MINUTES

WORKSHOP MEETING
OF THE
BOARD OF WATER SUPPLY

January 5, 2018

At 2:03 PM on January 5, 2018 in the Board Room of the Public Service Building at 630 South Beretania Street, Honolulu, Hawaii, Board Chair Andaya called to order the Workshop Meeting.

Present:	Bryan P. Andaya, Chair David C. Hulihee Ray C. Soon Ross S. Sasamura Jade T. Butay (arrived at 2:09 PM)
Also Present:	Ernest Lau, Manager and Chief Engineer Erwin Kawata Mike Fuke Mike Matsuo Jason Takaki Joe Cooper Kathleen Pahinui Robert Morita Michele Thomas Barry Usagawa Leanne Matsumoto Henderson Nuuhiwa Garon Hamasaki Kevin Ihu Blaine Fergerstrom
Others Present:	Jeff Lau, Deputy Corporation Counsel Jessica Wong, Deputy Corporation Counsel David Ebersold, CDM Smith Chris Harris, CDM Smith Audrey Harris, CDM Smith Arlene Post, CDM Smith Brian Thomas, Public Financial Management Raul Villanueva, City Council, District 6 Susan Uyesugi, SSFM International Cruz Vina, Jr., BWS Stakeholder Advisory Group Richard Poirier, BWS Stakeholder Advisory Group Dean Okimoto, BWS Stakeholder Advisory Group Isaac Masaki Gordon Pang, Star Advertiser

Absent: Kapua Sproat, Vice Chair
Kay C. Matsui

ITEM FOR INFORMATION AND ACTION

"January 5, 2018

PRESENTATION, DISCUSSION, AND ACTION ON WATER RATES AND RELEVANT FACTORS

Chair and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii 96843

Chair and Members:

Subject: Presentation, Discussion, and Action on Water Rates and Relevant Factors

Joseph Cooper, Water Works Controller, and David Ebersold of CDM Smith, will conduct a Water Rate Workshop as part of our Water Master Plan Financial Plan and Rate Study.

Respectfully submitted,

/s/ ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

Attachment"

DISCUSSION:

Chair Andaya opened the meeting by stating that there are nine items on the agenda that the Board will be making decisions on in order to provide direction for the Board of Water Supply (BWS) staff to fashion a system for producing new rates.

Manager Lau reminded everyone of the BWS vision and mission, and discussed the six primary functions used in order to fulfill BWS's mission and the process overview of rate making. He explained that the process actually began in October of 2016 with the Water Master Plan (WMP), and added that they've also developed a long term Capital Program.

Mr. Lau introduced three members of BWS's Stakeholder Advisory Group (SAG) – Mr. Cruz Vina, Jr., Mr. Dean Okimoto, and Mr. Richard Poirier. He thanked them, and the rest of the SAG for their hard work over the last two years to provide input and guidance into the WMP and financial plan.

Mr. Lau added that BWS will provide the Board with a draft rate proposal for their consideration around March, and the Board can determine if they agree with the proposal or want revisions. When the Board feels comfortable with the proposal, BWS would then go public with it and go through an extensive customer engagement process, then bring back the customer feedback to the Board. Consideration for possible adoption of the rate proposal would be around July 2018.

Mr. Lau pointed out that there are two additional components in the rate making process – bringing before the Board a detailed long range financial plan for the next ten years, and updating BWS's Water System

Facilities Charges (WSFC), which are based on numbers adopted in 1993.

Before moving on to the nine items of information, Mr. Andaya stated that this is a public hearing, and therefore, public testimony would be allowed. He went over the guidelines of testimony.

I. Cost of Service Alignment Considerations

DISCUSSION: David Ebersold of CDM Smith reviewed the three primary steps in the rate making process – determining the revenue requirement, determining the cost of service for each of the different customer classes, and rate design. He also went over the similar results of a recent BWS online survey and a survey conducted by Ward Research's Hawaii Panel to see if customers believed it was very important that BWS have enough funding for its mission and to see if customers strongly support sharing the cost of improvements with future generations.

Mr. Andaya called for public comment. Mr. Andaya recognized Dean Okimoto, a member of the SAG, who presented testimony.

TESTIMONY BY DEAN OKIMOTO

Mr. Okimoto expressed the importance of subsidizing agricultural water rates. He explained that the community needs to increase the amount of working farmers and keep the ones it already has. The agriculture industry is already a difficult one, and without these subsidies, it would be hard for farmers to run a viable business.

Board Member Soon asked why Mr. Okimoto is in favor of continuing subsidies for recycled and non-potable rates. Mr. Okimoto expressed his support for water conservation by using these sources, which would benefit the whole community.

DISCUSSION: Mr. Andaya thanked Mr. Okimoto and redirected the focus of the discussion with a reminder that, at this time, testimony should focus specifically on cost of service alignment. He called for any other testifiers on this matter, and there was none.

Mr. Andaya stated that there are three options to choose from on the subject of Cost of Service Alignment Considerations: Option 1 - Leave single- and multi-family cost of service as is, Option 2 - Adjust single- and multi-family rates closer to cost of service recovery, or Option 3 - Adjust single- and multi-family rates to match cost of service over the next XX amount of years.

In regards to Option 3, Mr. Lau stated that the Board could specify the amount of time needed to transition to full cost of service.

Mr. Andaya commented that Option 2 would allow flexibility. Mr. Lau agreed and added that as the rate development process progresses, Option 2 will allow the Board to see what the impacts would be on each of the customer classes.

Mr. Soon asked if this analysis factored in the assumption of replacing 21 miles of pipeline. Mr. Ebersold explained that the analysis was done on fiscal year's (FY) 2016 complete data, and adjustments for the replacement of 21 miles of pipeline will be factored into this analysis.

MOTION TO APPROVE

David Hulihee motioned to approve Option 2 - Adjust single-family and multi-family rates closer to cost of service recovery, seconded by Ross Sasamura.

DISCUSSION:

Mr. Andaya stated that the actual amount of how much is adjusted is still to be determined.

Mr. Soon expressed his position in raising the rates multiple times in order to replace 21 miles of pipeline. He would like to minimize the amount of times the rates would increase. Mr. Lau reminded Mr. Soon that today's decision will only focus on a five-year period. BWS's intent is to consider five-year rate increases.

Board Member Butay asked which class the bottled water companies fall under and if an extra charge is added. Mr. Lau answered that they would fall under non-residential and they would pay the same as all other non-residential customers. Mr. Andaya reminded Mr. Butay that they will cover that class in detail later in the meeting.

MOTION TO APPROVE

The motion was unanimously carried.

OPTION 2 – ADJUST SINGLE-FAMILY AND MULTI-FAMILY RATES CLOSER TO COST OF SERVICE RECOVERY WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

II. Water Service Affordability Program

DISCUSSION: The next topic of the meeting was Water Service Affordability Program. Mr. Ebersold discussed the business case for customer assistance, the amount of BWS turn-offs in FY 2016, the amount of bill write-offs in FY 2013-2017, and low income assistance programs from different utility agencies.

Mr. Andaya asked if the decision the Board will be making today on this matter will be to authorize BWS to formalize an affordability program, and will the Board have an opportunity to review the details of that program. Mr. Ebersold responded yes.

Mr. Andaya entertained any public testimony or comment on this issue, and hearing none, he presented the two options brought to the Board for consideration: Option 1 - Formalize BWS's affordability efforts in a program and pilot test additional components, and Option 2 - Make no changes to current affordability efforts.

MOTION TO APPROVE David Hulihee motioned to approve Option 2: Make no changes to current affordability efforts, seconded by Ray Soon.

DISCUSSION: Mr. Andaya asked approximately how many water agencies have affordability programs. Mr. Ebersold called on Brian Thomas of Public Financial Management to respond. Mr. Thomas stated that less than 25 percent of utility agencies have formal programs, which are more than there were ten years ago. Mr. Thomas added that almost every utility he's worked with has some form of assistance, much like BWS. He feels that it is a growing trend in the water industry.

MOTION TO APPROVE The motion was unanimously carried.

OPTION 2 – MAKE NO CHANGES TO CURRENT AFFORDABILITY EFFORTS WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

III. Residential Rate Structure

DISCUSSION: On the issue of Residential Rates, Mr. Ebersold went over BWS's current rate structure, the comparison of single-family residential rate tiers between the different islands, examples of how adjusting the tiers would affect the bill amounts and encourage conservation, opportunities for BWS essential needs tier, a single family example of essential needs sample bill amounts, and customers' input on potential residential rate tier adjustments.

Mr. Andaya opened the floor for public comment on the issue of Residential Rate Structure. Hearing none, he moved on to presenting the three options for Board consideration: Option 1 - Shift tiers to encourage more conservation, Option 2 - Shift tiers to encourage more conservation and establish an "Essential Needs" tier, and Option 3 - Leave tiers as is. Both Mr. Andaya and Mr. Hulihee expressed their interest in Options 1 and 2.

Mr. Andaya asked if the Board decides on one option, is there flexibility to change their decision. Mr. Lau responded yes, and added that the decisions made today establish "guardrails". BWS will bring a draft back to the Board, based on those "guardrails", and the Board can modify the draft before reaching out to the public with a draft proposal.

MOTION TO APPROVE: David Hulihee motioned to approve Option 2 - Shift tiers to encourage more conservation and establish an "Essential Needs" tier, seconded by Jade Butay. The motion was unanimously carried.

OPTION 2 – SHIFT TIERS TO ENCOURAGE MORE CONSERVATION AND ESTABLISH AN "ESSENTIAL NEEDS" TIER WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

IV. Recycled/Non-Potable Rate Structure

DISCUSSION: Currently, BWS recycled and non-potable water customers pay less than it costs to serve them. The issue on the table is, should this strategy be continued and if so, to what degree?

Mr. Ebersold went over the three different non-potable sources, and their primary customers. These customers receive a subsidy of about 45 percent compared to the cost of service, or an annual amount of about $744,600. Mr. Soon asked what kind of customers use non-potable water. Mr. Ebersold answered by stating that the 90 customers who use BWS's non-potable water, are those who use it primarily for irrigation purposes.

Mr. Hulihee asked if a lot of these customers have their own infrastructure. Mr. Lau stated that the Barber's Point Non-Potable Well was built by the developers there. In Kalauao Springs, BWS did put up the infrastructure, but Hawaiian Cement has their own tank.

Mr. Ebersold continued by going over the two types of recycled water (R1 and RO), a survey of recycled water rates (comparable to R1) in the Southern California area. He pointed out that BWS costs are normally shown in kgals, or thousands of gallons. In the chart (slide 64), it is converted to hundreds of cubic feet, for the purpose of easy comparison. Mr. Ebersold also went over reasons why recycled water customers incur higher costs, the benefits of non-potable and recycled water use, and customers' input on subsidies for non-potable recycled water.

Mr. Hulihee asked what kind of feedback would BWS receive if the non-potable rates were raised to match closer to the cost of service. Mr. Ebersold referred to slide 67, and stated that there is strong support for continuing discounted rates for recycled and non-potable water.

Mr. Andaya called for any public comment on recycled and non-potable rates, and there were none. He presented the three options that the Board is being asked to make a decision on: Option 1 – Make no changes to recycled/non-potable rates, Option 2 – Increase recycled/non-potable rates to recover more of cost of service, especially for RO customers, and Option 3 – Adjust rates to recover full cost of service.

Mr. Hulihee asked if there was any input from the SAG. Mr. Ebersold responded by saying that the Stakeholders were in favor of moving more towards cost of service recovery, but continuing some level of reduced rate.

Mr. Lau commented that there are strict requirements when using recycled/non-potable water, as it is still considered wastewater. He feels there should be some degree of incentive to encourage that use. Mr. Soon expressed his concern of pushing non-potable use to the point where it's more attractive to switch to potable water, regardless of having to pay more. Mr. Lau agreed.

MOTION TO APPROVE

David Hulihee motioned to approve Option 2 - Increase recycled/non-potable rates to recover more of cost of service, especially for RO customers, seconded by Ross Sasamura. The motion was passed by a majority, with Ray Soon voting nay.

OPTION 2 – INCREASE RECYCLED/NON-POTABLE RATES TO RECOVER MORE OF COST OF SERVICE WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON		X	
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

V. Agricultural Rate Subsidy

DISCUSSION: Mr. Ebersold went over BWS's current decreasing block rate structure for agricultural rates, requirements for a customer to secure agricultural rates, a comparison to other islands' agricultural rates, SAG input, and customer input on subsidies for recycled water and agriculture. Mr. Ebersold stated that federal regulations, such as the Food Safety Modernization Act, are increasing financial pressure on small farmers.

Mr. Andaya opened up the discussion for public comment. He invited Mr. Okimoto to testify on this matter.

TESTIMONY BY DEAN OKIMOTO

Mr. Okimoto stated that the Food Safety Modernization Act requires farmers to wash their produce with potable water, and that it is an expensive process for small farmers. He added that farmers who are not able to comply are not able to sell their produce at most chain grocery stores. Mr. Okimoto stated that in order to maximize sustainability and increase the production of the food supply, agricultural subsidies are necessary.

DISCUSSION: Mr. Andaya called for any more public testimony. Hearing none, he presented the three options for the Board to consider: Option 1 – Retain existing subsidy levels, Option 2 – Reduce subsidy levels but continue to recover less than the full cost of service, and Option 3 – Adjust rates to recover full cost of service.

MOTION TO APPROVE: Ray Soon motioned to approve Option 1 – Retain existing subsidy levels, seconded by Jade Butay. The motion was unanimously carried.

OPTION 1 – RETAIN EXISTING SUBSIDY LEVELS WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

VI. Non-Residential Rate Structure

DISCUSSION: BWS currently charges a uniform rate to all non-residential customers. Mr. Ebersold went over BWS's current uniform rate, the comparison of non-residential rates (one inch meters) between the different islands, the comparison of non-residential rates (three inch meters) between the different islands, distribution of non-residential meters by subcategory, and the benefits of BWS's uniform non-residential rate.

Mr. Butay asked how bottled water companies are charged. Mr. Ebersold responded by saying that bottled water companies fall under the category of non-residential users, so they are charged the same as the rest of the customers in that category.

Mr. Hulihee asked if non-residential customers subsidize the rest of the customer classes by $14 million a year. Mr. Ebersold explained that BWS's non-residential customers pay more than their cost of service, which generates the revenues to subsidize the others.

Mr. Andaya called for public testimony on the matter of non-residential rates. Hearing none, he presented the three options the Board will have to decide on: Option 1 - Make no changes to non-residential rate structure, Option 2 - Direct staff to develop data for comprehensive evaluation of alternatives for next rate study, and Option 3 - Revise non-residential rates to include at least two tiers for water delivery.

Mr. Andaya asked if Option 3 could be easily accomplished in the next few months. Mr. Lau responded by saying that with all the different non-residential subcategories, and with all the other rate changes BWS faces, it would be very challenging to do it in the next two or three months. However, it could be accomplished in the next five years.

MOTION TO APPROVE: David Hulihee motioned to approve Option 1 - Make no changes to non-residential rate structure, seconded by Ray Soon. The motion was unanimously carried.

OPTION 1 – MAKE NO CHANGES TO NON-RESIDENTIAL RATE STRUCTURE WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

VII. Monthly Charge Based on Meter Size

DISCUSSION: Mr. Ebersold went over BWS's current billing charge, lower fixed charges, types of accounting cost categories included in BWS's customer and meter allocations, options for monthly customer charge, and SAG input. There were no comments from the Board.

Mr. Andaya called for public comment, and there was none.

MOTION TO APPROVE: David Hulihee motioned to approve Option 1 - Change the structure of the monthly charge to vary by meter size, seconded by Jade Butay. The motion was unanimously carried.

OPTION 1 – CHANGE THE STRUCTURE OF THE MONTHLY CHARGE TO VARY BY METER SIZE WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

VIII. Water Fee and Charges Subsidies for:

- Affordable Housing
- Homeless
- Fire Sprinklers

DISCUSSION: The next item Mr. Ebersold covered was Fee Subsidies. He went over Bill 59, Bill 69, City Council Resolution 17-316, estimated BWS meter and Water System Facilities Charge (WSFC) subsidies for City affordable and Homeless projects, sample monthly subsidy amounts, SAG exercise summary, and customer input on subsidies.

