

Slide 1



The slide features a header with the text "WATER FOR LIFE" and the tagline "Safe, dependable, and affordable water now and into the future" on the left, and the "Board of Water Supply" logo on the right. The main content area is a teal gradient with a dark teal horizontal band containing the title "Stakeholder Advisory Group". Below this, the text "Board of Water Supply City & County of Honolulu" and "Wednesday, June 21, 2017" is centered.

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

Wednesday, June 21, 2017

Slide 2

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

Board of Water Supply
City and County of Denver

Dave Ebersold
Facilitator

WELCOME


Slide 3



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

Board of Water Supply
City and County of Honolulu


Public Comments on Agenda Items



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

Meeting Objectives

- ◆ Receive updates regarding the BWS
- ◆ Review and weight value statements for the water rate structure
- ◆ Begin discussing water rates policy issues
- ◆ Learn about BWS's cost of service for major customer classes

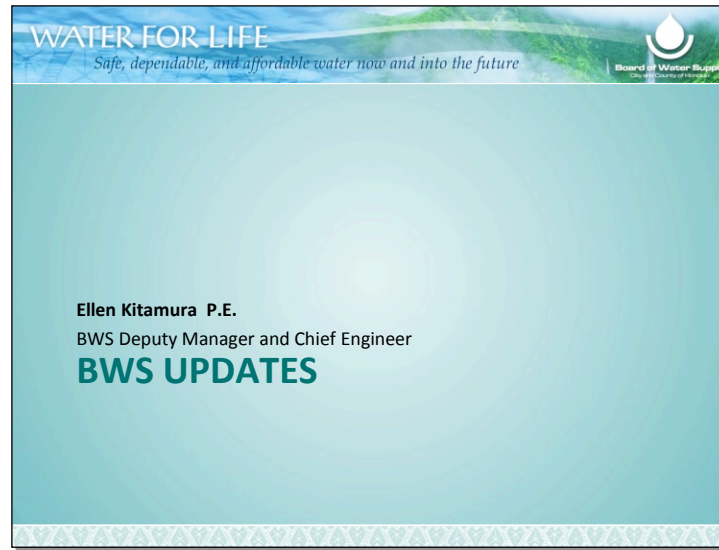


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Action

Review and accept notes from
Stakeholder Advisory Group Meeting #15
held on Thursday, May 18, 2017

Slide 6



The slide features a header with the text "WATER FOR LIFE" and the tagline "Safe, dependable, and affordable water now and into the future". To the right of the header is the logo for the Board of Water Supply, City and County of Honolulu. The main body of the slide has a teal background with a subtle circular pattern. The text "Ellen Kitamura P.E." and "BWS Deputy Manager and Chief Engineer" is positioned on the left side. Below this, the title "BWS UPDATES" is displayed in a larger, bold, teal font. A decorative border with a repeating geometric pattern is located at the bottom of the slide.

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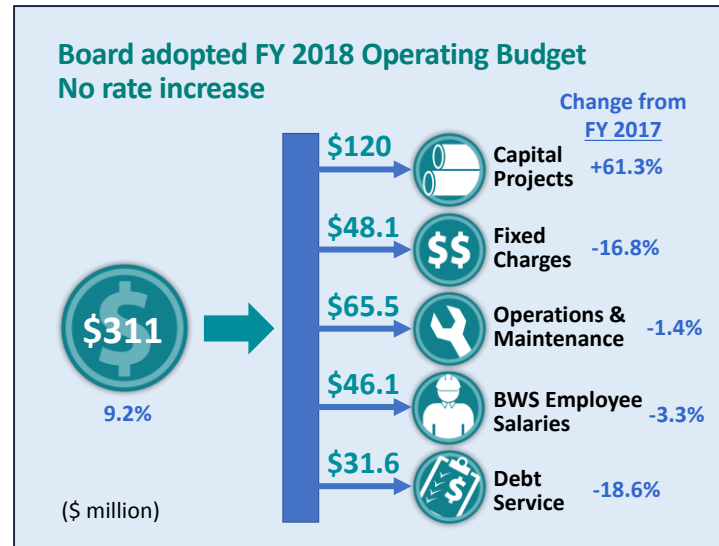
Ellen Kitamura P.E.
BWS Deputy Manager and Chief Engineer

