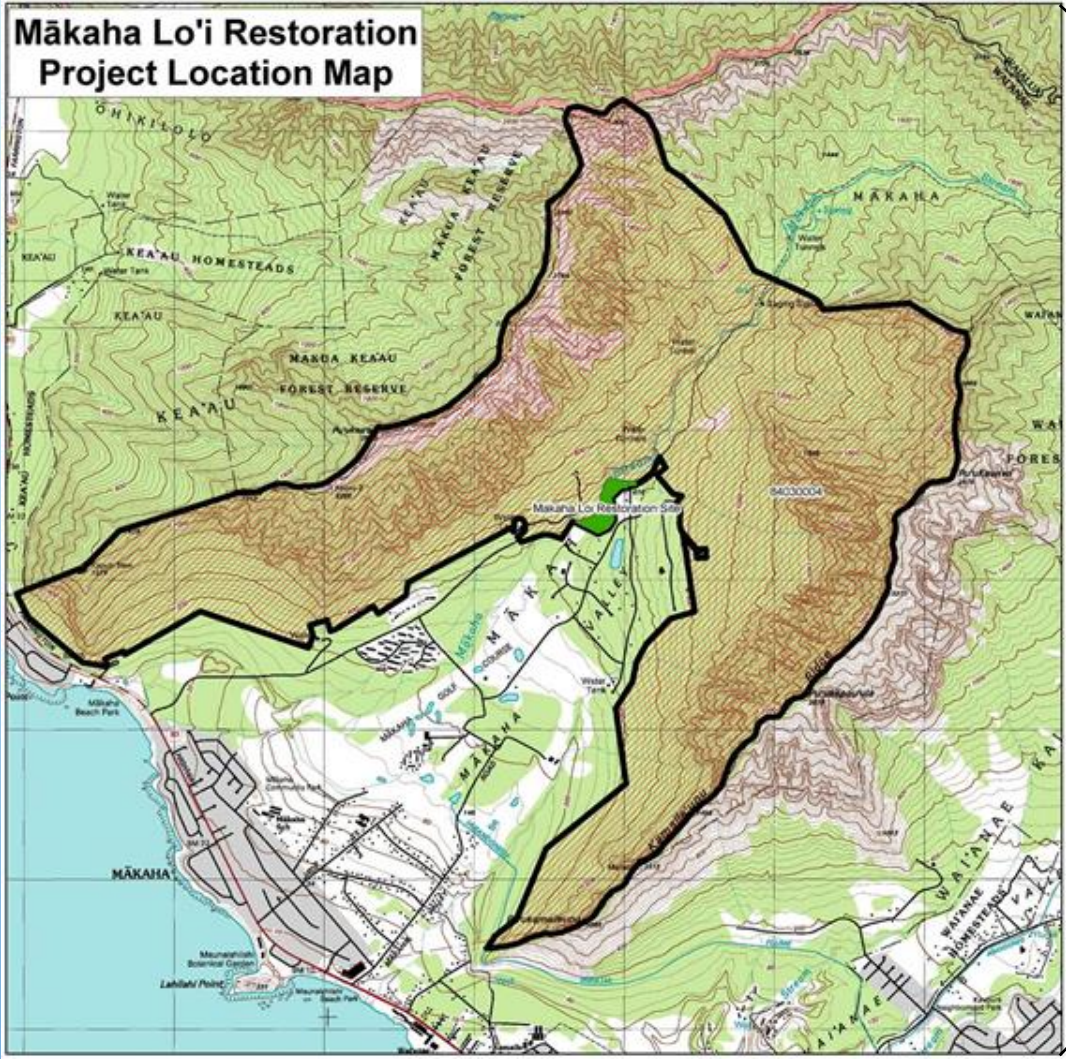
The background is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the middle of the image.

MOHALA I KA WAI

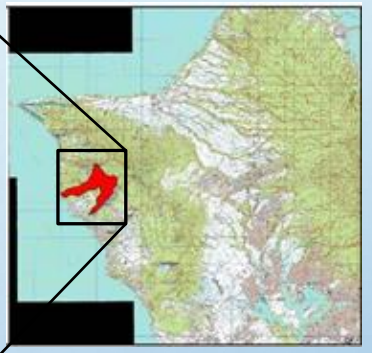
MOHALA I KA WAI KA MAKA O KA PUA.

*UNFOLDED BY THE WATER ARE THE FACES OF THE FLOWERS.
FLOWERS THRIVE WHERE THERE IS WATER AS THRIVING PEOPLE ARE FOUND WHERE CONDITIONS ARE GOOD.*



Mākaha Lo'i Restoration Project Location Map



MOHALA I KA WAI



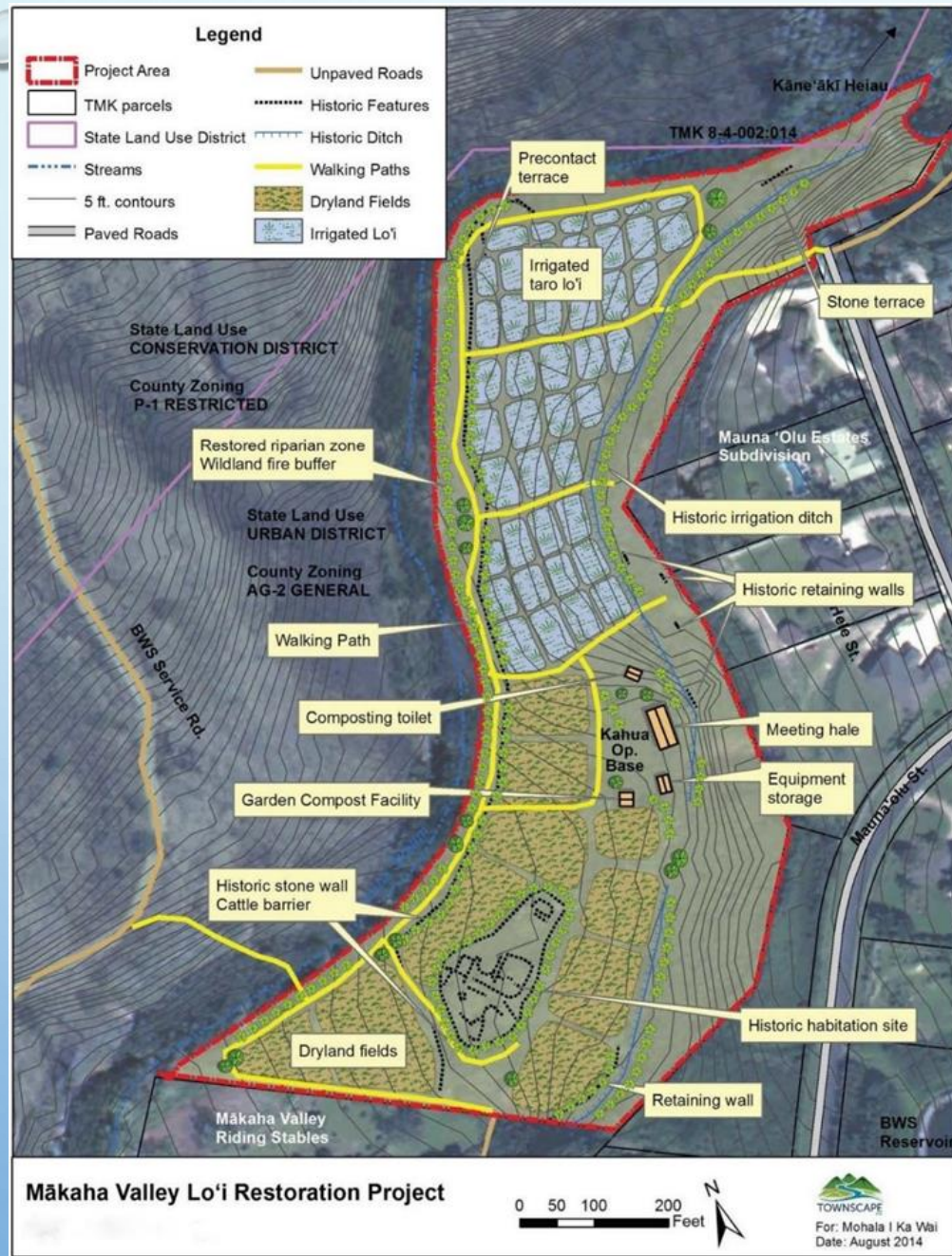
Legend

-  Mākaha Lo'i Restoration site
-  BWS TMK

N

Map produced 11/2018

0 2,500 5,000 10,000 Feet



MOHALA I KA WAI



MOHALA I KA WAI

Representative of the 13 acres
without any “clean-up” of the ground
for planting

MOHALA / KA WAI



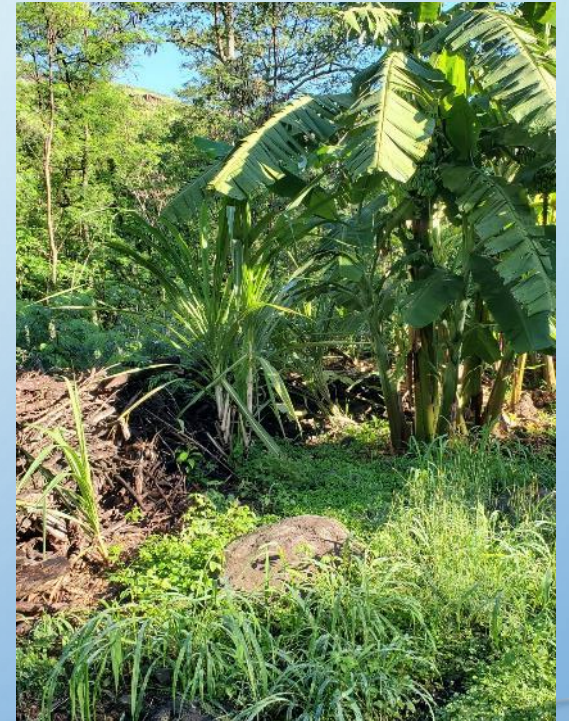
Example of clearing the land to prepare for planting

MOHALA I KA WAI



First planting of *kalo* in the mala (January 2018)

MOHALA I KA WAI



MOHALA I KA WAI

NEXT STEPS

- Management agreement contract January 1, 2022-December 31, 2031 (with 2 5-year extensions)
- Increase Outreach again for schools, other organizations to access the area and learn about Makaha Valley and its resources
- Select location for Kahua Operational Base to include halau, composting toilets, storage container for equipment, etc.
- Eventually work with Cultural Surveys to determine how best to protect and provide access to cultural sites
- Work to establish another ingress/egress path to the property

QUESTIONS / DISCUSSION





Mahalo!

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



WATER CONSERVATION EFFORTS

Lorna Heller, Water Conservation
Steven Norstrom, Communications

July 21, 2022

boardofwatersupply.com

7 Tips to Conserve



TIP #1 - Water lawns just 1-2 weeks



TIP #2 – Don't water lawns between 9 AM and 5 PM



TIP #3 – Check for plumbing leaks



TIP #4 – Install water-efficient fixtures



TIP #5 – Take shorter showers



TIP #6 – Put a nozzle on your garden hose



TIP #7 – Don't let the faucet run and run



Conservation Initiatives

- Hawaii News Now Water Wisdom Wednesdays
- Waiwai E-newsletter
- www.protectoahuwater.org website
- Social Media/Conservation Contest and events
- Large Condo Program
- Water Audits (e.g., restaurants, hotels, etc.)
- Hotel Partnership
- Hawaii Community Foundation – Fresh Water Council
- Radio and Television PSAs



Conservation Outreach

- Hawaii Tourism Authority
- Hawaii Lodging & Tourism Assn
- Hawaii Hotel Alliance
- Hawaii Acute Care Assn
- General Contractors Assn
- Developers
- Hospitals
- Shopping Centers
- State Agencies
- City Agencies
- University of Hawaii
- Large Condominiums
- Golf Courses
- Neighborhood Boards
- Community Groups
- Letters to top 600 water users in affected water systems
- Pilot hotel program
- Events (BIA, disaster prep)



Social Media Contest & Events



World Water Day (March)



Smart Irrigation Month (July)



Detect-A-Leak Week (April)



Source Protection Week (September)



Ka Wai Wednesdays (April)




Imagine-A-Day Without Water (October)




Social Media Posts on Conservation

Please Kokua
Reduce Water Use

Find an alternate to car washing fundraisers



washing a car can use **40 - 140 gallons** of water



Board of Water Supply

Check your irrigation system for leaks



Detect-A-Leak Week
April 10 - April 16
www.boardofwatersupply.com/detectaleak



Detect for Toilet Leaks



Culprit:
Is usually a faulty or worn-out flapper

Get your **FREE toilet leak detection tablets** at
Board of Water Supply
Hardware Hawaii stores
Satellite City Halls

Detect-A-Leak Week
April 10 to April 16



While staying in a hotel, or even at home, consider reusing your towels.