Mr. Lau stated that the numbers for single-family, multi-family, and homelessness are rough numbers and will most likely change. He added that BWS is working with the City Department of Planning and Permitting and the City Council to find out what the projected number of units being built per year are.

Mr. Soon asked if the numbers for the total amount of affordable and homeless units are City projects, or private industry projects. Mr. Lau answered that it may be a combination of both. Mr. Soon commented that those numbers are too low. Mr. Lau reminded him that those numbers are just estimates, and that they will change.

Mr. Andaya pointed out that the WSFC may not even be on the table. Mr. Lau stated that the Board will be able to decide if they would like to waive both the hook-up fees and the WSFC.

Mr. Lau stated that the Board could also consider a pilot program in fiscal year 2019 to see what the experience was and how many units actually get developed per year. BWS would report this information back to the Board for fiscal year 2019 operating budget consideration.

Mr. Andaya called for public testimony. Hearing none, he presented the three options for Board consideration: Option 1 - Provide subsidies for affordable housing, homeless shelters, and fire sprinkler retrofit; Option 2 - Provide no additional fee waivers or subsidies; and Option 3 - As determined by the Board.

Mr. Andaya asked if the pilot project would fall under Option 3. Mr. Lau answered that the pilot project could be a part of any of the three items discussed: affordable housing, homeless, shelters, fire sprinklers, or any combination of those. He added that Option 3 was made for the Board to decide how they would like BWS staff to investigate on this matter further.

Mr. Soon asked if Mr. Lau is looking for numbers. Mr. Lau answered that he is not looking for numbers, but more of some sort of policy direction from the Board. He added that he would like to monitor ongoing discussions on this matter at the City administration level and at City Council, and participate when possible, to get more information and be able to come back to the Board to present that information with some sort of proposal. Mr. Sasamura asked if Option 1 would afford that.

Mr. Andaya said yes.

Mr. Ebersold stated that Option 3 is intended for the Board to come up with an option that's worded any way they want it to be worded.

Mr. Andaya stated that it seems the consensus is that the Board would like to provide subsidies to the affordable housing, homeless, and fire sprinkler projects, with the amounts to be determined.

Mr. Lau stated that what needs to be clear is how to define what will qualify units to receive a subsidy, and how will BWS get verification of that.

Mr. Soon expressed that he strongly supports affordable housing subsidies, and that he would like to see BWS be generous in providing incentives for building affordable housing, because it is the number one issue in Hawaii. He added that he does not want to defer making a decision on this issue, and that he would vote for BWS to be as supportive of the program as possible.

Mr. Hulihee asked what it will cost the other customers to subsidize the affordable housing projects. Mr. Lau responded by saying that the costs are related to the nature and size of the project, and how many units are developed. The charges are normally determined at the time the building permit application is submitted to obtain water service.

Mr. Soon commented that he forsees BWS putting a cap on how much would be waived per year. Mr. Lau responded by saying that that would be something for the Board to consider. Mr. Lau added that it is important, because rate payer funds will be used, to have some degree of accountability in how those funds are being spent. Mr. Lau also stated that the currently proposed legislation has a sunset period. Once it sunsets, this issue will have to be taken up by the Board again.

Mr. Andaya expressed that he agrees with Mr. Soon that BWS should do its part, just like the State, City, and private sector are, in solving one of Hawaii's biggest problems.

MOTION TO APPROVE

Chair Andaya motioned to approve Option 3 - As determined by the Board, seconded by Ray Soon. The motion was unanimously carried.

OPTION 3 – AS DETERMINED BY THE BOARD WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

IX. Fire Meter Monthly Standby Charge

DISCUSSION: The next item for discussion is the fire meter standby charge. Mr. Ebersold talked about how fire protection differs from other services, fire protection monthly charges in Kauai and Hawaii, private fire protection charge considerations, and sample fire meter standby charge for BWS.

Mr. Ebersold stated that the cost of this service is about $400,000 a year, and currently, all customers are subsidizing these costs for just the customers that have fire meters.

Mr. Andaya asked if the fire meter standby charge is applicable at all times. Mr. Lau responded by saying that the fire meters need to be available at all times for customers with those meters. The cost is to cover BWS operation maintenance to keep it on a standby mode.

Mr. Andaya asked if the fire meters are only used in multi-family units. Mr. Lau answered by saying yes. He added that the Fire Department has been trying to advocate for fire sprinklers for single family residential customers, and to be proactive, BWS has been installing ¾ inch meters to have enough capacity to accommodate a fire sprinkler system within a single-family dwelling.

Mr. Hulihee asked if the fire meters are a separate system. Mr. Lau responded by saying that they have meters, which are a kind of hybrid meter that handles domestic and fire flow requirements.

Mr. Soon asked why it costs $400,000 a year to maintain the fire meters. Mr. Lau answered by saying that the meters need to be checked, serviced and replaced periodically to make sure that the meters are in good working condition.

Mr. Soon asked if anyone is inspecting the fire meters. Mr. Lau answered that BWS Field Operations staff inspect the fire meters. Mr. Hulihee added that a flow tester would have to be hired. Mr. Lau agreed and also added that the Fire Department requires a fire sprinkler test, and if the pressure is too low, BWS does what is needed to make sure it operates correctly.

Mr. Soon asked why the responsibility of maintaining the meters aren't placed on the owners of the building. Mr. Lau responded by saying that it is BWS's meters, so it is BWS's responsibility. The customers are not allowed to touch the meters.

Mr. Andaya referred to slide 120 of the presentation and asked if the charge for a high rise condominium is $34.05 for an 8-inch meter. Mr. Lau answered that currently, there is no charge. The customers just pay an upfront cost to have the meter installed. The other customers who don't have fire meters help to subsidize the costs. He added that the biggest subsidy is most likely coming from the non-residential customers with no fire meter.

Mr. Andaya asked if the monthly charge would be spread amongst all the unit owners in multi-family building. Mr. Lau answered that they'd be looking at the monthly charge, plus the usage charge of how much water they are using, and also a charge for the separate fire meter. Those costs would probably be factored into their common area or maintenance fees.

Mr. Andaya called for any public comment, and there was none.

MOTION TO APPROVE

David Hulihee motioned to approve Option 1 - Establish a fire meter standby charge to recover the cost of service, seconded by Ray Soon. The motion was unanimously carried.

OPTION 1 – ESTABLISH A FIRE METER STANDBY CHARGE TO RECOVER THE COST OF SERVICE WAS APPROVED ON JANUARY 5, 2018			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT			ABSENT
DAVID C. HULIHEE	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

X. Board Additions

DISCUSSION: Mr. Ebersold summarized the decisions made by the Board today. Mr. Andaya asked the members if Mr. Ebersold's summary was accurate, and if there was any other business they would like to discuss. There were no other comments or discussion from the Board.

Mr. Lau thanked the Board for their guidance and expressed how much it will help to set the "guardrails" for BWS to develop the water rates. He also thanked the public and the Stakeholder Advisory Group members for taking the time to attend the meeting and testifying.

WATER FOR LIFE

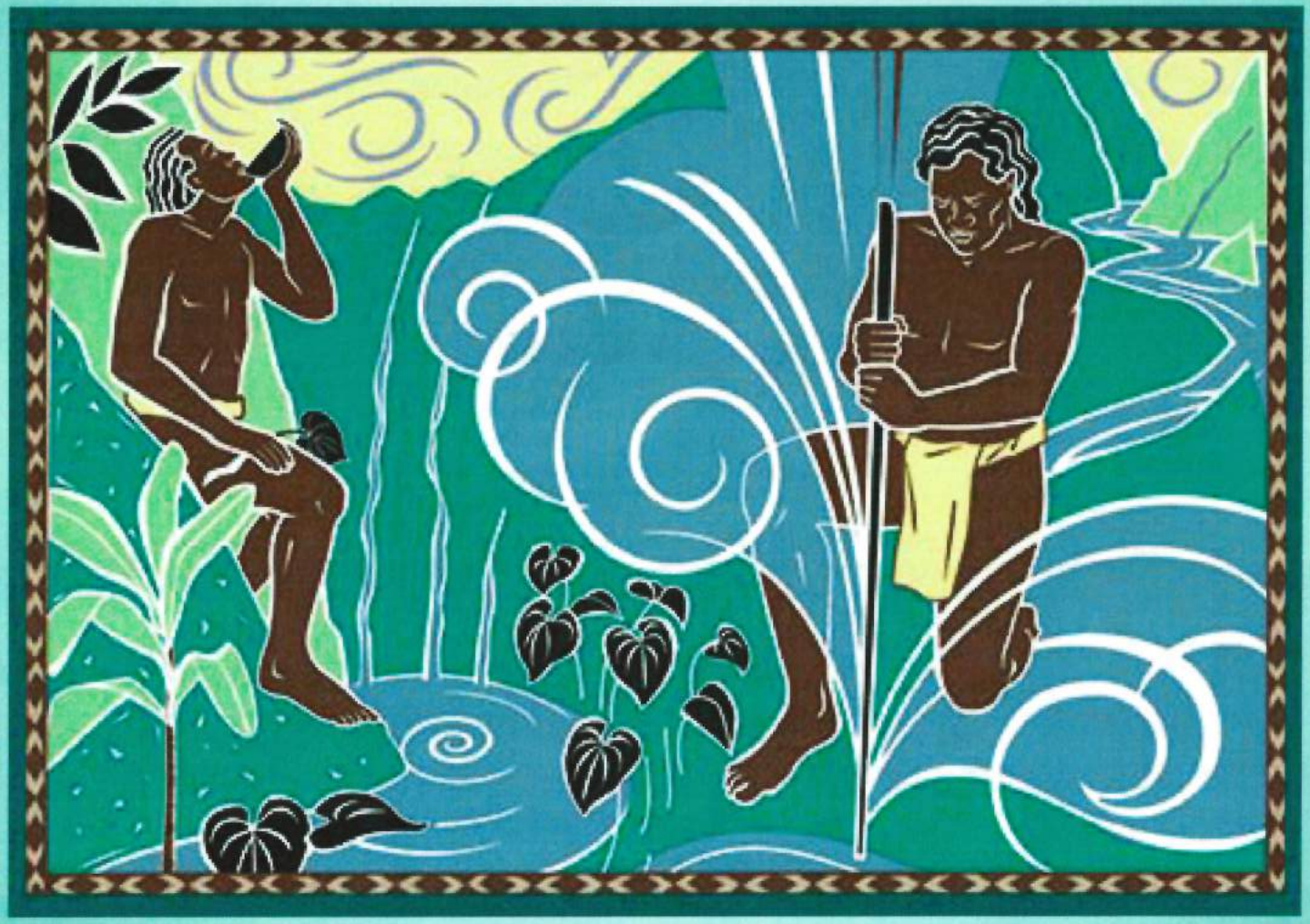
Safe, dependable, and affordable water now and into the future