BWS UPDATES

Slide 7

**Red Hill Fuel Storage Tank
Project Update Meeting**

June 22, 2017
6:00 pm-8:30 pm
Moanalua Middle School
1289 Mahiole Street
Honolulu



BWS seeks feedback for preparation of Haiku Stairs EIS


- ◆ Environmental Impact Statement Preparation Notice (EISPN) Published April 23
- ◆ Draft EIS will explore
 - Removing stairs entirely
 - Providing legal access to and from the stairs and improving it for public use
 - Transferring the stairs to another government agency
 - Taking no action
- ◆ Received and are analyzing over 700 comments

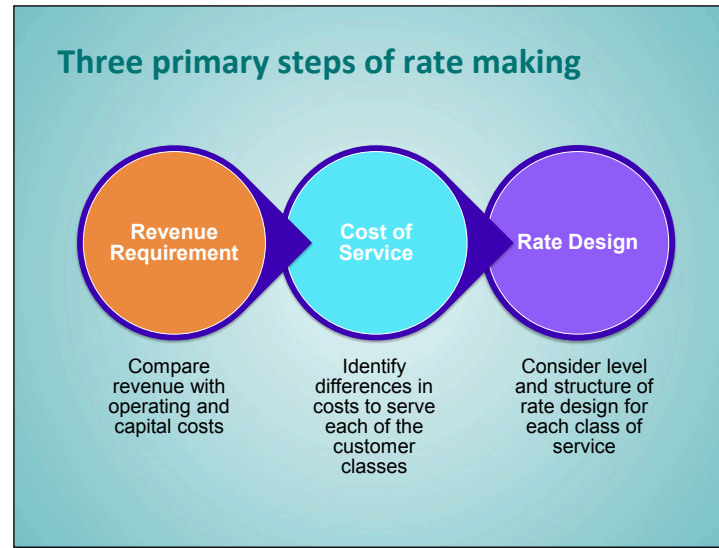
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Mahalo! **Questions & Answers**

ENTRUSTED TO US TO
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Using a “pie” analogy to describe the three primary steps of rate making:

- The revenue requirement is the size the pie.
- Cost of service is like the cost of the ingredients.
- Rate design is the size of each person’s slice of the pie.

Slide 12

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Dave Ebersold
Facilitator

VALUE STATEMENTS FOR WATER RATES

Why develop and weight rate value statements?

- ◆ Provides a “common language” to support discussion
- ◆ Illustrates the complementary and competing aspects of certain objectives
- ◆ Supports clear communication of stakeholder interests and values
- ◆ Supports deeper understanding of other perspectives
- ◆ Facilitates evaluation of various rate alternatives and their impacts

Value statements

- ◆ Legal
- ◆ Recover Full Cost of Water
- ◆ Credit Strength
- ◆ Fair and Equitable
- ◆ Stable and Predictable
- ◆ Encourage Conservation
- ◆ Understandable
- ◆ Affordable

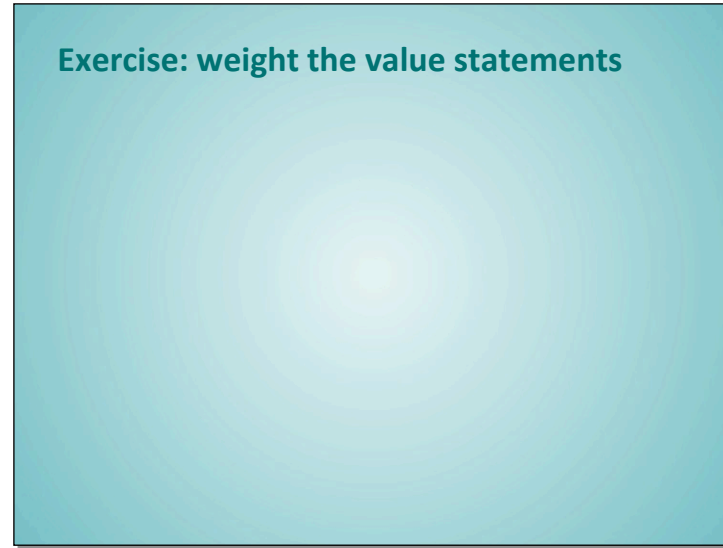
Affordable

Affordable has multiple components, all of which point to delivering the right quality of water for the lowest reasonable price:

- ◆ Can depend on reliable water service
- ◆ Water bills are reasonably consistent, month-to-month
- ◆ Recognize and address that low income residents have limited means to pay their bills

Affordable (Cont.)