Make every drop count!

Skip the pre-rinse & Run your dishwasher with a full load only



Make every drop count!



Cut Water Waste
Every drop counts!



Use a broom instead of a hose to clean your patio



NO WATER NO COFFEE



IMAGINE A DAY WITHOUT WATER
OCTOBER 21
www.boardofwatersupply.com/iadww



WaterSensible Program

WATER SENSIBLE PROGRAM

Go to: [Commercial Rebates](#) | [Food Service](#) | [Residential Rebates](#) | [WaterWisdom](#) | [Program FAQs](#) |



[#WaterSensible](#) [#WaterForLife](#) [#KaWaIola](#) [#BoardOfWaterSupply](#) [#WaterConservation](#)

The Honolulu Board of Water Supply (BWS) is working hard to preserve and protect our most essential resource – water. Through the Water Sensible program, Oahu residents and businesses will have the opportunity to save water and money. Water Sensible launched with a residential water conservation rebate program and has expanded its offerings to include the commercial sector. It has also recently launched a WaterWisdom program to help condominiums and townhome complexes improve their water conservation efforts.



For More Information:

Call (808) 237-6877

Email watersensible@honeywell.com.

[#WaterSensible](#) [#WaterForLife](#) [#KaWaIola](#) [#BoardOfWaterSupply](#) [#WaterConservation](#)

Updated: 02/11/22



Commercial Rebates



WaterSensible

Commercial Rebate Program



The Honolulu Board of Water Supply is offering water conservation rebates on commercial kitchen, landscape, and plumbing products. This money-saving program helps non-residential customers:

- Save water
- Save money on water, sewer, and energy expenses
- Reduce operating costs

Commercial Kitchen	Rebate	Description
High Efficiency Pre-Rinse Spray Valve (flow rate up to 1.28 gpm)	Up to \$50	When rinsing dishes, replace that old, inefficient pre-rinse spray valve with a high efficiency model.
Water Efficient Dipper Wells (flow rate up to 0.3 gpm)	Up to \$150	Also known as scoop showers and utensil holders, dipper wells with max flow rates of 0.3 gpm and heated continuous flow replacements can save over 100,000 gallons each year compared to inefficient models.
ENERGY STAR® Rated Commercial Dishwasher	\$250	ENERGY STAR® Dishwashers save nearly 50% more water than standard models, and further reduce electric, water and sewer bills over time.
ENERGY STAR® Rated Batch-Type Ice Machine	\$100	ENERGY STAR® Batch-Type Ice Machines save 20% more water and 10% more energy compared with standard models.



Commercial Rebates *CONT'D*

Plumbing	Rebate	Description
EPA WaterSense® Fixed Showerheads	Up to \$30	EPA WaterSense® Fixed Showerheads can save up to 2,900 gallons/yr and up to \$140 in annual water bill savings.
EPA WaterSense® Swivel and Faucet Aerators	Up to \$10	EPA WaterSense® Faucet Aerators can reduce water flow by approximately 30% or more compared to standard products.
EPA WaterSense® Toilet	\$150	Replacing inefficient toilets with EPA WaterSense® models can save 20% over the federal standard of 1.6 gallons per flush (gpf).
EPA WaterSense® Urinal	\$50	EPA WaterSense® urinals can save an average office building as much as 26,000 gallons/yr.
ENERGY STAR® Commercial Clothes Washer	\$75	ENERGY STAR® Commercial Clothes Washers are about 25% more efficient and use about 45% less water than standard models.
Landscape	Rebate	Description
EPA WaterSense® Weather-Based Irrigation Controller (WBIC) with Soil Moisture Sensor	WBIC: \$100 Sensor: Up to \$35	WBICs automatically adjust irrigation schedules based on local weather. Soil Moisture Sensors detect ground moisture and override scheduled irrigation to help reduce overwatering.
Commercial Rain Barrels / Totes	\$150	Large barrels and totes can range in size from 100 to 450 gallons and provide commercial customers with an affordable and convenient strategy to reduce outdoor water use.

For rebate instructions, eligibility, and forms, please visit www.boardofwatersupply.com/rebates.



Food Service Incentives



- Water Audits
- Install high-efficiency and/or high-efficiency pre-rinse spray nozzles to help establishments conserve water and lower water bills
- Table Tent Cards



Residential Rebates

Mail-In Rebates

- ENERGY STAR® Clothes Washer Rebate
- Residential Rain Barrel Rebate
- EPA Water Sense Weather-Based Irrigation Controller Rebate

THIS PRODUCT QUALIFIES FOR A
\$75 Rebate!

Get A New Water-Saving, Energy-Efficient Washer

Water Sensible

SPRING INTO SAVINGS... when you purchase this water-efficient clothes washer that qualifies for a \$75 rebate.

- Save water – High efficiency clothes washers use 50–60% less water.
- Save on detergent – Less water is used, so less soap and softener are needed.
- Save on energy – More water extraction means clothes need less drying time.

Apply to ENERGY STAR® clothes washers only. Limit one rebate per household. Rebate amount subject to change without notice. See www.boardofwatersupply.com for details.

THIS PRODUCT QUALIFIES FOR A
\$40 Rebate!

Save water: Get a rain catchment barrel!

Water Sensible

SAVE WATER!

- Provide effective landscape irrigation.
- Minimize environmental impact.
- Reduce your water bill.

KEEP IT GREEN!

- Prevent pollutants washing into streams and oceans.
- Save indoor water.
- Reduce erosion and flooding.

Apply for a \$40 rebate on a rain catchment barrel. Rebate amount subject to change without notice. See www.boardofwatersupply.com for details.

THIS PRODUCT QUALIFIES FOR UP TO A
\$100 Rebate!

Apply for a 50% discount (not to exceed \$100) on an EPA WaterSense® labeled Weather-Based Irrigation Controller

Water Sensible

- Avoid overwatering.
- Take the guesswork out of adjusting your irrigation timer.
- Watering schedules based on local weather conditions.
- Save up to 7,000 gallons of water per year.
- Limit one per household.

For rebate instructions and forms, visit www.boardofwatersupply.com/rebate

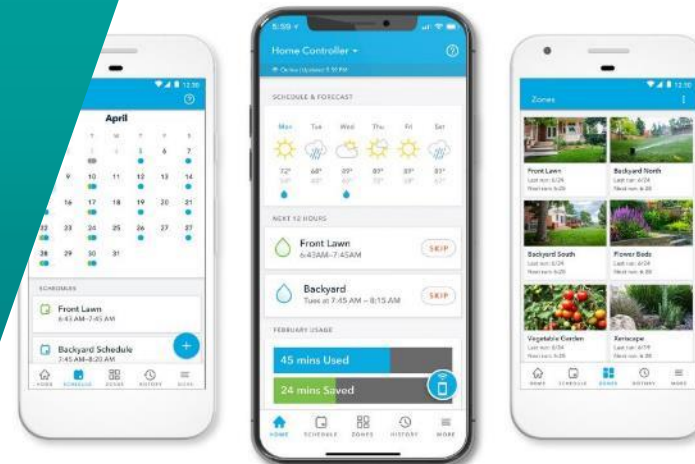
Apply for a 50% discount (not to exceed \$100) on an EPA WaterSense® labeled Weather-Based Irrigation Controller. Rebate amount subject to change without notice. See www.boardofwatersupply.com for details.

Weather Based Irrigation Controller



- Automatically adjusts the watering schedule based on local weather conditions



Rain Barrel Workshops

Number of Rain barrels sold since 2008 = 1,146

- BWS conducts 4 to 5 virtual rain barrel workshops a year
- The participants receive 35-gallon rain barrels that are recycled from Coca-Cola



WaterSmart

- WaterSmart provides customers with detailed information on their water use and personalized recommendations for using water more efficiently
- Information is available online or by mobile
- Customers who access the WaterSmart platform are more likely to use water efficiently
- Over 5,200 registered accounts

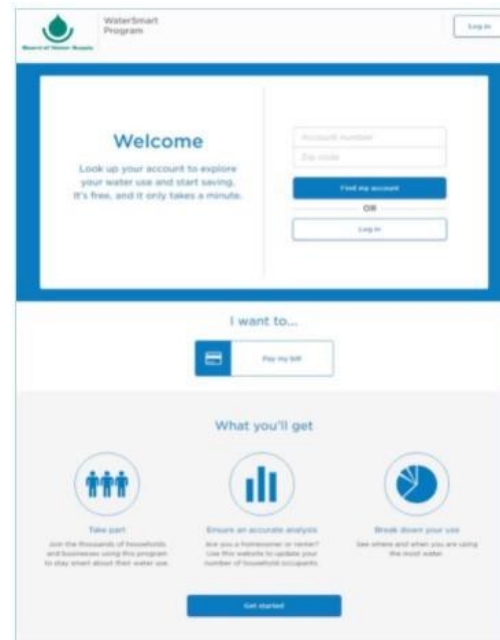


Create your WaterSmart® account today!

JUMP TO: [Contact Us](#) | [FAQs](#) | [Getting Started Video](#) | [Log Into WaterSmart® Portal](#) | [Leak Detection Tips](#)

About the WaterSmart® Program

The Board of Water Supply (BWS) mission is to provide safe, dependable and affordable water now and into the future, Ka Wai Ola—Water for Life. WaterSmart® is an initiative that would help to ensure a sustainable water supply by promoting water conservation, a key objective in the BWS Water Master Plan.



Log into the WaterSmart® Portal

BWS first introduced WaterSmart® to roughly 38,000 customers in 2017, giving them the chance to learn how their water use compares with similar neighboring households and to have free and convenient access to tools that help them have a better understand their water use. The project was co-funded by Energy Exceerator, a Hawaii-based accelerator program for energy and water startups.

Quick Links

[Frequently Asked Questions](#)

[Contact Us Form](#)

[WaterSmart® Portal Login](#)

[BWS Conservation Program](#)

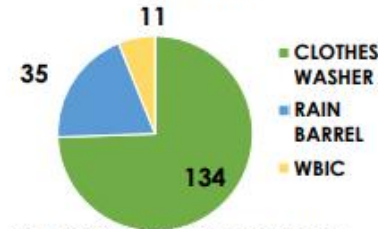


Water Sensible Monthly Dashboard: Residential Program June 2022

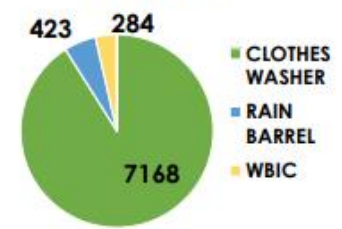
RESIDENTIAL AT-A-GLANCE OVERALL REBATES AND WATER SAVINGS

TOTAL	METRICS
\$571,970	(S) REBATES PROVIDED
7,875	(QTY) REBATES PROVIDED
49,492,920	GALLONS SAVED PER YEAR
663,978,480	LIFETIME GALLONS SAVED

APPLICATIONS RECEIVED THIS MONTH*

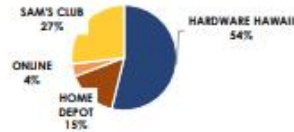


TOTAL REBATES PROVIDED



*APPLICATIONS RECEIVED INCLUDES MAIL-IN AND EMAILED APPLICATIONS.

