

WATER FOR LIFE

Safe, dependable, and affordable water now and into the future




Board of Water Supply
City & County of Honolulu

Stakeholder Advisory Group

**Board of Water Supply
City & County of Honolulu**

Tuesday November 14, 2017


WATER FOR LIFE
Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

Dave Ebersold
Facilitator

WELCOME



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Board of Water Supply
City and County of Honolulu

Public Comments on Agenda Items

Meeting Objectives

- ◆ Receive updates regarding the BWS
- ◆ Hear the results from the Customer Satisfaction Survey
- ◆ Provide recommendations on the fixed monthly charge
- ◆ Provide recommendations for fire meter standby charges
- ◆ Provide input on potential other subsidies



Action

Review and accept notes from
Stakeholder Advisory Group Meeting #20
held on Tuesday, October 17, 2017

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Board of Water Supply
City and Country of Hong Kong

Ernest Lau P.E.
BWS Manager and Chief Engineer

BWS UPDATES

New BWS Board Members

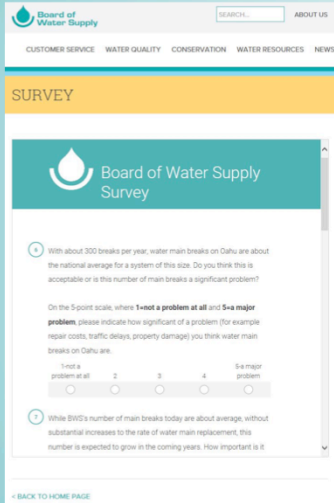
- ◆ Ray C. Soon

- Member
- Appointed October 2017

- ◆ Jade Butay

- Ex-Officio Member
- Interim Director Hawaii Department of Transportation
- Assumed role November 1, 2017

BWS Launches Web Survey to Seek Public Input on Financial Plan and Water Rates



Take the survey

Share this information

<http://www.boardofwatersupply.com>

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Mahalo!

Questions & Answers







WARD RESEARCH
INCORPORATED

Understanding Resident Perceptions of the Board of Water Supply

Prepared for:



Board of Water Supply

October 2017

OBJECTIVES AND METHODOLOGY

OBJECTIVES

To track measures of satisfaction and other key metrics related to perceptions of the Board of Water Supply and the fulfillment of its mission

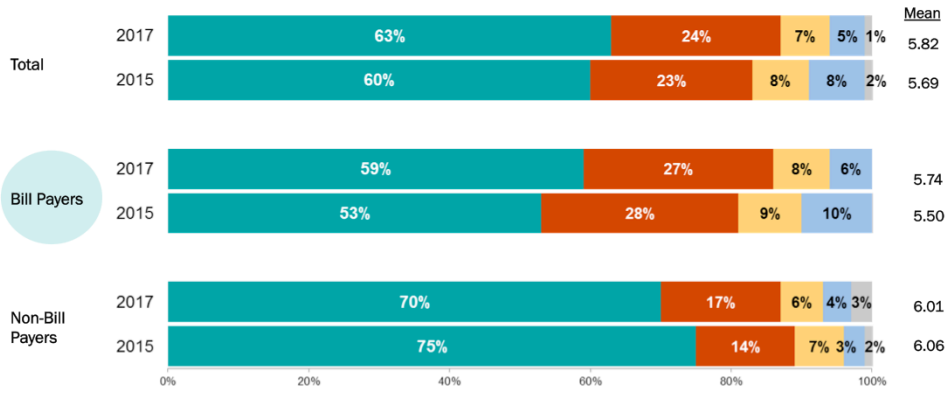
METHODOLOGY

- Telephone survey
- May 1-22, 2017
- n=686 Oahu residents (appx. 75 per Council District)
- +/-3.6% maximum sampling error
- 2nd wave of tracking survey (baseline in 2015)

OVERALL SATISFACTION WITH THE BWS

How would you rate your overall satisfaction with the Board of Water Supply?
1=EXTREMELY DISSATISFIED; 7=EXTREMELY SATISFIED