- ◆ Recognize that customer classes provide valued services, e.g. agriculture, and affordable water supports the sustainability of those services
- ◆ Customers have the ability to control their expenses through conservation
- ◆ The right qualities of water (potable v. non-potable) for the right uses are available at reasonable prices





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Slide 19



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Brian Thomas
Public Financial Management

WATER RATE POLICY ISSUES

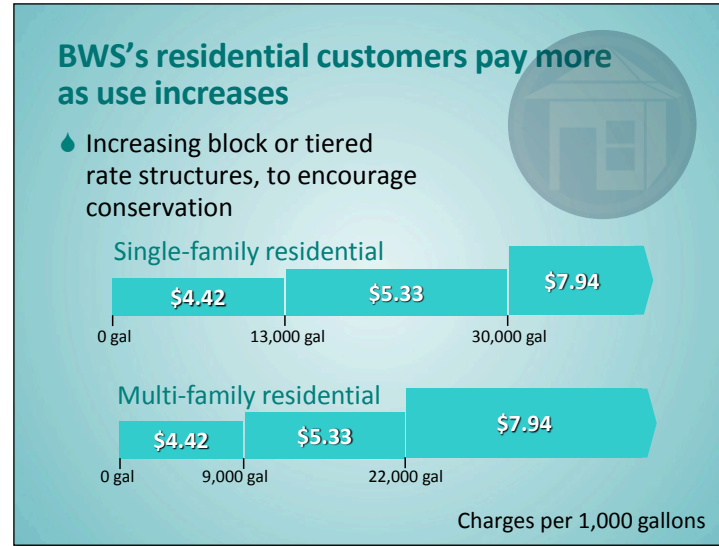
Rate design requires choices

- ◆ The mix of fixed charges vs. volumetric charges
- ◆ The number, size and price of residential rate tiers
- ◆ Consideration of alternate non-residential rate structures and prices
- ◆ Special rates for specific customer classes, to reflect community values, e.g. agriculture
- ◆ Creating an affordability program
- ◆ Water System Facilities Charge

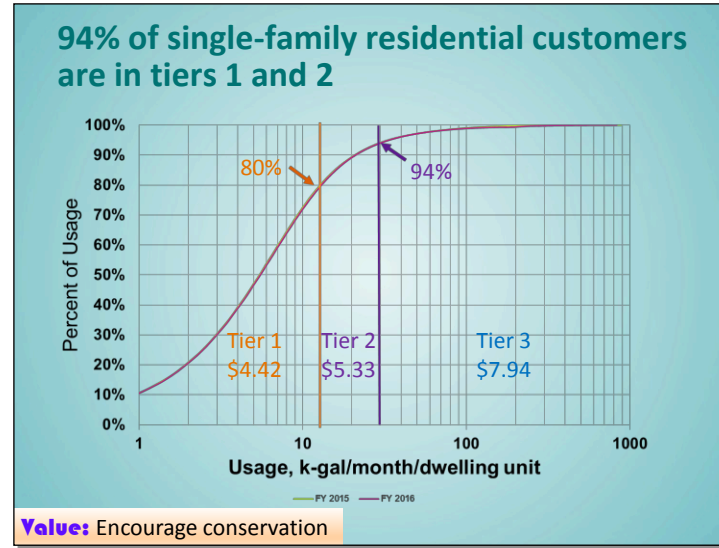
Amount of fixed charges vs. commodity charges

- ◆ BWS's fixed charge is the monthly billing charge
- ◆ With increasing conservation, water sales (and revenues) decrease
- ◆ To stabilize revenues, some agencies increase the amount of their fixed charges
- ◆ Higher % of fixed charges benefits larger water users
- ◆ Higher % of fixed charges decreases an individual customer's ability to "control" their water bill
- ◆ Should be linkage between charges and services they support