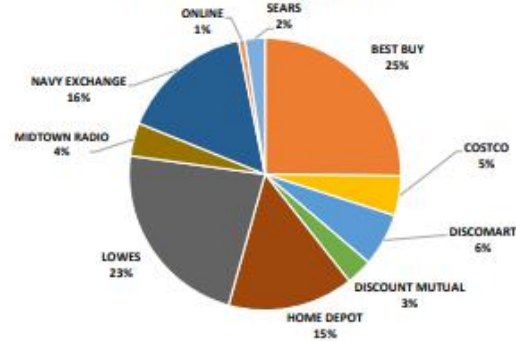
RAIN BARREL RETAILER BREAKDOWN



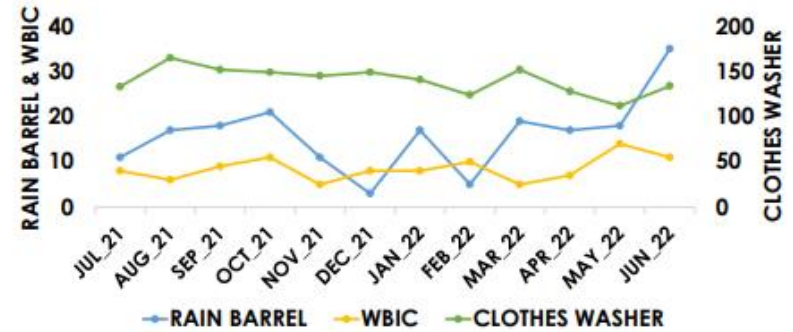
WBIC RETAILER BREAKDOWN



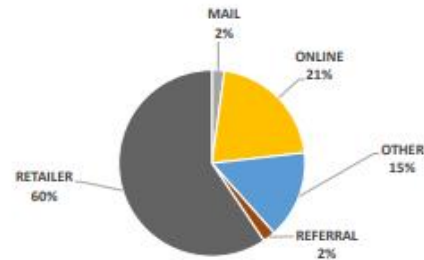
CLOTHES WASHER RETAILER BREAKDOWN (retailer breakdown by month)



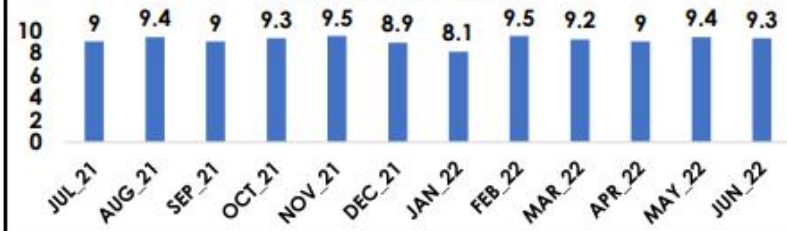
MONTHLY REBATE APPLICATIONS ROLLING 12 MONTHS



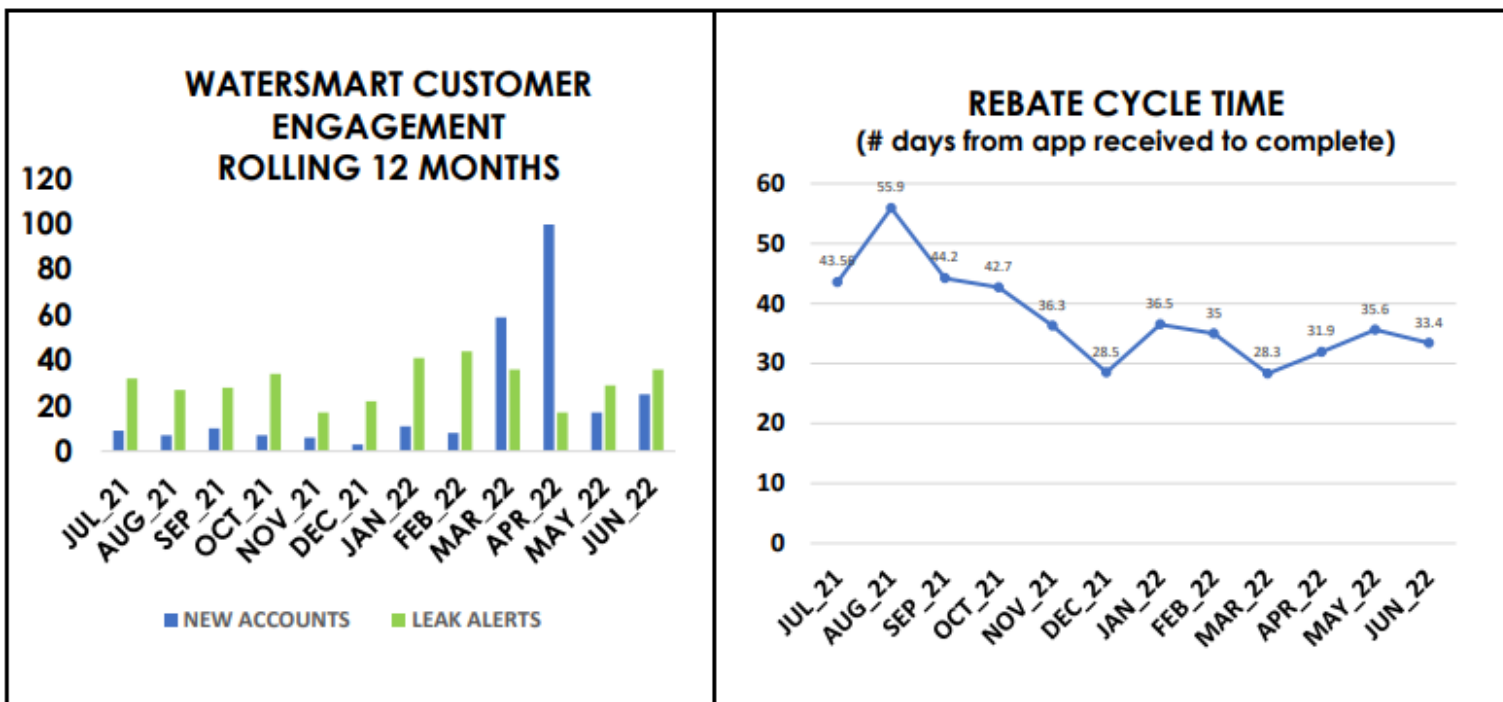
HOW DID YOU HEAR ABOUT THE PROGRAM?



CUSTOMER SATISFACTION SURVEY REBATE SATISFACTION ROLLING 12 MONTHS



Water Sensible Monthly Dashboard: Commercial and Residential June 2022



Program Notes:

Received first commercial rebate application in June 2022 from Nuuanu Elementary School for rain barrels. The rain barrels will be used for fourth grade students to irrigate plants on campus. Planned future engagement with teachers when the new school year begins to check-in on their student rain barrel activities.

Commercial program outreach for customer engagement included Avalon Development and Dorvin D. Leis Company. The BWS team provided 23 aerators and 4 pre-rinse spray nozzles to Outrigger Hotels (including Duke's, Hula Grill and Blue Note).

MFDI Note: No MFDI activities were performed in June 2022. Direct installations may only be conducted at vacant, unoccupied units.

Water Wisdom Large Condominium Program



- Provides residents and building managers a free comprehensive toolkit to help them succeed in conserving water

Hawaii Green Business Program (GBP)

Work with businesses to:

- Conserve Energy & Water
- Preserve Culture & Natural Resources
- Increase Community involvement
- Prevent Pollution
- Reduce Waste

Categories:

- Hotel
- Restaurant
- Venue or event
- Office
- Grocery



2020 Ceremony Awardees

Hotels and Resorts

- Alohilani Resort Waikiki Beach
- The Cliffs at Princeville
- The Equus Hotel
- Hale Koa Hotel
- Hyatt Centric Waikiki Beach
- Hyatt Regency Maui Resort
- The Kahala Hotel and Resort
- Marriot Maui Ocean Club
- Outrigger Reef Waikiki Beach
- The Ritz Carlton Kapalua



Commendation

In Recognition of

Honolulu Board of Water Supply

December 4, 2020

On behalf of the people of Hawai'i, aloha and congratulations to Honolulu Board of Water Supply on receiving the 2020 Hawai'i Green Business Program award.

The Hawai'i Green Business Program recognizes hotels, offices, and retail businesses that have gone above environmental compliance, taking significant steps to reduce, reuse, and recycle; conserve Hawai'i's natural resources; and educate employees and customers about the importance of "green" practices.

The environmental and conservation successes that Honolulu Board of Water Supply has realized demonstrate that enacting green practices are both the right and profitable things to do. You are an inspiration to other businesses across the state to increase their environmental efforts in order to save money and reduce their impact on Hawai'i's precious natural resources.

Mahalo for taking the initiative to employ responsible conservation measures and for contributing to a cleaner, better environment for Hawai'i residents and visitors to enjoy.

With warmest regards,

DAVID Y. IGE
Governor, State of Hawai'i

Offices, Ten-Entry Level, Events

- Convention Center
- Country Club
- Pacific University, Aloha Tower
- Board of Water Supply
- Sam Choy
- Project Worksite Well
- Conference
- Annual Update – Hilton Waikoloa
- Saving Hawaii
- Department of Water's 16th Annual
- "Wash" Festival



QUESTIONS / DISCUSSION





MAHALO!

THERE IS NO
SUBSTITUTE FOR PURE
WATER!

boardofwatersupply.com



2021 BWS Customer Satisfaction Survey

Becki Ward
Ward Research
July 21, 2022

boardofwatersupply.com

QUESTIONS / DISCUSSION





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

Understanding Resident Perceptions of the Board of Water Supply Wave IV

Prepared for:

**The Board of Water Supply
July 2022**

Methodology

- 4th wave of biannual tracking survey, began 2015
- Moved to a mixed method, phone + online
- Total of 675 interviews
- Margin of error +/-3.8%
- August 7 – September 1, 2021 (During COVID, before Red Hill crisis)

Key Takeaways

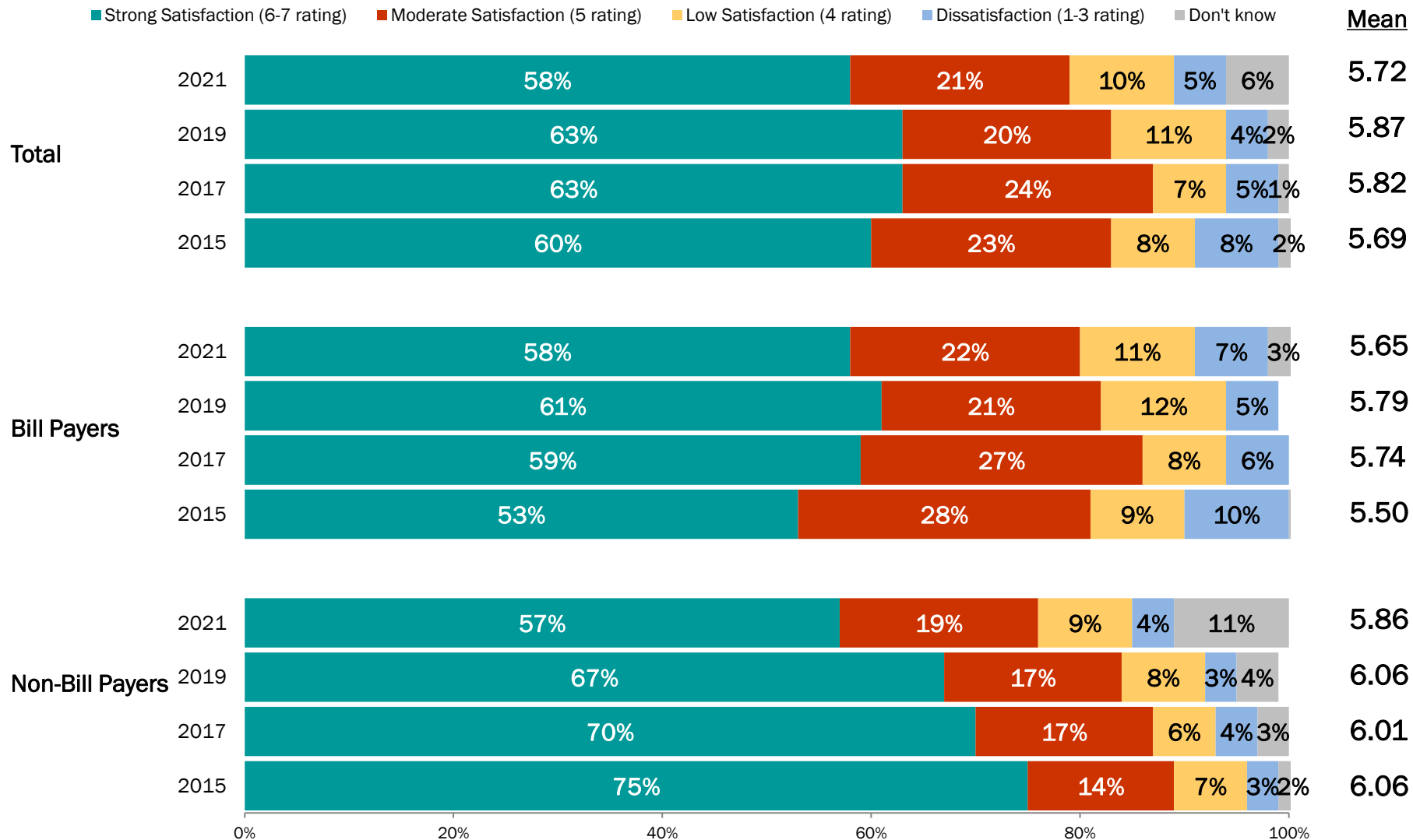
- Satisfaction has dipped in some aspects, particularly related to perceived affordability and fairness of rates; while satisfaction with providing safe and dependable water remain strong and unchanged.
- Unclear what role COVID experience has played
- Strong trust in BWS as a source of info about fresh water issues
- Positive playback of conservation messages and behaviors

Overall Satisfaction with the BWS

- Overall satisfaction with BWS dipped slightly.
- Strong satisfaction with BWS dipped slightly among bill-payers, with a larger decline among non-bill payers.
- Strong satisfaction with BWS's *ability to keep water rates affordable* continued on downward trend.
- In contrast, strong satisfaction with BWS's ability to provide *dependable water* and *safe water* remained unchanged.