Board of Water Supply
City and County of Honolulu

Board Workshop on Water Rates

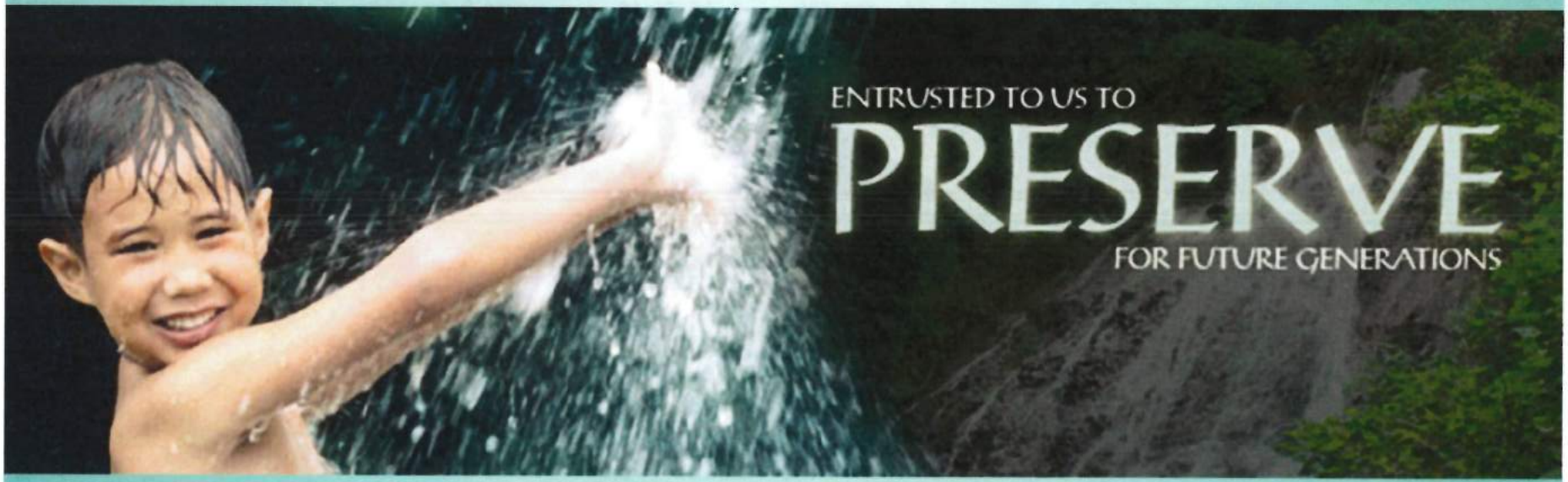
January 5, 2018

Our Vision: Ka Wai Ola – Water for Life



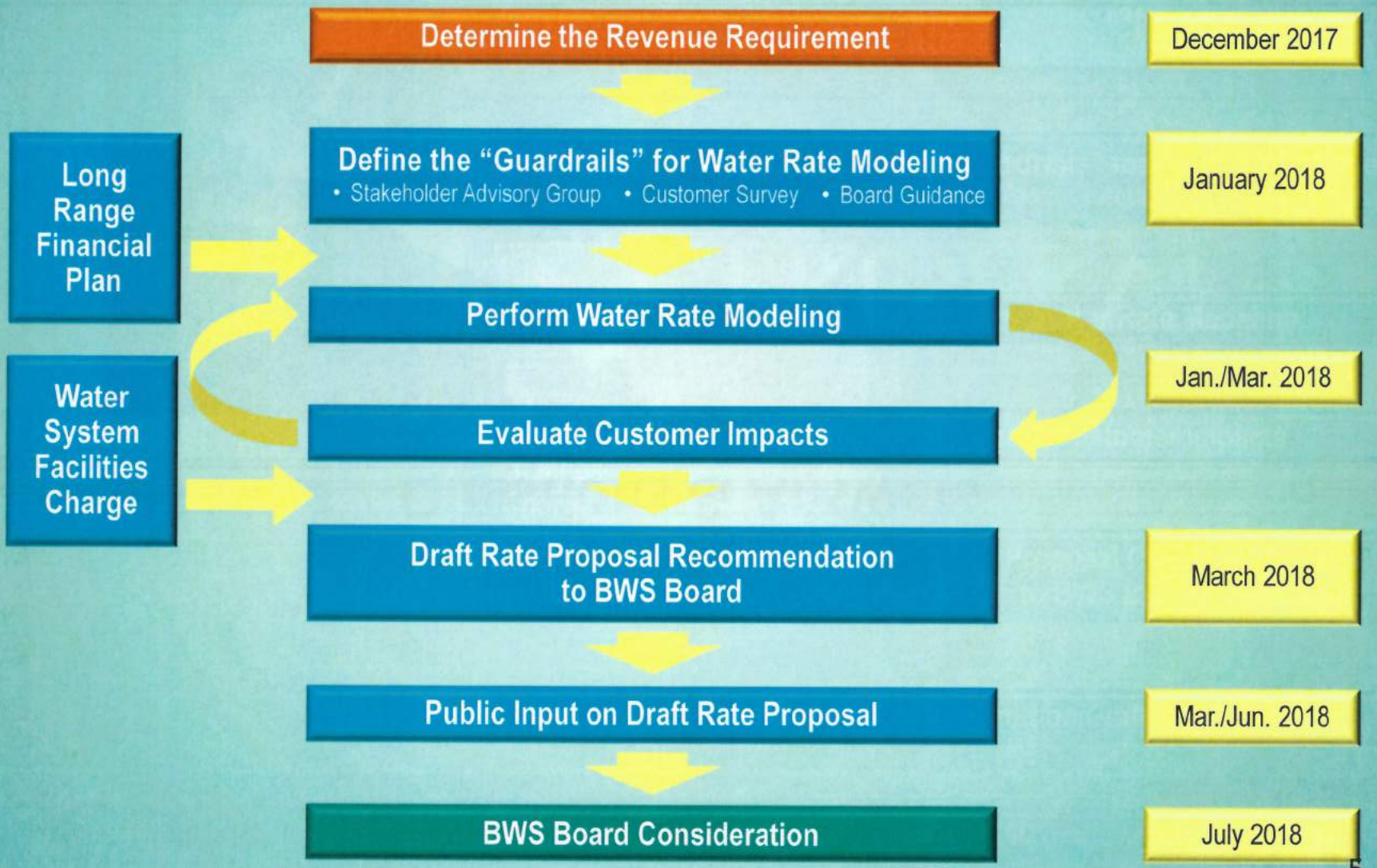
Our Mission

To provide safe, dependable, and affordable water now and into the future

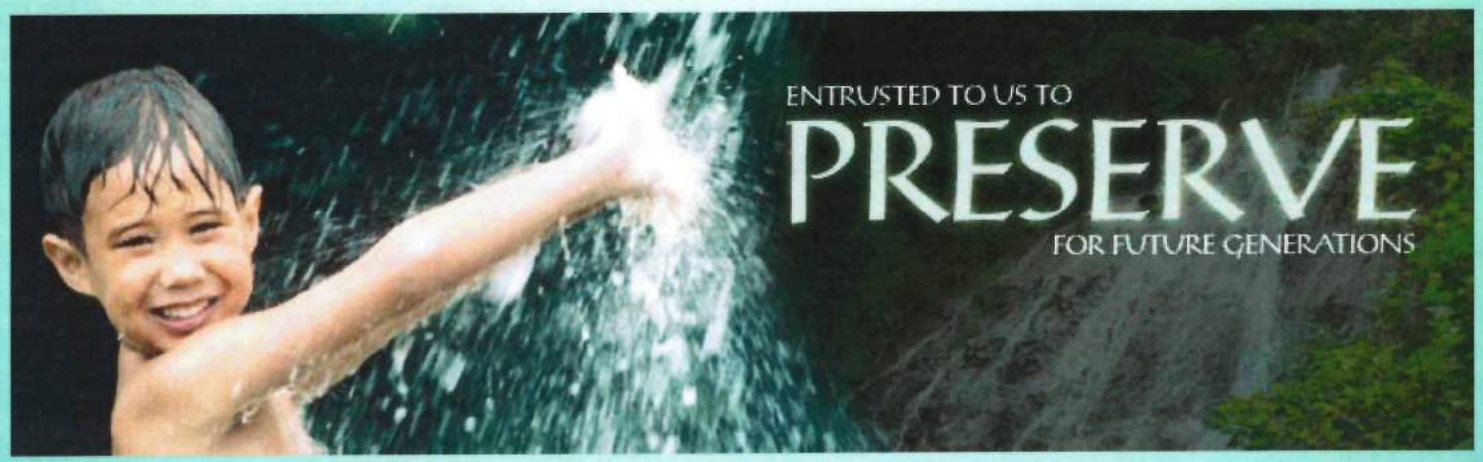


We fulfill our mission through 6 primary functions

Process Overview



Questions & Answers



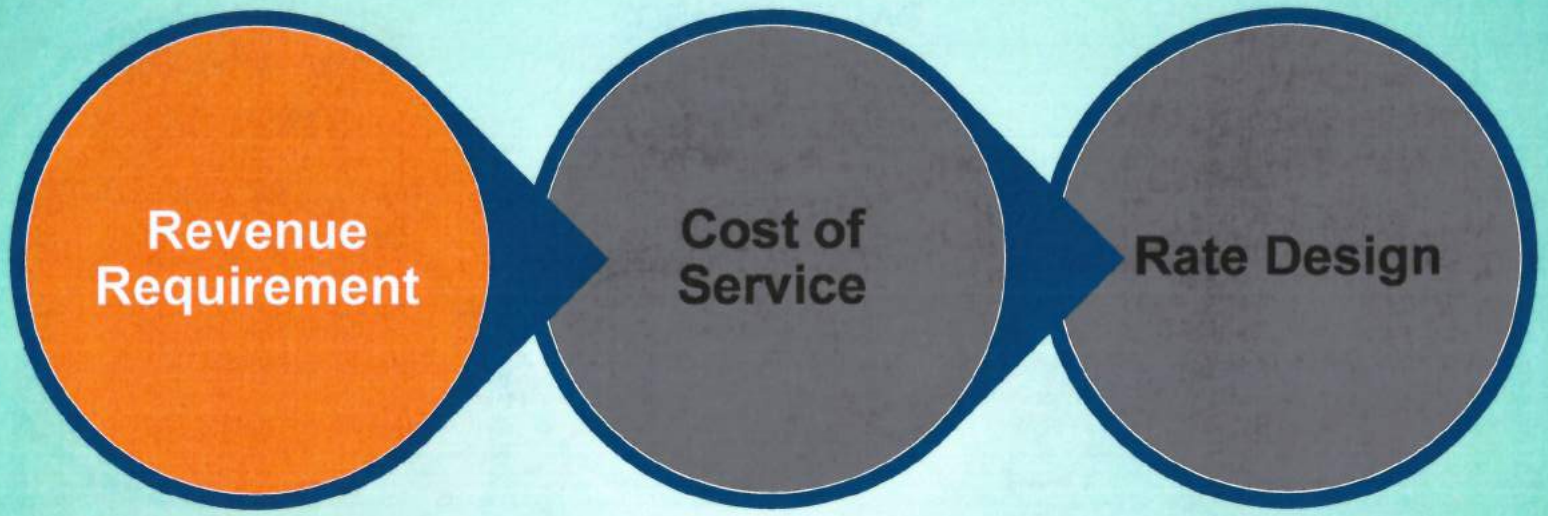
Three Primary Steps of Rate Making

Compare revenue with operating and capital costs

Identify differences in costs to serve each of the customer classes

Consider level and structure of rate design for each class of service

Three Primary Steps of Rate Making

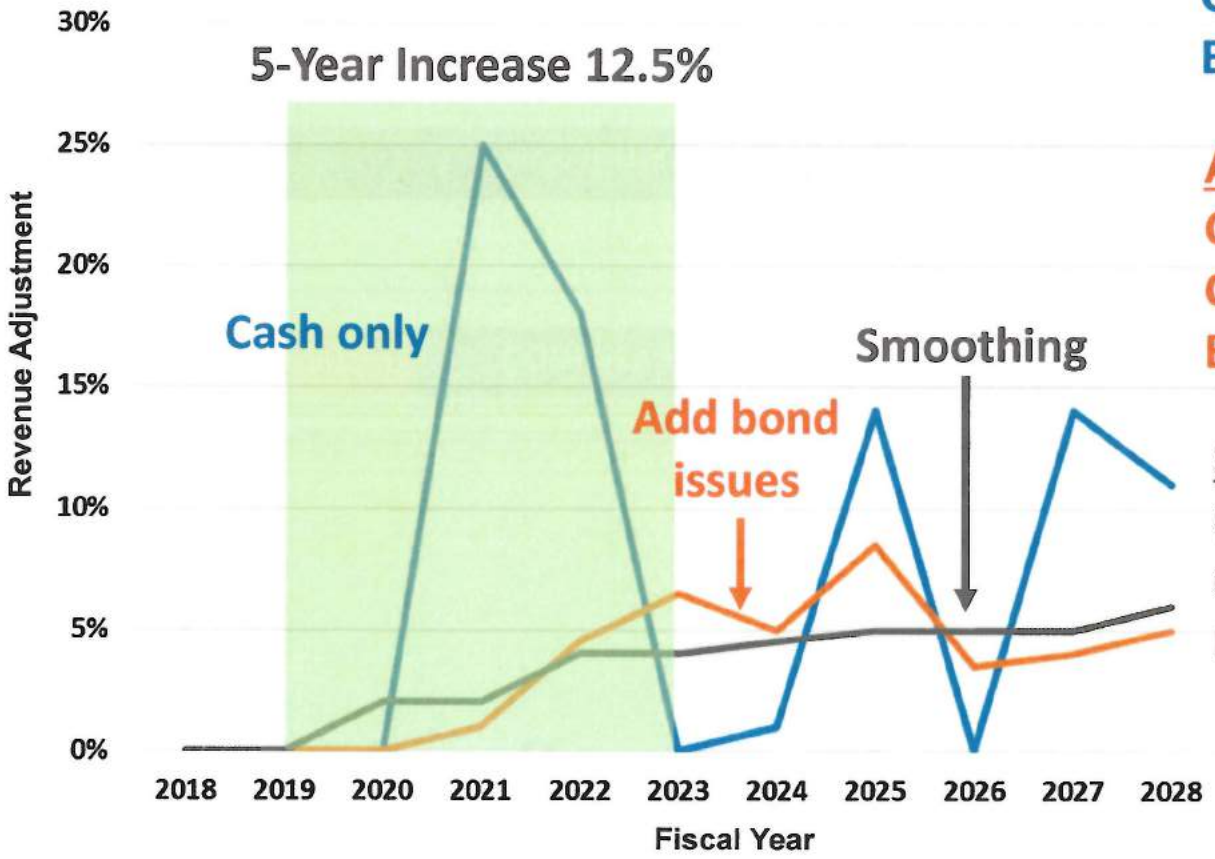


Compare revenue with operating and capital costs

Identify differences in costs to serve each of the customer classes

Consider level and structure of rate design for each class of service

Revenue adjustment scenarios summary

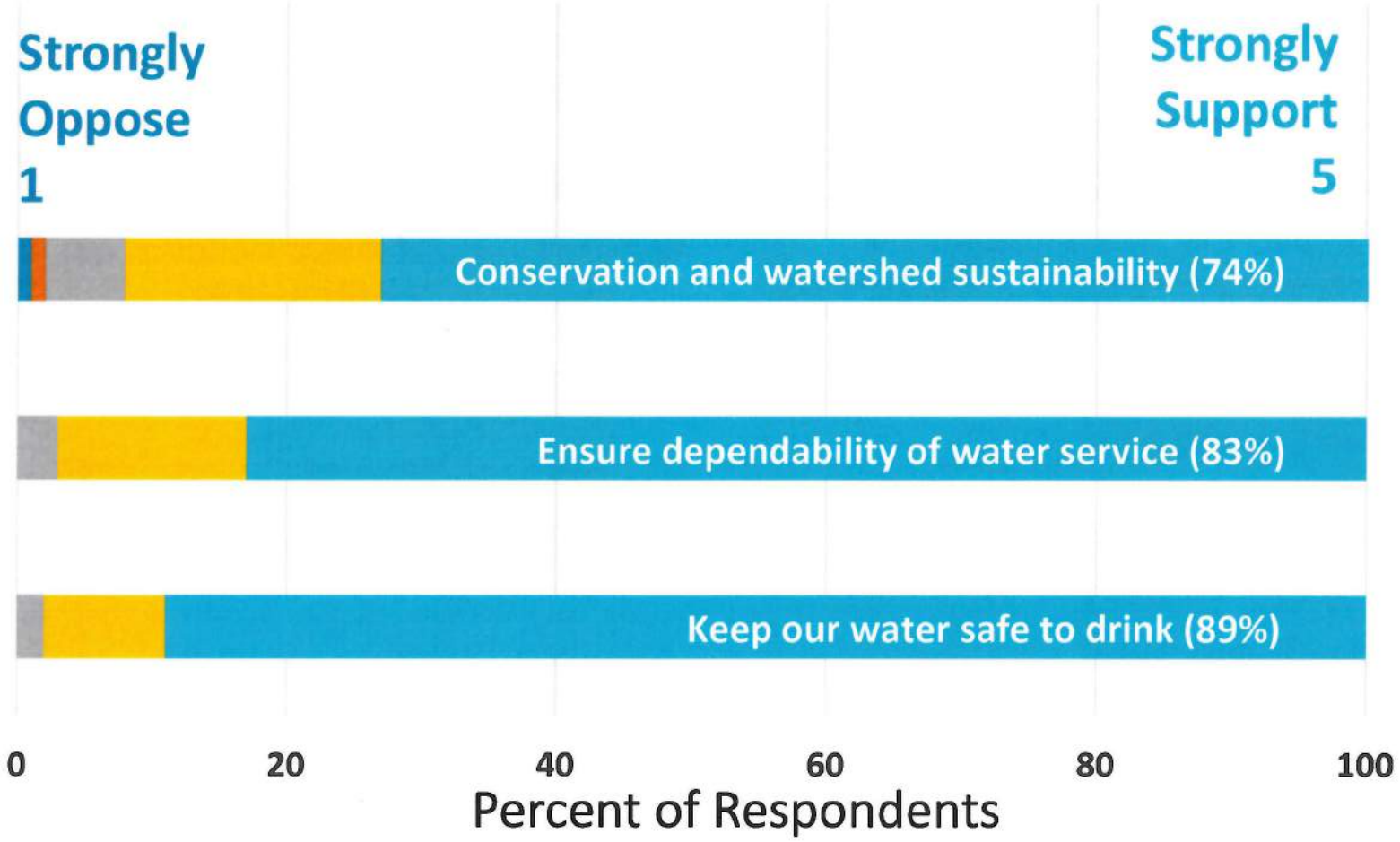


Cash only
Cum. Increase 114.9%
Cash $1,705.0
Bonds $0

Add bond issues
Cum. Increase 44.7%
Cash $810.2
Bonds $899.2

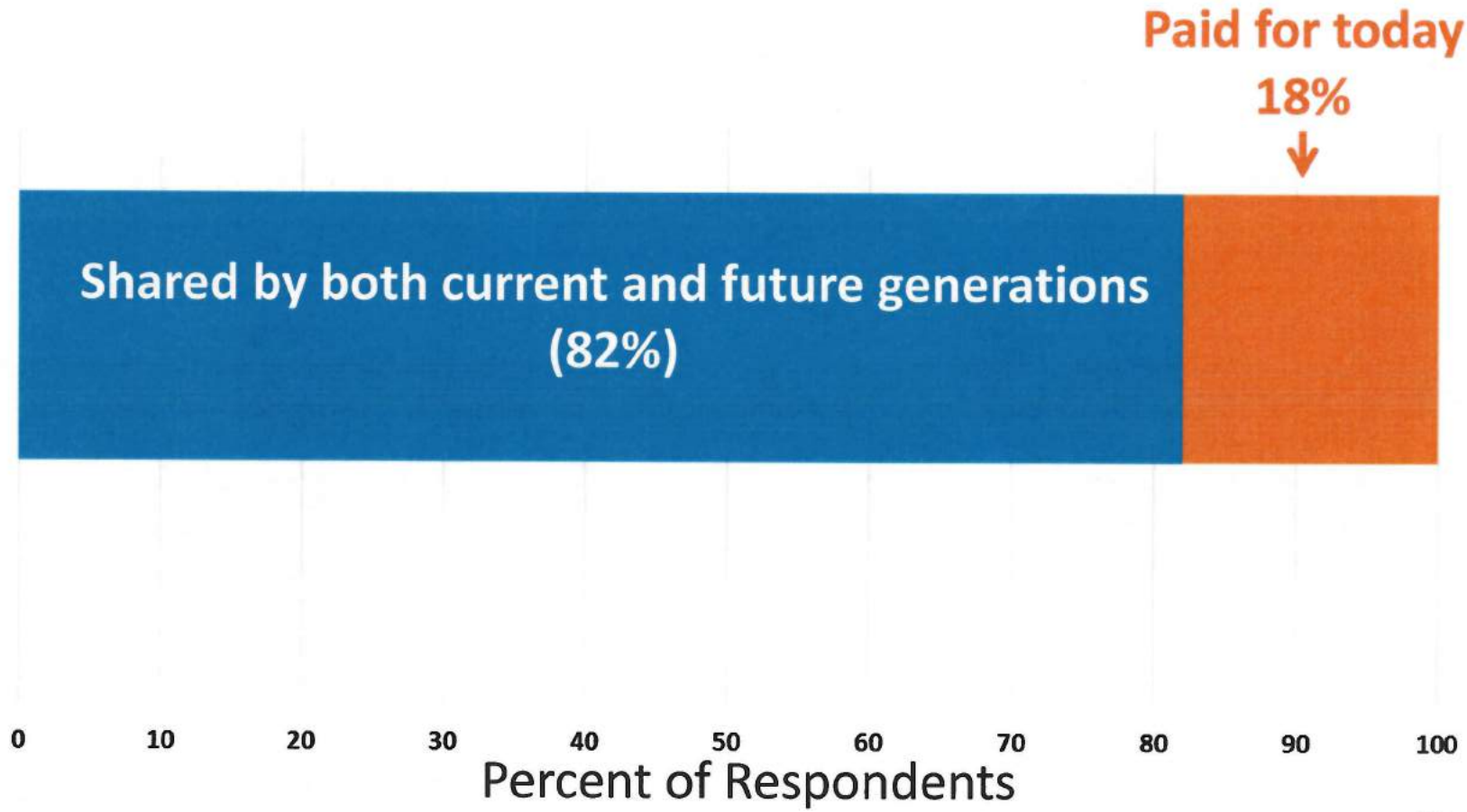
Smoothing
Cum. Increase 44.3%
Cash $810.8
Bonds $898.7