Value: Stable and predictable, Encourage conservation, Understandable



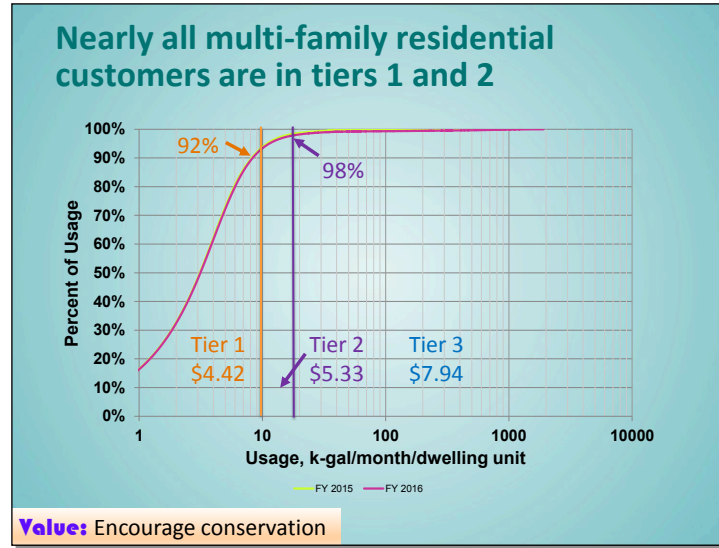
Multi-family residential customers pay the same rates, but the blocks differ.



Comparison of single-family residential rate tiers

Agency	BWS	Maui	Kauai	Las Vegas	Los Angeles	Washington DC
Tier 1	13	5	2	6.8	12	3
Tier 2	30	15	29	13.5	26.9	6
Tier 3	>30	35	57	27	56.8	80
Tier 4		>35	65	>27	>56.8	>80
Tier 5			>65			

Value: Encourage conservation



Consideration of alternate non-residential rate structures

- ◆ Tiered declining block rate (e.g. Louisville, KY)
- ◆ Tiered inclining block rate (e.g. Arlington, TX)
- ◆ “Base plus excess” based on average monthly use (e.g. Boulder, CO)
- ◆ Water budgets based on site specifics, productivity, employees, water use efficiency practices (e.g. Irvine, CA)
- ◆ Water budgets for irrigation customers (e.g. Redwood City, CA)
- ◆ Monthly charge for fire service (regardless of usage)

Value: Encourage conservation, Fair and equitable

Special rates for specific customer classes to reflect community values

Differences between cost to serve and revenue

	Single	-
	Multi	+
	Non-residential	+
	Ag	-
	Non-potable	-

Value: Fair and Equitable, Affordable

Affordability programs

Growing demand for programs that:

- ◆ Assist people to pay for water service
- ◆ Reduce penalties for difficulty or inability to pay due to limited income, critical life events
- ◆ Protect people with health vulnerabilities unable to pay for resulting additional water needs
- ◆ Contain utility costs and reduce bad will associated with late payments, including service disconnection and reconnection

Value: Affordable

“ Based on industry surveys, more than 60 percent of water utilities partner with community organizations or local government agencies. . .to help low-income water customers.”

“Thinking Outside the Bill”,
American Water Works Association, 2014

Value: Affordable

Types of affordability programs

1. Bill discounts and credits
2. Flexible terms for repayment
3. Block rate structure and lifeline rates
4. Temporary or crisis assistance
5. Water efficiency and leak repairs
6. Community and local government assistance programs
7. Income-based discounts

(Abell Foundation Report, Nov 2016)

Value: Affordable

1. Bill discounts and credits

California Water Services Co.

- 50% discount on fixed monthly charges up to \$360 per year
- Qualified if enrolled in Women Infants and Children (WIC), Medicaid, or other public assistance programs

Seattle Public Utilities

- 50% discount on water bill for households <70% Median Household Income (MHI)
- Emergency assistance of 50% of an unpaid bill up to \$371 annually

Value: Affordable

Utility offers a discount on the amount of the bill

2. Flexible terms

BWS

- Moved from bi-monthly to monthly billing
- Offers zero-interest plans to pay off past-due payments

Washington, D.C., Boston, Detroit, Philadelphia, and Baltimore

- Moved from quarterly to monthly bills

Albuquerque, NM

- Moved to predictable “levelized” monthly payments based on average annual use

Value: Affordable

Utility implements monthly billing, past-debt payment plans, or “levelized payments” based on annual use