Overall Satisfaction with the BWS

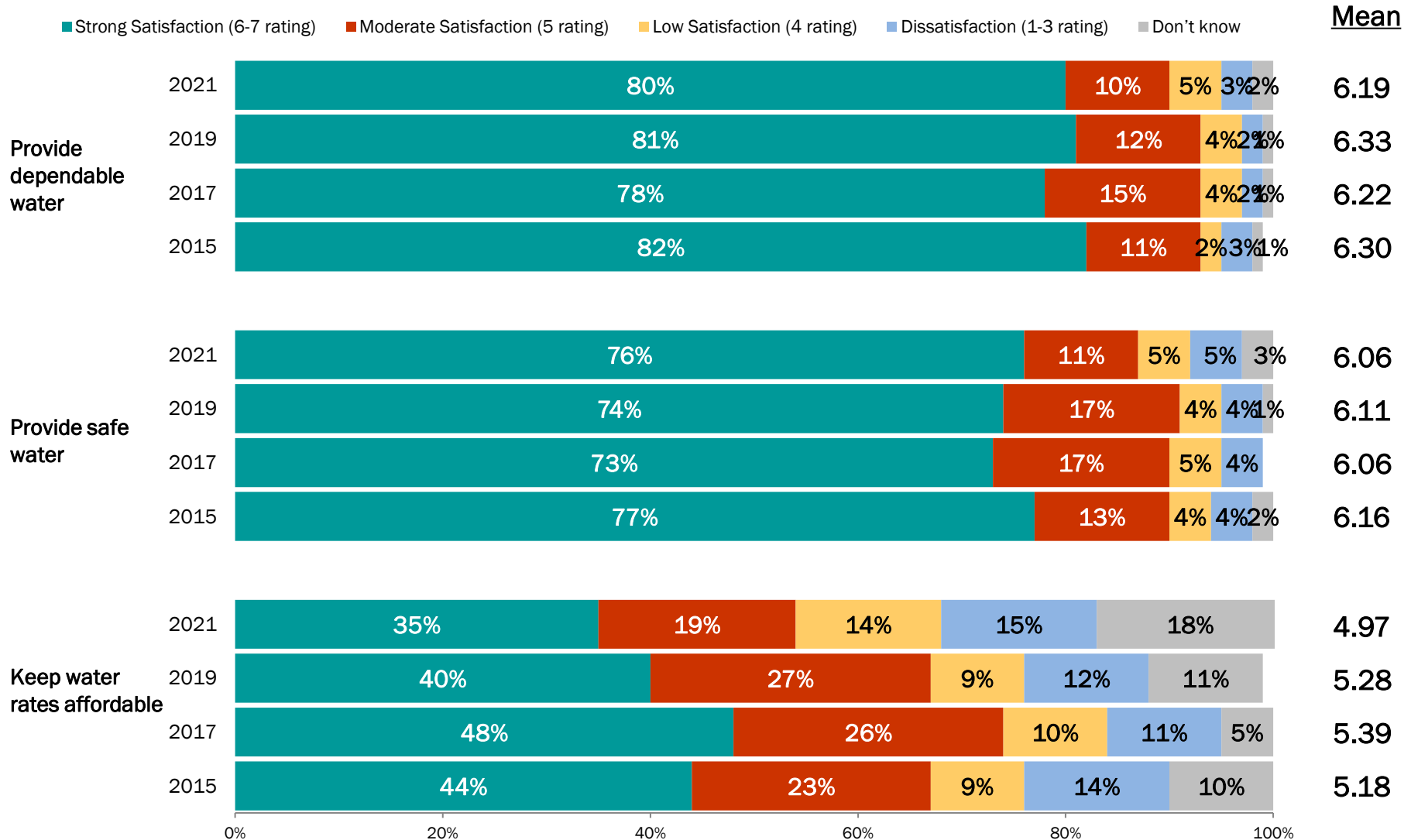
How would you rate your overall satisfaction with the Board of Water Supply?



Base= Total: 2021=675, 2019=682, 2017=686, 2015=685; Bill Payers: 2021=423, 2019=460, 2017=472, 2015=454; Non-Bill Payers: 2021=252, 2019=222, 2017=214, 2015=231

The BWS Mission

How satisfied are you with the Board of Water Supply's ability to:



Base= Total: 2019=682, 2017=686, 2015=685

Indicates statistically-significant differences in strong satisfaction ratings

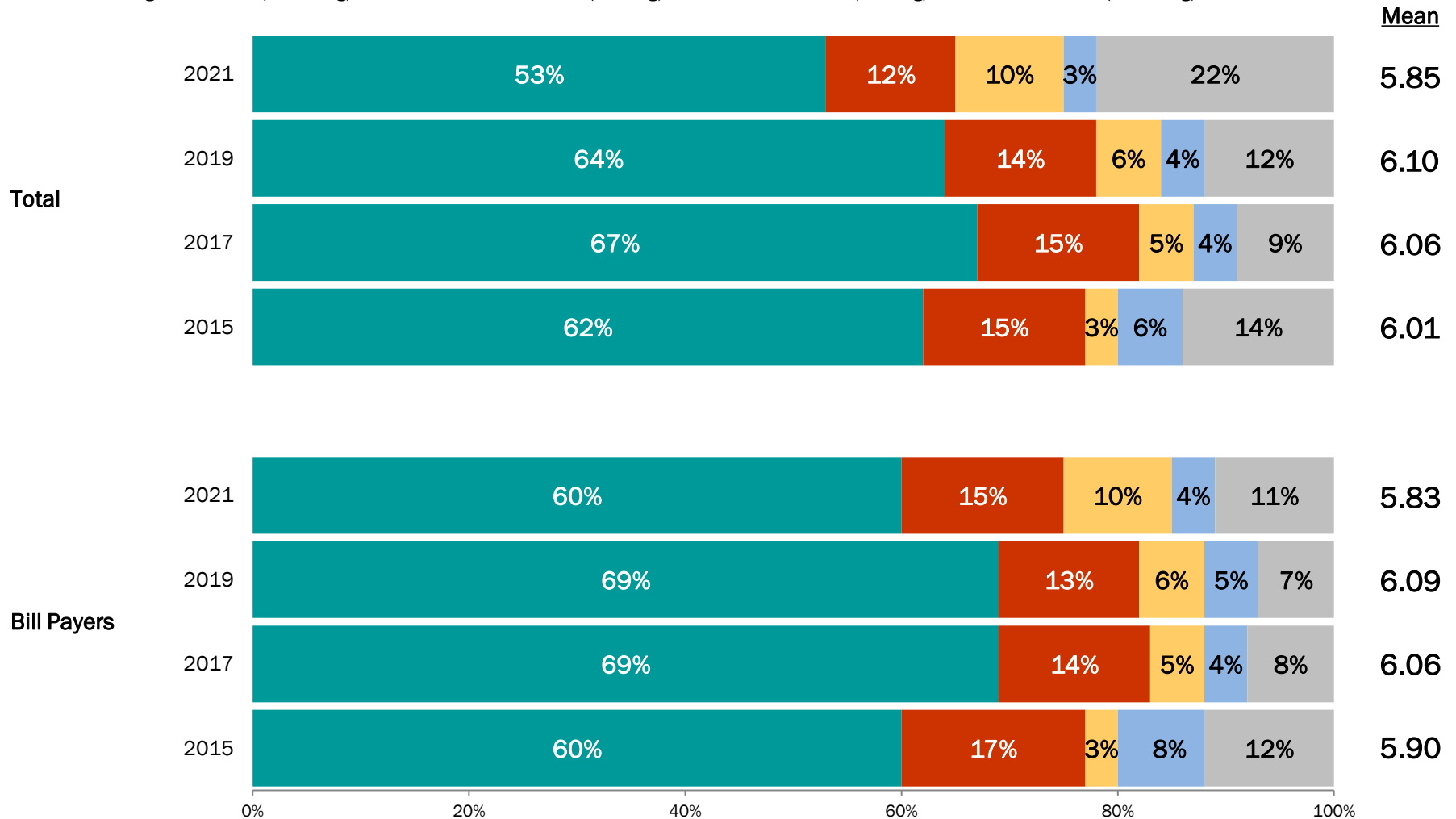
Customer Service

- Just over half indicated strong satisfaction with *overall customer service they receive from BWS*.
- Among bill payers only, 60% are strongly satisfied with *overall customer service that they receive from BWS*, significantly lower than in 2019.

Satisfaction with Overall Customer Service

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

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



Base= Total: 2021=675, 2019=682, 2017=686, 2015=685; Bill Payers: 2021=423, 2019=460, 2017=472, 2015=454; Non-Bill Payers: 2021=252, 2019=222, 2017=214, 2015=231

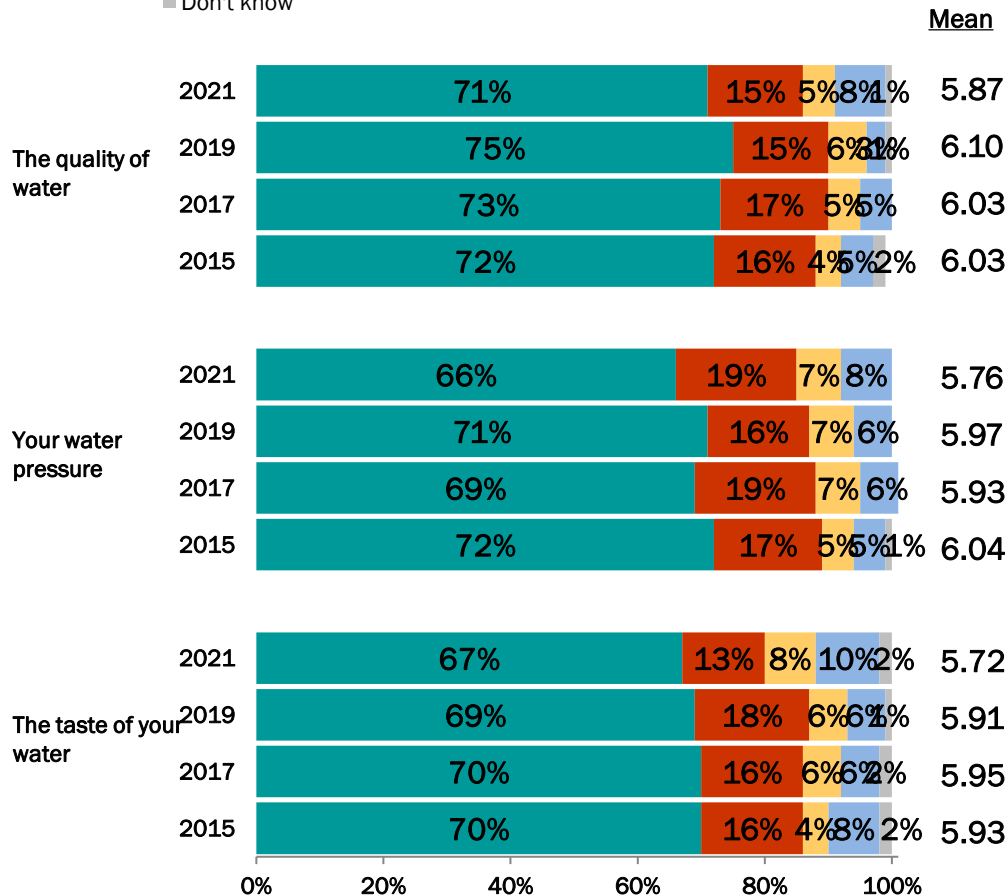
Quality of Water and Delivery of Water Service

- Residents continued to indicate strong levels of satisfaction with the *quality* and *taste* of their water, as well as with their *water pressure*.
- Proportion indicating strong satisfaction with job that BWS is doing to *protect, manage, & sustain O‘ahu’s water resources* remained unchanged.
- Strong satisfaction with BWS’s *fast response to trouble calls* dropped off sharply; attributed more to large increase in “don’t know’s” as opposed to an increase in less satisfied.
- Strong satisfaction with BWS *providing water to customers and for having reliable service* remained the same.
- Half are strongly satisfied with job BWS is doing *repairing, maintaining, and replacing O‘ahu’s water delivery system*.