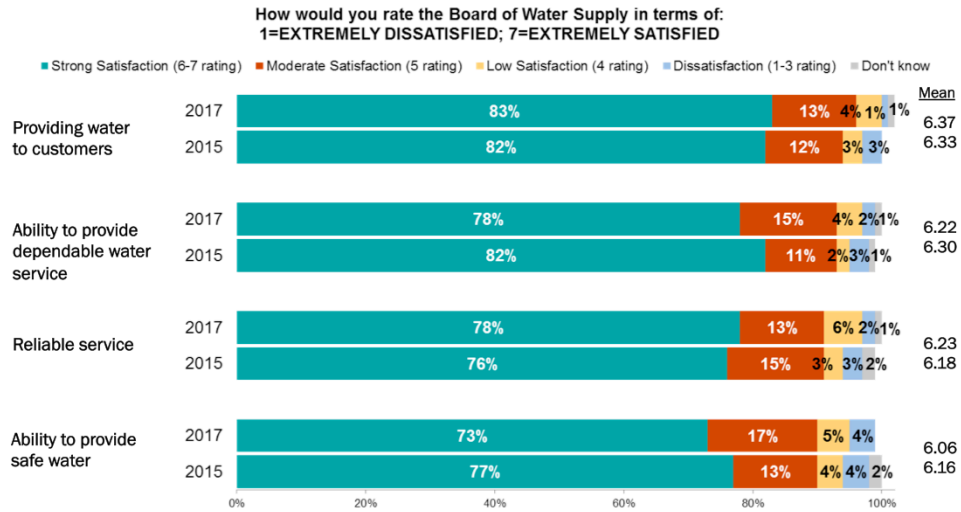
■ Strong Satisfaction (6-7 rating) ■ Moderate Satisfaction (5 rating) ■ Low Satisfaction (4 rating) ■ Dissatisfaction (1-3 rating) ■ Don't know



Indicates statistically-significant difference in strong satisfaction ratings

Ward Research, Inc. • Page 13

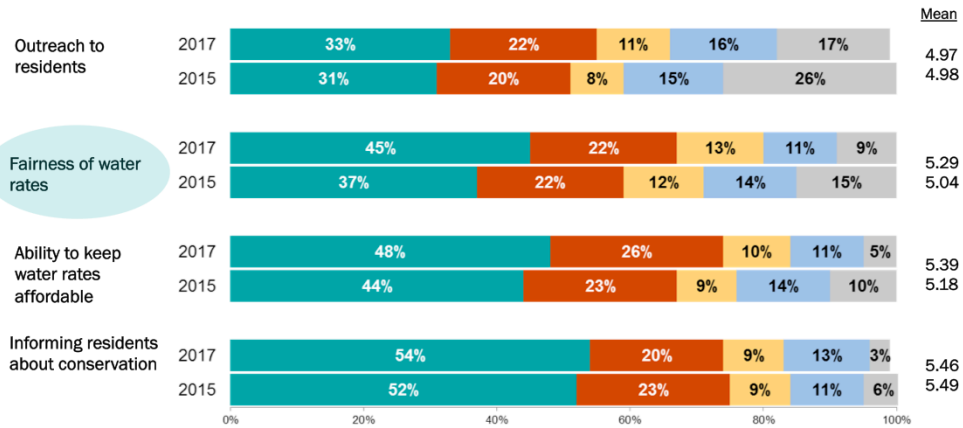
MOST SATISFACTORY ATTRIBUTES



LEAST SATISFACTORY ATTRIBUTES

How would you rate the Board of Water Supply in terms of:
1=EXTREMELY DISSATISFIED; 7=EXTREMELY SATISFIED