3. Block rate structure and lifeline rates

BWS

- Uses an inclining block rate structure

LADWP

- Expanded to 4-tier inclining block rate structure. First tier based on indoor basic water needs
- Seniors and disabled customers get 31% discount on the first 13,464 gallons of water every two months

Washington DC

- Lifeline rate available for customers who qualify annually for home heating assistance

Norman, OK

- Lifeline rate less than 50% for first 5,000 gallons

Value: Affordable

Customers pay differing rates based on usage. Low-income customers pay a subsidized lifeline rate for a fixed amount of water expected to cover basic water needs.

4. Temporary or crisis assistance

Portland, Oregon

- Offers Low-Income Utility Assistance Program providing a \$150 crisis voucher every 12 months
- Safety net to delay shut-off, waive delinquency charges, offer interest-free payment plans to customers facing medical emergencies, loss of jobs, divorce, or other life disruption

Kansas City, MO

- One-time credit up to \$500 per year for customers facing water shutoff due to emergencies

Value: Affordable

Utility offers one-time, short-term aid for emergency or hardship, preventing water shut-off or restoring water service. Identify “payment-troubled customers,” i.e. elderly, disabled, or in financial crisis, and actively connect them to aid programs

5. Water efficiency and leak repairs

Portland, ME

- Households < 80% of MHI may qualify for plumbing repairs, replacement and installation of water saving devices

East Bay Municipal Utility District, CA

- Rebate for purchasing qualifying Energy Star models

Aurora, CO

- Pays to replace aging plumbing fixtures with new water-efficient devices for households receiving low-income benefits for electricity

King County, WA

- \$100 rebate toward a low-flow toilet to replace pre-2004 toilets

Value: Affordable, Encourage conservation

Utilities offer rebates or otherwise subsidize leak repairs or installation of certified water-saving fixtures, toilets, and appliances

6. Community and local government assistance

Washington Suburban Sanitary Commission (WSSC)

- Helps financial hardship customers pay delinquent bills; administered through the Salvation Army
- Funded by donations from customers (“round up” bill payment), WSSC employees, and the general public

Washington Urban League

- Serving People by Lending A Supporting Hand program helps low-income customers pay bills
- Funded by water customers who round up their bills and private contributions

Scranton, PA, American Water

- One-time water and sewer grants of \$500 for customers below 150 percent of federal poverty guidelines; 80% discount on monthly water service fee

Value: Affordable

Combines corporate, individual and utility contributions to assist low-income customers


7. Income- based discounts

Philadelphia, PA

- ◆ Income-Based Water Rate Assistance Program enacted 2015, first in nation
 - Sets rates as a fixed percentage of household income, with a minimum bill of \$12 per month
 - 0 to 50% of federal poverty level receive monthly bills calculated as 2% of monthly income
 - 50% to 100% of federal poverty level receive monthly bills calculated as 2.5% of monthly income
 - 100% to 150% of federal poverty level receive monthly bills calculated as 3 percent of monthly income

Value: Affordable

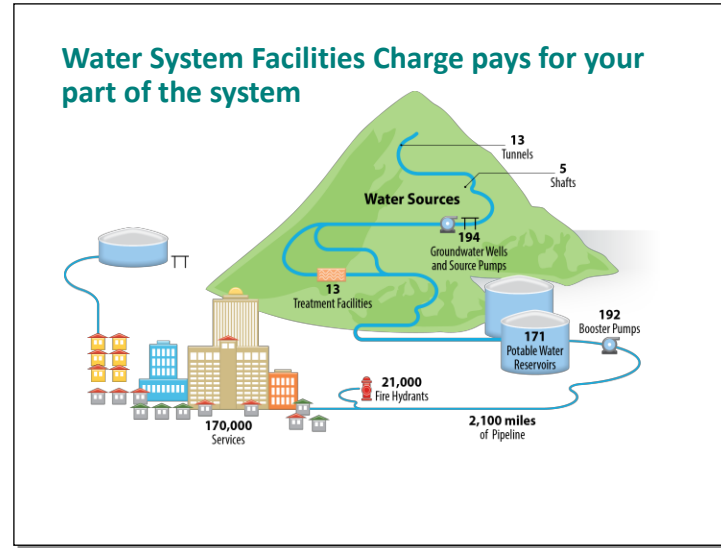
Water System Facilities Charge



- ◆ Based on water use capacity
- ◆ Applies to:
 - All new developments and residential properties requiring water from BWS's system
 - Additional supplies needed from an existing water service
- ◆ Excludes developments that have paid for and installed all or part of a water system, e.g. source, transmission, and/or storage