Customers believe it is very important that BWS have enough funding for its mission



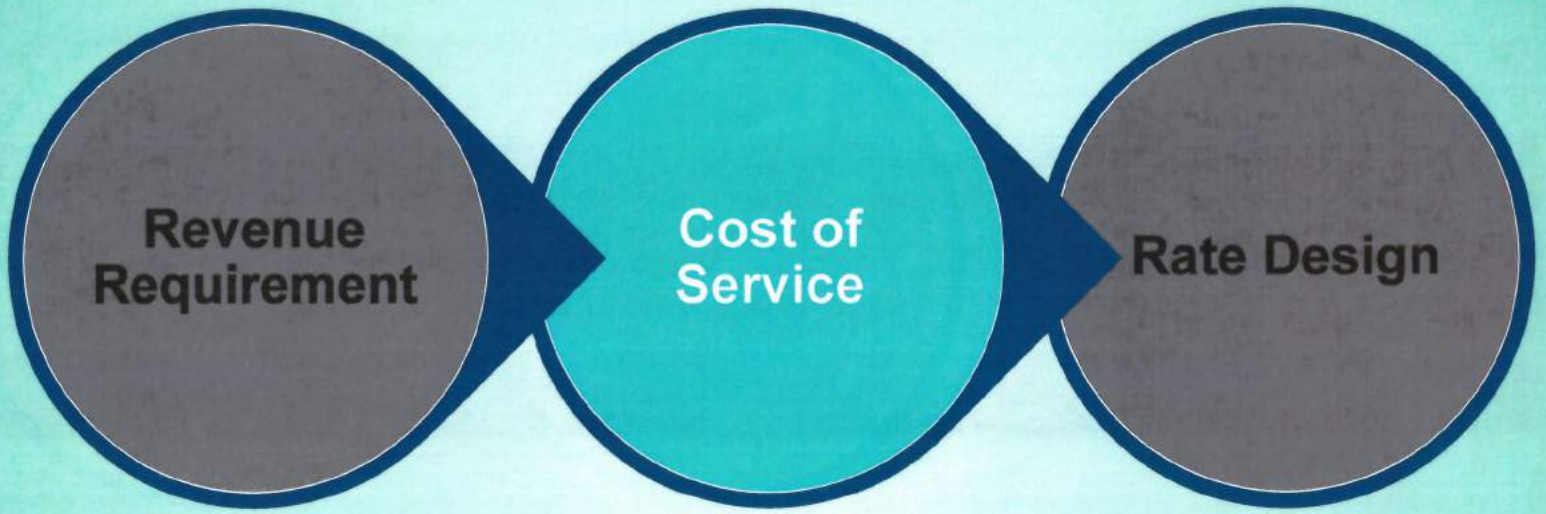
Ward Research and BWS on-line survey

Customers strongly support sharing the cost of improvements with future generations



Ward Research and BWS on-line survey

Three Primary Steps of Rate Making



Compare revenue with operating and capital costs

Identify differences in costs to serve each of the customer classes

Consider level and structure of rate design for each class of service

Three Primary Steps of Rate Making

Compare revenue with operating and capital costs

Identify differences in costs to serve each of the customer classes

Consider level and structure of rate design for each class of service

Today's workshop seeks guidance on 9 key water rate policy issues

Cost of Service Alignment

Non-residential Rates

Affordability

Monthly Charge

Residential Rates

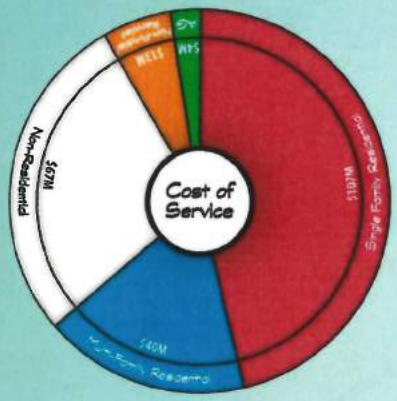
Fee Subsidies

Recycled/Non-Potable Rates

Fire Protection Charge

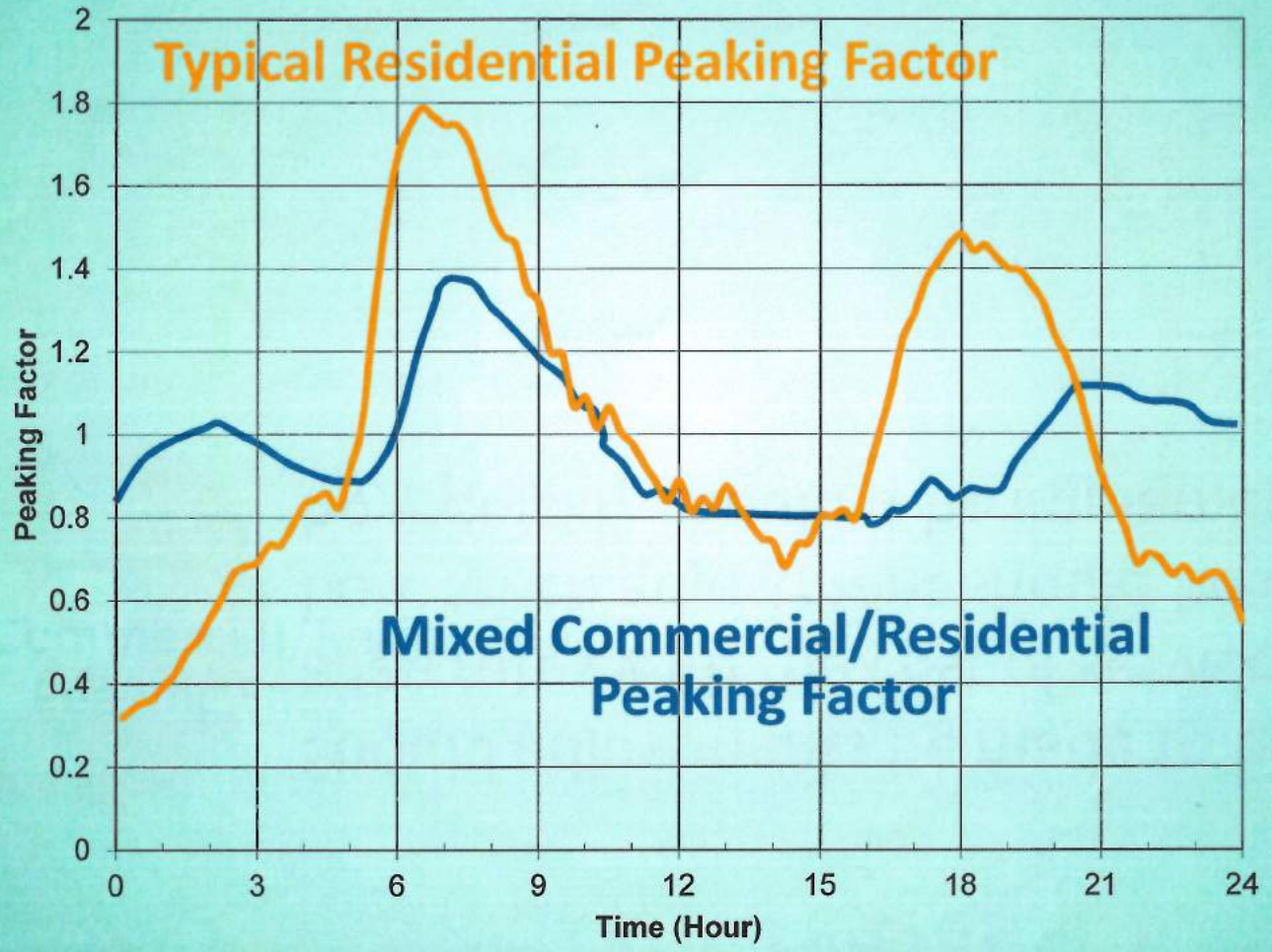
Agricultural Rates

Item 1: Cost of Service Alignment

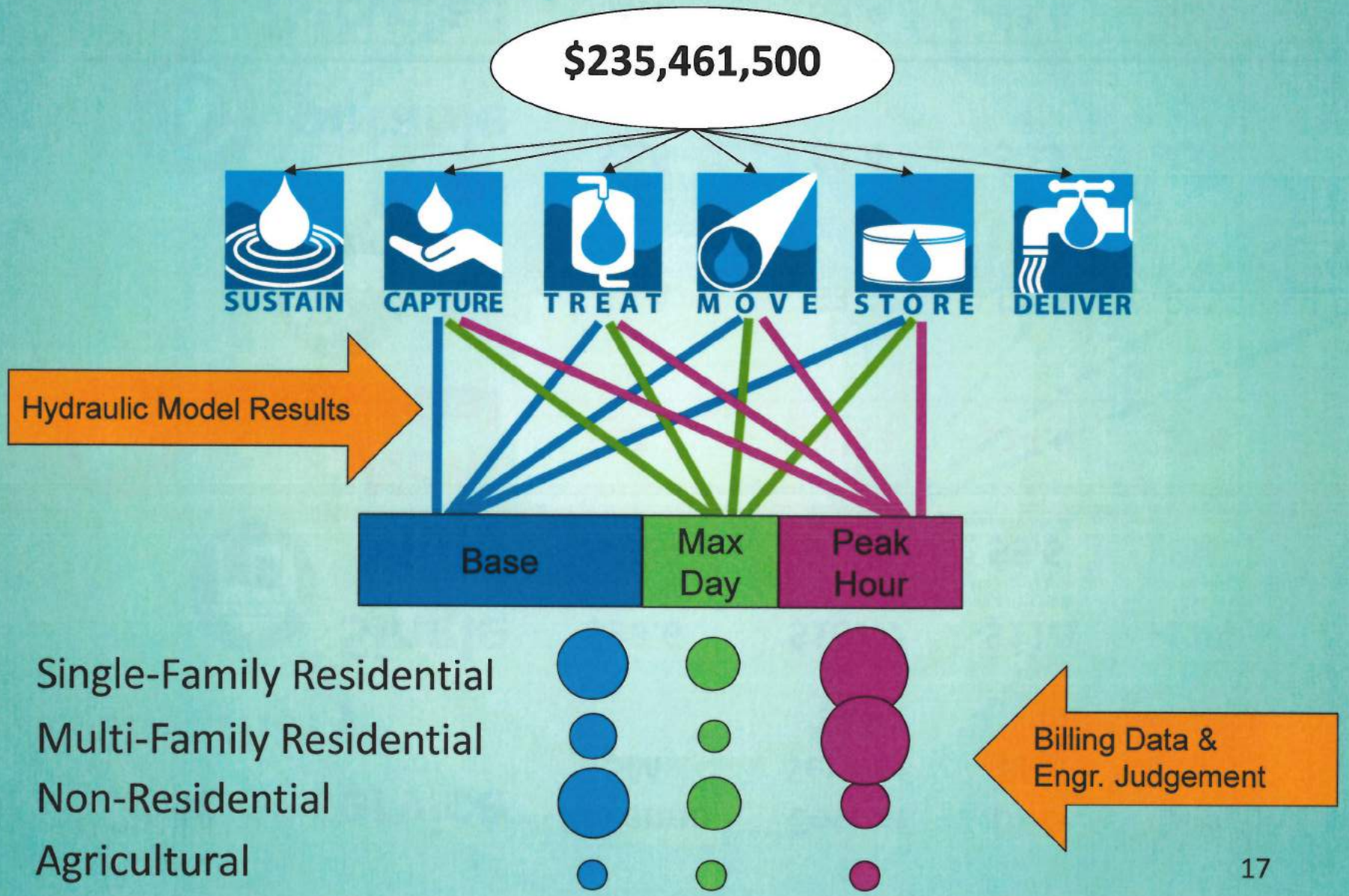


Should adjustments be made to better align rates with the cost of service? If so, how much adjustment should be made and how quickly should it be implemented?

Residential peaking factors are higher than others



The assessment process



Cost of service summary

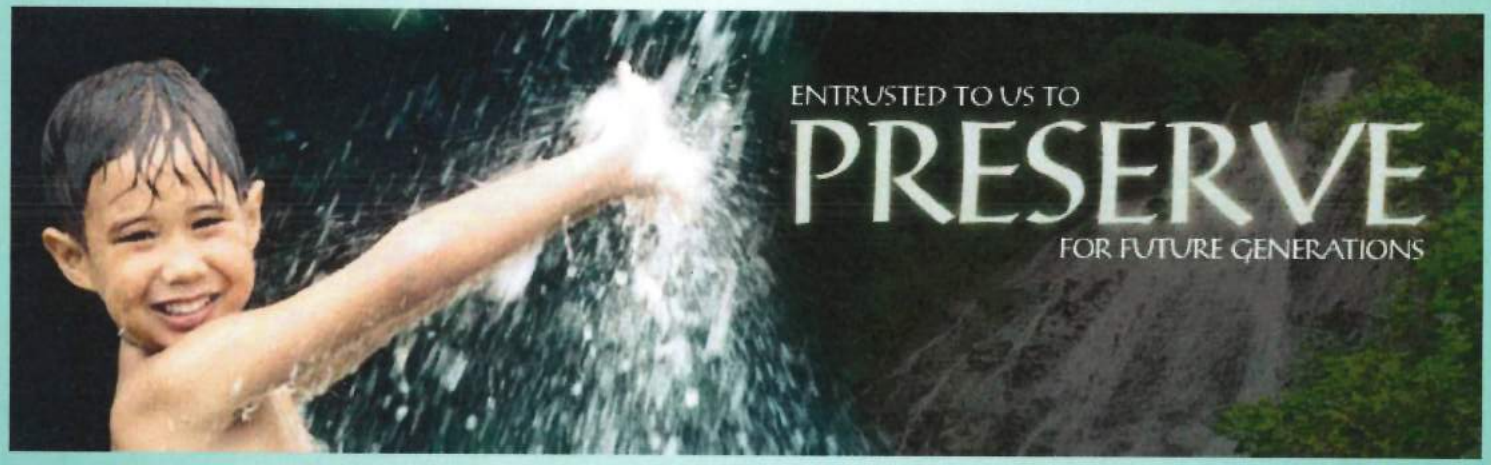
	Revenue $M	Cost of Service $M	Diff. $M	Diff. %
Single	$96.6	$107.7	-$11.1	-12%
Multi	$45.4	$41.8	$3.6	8%
Non-residential	$82.2	$68.3	$14.0	17%
Ag	$2.4	$3.9	-$1.5	-61%
Non-potable	$1.6	$2.4	-$0.7	-43%
Recycled	$5.8	$9.4	-$3.5	-61%


Considering Cost of Service
Zero Sum Game

Stakeholder Advisory Group Input

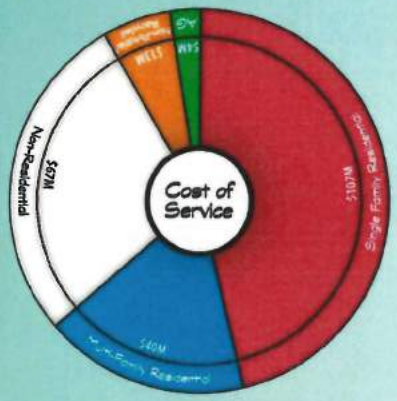
- Reduce single-family residential subsidy, especially from multi-family residential
- All customers benefit from having local agriculture, so all customers should contribute to the agricultural water rate subsidy
- Continue non-potable and recycled water subsidies

Questions & Answers



Public Comment on Cost of Service Alignment

Item 1: Cost of Service Alignment



Option 1	Option 2	Option 3
Leave single-family and multi-family cost of service recovery as is	Adjust single-family and multi-family rates closer to cost of service recovery	Adjust single-family and multi-family rates to match cost of service over the next XX years

Item 2: Affordability

Should current affordability efforts be formalized in a program and should the program be expanded by piloting additional components to assess their implementation and effectiveness in helping low income customers?