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

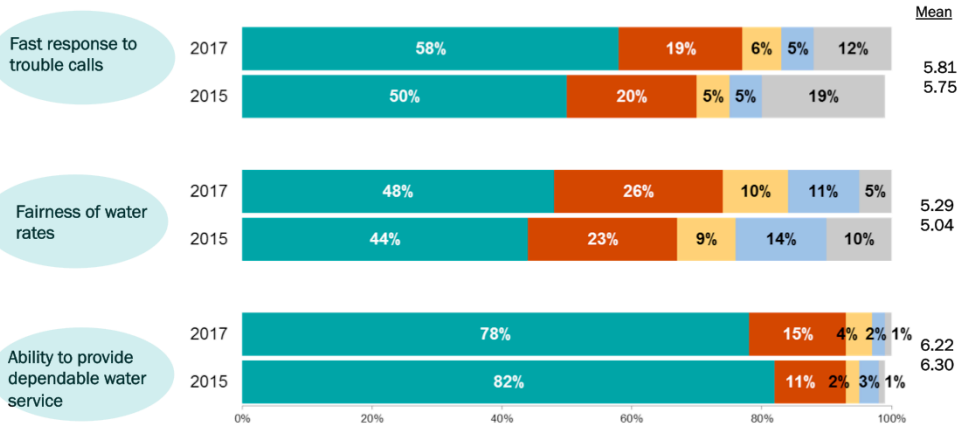


Indicates statistically-significant difference in strong satisfaction ratings

SIGNIFICANT CHANGES IN RATINGS FROM 2015

How would you rate the Board of Water Supply in terms of:
 1=EXTREMELY DISSATISFIED; 7=EXTREMELY SATISFIED

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

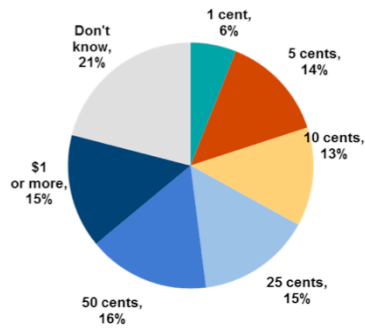


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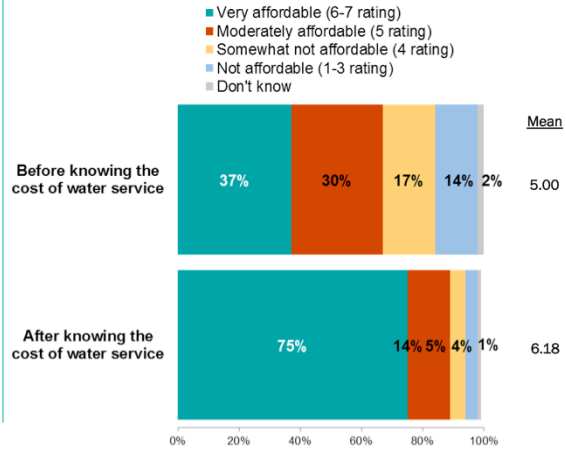
Ward Research, Inc. • Page 16

PERCEPTIONS ABOUT THE AFFORDABILITY OF WATER SERVICE

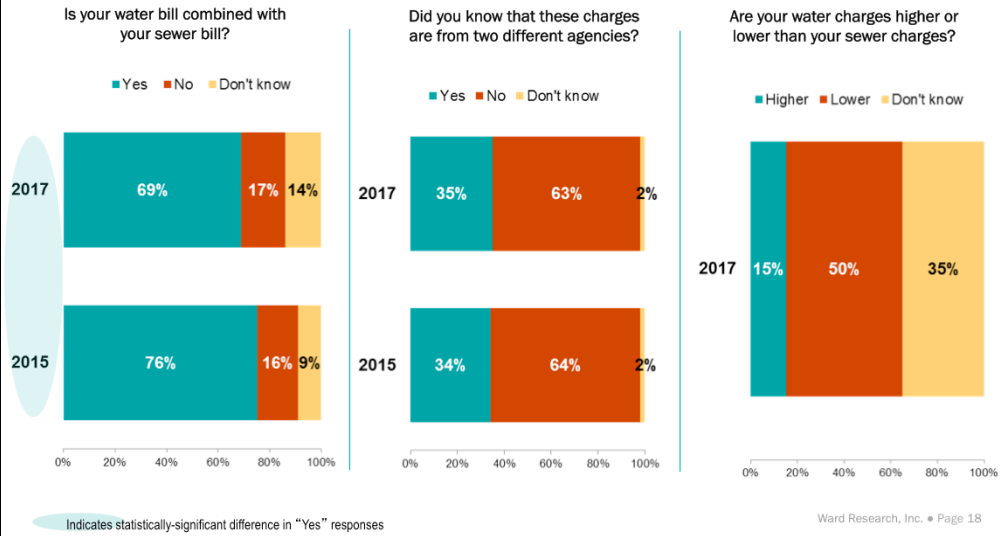
On average, how much per gallon do you think the Board of Water Supply charges for residential water services?