Minimum Charges	
Residential	\$3,706
Non-residential	\$12,417
Agricultural	\$4,819

- Residential and non-residential charges are based on number of fixture units (Assumed 20 which is the minimum for both residential and non-residential).
- Agricultural customer charges are based on meter size.
- Some developers put in components of a system (rather than complete systems) and receive partial credit
- Revenues collected are only used to fund expansion projects.
- No WSFC for non-potable



WSFC minimum charge comparisons

	BWS	Maui	Kauai (proposed)	Las Vegas
Residential	\$3,706	\$12,060	\$14,115 (1)	\$6,418
Non-residential	\$12,417	\$12,060	\$14,115	\$6,418
Agricultural	\$4,819	\$12,060	\$14,115	\$6,418
Special			\$4,940 (2)	

Notes:

- (1) Multi-family/hotel rooms \$9,880
- (2) For affordable housing, per dwelling unit

Value: Fair and Equitable, Affordable

Water System Facilities Charge options

- ◆ Portion of water use capacity to recover
- ◆ Provide discount/waiver to encourage affordable housing development
- ◆ Allocate cost of discount/waiver only to the WSFC or across entire customer base

Value: Fair and Equitable, Affordable

BWS's WSFC is based on fixture units (fu), with a minimum charge of 20 fu. Most other agencies charge based on meter size. The reasons are twofold: 1) they charge for the capacity potential, and 2) it is simpler from the administrative perspective. BWS fixture units, while more difficult to administer, more closely reflect a customer's actual burden on the system.



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Slide 43

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City and County of Denver

David Ebersold
Facilitator

COST OF SERVICE

Cost of service defined

A Cost of Service (COS) analysis determines the cost of providing water service to each distinct customer class, following guidelines from the AWWA Manual M1: *Principles of Water Rates, Fees and Charges*.

The BWS COS study is based on FY2016.

Purposes of a Cost of Service Study

- ◆ Evaluate the costs to serve customers
- ◆ Compare costs to rate-based revenue
- ◆ Show the impact of the rate structure on varied customer classes
- ◆ Inform rate policies and decisions about the rate structure

Cost of service is based on

- ◆ Annual operation and maintenance expenses
- ◆ Capital-related costs
- ◆ Quantity of water used
- ◆ Use and stress of the system
- ◆ Number of services to each customer class
- ◆ Size of services (i.e. meter size)