"The issues of affordability and assistance for low-income customers are becoming a higher priority for the water industry as rates continue to rise in order to finance needed infrastructure investments."

--AWWA Journal, August 2017

[National Association of Clean Water Agencies, 2016]

The Business Case for Customer Assistance

- Build and sustain long-term customer loyalty, trust and satisfaction
- Proactive approach is more effective than just waiting for accounts to become past due
- Costs of collections, disconnections, reconnections and write-offs are spread to all customers
- Programs tailored to occasions when customers can't pay have the potential to recover substantial revenue, reduce turn-offs, better business outcomes

[Water Research Foundation, Best Practices in Customer Payment Assistance Programs, 2010]

Setting at BWS (FY 2016)

- 735 turn-offs, 635 unique premises
- 0.43% turn-off rate
- 15.7% are repeat

Annual amount of bill write-offs

Year	2013	2014	2015	2016	2017
Number of Accounts	1,943	2,154	1,684	1,560	1,313
Amounts	$331,127	$363,603	$355,027	$524,566	$348,136

UNC ENVIRONMENTAL FINANCE CENTER

HI Water Rates Dashboard

Rates as of July 1, 2016

Dashboard updated: August 15, 2017

Honolulu City and County Board of Water Supply

Rates Comparison | Characteristics | Links | Edit Data or Add Utility

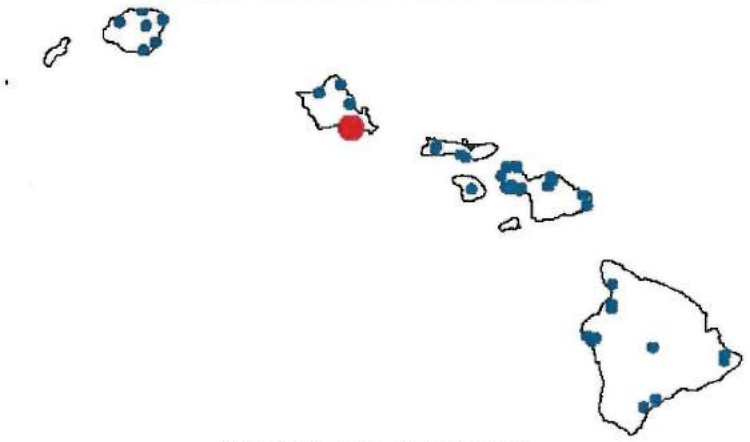
Select residential bill and monthly consumption amount

9,000 gallons
1,203 cubic feet

Monthly Water Bill: $49.04

Select comparison group: All Utilities

Comparing to **all utilities in survey**



39 rate structures compared

Effects of raising rates by: 0%

Bill Comparison

Water Bill at
9,000 gallons
Median: $46.26

Min $4.65 Max $370.20

Conservation Signal

Water Price/1,000 gallons, after
10,000 gallons
Median: $3.20

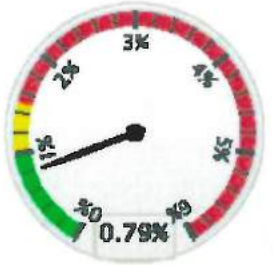
Min $0.35 Max $17.75

Cost Recovery

Operating
Ratio Incl. Deprec. 2015

Affordability

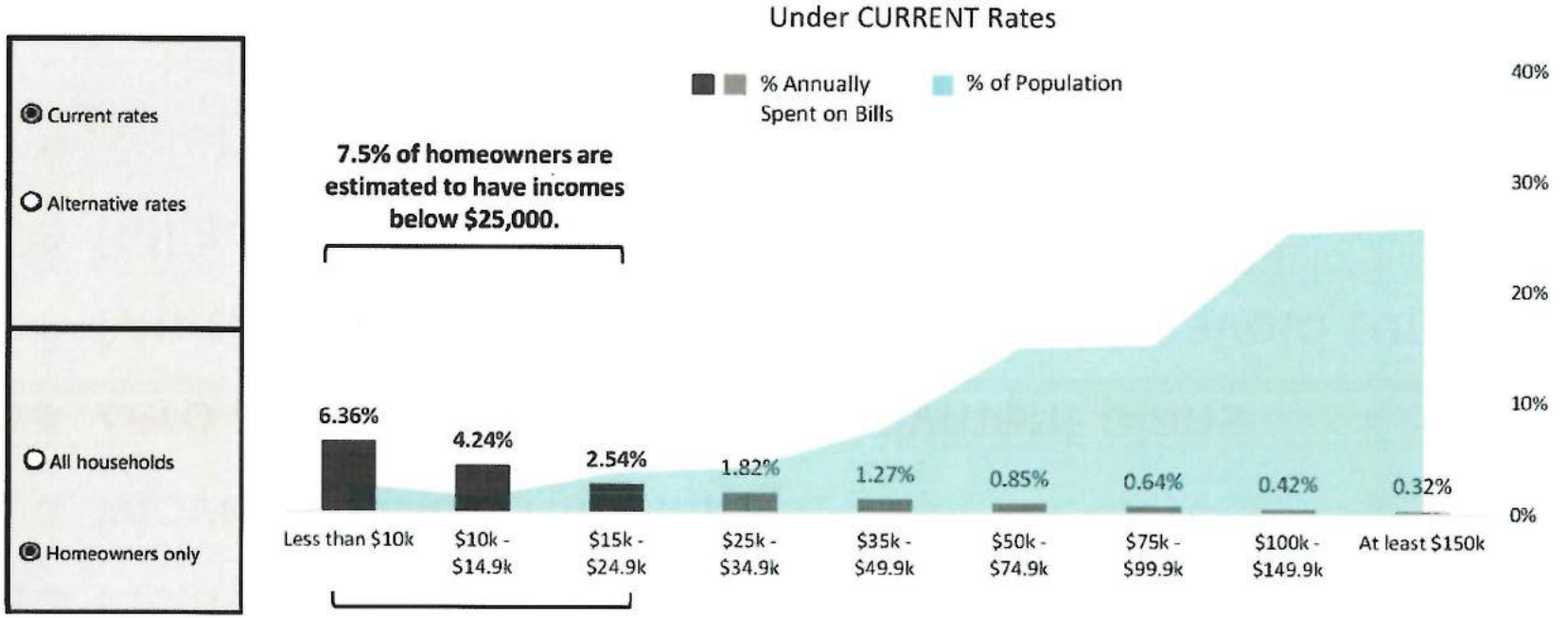
Water Bills as % MHI



Water & Wastewater Residential Rates Affordability Assessment T

Developed by the Environmental Finance Center at th
University of North Carolina, Chapel Hill

Affordability of Water Rates Assessed at 9000 Gallons/Month and the 2016 Income Levels



Source: U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey, 2015

Current BWS Affordability Support

- Inclining-block rate structure
- Moved to monthly billing
- Zero interest, case-by-case payment plans
- Multiple steps and accommodations to avoid turn-off
- Bill adjustments for underground leaks
- Referral to community social-service support
  - Helping Hands
  - Catholic Charities

COMMUNITY ACTION ALLIANCE

WRAP

Water Residential Assistance Program

*Income restrictions and eligibility requirements apply.

GLWA

Great Lakes Water Authority

Program Benefits:

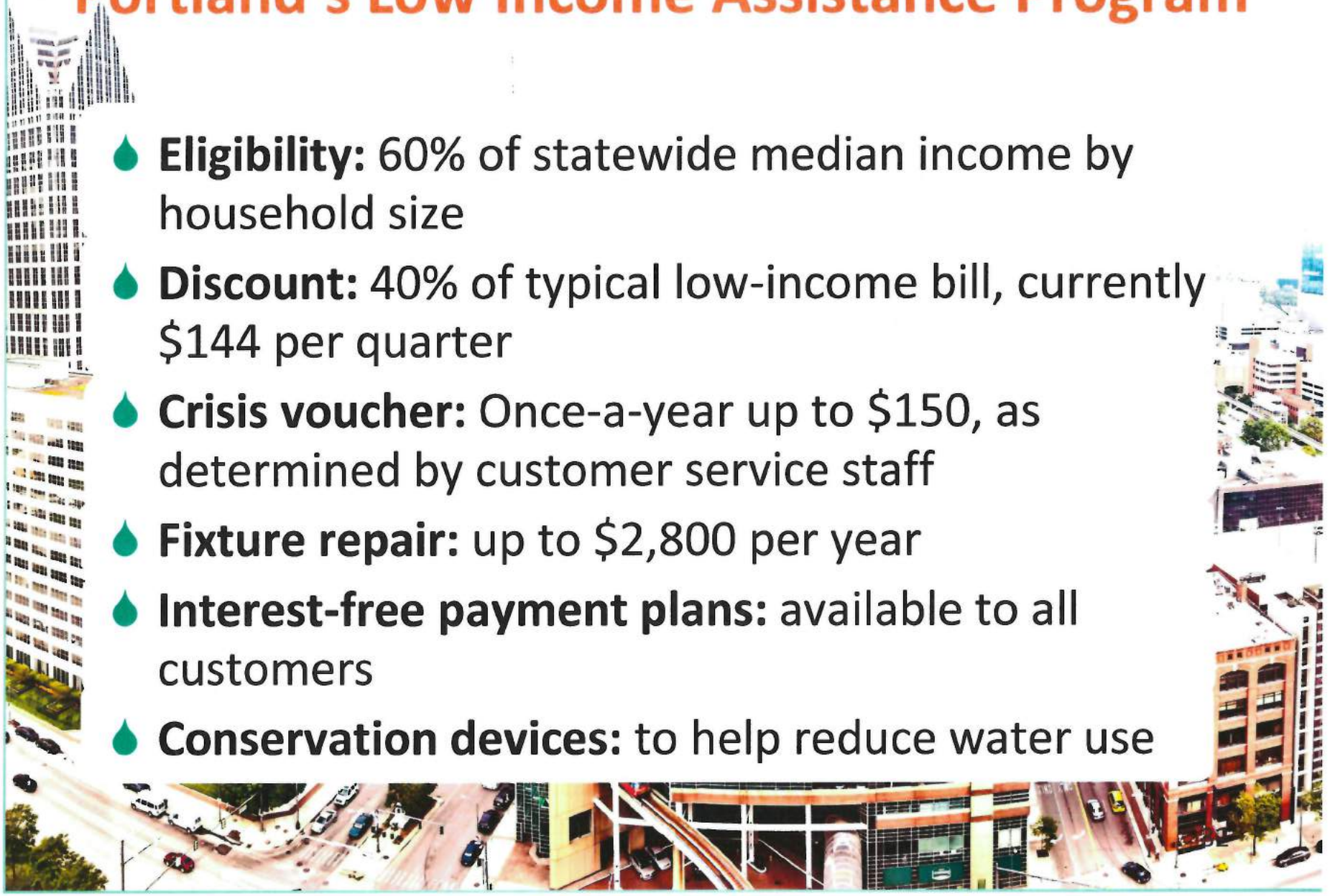
- Assistance up to $300 per household per year. $25 monthly bill credit.
- Home water audit for households above 120% of average usage.
- Home repairs up to $1,000 per household to fix minor plumbing issues leading to high usage.
- Water saving kits and consumer training classes.
- Supportive WRAP-Around Services.

WRAP Participant Qualifications:

- ✓ Have income at or below 150% of poverty threshold
- ✓ Provide proof of residency & income
- ✓ Provide renter's proof of responsibility for water on lease
- ✓ Stay current on monthly bill payment

Portland's Low Income Assistance Program

- **Eligibility:** 60% of statewide median income by household size
- **Discount:** 40% of typical low-income bill, currently $144 per quarter
- **Crisis voucher:** Once-a-year up to $150, as determined by customer service staff
- **Fixture repair:** up to $2,800 per year
- **Interest-free payment plans:** available to all customers
- **Conservation devices:** to help reduce water use



Portland's Utility Safety Net

- Avoid water shutoff for ratepayers with:
  - Temporary loss of employment
  - Medical emergency
  - Other personal emergencies
- Major elements
  - Deferred water shutoff
  - Waiver of recent delinquency charges
  - Interest-free repayment
  - Financial assistance if applicable

Hawaiian Electric
Maui Electric
Hawai'i Electric Light

Energy Assist Programs

- Tier Waiver Provision
  - Customers receiving LIHEAP credits are auto-enrolled
  - Applies 1st tier rate to non-fuel energy portion of bill, typically $0.02 to $0.03 lower than 2nd and 3rd tiers

Hawaiian Electric
Maui Electric
Hawai'i Electric Light

Energy Assist Programs

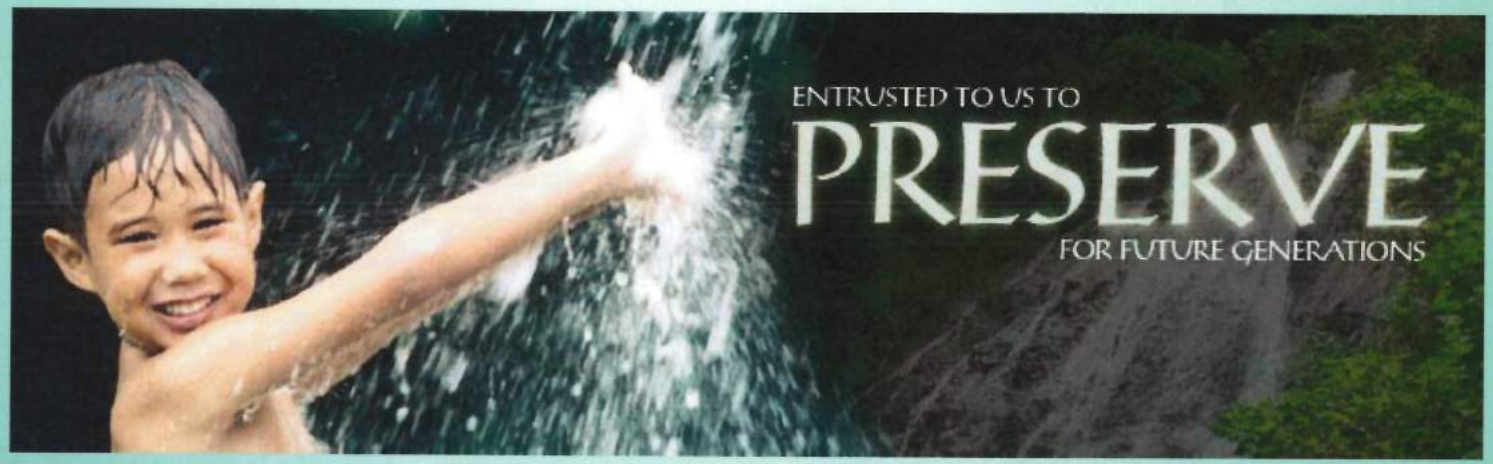
- Tier Waiver Provision
- Special Medical Needs Pilot Program
  - Limited to first 2,000 qualified applicants
  - Discount of $0.04 per kWh on first 500 kWh, max $20 per month

Hawaiian Electric
Maui Electric
Hawai'i Electric Light

Energy Assist Programs

- Tier Waiver Provision
- Special Medical Needs Pilot Program
- Ohana Energy Gift Program
  - Energy gift donation program that allows you to gift friends, family or others in need

Questions & Answers



Public Comment on Affordability

Item 2: Affordability

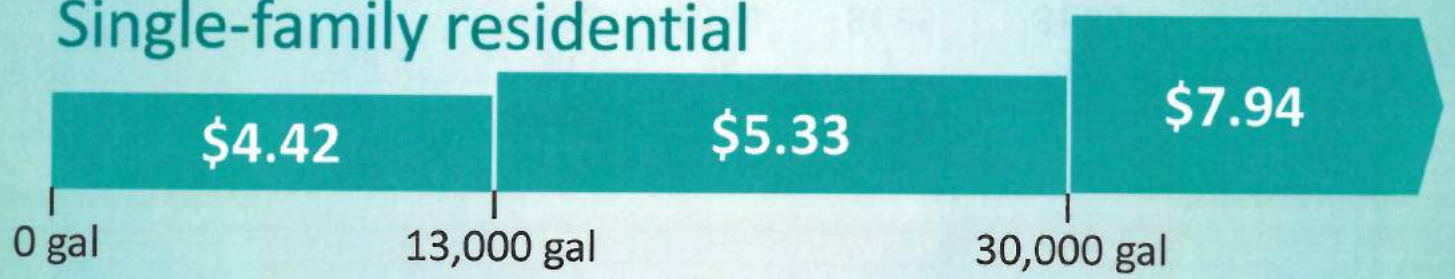
Option 1	Option 2
Formalize the BWS's affordability efforts in a program and pilot test additional components	Make no changes to current affordability efforts

Item 3: Residential Rates

BWS currently uses a tiered rate structure for residential customers. Should these tiers be adjusted to be more encouraging of water conservation and establish an "Essential Needs" tier?