How affordable would you say your water service is?
1=NOT AT ALL AFFORDABLE; 7=EXTREMELY AFFORDABLE



DIFFERENTIATING WATER FROM SEWER BILL – BILL PAYERS ONLY



NEWS AND MESSAGE RECALL

News Recall:

41%

2015: 34%

Top News Stories Recalled

Water main breaks: 71%
(2015: 52%)

Age of pipes, infrastructure: 14%
(2015: 9%)

Water quality or contaminants: 8%
(2015: 8%)

Need for more infrastructure: 7%
(2015: 2%)

Message Recall:

22%

2015: 20%

Top Messages Recalled

Water conservation: 39%
(2015: 45%)

Water main breaks: 25%
(2015: 9%)

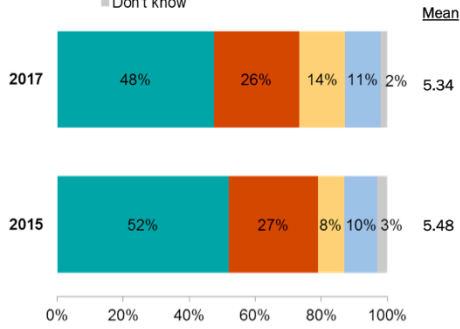
Age of pipes, infrastructure: 11%
(2015: 4%)

Water quality report: 10%
(2015: 11%)

SATISFACTION WITH THE CONDITION OF OAHU'S WATER DELIVERY SYSTEM

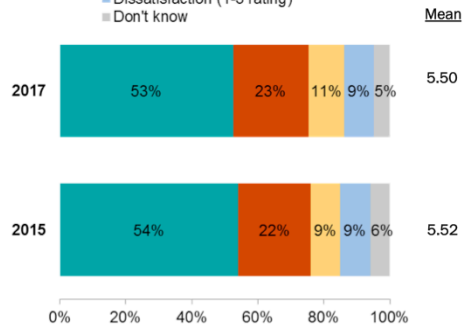
How satisfied are you with the condition of Oahu's water delivery system?
1=EXTREMELY DISSATISFIED;
7=EXTREMELY SATISFIED

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



How satisfied are you with the job that the Board of Water Supply is doing repairing, maintaining, and replacing Oahu's water delivery system?
1=EXTREMELY DISSATISFIED;
7=EXTREMELY SATISFIED

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



ADDITIONAL FINDINGS

- BWS still among the most trusted sources of information about freshwater issues on Oahu, along with scientists and the State Department of Health
- Little awareness of BWS' s programs and activities, particularly in water recycling and watershed protection; awareness is highest for programs to repair and maintain the water system
- Hardcopy mail continues to be the most preferred method of receiving BWS information, much more than email, TV, newspaper, and other sources
- Very few have contacted the BWS either about a bill or something else in the past 6 months, but those who did were generally satisfied with how the communication was handled and with the response time

SUMMARY OF FINDINGS

- Continued strong satisfaction with BWS, including statistically significant increase in bill payer satisfaction
- Levels of satisfaction with attributes tested fairly static with few significant differences from 2015
 - TOP-RATED: Attributes relating to water delivery service
 - BOTTOM-RATED : Attributes relating to rates and outreach
 - BILL PAYERS VS. NON-BILL PAYERS: Non-bill payers generally more satisfied than bill payers, perhaps due to lesser exposure to bills and rates

SUMMARY OF FINDINGS

- Water service perceived to be more expensive than it is, including among bill payers
 - Continued lack of awareness that water and sewer charges are set by different agencies
 - Somewhat low levels of recall of news stories or messages from BWS
 - Stories recalled: rates, conservation, pipes
 - Significant increases in mentions: water main breaks, need for more infrastructure, age of pipes and infrastructure
- Important because of how perceptions of rates affect satisfaction

CONCLUSIONS

- Steady perceptions regarding a steady utility
- Hints at increased attention to infrastructure concerns
- Opportunities to:
 - Familiarize residents with their water bill
 - Educate residents about the cost of water service
 - Address (early?) concerns about “aging pipes” and infrastructure

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Mahalo! **Questions & Answers**



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Brian Thomas
Public Financial Management

FIXED MONTHLY CHARGES

Billing Charge



- ◆ The charge is a flat fee of \$9.26 per bill for all customers, whatever their meter size or level of use
- ◆ The billing charge covers:
 - Customer service and billing staff
 - Meter maintenance and repair
 - Meter reading
 - Processing and mailing bills