Cost of service considers differences among BWS's customer classes



Single-family



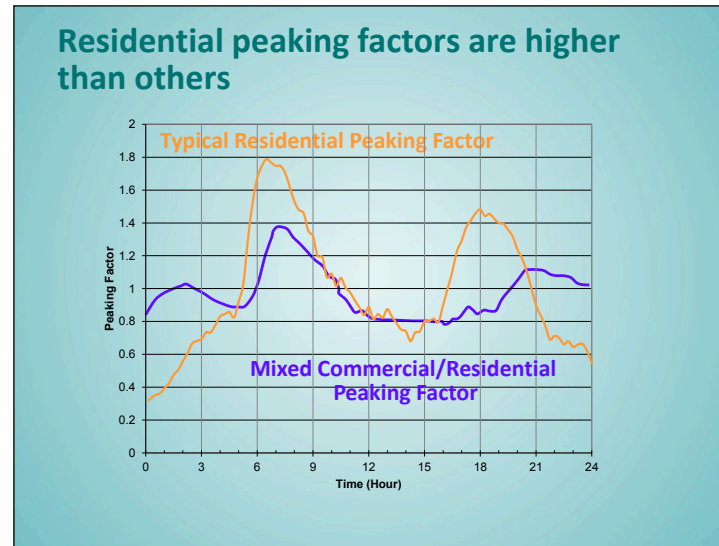
Multi-family



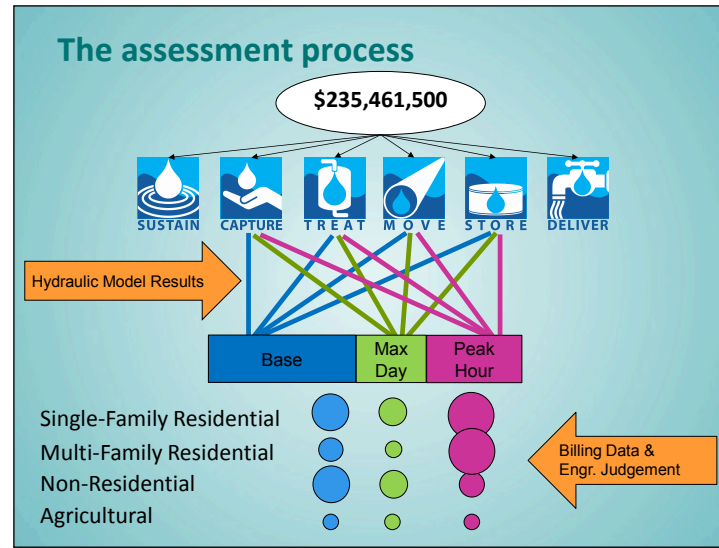
Commercial/Industrial







Agricultural

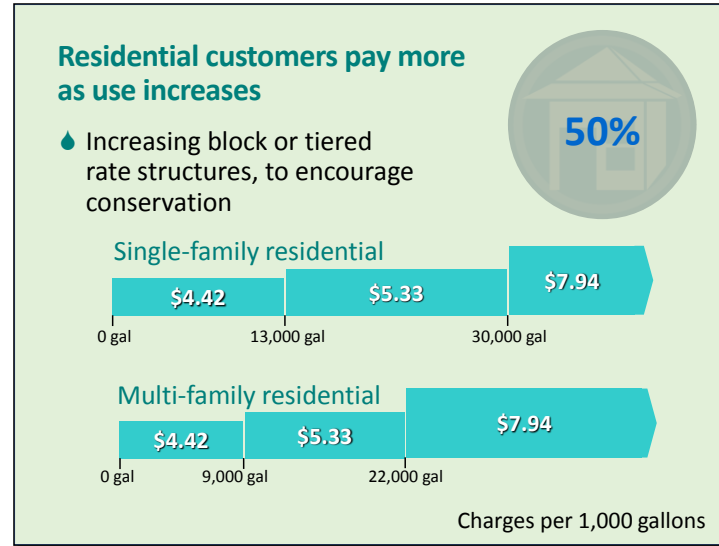


- Residential is Kamehame 500 – Hawaii Kai
- Ewa 215 and East Kapolei 440 – about 63% commercial/industrial so you see some residential peak here, but not nearly as high. Also, nighttime usage does not drop so low.




- Evaluate Costs by BWS Functions (sustain, capture treat, move, store, deliver)
- Allocate the functional costs into cost components, e.g. customer meters and bills and fire protection are part of deliver. Conservation and sustainability are part of sustain. These don't vary by customer class. But, base usage, maximum day, and peak hour DO vary.

Units of service	No. of Accounts or Dwelling Units	Avg. Daily Use	Max Day Extra Capacity	Peak Hour Extra Capacity
 Single Multi	165,613	46,750	14,025	74,800
 Non-residential	9,372	45,041	11,260	29,277
 Ag	497	3,021	604	604
 Non-potable	74	1,827		



**Cost of Service and Revenues:
Residential**



- ◆ **Single Family Residential**
 - Cost of service \$107.4 million
 - Annual revenues \$96.6 million
 - Difference -11%

- ◆ **Multi-Family Residential**
 - Cost of service \$39.9 million
 - Annual revenues \$45.4 million
 - Difference 12%