BWS's Residential Customers Pay More as Use Increases

- Increasing block or tiered rate structures, to encourage conservation



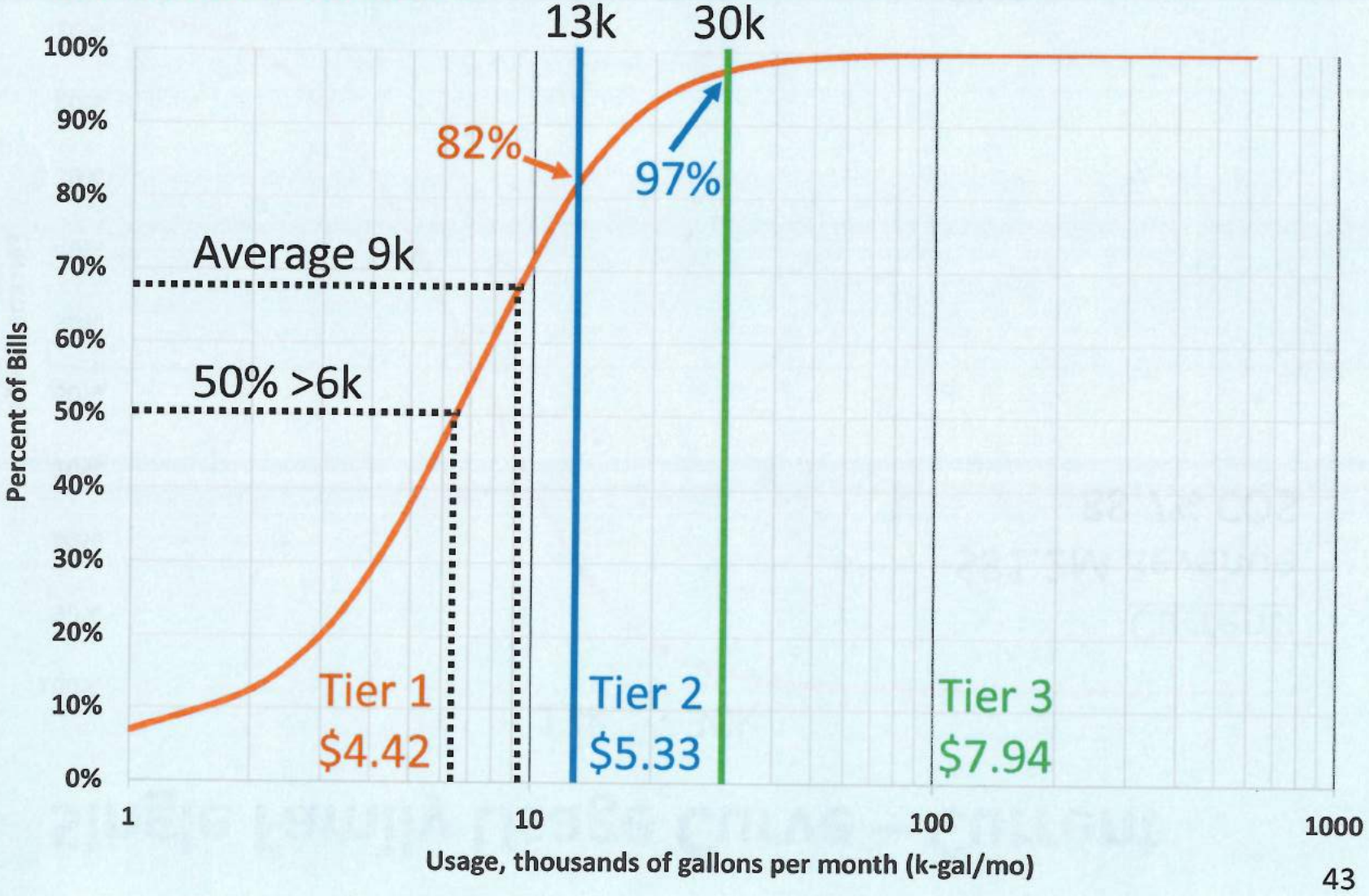
Charges per 1,000 gallons

Comparison of Single-Family Residential Rate Tiers

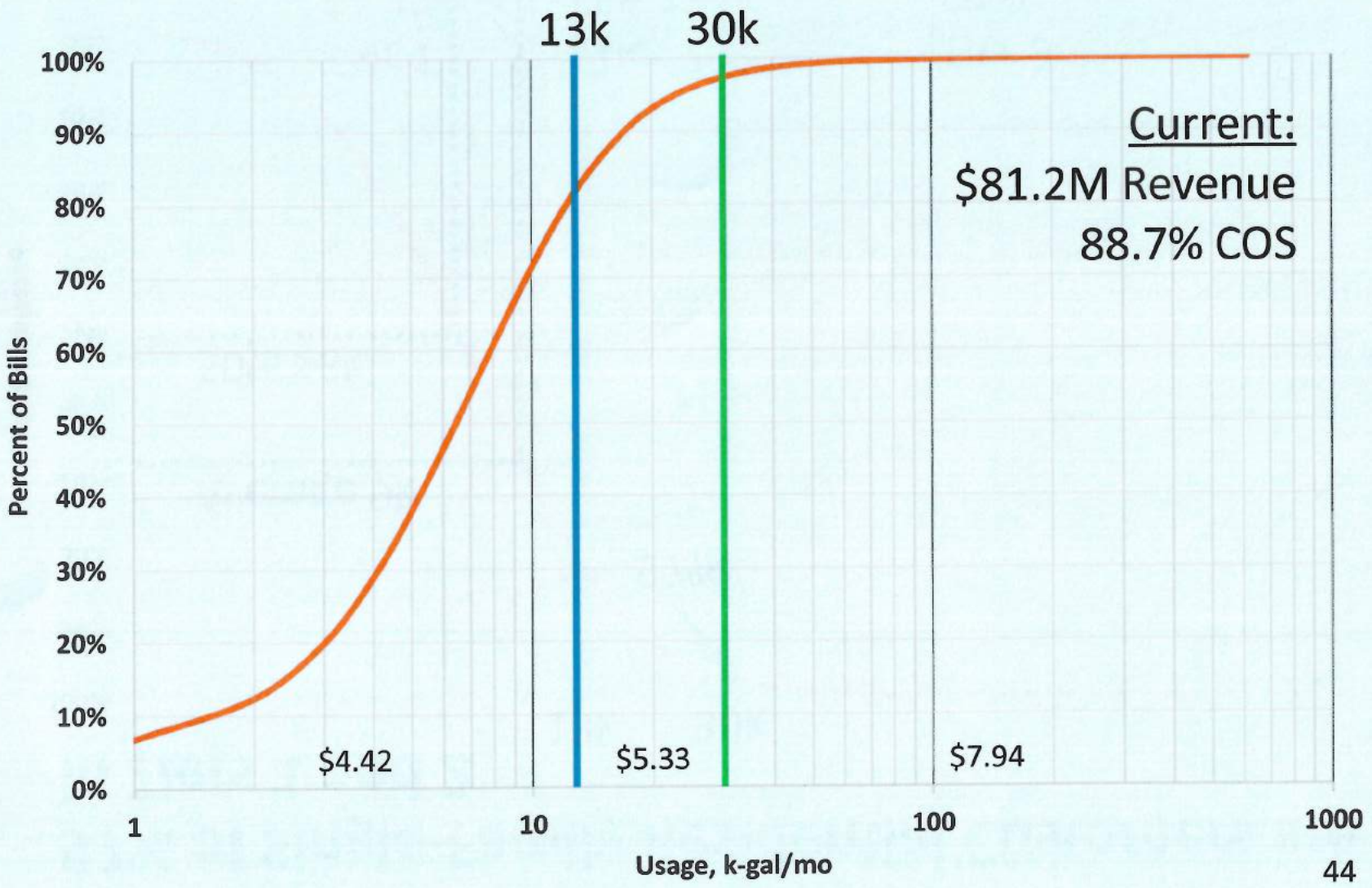
Agency Monthly Charge	BWS $9.26	Maui $19.25	Kauai* $17.45	Hawaii* $18.30
Tier 1	13 $4.42	5 $2.00	1 $3.80	5 $0.91
Tier 2	30 $5.33	15 $3.80	7 $4.85	15 $1.88
Tier 3	>30 $7.94	35 $5.70	14 $5.65	40 $3.30
Tier 4		>35 $6.35	18 $9.50	>40 $4.35
Tier 5			>18 $10.00	

Based on 5/8-inch or 3/4-inch meter, whichever is lowest available
* No difference between residential and non-residential rates

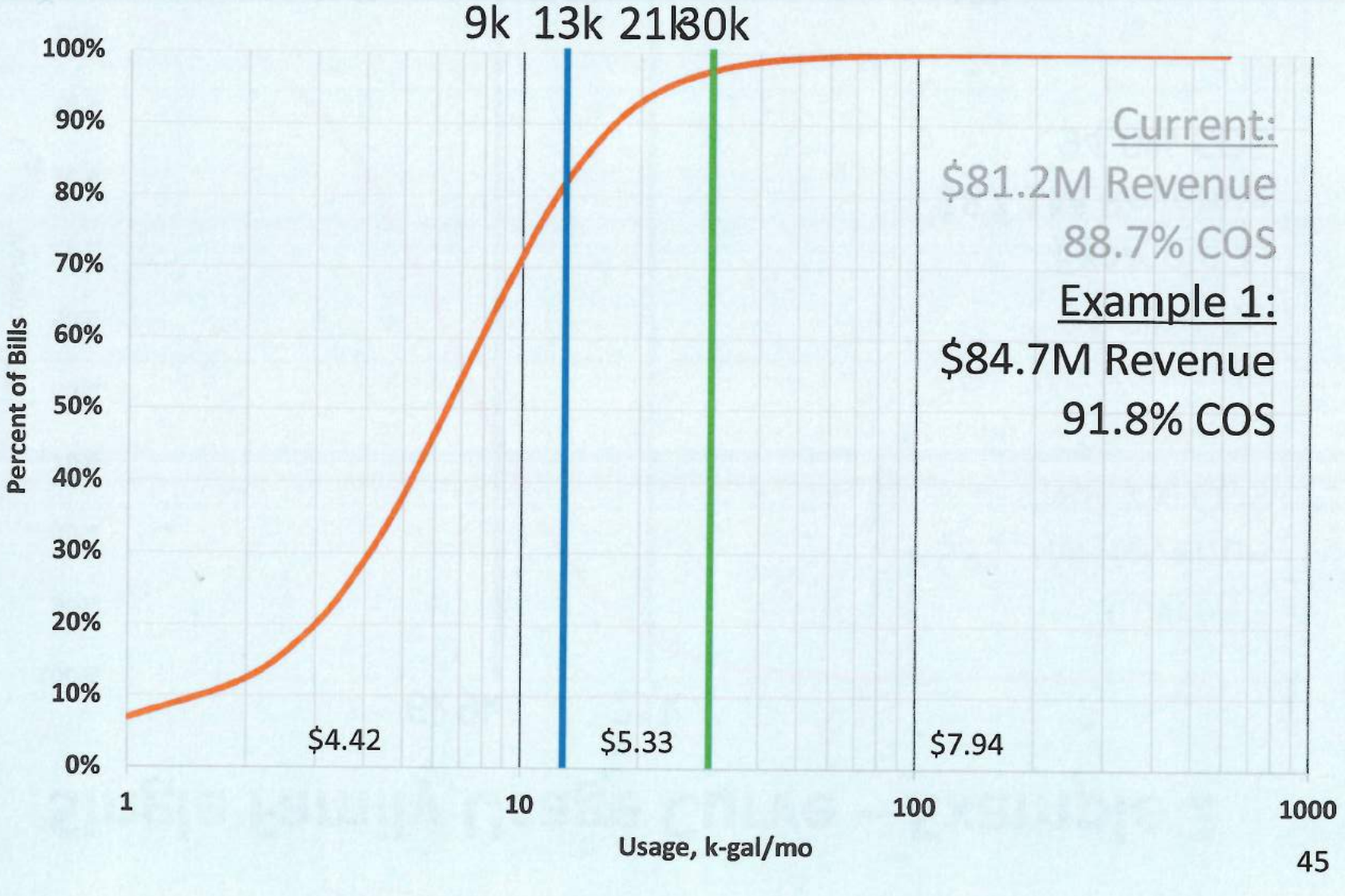
97% of Single-Family Residential Customers are in Tiers 1 and 2