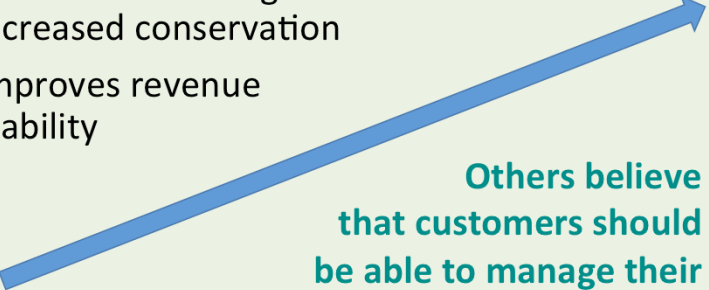
Three Commonly Used Fixed Charges

Billing Charge	Monthly Charge	Minimum Charge
Only charged if a bill is issued	Recognizes that there are significant fixed costs, regardless of usage	Recognizes there are significant fixed costs, regardless of usage
Recovers meter reading, billing, and other costs incurred equally per account	Fee increases with meter size. Typically recovers billing costs plus customer related costs that vary by meter size, e.g. meter testing, repair, replacement	Typically recovers same types of costs as monthly charge
	Can include a portion of capacity costs, "Readiness to Serve"	Includes an allowance for water consumption, whether or not the water is used

[AWWA M1 Manual, 6th Edition]

A Trend in Water Utilities is to Increase Fixed Charges

- ◆ High percentage of utilities costs are fixed
- ◆ Revenues declining due to increased conservation
- ◆ Improves revenue stability



**Others believe
that customers should
be able to manage their
bills through conservation**

[AWWA M1 Manual, 6th Edition]

Monthly Fixed Charge Comparison

Maui	Kauai	Hawaii
5/8" = \$19.25	5/8" = \$17.75	5/8" = \$18.30
3/4" = \$31.00	3/4" = \$24.75	
1" = \$46.00	1" = \$36.50	1" = \$39.00
1.5" = \$88.00	1.5" = \$65.50	1.5" = \$73.00
2" = \$137.00	2" = \$100.00	2" = \$113.00
3" = \$242.00	3" = \$181.00	3" = \$207.00
4" = \$420.00	4" = \$297.00	4" = \$342.00
6" = \$770.00	6" = \$587.00	6" = \$678.00
8" = \$1,215.00	8" = \$934.00	8" = \$1,081.00
		10" = \$1,560.00
		12" = \$2,720.00

Examples of Monthly Charges for BWS

Per Bill Charge	Per Meter Charge	Per Meter Charge by Meter Size
\$20 million in costs to recover	\$20 million in costs to recover	5/8" or 3/4" = \$7.75
2 million bills per year	215,000 "equivalent" meters	1" = \$13.15
\$10 per bill	\$7.75 per equivalent meter per month	1.5" = \$26.30
		2" = \$42.05
		3" = \$84.10
		4" = \$131.40
		6" = \$262.80
		8" = \$420.45

"Equivalent" meters is an AWWA M1 Manual method to count meters of varying size on the same unit basis

Questions About the Fixed Charges

- ◆ Is BWS's current billing charge clear? Is it equitable?
- ◆ Should BWS's current fixed charge be changed to vary by meter size?
- ◆ Should it be the same for all classes of potable water customers?
- ◆ As always, the "whys" and "why nots" matter

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Public Financial Management

FIRE PROTECTION CHARGES

Utilities have Differing Viewpoints about Fire Protection Charges

Public

Costs are potentially recovered from a governmental agency or special district through a hydrant charge



Private

Costs are potentially recovered from customers with private fire protection systems



[AWWA M1 Manual, 6th Edition]

Fire Protection Differs from Other Services

- ◆ “Standby service” that is available on demand
- ◆ Provided to those customers with fire protection systems
- ◆ Rarely used, but must be available at all times throughout the system
- ◆ Not needed by other customers