**Non-Residential customers drive
our island's economy**

- ◆ All non-residential customers
pay the same rate




\$4.96 per 1,000 gallons

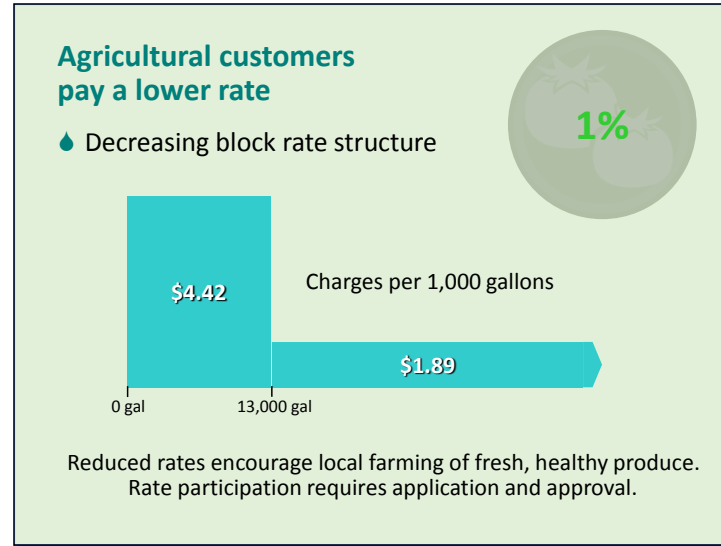


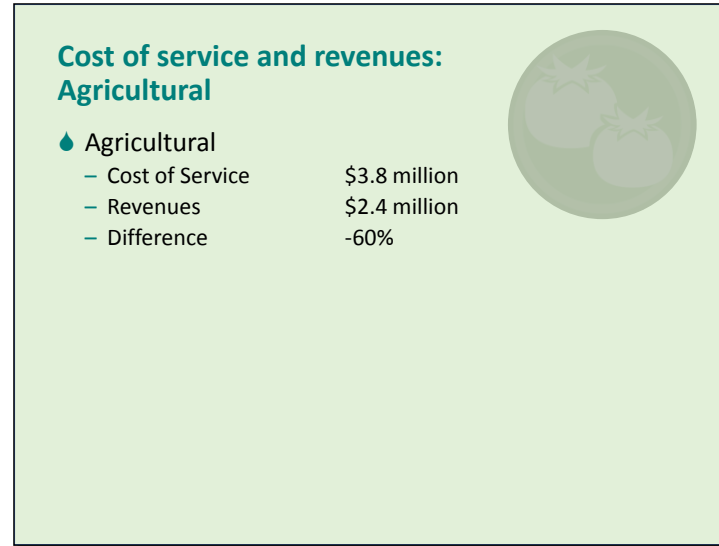
**Cost of service and revenues:
Non-residential**

◆ Non-Residential

– Cost of service	\$67.5 million
– Revenues	\$82.2 million
– Difference	18%

A circular icon containing a stylized shopping bag with a handle and a tag, positioned to the right of the table.

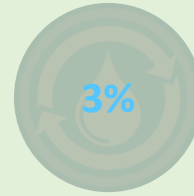




**Lower non-potable rates
benefit all customers**

- ◆ Non-potable rates are historically lower than potable rates
- ◆ Some non-potable customers, including recycled water customers, have negotiated agreements
- ◆ Non-potable water is billed at a flat rate:


\$2.47 per 1,000 gallons







**Cost of service and revenues:
Non-potable**

💧 Non-potable water

– Cost of Service	\$2.4 million
– Revenues	\$1.6 million
– Difference	-46%

A circular icon depicting a water cycle. It features a central water droplet, with two curved arrows forming a circle around it, suggesting the continuous process of water evaporation, condensation, and precipitation.

Cost of service summary		Revenue \$M	Cost of Service \$M	Diff. \$M	Diff. %
 Single Multi		\$96.6	\$107.4	-\$10.8	-11%
		\$45.4	\$39.9	\$5.4	12%
 Non- residential		\$82.2	\$67.5	\$14.8	18%
 Ag		\$2.4	\$3.8	-\$1.4	-60%
 Non- potable		\$1.6	\$2.4	-\$0.8	-46%

Looking at the % difference column, a positive number means that more money is being collected than the cost to serve that class. This money is making up the differences in the cost of service for those classes that have a negative number.



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Board of Water Supply
City and County of Denver

Dave Ebersold
Facilitator

SUMMARY AND NEXT STEPS

Other items

- ◆ Next Meeting
Tuesday, July 11, 2017
4:00 – 6:30 pm

Neal S. Blaisdell Center
Hawaii Suites

Slide 63

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Mahalo!

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