The Quality of Water

How satisfied are you with:

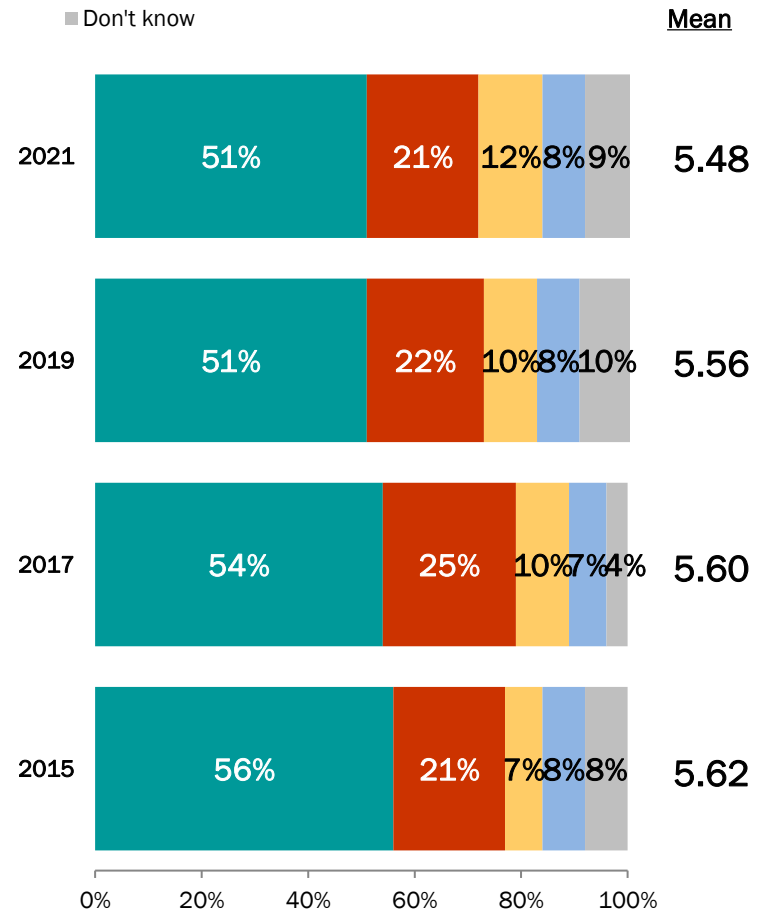
- Strong Satisfaction (6-7 rating)
- Moderate Satisfaction (5 rating)
- Low Satisfaction (4 rating)
- Dissatisfaction (1-3 rating)
- Don't know



Base= Total: 2021=675, 2019=682, 2017=686, 2015=685

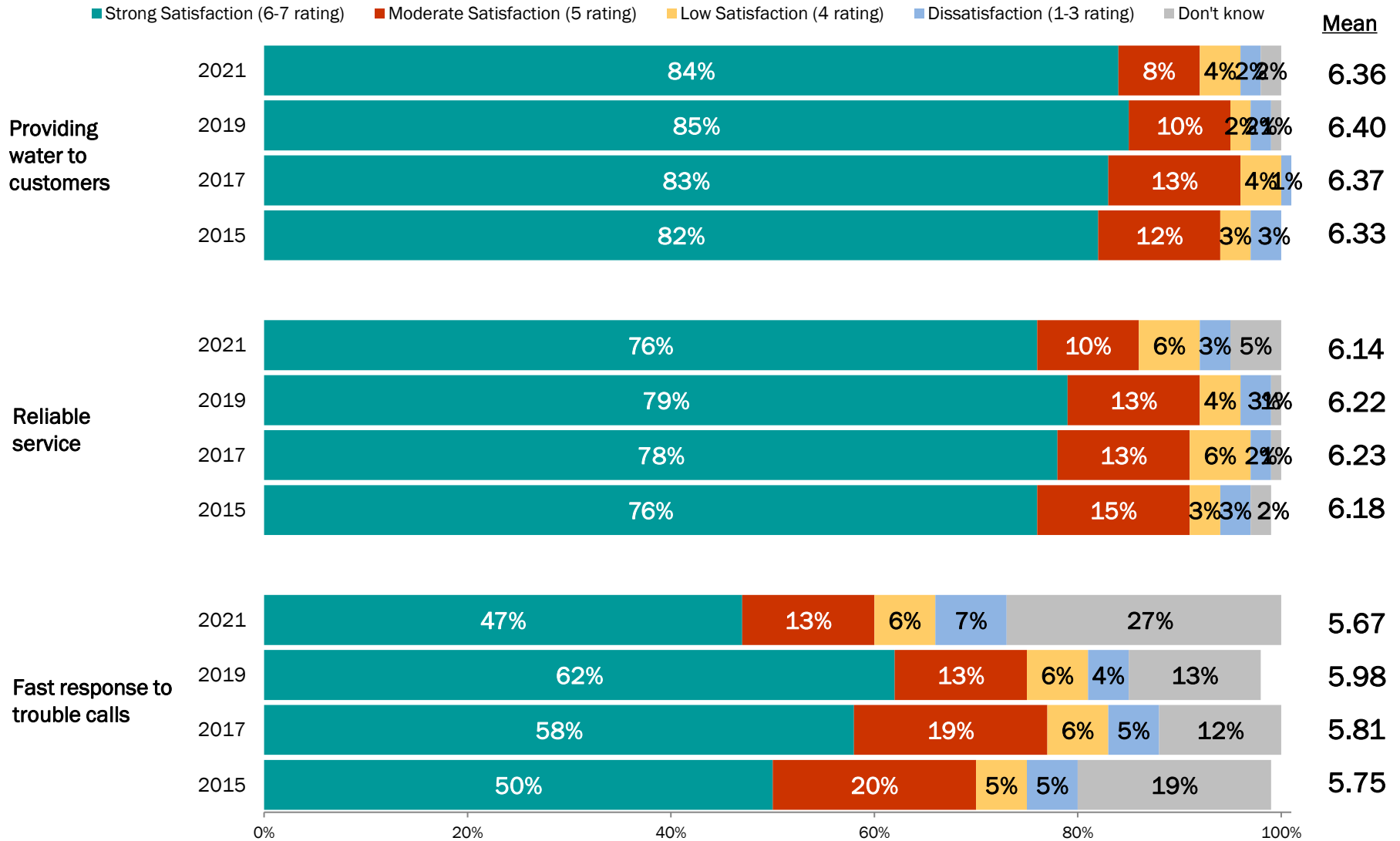
How satisfied are you with the job that the Board of Water Supply is doing protecting, managing, and sustaining O'ahu's water resources?

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



The Delivery of Water Service

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

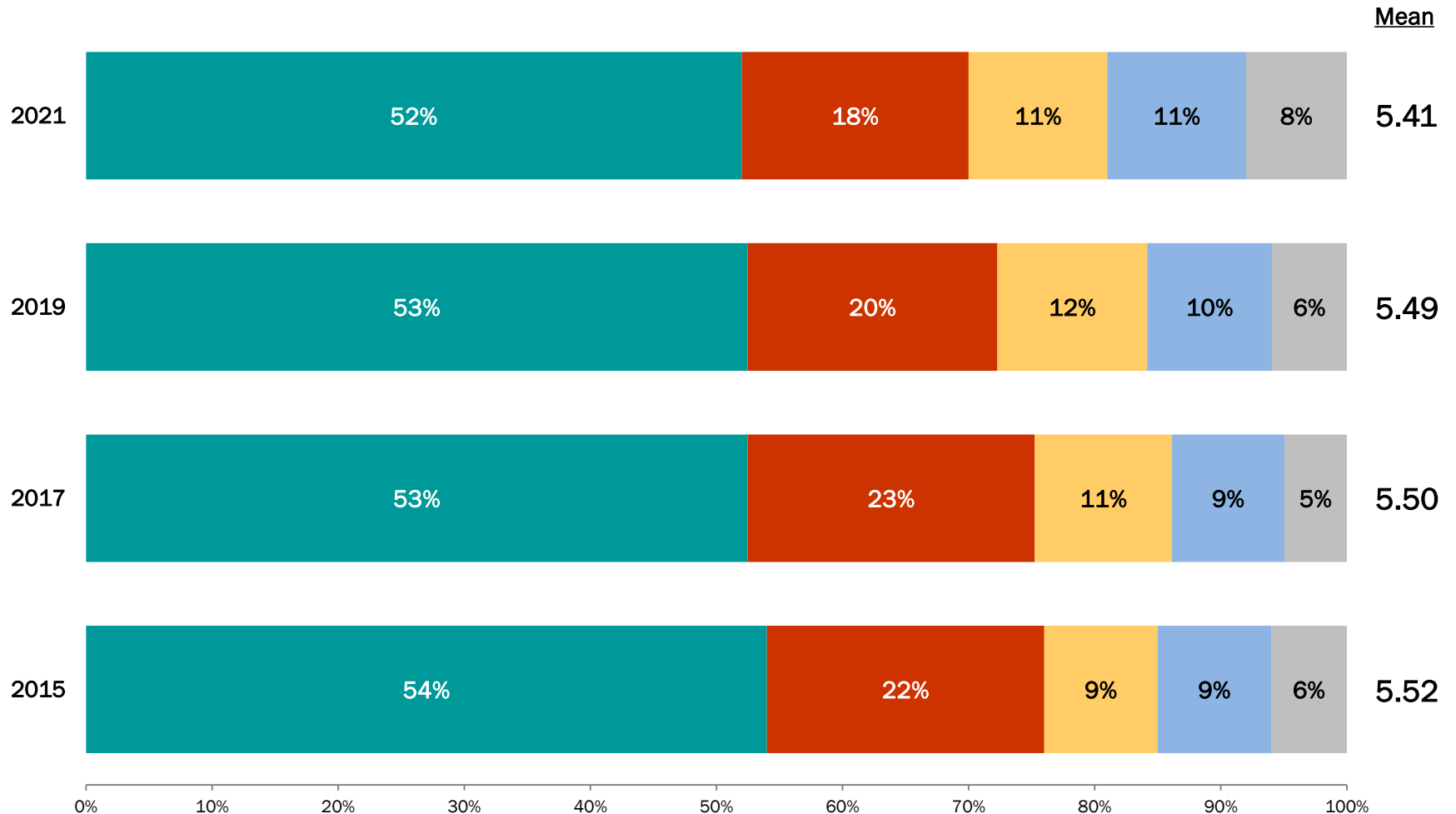


Base= Total: 2021=675, 2019=682, 2017=686, 2015=685

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?