Private Fire Protection Monthly Charge Comparison

Maui	Kauai		Hawaii	
NA	Fire Line Charge	Meter Reading Service Charge for Detector Check Meters	Automatic Fire Sprinklers or Other Private Protection	Fire Line or Fire Service Meter Standby Charge (for combination of fire and domestic)
		5/8" = \$17.75 3/4" = \$24.75 1" = \$36.50 1.5" = \$65.50		
	2" = \$28.25 3" = \$49.00 4" = \$80.00 6" = \$166.00 8" = \$283.00	2" = \$100.00 3" = \$181.00 4" = \$297.00 6" = \$587.00 8" = \$934.00	2" = \$18.00 3" = \$35.00 4" = \$48.00 6" = \$108.00 8" = \$164.00	3" = \$188.00 4" = \$309.00 6" = \$612.00 8" = \$978.00 10" = \$1,407.00

Private Fire Protection Charge Considerations

- ◆ Most common method based on the size of the customer's fire service connection
- ◆ Capital and O&M-related costs allocated between public and private based on equivalent fire connections
- ◆ Maximum day and peak hour unit costs of service determined based on fire protection demands presuming two simultaneous fires in same system

Sample Private Fire Service Charge for BWS

Meter Size	Number of Meters	Monthly Charge
2" or smaller	44	\$1.20
3"	0	\$2.90
4"	464	\$5.80
6"	679	\$16.15
8"	718	\$34.05
10"		\$61.00
12"		\$98.30

Cost of service is ~ \$400,000 per year

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Questions & Answers



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Board of Water Supply
City and County of Honolulu

Ernest Lau/Ellen Kitamura

Manager and Chief Engineer/Deputy Manager

**SUBSIDIES FOR AFFORDABLE HOUSING,
HOMELESS & FIRE SPRINKLER
INSTALLATION PROJECTS**

Bill 59 – Provides Incentives to Help Stimulate Affordable Housing Production

- ◆ Establish Affordable Housing Incentives
 - 06/07/2017: Introduced to City Council; Not adopted
- ◆ Companion for Bill 58 – Affordable Housing Requirements (AHR)
 - Establishes an island-wide AHR to address the critical shortage of affordable housing
 - Develop and maintain a significant inventory of affordable housing
 - 06/07/2017: Introduced to City Council; Not adopted

Bill 59 – Affordable Housing Incentives Include Fee Waivers

- ◆ Proposed fee waivers:
 - Wastewater facilities charges
 - Park dedication requirements
 - Plan review and building permit fees
 - Exempt any increase in property tax during construction
 - Exempt real property taxes for affordable rental projects
- ◆ City is requesting the BWS waive fees
- ◆ BWS fee waiver requires Board approval

Estimated BWS WSFC for City Affordable Housing

Description	Total Units	Estimated BWS WSFC	Assumptions
Single-Family	3,049	\$11,301,423	20 FU * \$185.33/FU
Multi-Family	10,744	\$12,095,539	5.5 FU * \$204.12/FU
Homeless	4,712	\$5,289,974	5.5 FU * \$204.12/FU
TOTAL	18,535	\$28,686,936	

- ◆ Projected Demands for Housing Units 2012-2016
- ◆ Source: Housing Oahu – Affordable Housing Strategy dated September 8, 2015
- ◆ Water System Facilities Charges (WSFC) based on charges set in 1993

FU: fixture unit, a method of comparing water use among different types of plumbing fixtures.

Equals 1 cubic foot of water drained through a 1.25-inch diameter pipe in 1 minute.

Projected demands are for both ownership and rentals.

“Affordable” means households earning less than 80% of the area median income (AMI).

City projects an estimated 4,000 affordable units to be added in 5 years and another 4,000 from State projects.

Council's Affordable Housing Resolutions 2012 to Present

RESOLUTION	PROJECT	DESCRIPTION	BWS FEES*
15-29,CD1,FD1	Ola Ka 'Ilima Artspace Lofts	8-story MFD – 84 units	\$125,905
15-297, CD1	Hale Kewalo	11-story MFD – 128 units	\$167,403
17-27, CD1	Ainahau Vista	9-story MFD – 62 units	\$180,000
17-176,CD1	Ohana Ola O Kahumana	Training Kitchen at Affordable Housing Development	\$22,867
17-177	Keahumoa PI	320 rental units	\$807,000
17-312	Nohona Hale	16-story – 110 micro-units	\$135,498
		TOTALS	\$1,438,673

* Estimated fees may change when build permits are submitted

Recent Requests for BWS Fee Deferrals for Homeless Shelters

Project	BWS Fees
Kahauiki Village @ Keehi Lagoon	\$94,993
431 Kuwili Street Renovation	\$63,972
Hale Mauiola @ Sand Island	\$12,417
TOTAL	\$171,382