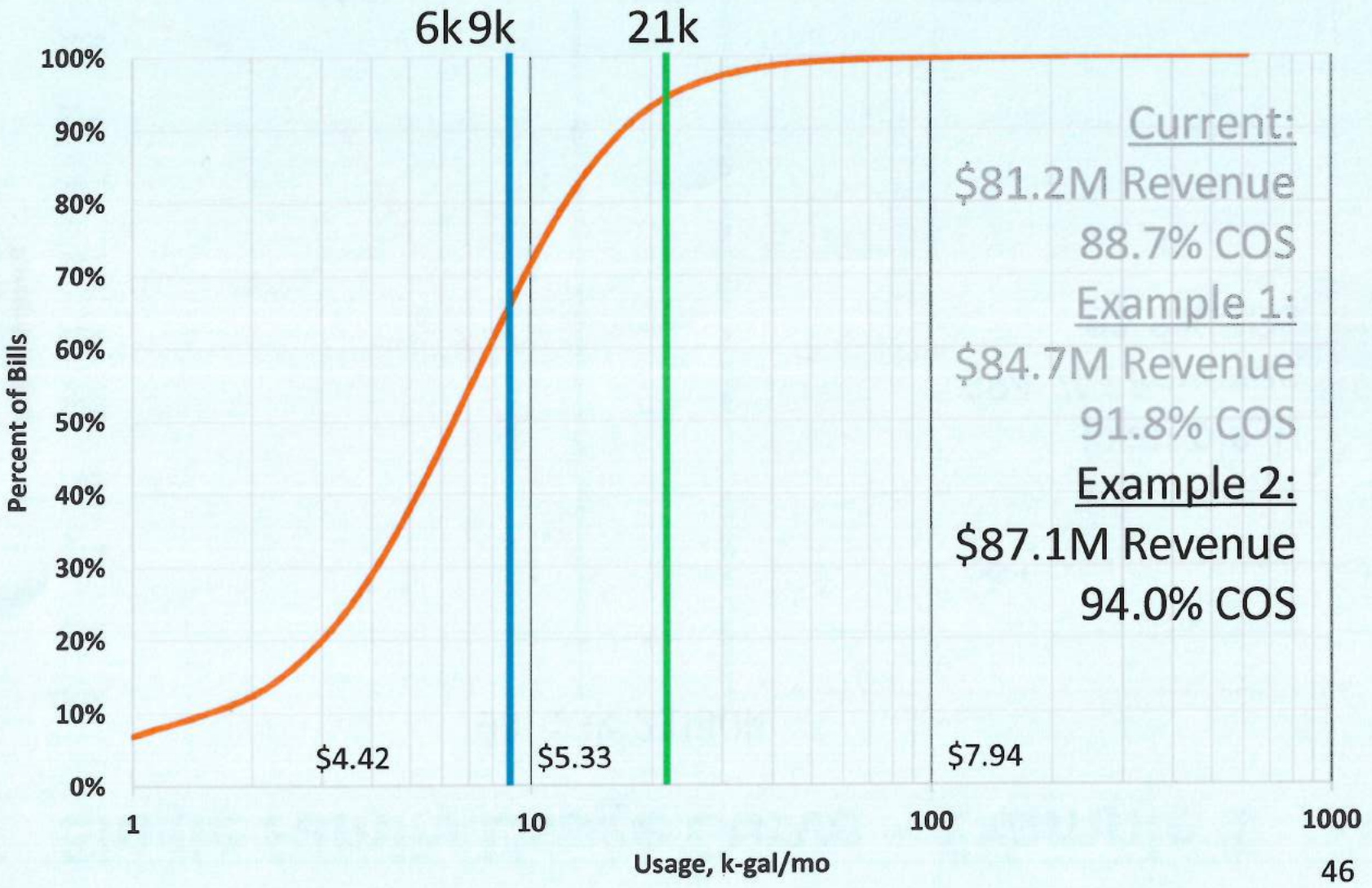
Single Family Usage Curve – Current



Single Family Usage Curve – Example 1



Single Family Usage Curve – Example 2



Single Family Example – Tier Shift
Sample Bill Amounts

Bill Amount, k-gal/mo	Cumulative % of Bills	Current 13k/30k	Example 1 9k/21k	Example 2 6k/21k
2	12.7%	$18.10	$18.10	$18.10
6 (50%)	46.7%	$35.78	$35.78	$35.78
9 (Avg.)	66.8%	$49.04	$49.04	$51.77
18	91.4%	$93.37	$97.01	$99.74
45 (Top 1%)	99.1%	$276.43	$303.56	$306.29
% COS		88.7%	92.4%	94.0%

Sample bill amounts include monthly billing charge of $9.26

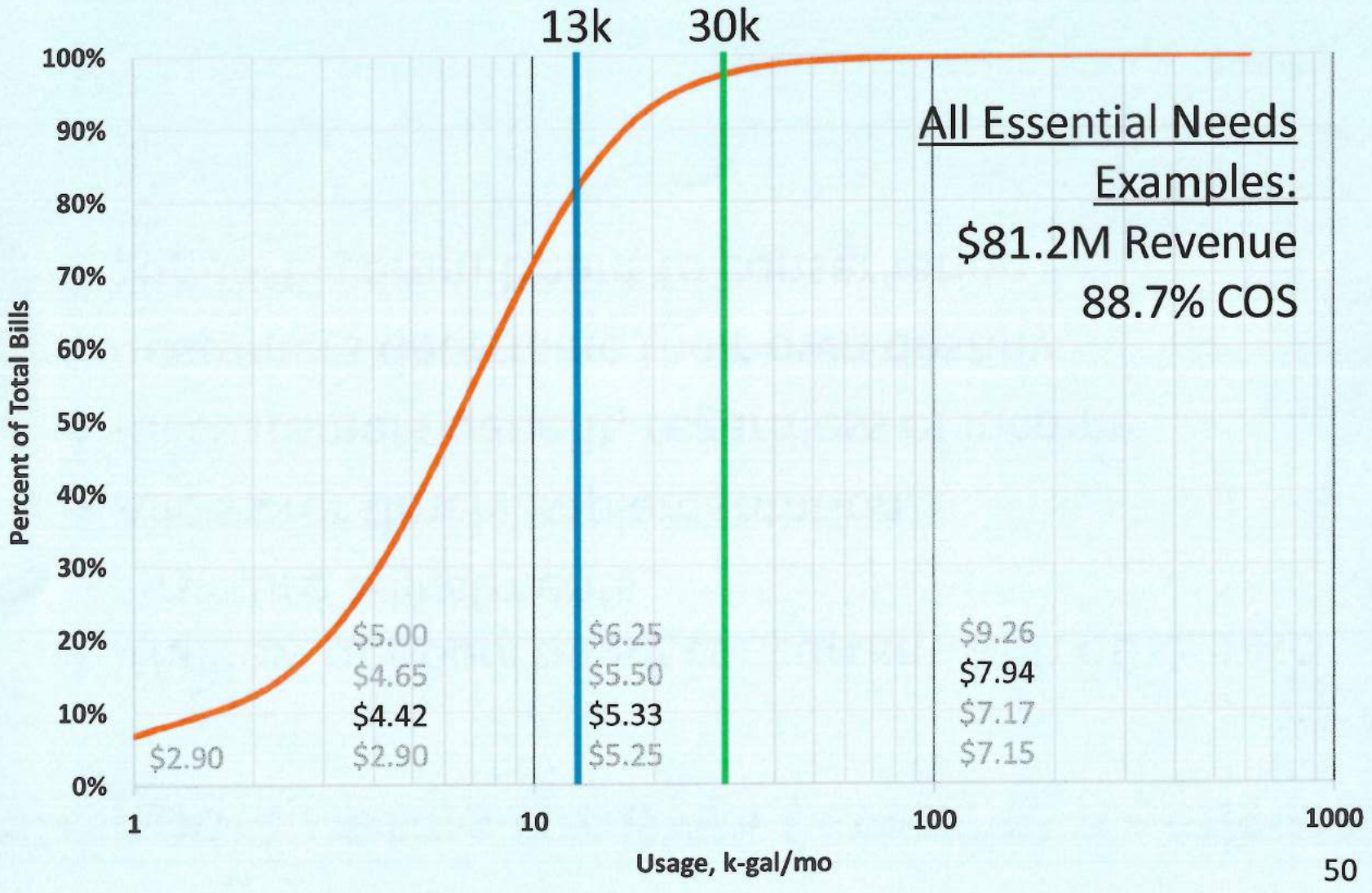
"Essential Needs" Tier

- Essential Needs tier quantity established at basic level of indoor use by residential customers
- Essential Needs rate recovers less than actual cost to deliver
- Revenue from higher tiers covers cost of Essential Needs tier

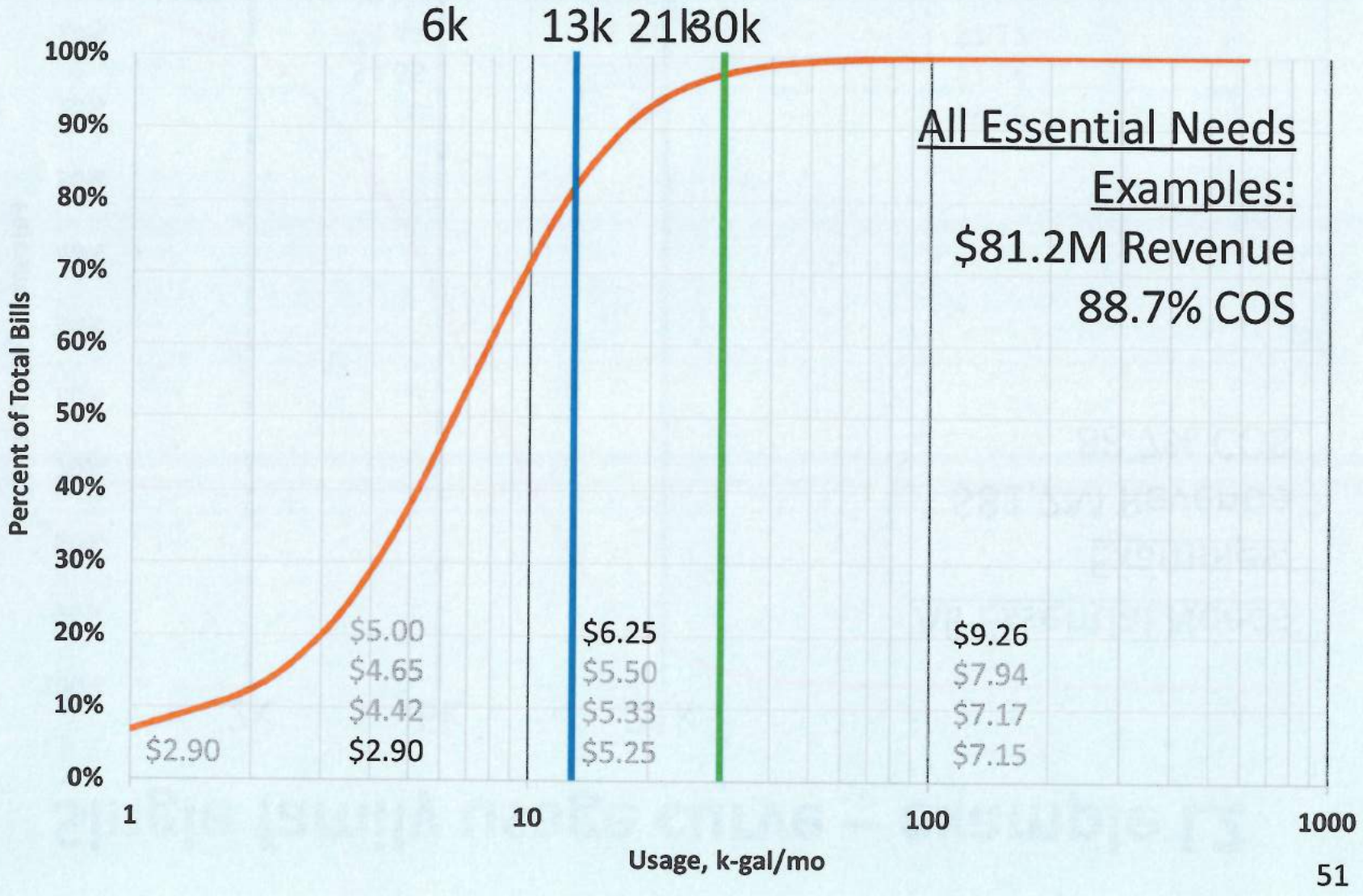
Opportunities for BWS Essential Needs tier

- Window of opportunity concurrent with other rate structure adjustments
- Allows for timely implementation
- All customers benefit, regardless of income
- Customers determine their own destiny
- Supports commitment to conservation