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



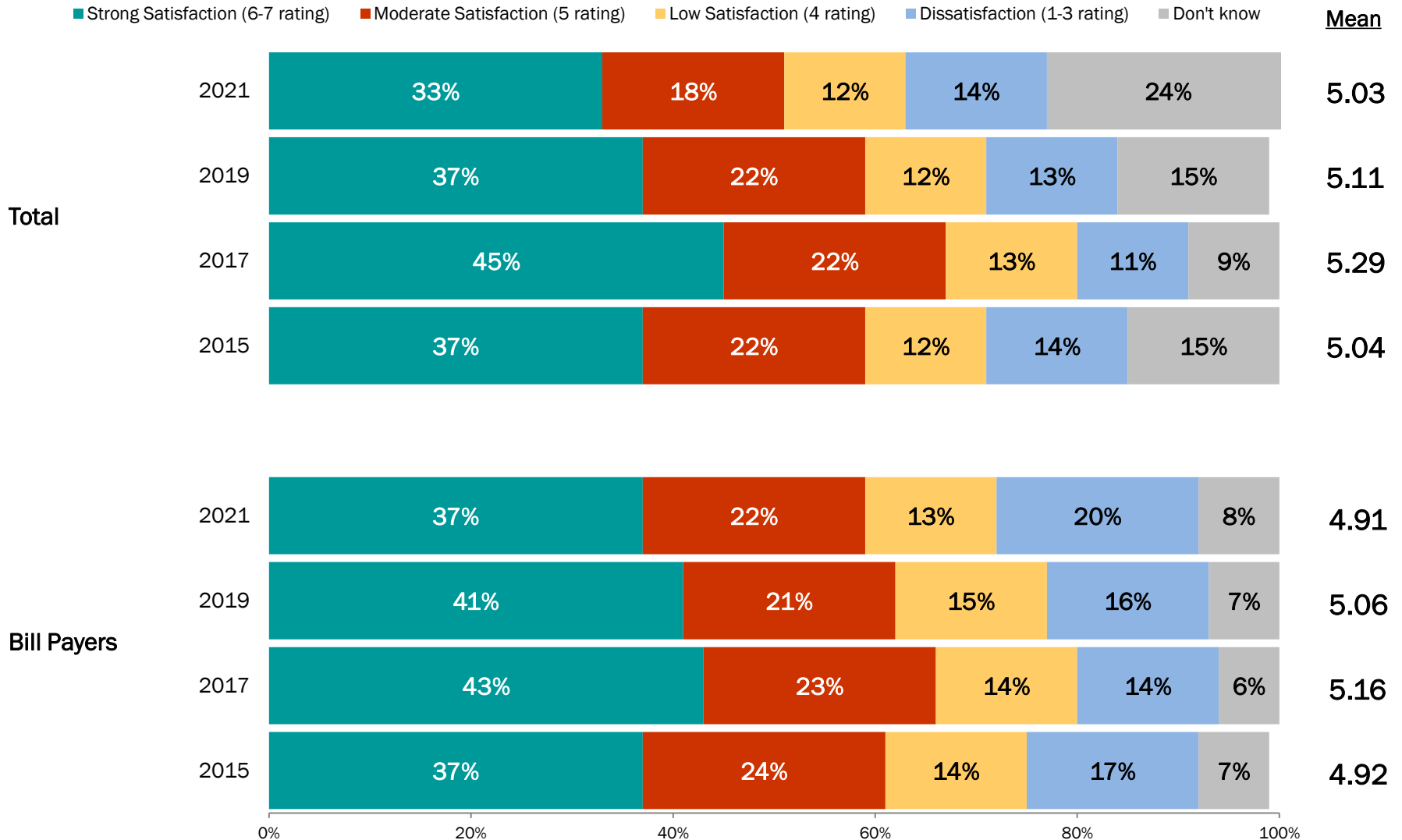
Base= Total: 2021=675, 2019=682, 2017=686, 2015=685

Rates, Bills, & Cost of Water Service

- Those strongly satisfied with BWS in terms of fairness of water rates continued on downward trend.
- Less than 3 in 10 residents said cost of water service is very affordable.

Fairness of Water Rates

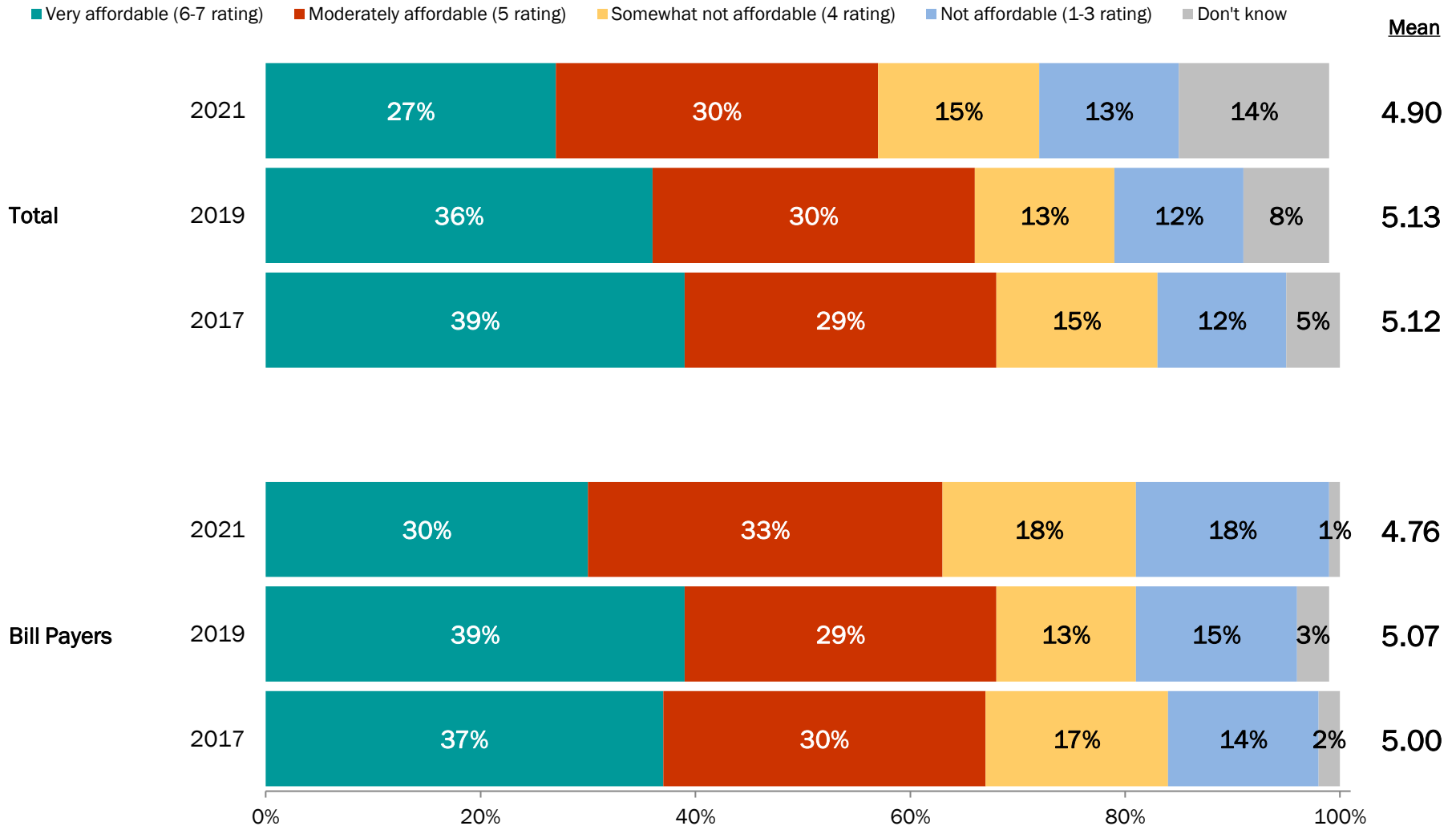
How would you rate your satisfaction with the Board of Water Supply in terms of fairness of water rates?



Base= Total: 2021=675, 2019=682, 2017=686, 2015=685; Bill Payers: 2021=423, 2019=460, 2017=472, 2015=454;

Perceptions about Affordability of Water Service

How affordable would you say your water service is?



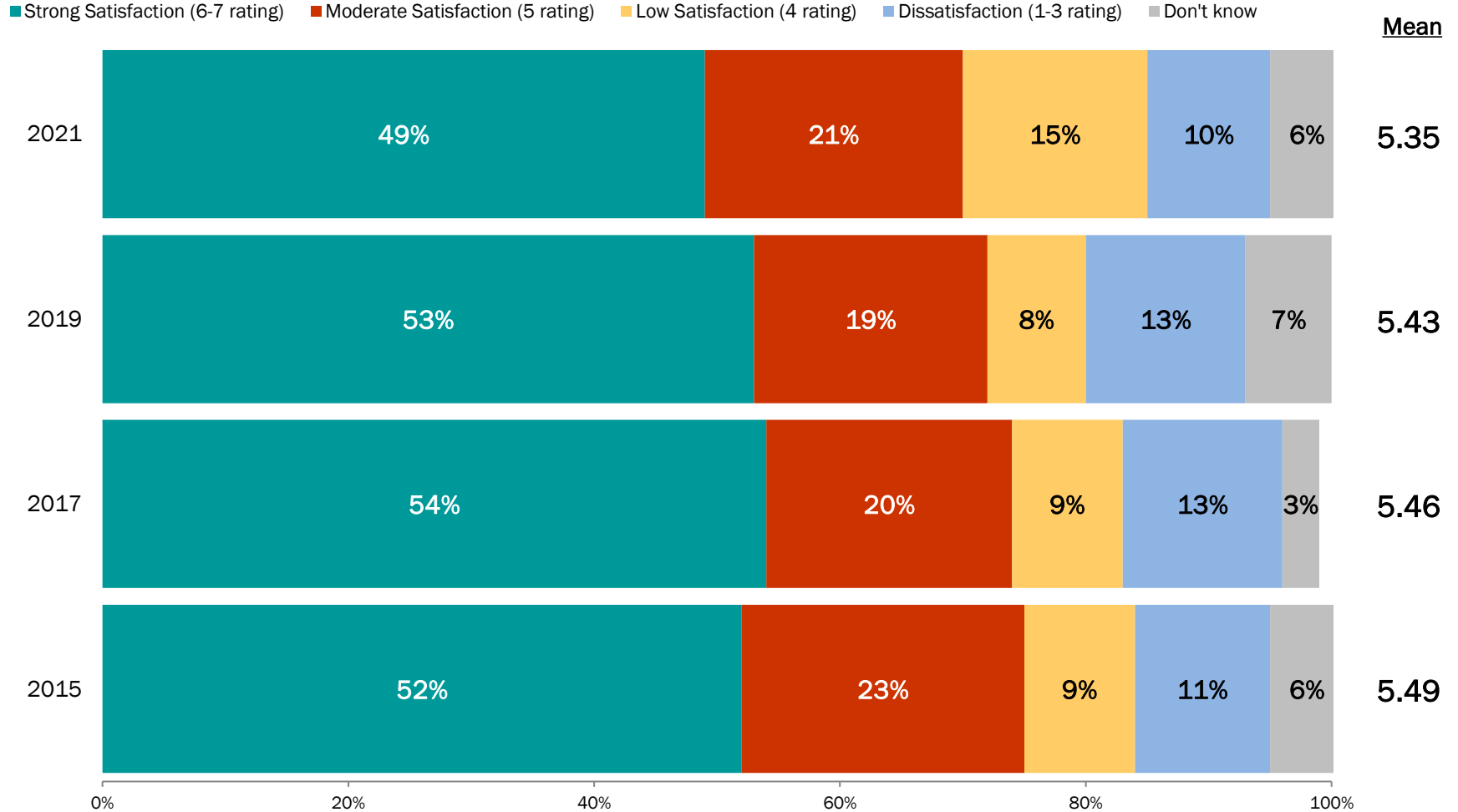
Base= Total: 2021=675, 2019=682, 2017=686, 2015=685; Bill Payers: 2021=423, 2019=460, 2017=472,

Water Conservation

- One-half reported strong satisfaction with BWS efforts to inform residents how to conserve water and keep bills lower.
- Slight majority have made changes in their daily routines (in the past year or two) in order to conserve water.
- Of this segment, nearly half said that they take shorter showers or fewer showers, far outdistancing all other behavioral changes.
- Although residents believe everyone holds great responsibility in water conservation, they place slightly greater responsibility on BWS (versus O'ahu's residents, the Government, and O'ahu's businesses).