Bill 69 – Fire Safety

- ◆ Require existing high-rise residential buildings to retrofit when necessary to comply to specified fire safety standards
 - 08/09/2017 Introduced to City Council; Deferred in Committee
 - Waiting for report from Residential Fire Safety Advisory Committee
- ◆ City is requesting the BWS waive fees
- ◆ BWS fee waiver requires Board approval

Estimates for BWS Fees Deferral

- ◆ Estimated 150 existing condominiums may need to be retrofitted with fire sprinklers
- ◆ Meter size based on sprinkler requirements and on a case-by-case basis

Meter Size	Meter and Fire Meter Charge (one time)	BWS Fees
Assume all 4"	\$6,556.00	\$983,400
Assume all 6"	\$13,426.00	\$2,013,900
Assume all 8"	\$22,961.00	\$3,442,650

- ◆ Average = \$2,146,650

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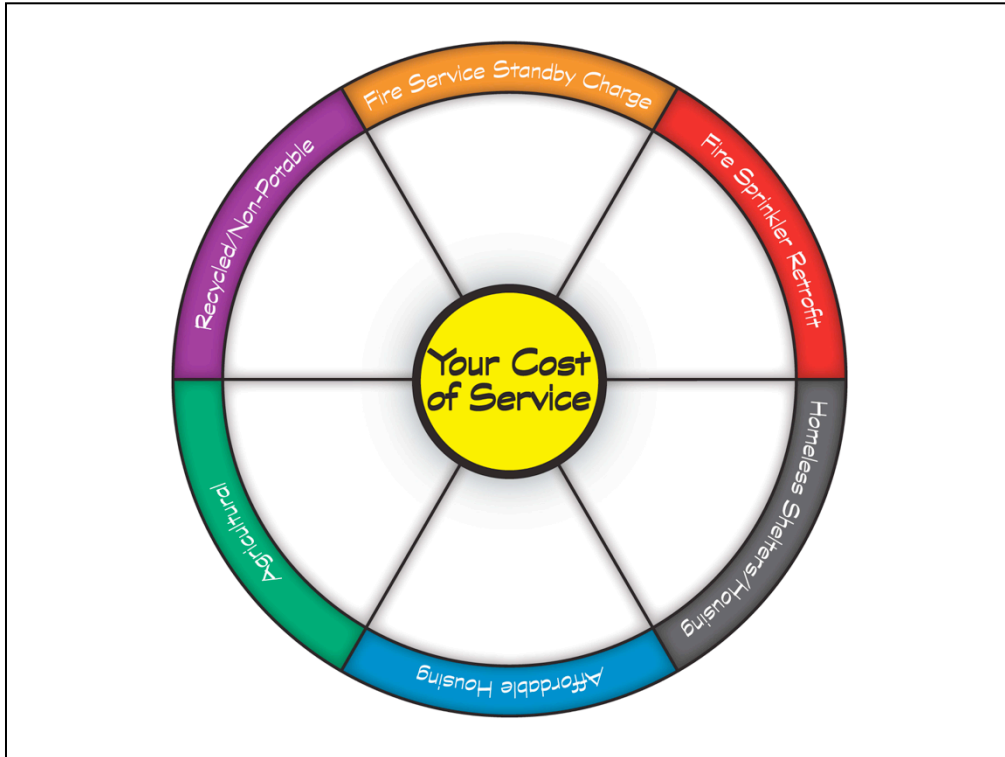
Questions & Answers



Sample Monthly Subsidy Amounts

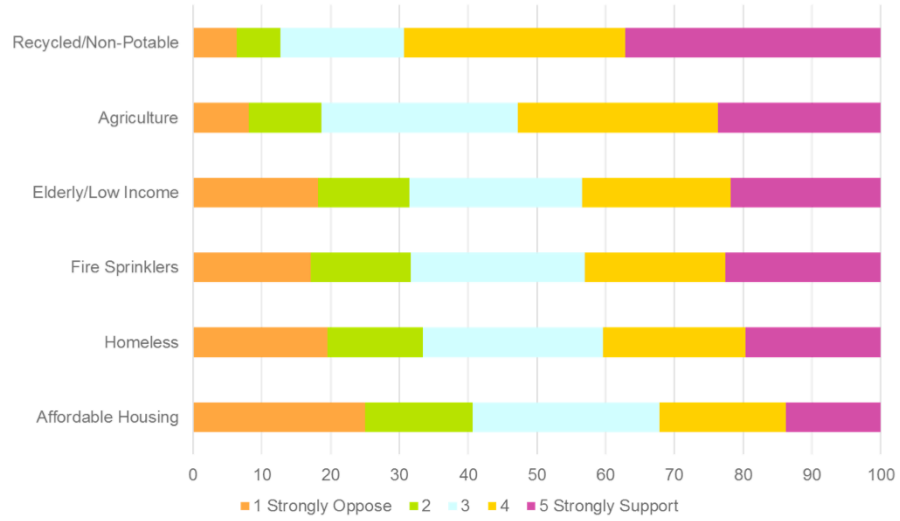
Type of Subsidy	Annual Amount	Sample Monthly Amount
Recycled Water	\$5,955,100	\$3.07
Non-Potable Water	\$815,900	\$0.42
Agricultural Customers	\$4,372,830	\$2.26
Fire Service Standby Charge	\$400,000	\$0.21
Fire Sprinkler Retrofit*	\$178,888	\$0.09
Homeless Shelters / Housing*	\$170,000	\$0.09
Affordable Housing*	\$2,868,694	\$1.48

* Potential, under consideration



This graphic was used in a subsidy prioritization exercise.

Web Survey Results for Subsidies as of November 8

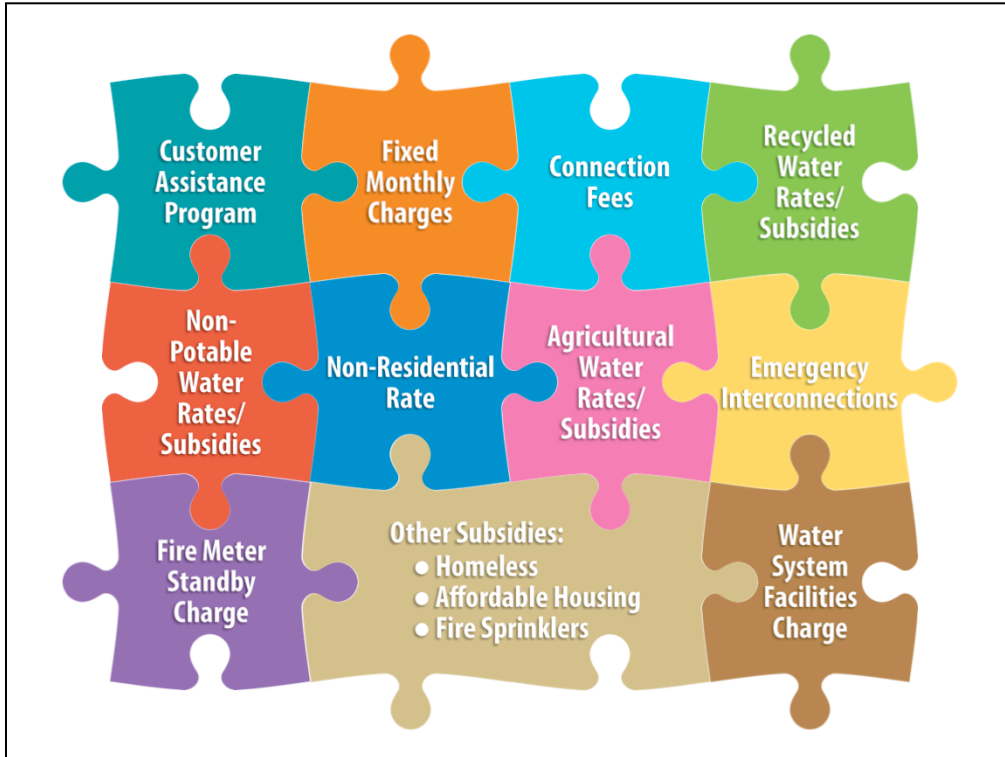


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Facilitator

SUMMARY AND NEXT STEPS



Other Items

- ◆ Next Meeting
Thursday, December 07, 2017
4:00 – 6:30 pm

Blaisdell Center
Hawaii Suites

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