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?

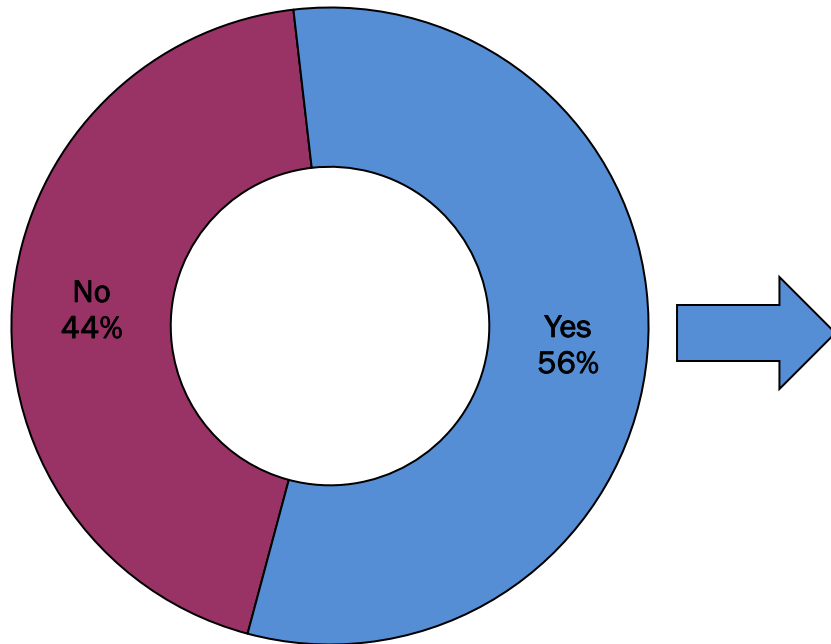


Base= Total: 2021=675, 2019=682, 2017=686, 2015=685

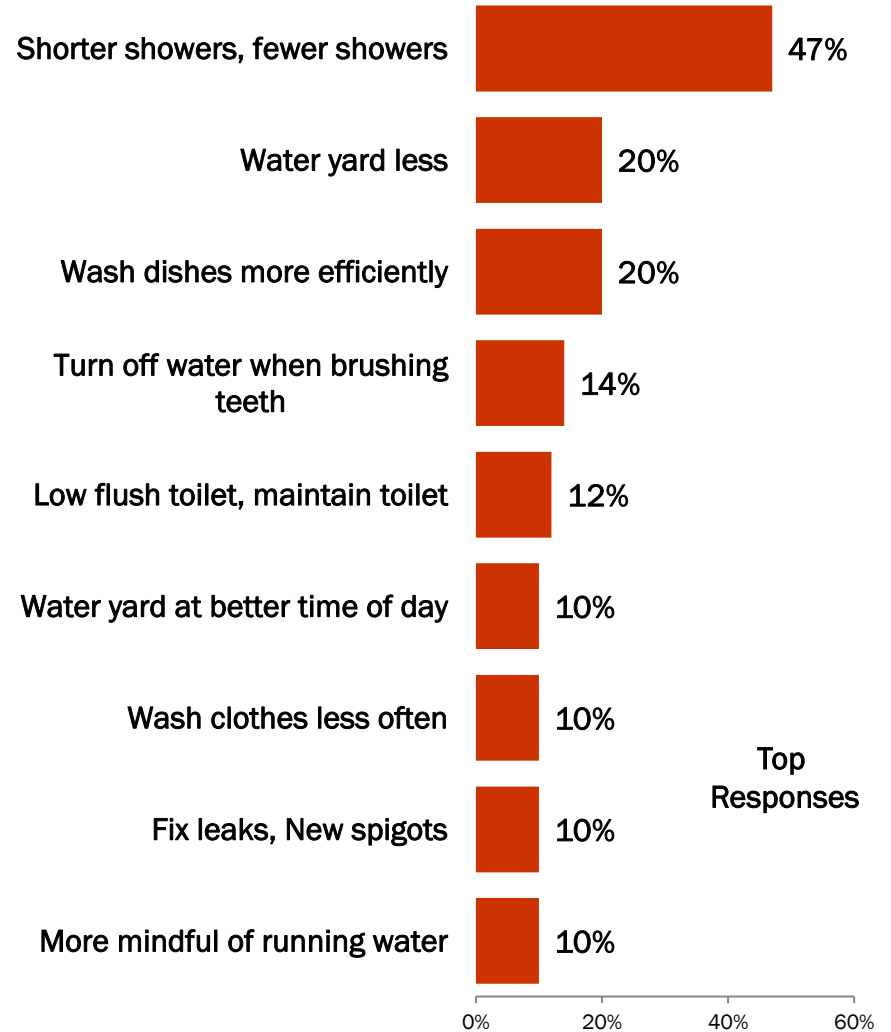
Note: Prior to 2021, question was worded "How would you rate the Board of Water Supply in terms of informing residents how to conserve water and keep their bills lower?"

Changes in Daily Routines To Conserve Water - 2021

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



What kinds of changes have you made?

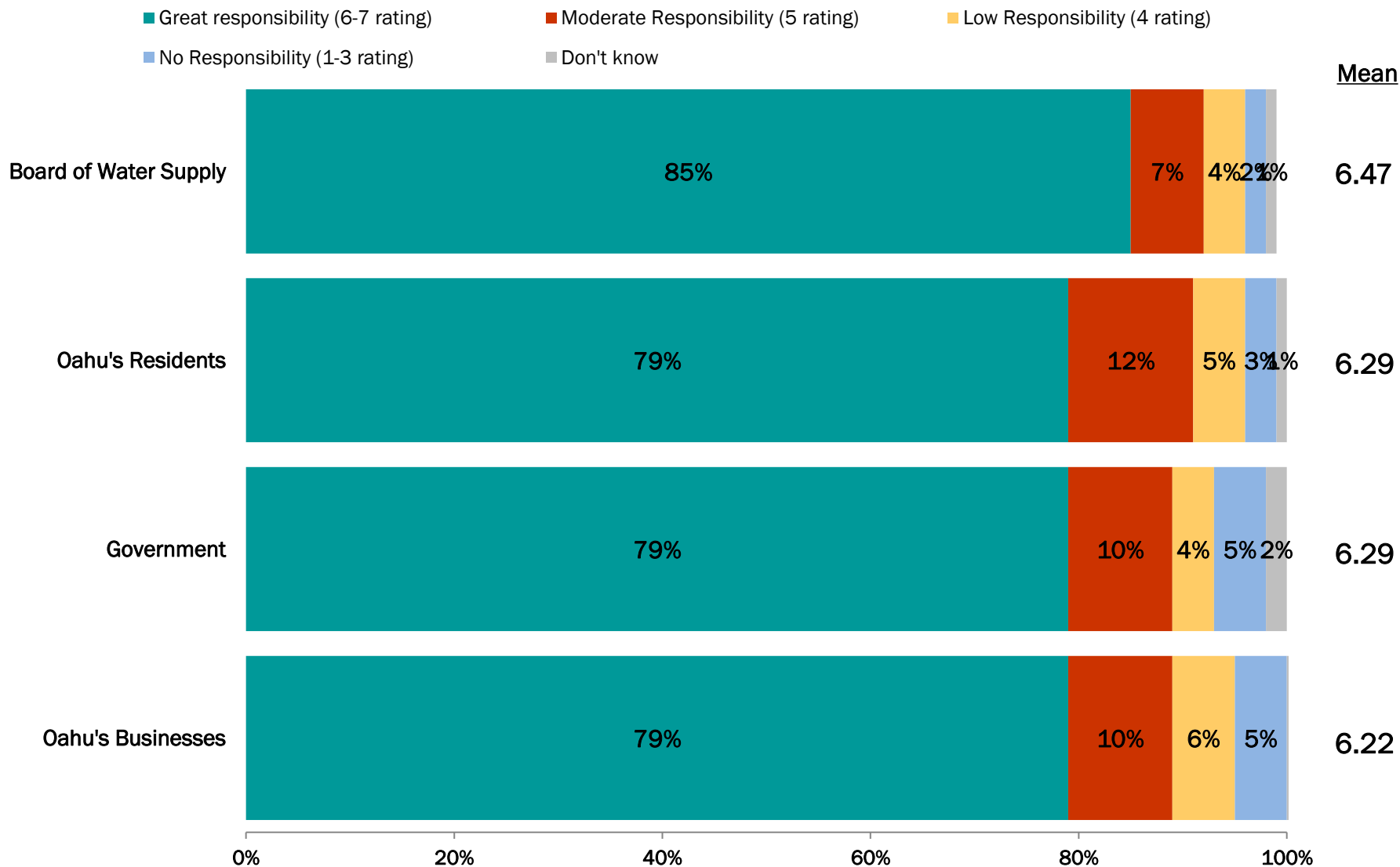


Base= Total: 2021=675 *Question was added in 2021

Base= Total: 2021=379 *Question was added in 2021

Responsibility in Water Conservation – 2021

Who has the greatest responsibility in water conservation?



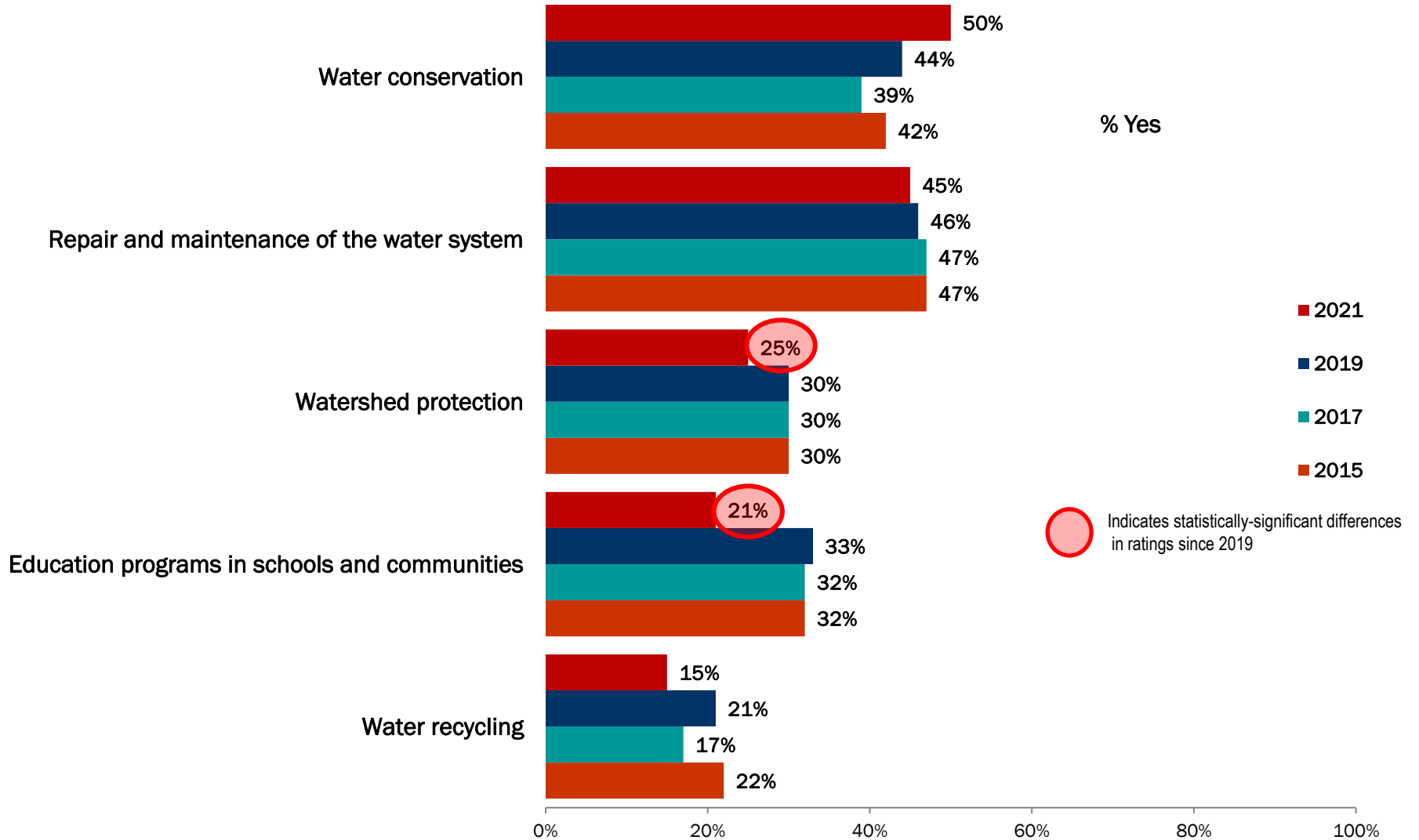
Base= Total: 2021=675 *Question was added in 2021

Community Outreach & Message Recall

- Although awareness of most BWS's activities & programs declined, awareness of BWS activities & programs related to water conservation increased.
- Significant declines in awareness of BWS education programs in schools & communities and activities related to water recycling.
- Strong trust in scientists and BWS to provide honest, accurate information about freshwater issues.
- Distrust/low trust in State Department of Health increased.
- Business leaders and elected officials continue to be least trusted sources of information about freshwater issues.

BWS Programs and Activities

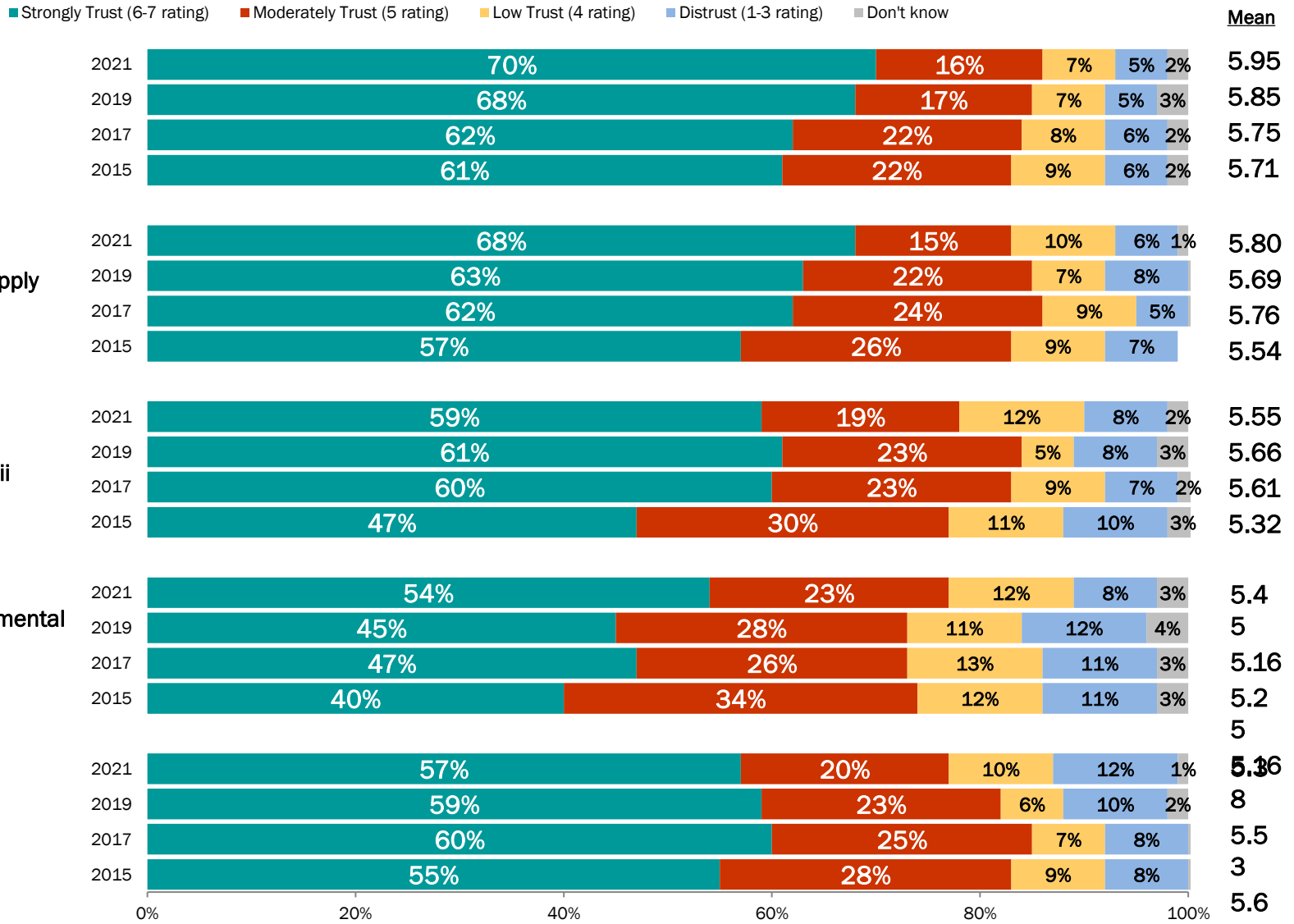
Have seen or heard of the BWS's activities and programs in the following areas



Base= Total: 2021=675, 2019=682, 2017=686, 2015=685

Sources of Information about Freshwater Issues (1 of 2)

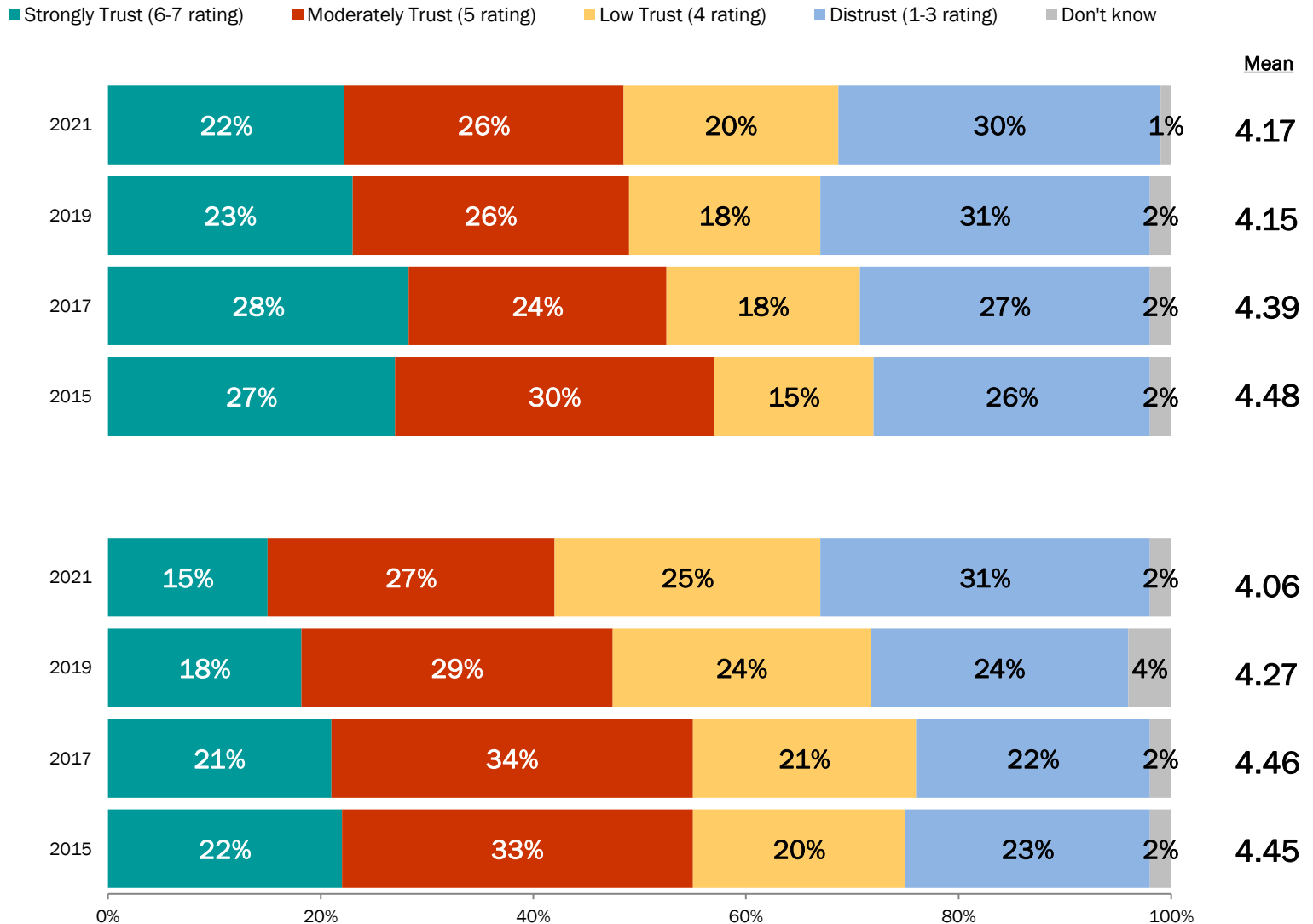
Which sources do you trust to provide honest, accurate information about freshwater issues in Hawaii?



Base= Total: 2021=675, 2019=682, 2017=686, 2015=685

Sources of Information about Freshwater Issues (2 of 2)

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



Base= Total: 2021=675, 2019=682, 2017=686, 2015=685

Profile of Respondents

Bill Paying Status	2021	2019	2017	2015
Bill Payer	63%	67%	69%	66%
Non-Bill Payer	37	33	31	34
Age	2021	2019	2017	2015
18–24 years old	13%	13%	13%	13%
25–34 years old	17	17	18	18
35–44 years old	17	17	17	17
45–54 years old	17	17	18	17
55–64 years old	15	15	15	15
65 and older	19	19	18	18
Refused	1	2	1	2
Ethnicity	2021	2019	2017	2015
Caucasian	19%	19%	17%	19%
Chinese	6	6	5	6
Filipino	14	14	14	14
Hawaiian/part-Hawaiian	20	21	22	21
Japanese	22	22	21	22
Mixed	9	8	10	8
Other	7	8	10	8
Refused	3	2	1	2
Base=	675	682	686	685

# of People in Household	2021	2019	2017	2015
1 person	12%	9%	9%	10%
2 people	26	23	24	23
3–4 people	39	37	39	40
5 or more people	22	30	28	25
Refused	0	1	1	1
MEAN	3.55	3.64	3.75	3.66
Household Income	2021	2019	2017	2015
Under \$25,000	7%	7%	9%	9%
\$25,000–under \$35,000	5	7	9	8
\$35,000–under \$50,000	9	7	8	13
\$50,000–under \$75,000	14	11	15	14
\$75,000–under \$100,000	16	16	17	15
\$100,000 and above	36	33	29	21
Refused	13	19	13	19
Gender	2021	2019	2017	2015
Male	47%	46%	51%	50%
Female	53	54	49	50
Base=	675	682	686	685

Profile of Respondents

Years of O'ahu Residency	2021	2019	2017	2015
Less than 2 years	<1%	3%	1%	1%
2-less than 5 years	3	2	3	4
5-less than 10 years	1	4	4	6
10 or more years	39	39	35	39
Born and raised on O'ahu	56	52	56	51
Home Ownership	2021	2019	2017	2015
Own	64%	64%	59%	58%
Rent	29	32	36	37
Occupy without payment	5	4	4	5
Refused	1	0	1	0
Type of Home	2021	2019	2017	2015
House	61%	70%	71%	67%
Apartment	13	12	13	15
Condominium	16	11	10	11
Townhouse	7	5	6	6
Other	2	1	1	1
Base=	675	682	686	685

Area of Residence	2021	2019	2017	2015
East Honolulu	13%	10%	12%	9%
Urban Honolulu	35	30	32	33
Windward	15	14	12	15
Pearl City, Aiea, Moanalua	7	9	8	6
Central O'ahu	15	18	18	21
Ewa Plain	10	13	9	9
North Shore	1	3	4	2
Leeward	5	3	5	5
Base=	675	682	686	685



Mahalo!

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



BWS UPDATES

Ernest Lau
Manager and Chief Engineer
July 21, 2022
boardofwatersupply.com

QUESTIONS / DISCUSSION





Mahalo!

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

UPCOMING STAKEHOLDER ADVISORY GROUP MEETINGS

2022

- Thursday, October 20, 2022

2023

- Thursday, January 19, 2023
- Thursday, April 20, 2023
- Thursday, July 20, 2023
- Thursday, October 19, 2023