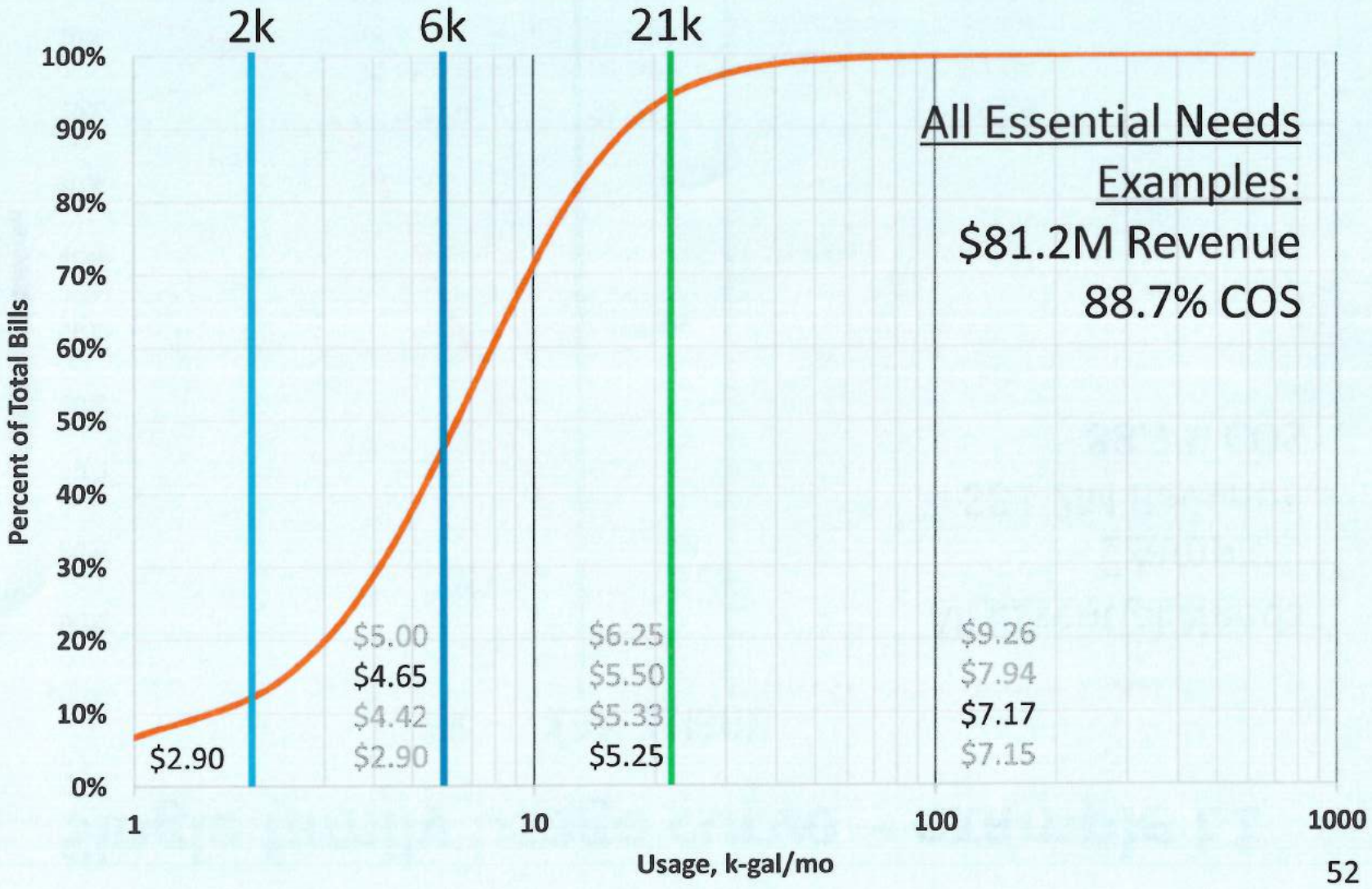
Single family usage curve – current



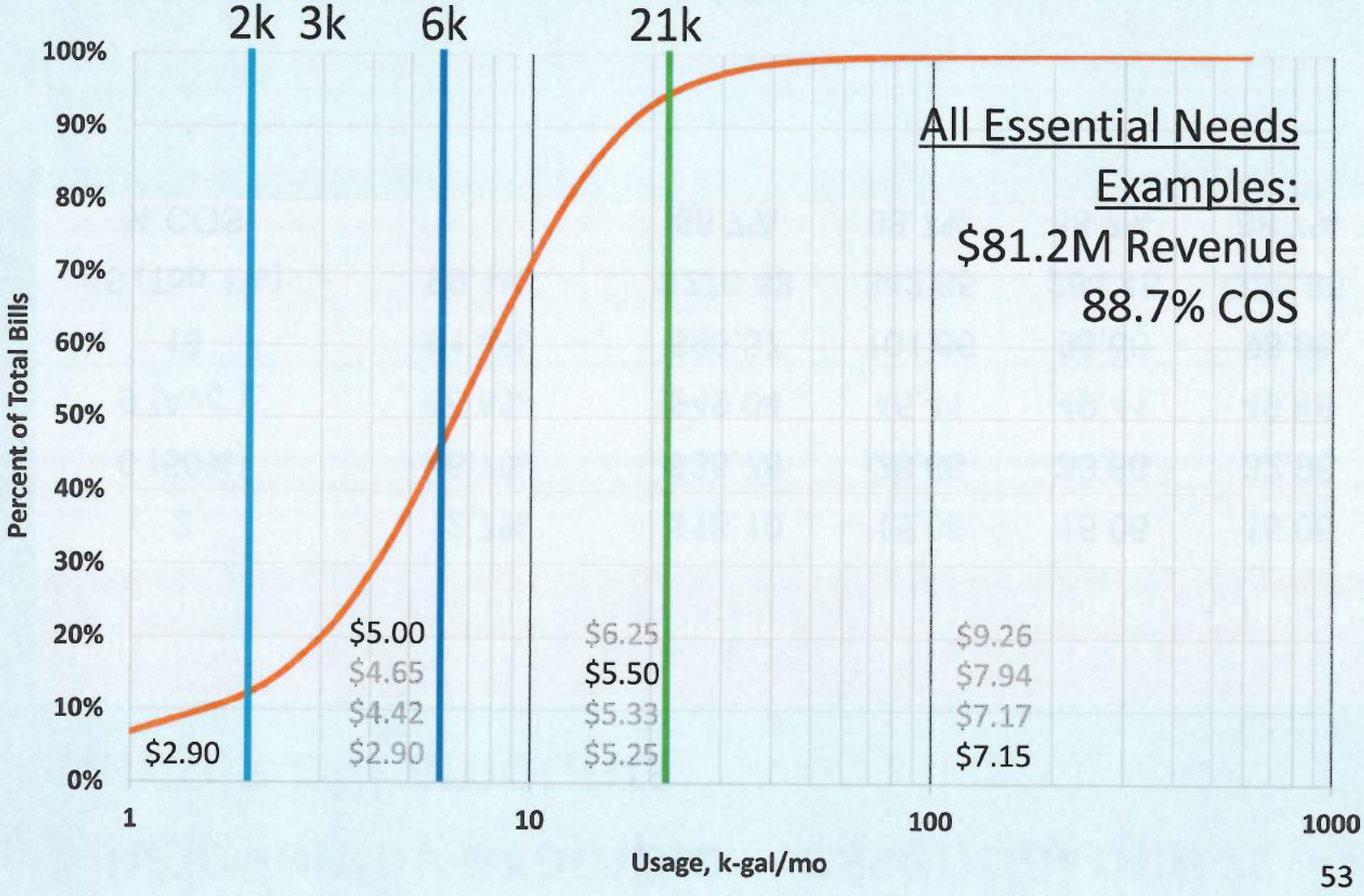
Single family usage curve – example L1



Single family usage curve – example L2



Single family usage curve – example L3

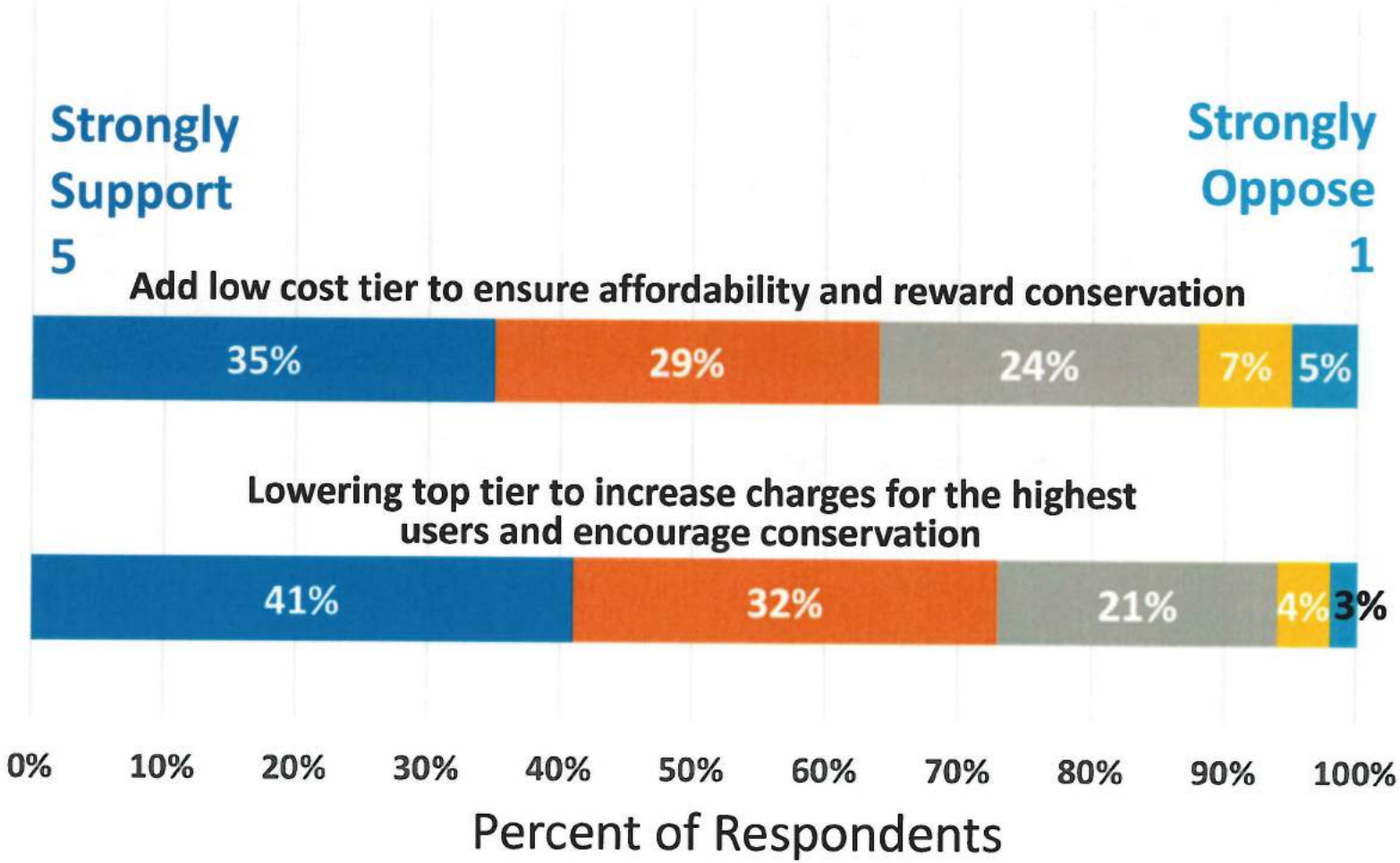


Single family example – essential needs sample bill amounts

Bill Amount, k-gal/mo	Cumulative % of Bills	Current	Ex. L1 6k/21k	Ex. L2 2k/6k/21k	Ex. L3 3k/6k/21k
2	12.7%	$18.10	15.06	15.06	15.06
6 (50%)	46.7%	$35.78	26.66	33.66	32.96
9 (Avg.)	66.8%	$49.04	45.41	49.41	49.46
18	91.4%	$93.37	101.66	96.66	98.96
45 (Top 1%)	99.1%	$276.43	342.65	284.45	286.95
% COS		88.7%	88.7%	88.7%	88.7%

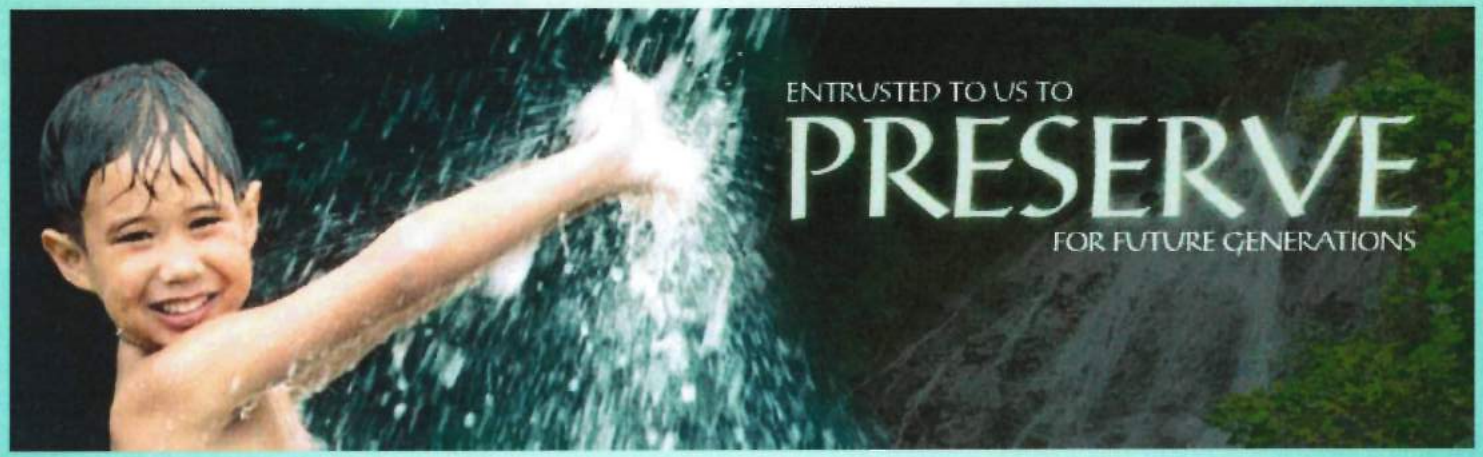
Bill amounts include monthly billing charge of $9.26

Customers input on potential residential rate tier adjustments



Ward Research Hawaii Panel (above) and BWS on-line survey show similar results

Questions & Answers



Public Comment on Residential Rates

Item 3: Residential Rates

Option 1	Option 2	Option 3
Shift tiers to encourage more conservation	Shift tiers to encourage more conservation and establish an "Essential Needs" tier	Leave tiers as is

Item 4: Recycled/Non-potable Rates

Recycled and non-potable water customers currently pay less than their cost of service. Should this strategy be continued? If so, to what degree?

2 mgd of Non-Potable Supplies for Irrigation Customers

- 3 Non-Potable Sources
  - Glover Tunnel in Makaha (Makaha East Golf Course)
  - Barbers Point non-potable well (Ko Olina Resort)
  - Kalauao Spring in Pearlridge (Hawaiian Cement, DOT, Aloha Stadium)
- 90 customers
  - 655 million gallons per year
  - 1% of total water usage
  - 45% subsidy compared to cost of service
  - Amount of subsidy $744,600

All of BWS's Recycled Water is from Honouliuli Water Recycling Facility

R-1 Water is for Irrigation and Industrial Use

- Up to 10 million gallons per day (mgd)
- 25 customers, all contractual
  - Irrigation customers throughout Ewa
  - Most golf courses in Ewa
  - Some City of Kapolei parks and schools
- $0.55/k-gal for golf courses
- $1.75/k-gal for all others
- 5.5% of total water usage
- 27% subsidy compared to cost of service
- Amount of subsidy $0.9 million

RO (Demineralized) Water for Specialized Industrial Use

- Up to 2 mgd
- 7 contracts
  - Campbell Industrial Park
  - Kahe Power Plant
  - Chevron
- Terms and conditions vary, most between $5 - $6/k-gal,
- 1 % of total water usage,
- Costs more to produce than R-1
- 105% subsidy compared to COS
- Amount of subsidy $2.6 million

Sampling of Recycled Water Rates (comparable to R-1)

Utility	Recycled % of Non-Residential	Recycled $/HCF	Non-Residential $/HCF
San Diego	13%	0.80	6.23
Los Angeles DWP	18%	1.06	6.03
BWS R-1	**35%**	**1.31**	**3.71**
Santa Clara Valley Water District	40%	0.68	1.71
Newport Beach Water Dept.	46%	1.42	3.08
Long Beach Water Dept.	50%	1.32	2.64
Escondido Water Division	57%	3.85	6.80
Glendale	82%	2.39	2.90
Irvine Ranch Water District	91%	0.80	0.88
Burbank	144%	2.58	1.79
Average of 18 Utilities	**71%**	--	--

[Los Angeles Department of Water and Power, March 2015]

Recycled water customers incur higher costs

- Dual piping
- Compliance with Best Management Practices (BMPs)
  - Designation of a Recycled Water Manager
  - Minimization of spray or mist
  - Specialized hose bibs
  - Prevention of runoff
  - Backflow prevention
  - Training
  - Signage
- Risk of fines from Department of Health for runoff, nuisance, etc.

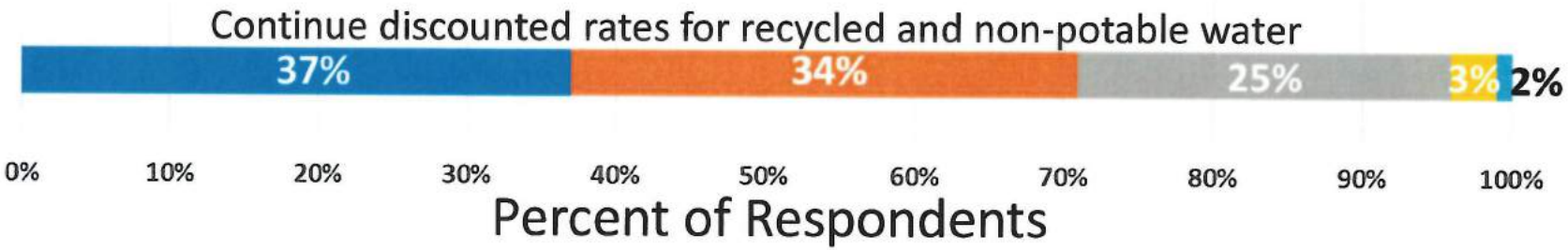
All customers benefit from non-potable and recycled water use

- Better match of water quality to water use
- Reduces ocean discharge of wastewater
- Avoids costs of constructing new potable sources
- Preserves potable sources for potable use
- Strong alignment with Water Master Plan goals

Customer input on subsidies for recycled water

Strongly Support 5

Strongly Oppose 1



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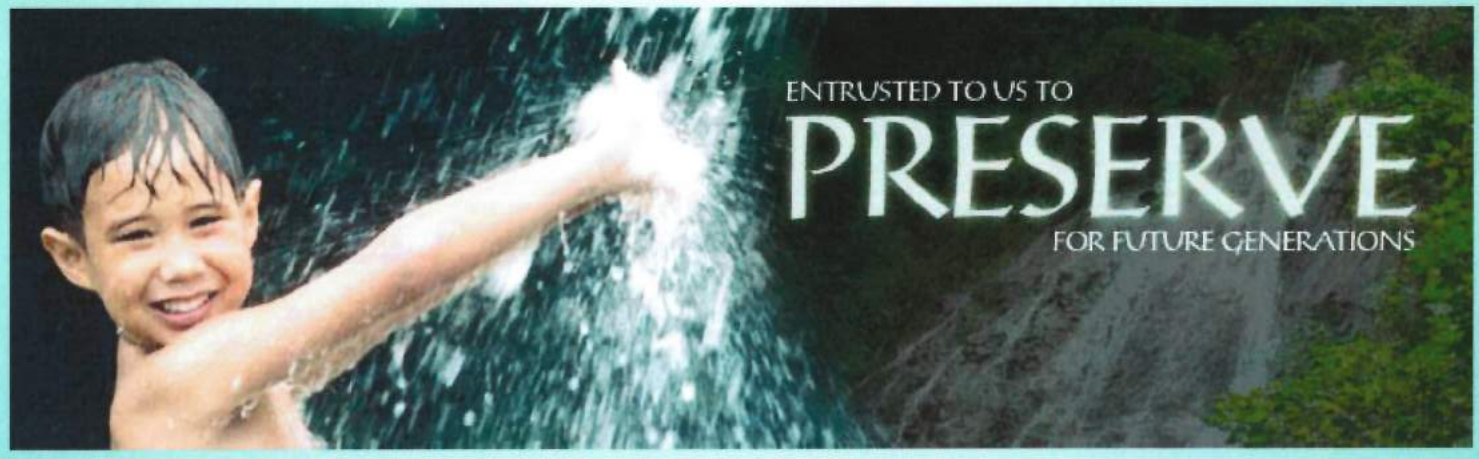
Questions & Answers



Public Comment on Recycled/Non-potable Rates

Item 4: Recycled/Non-potable Rates

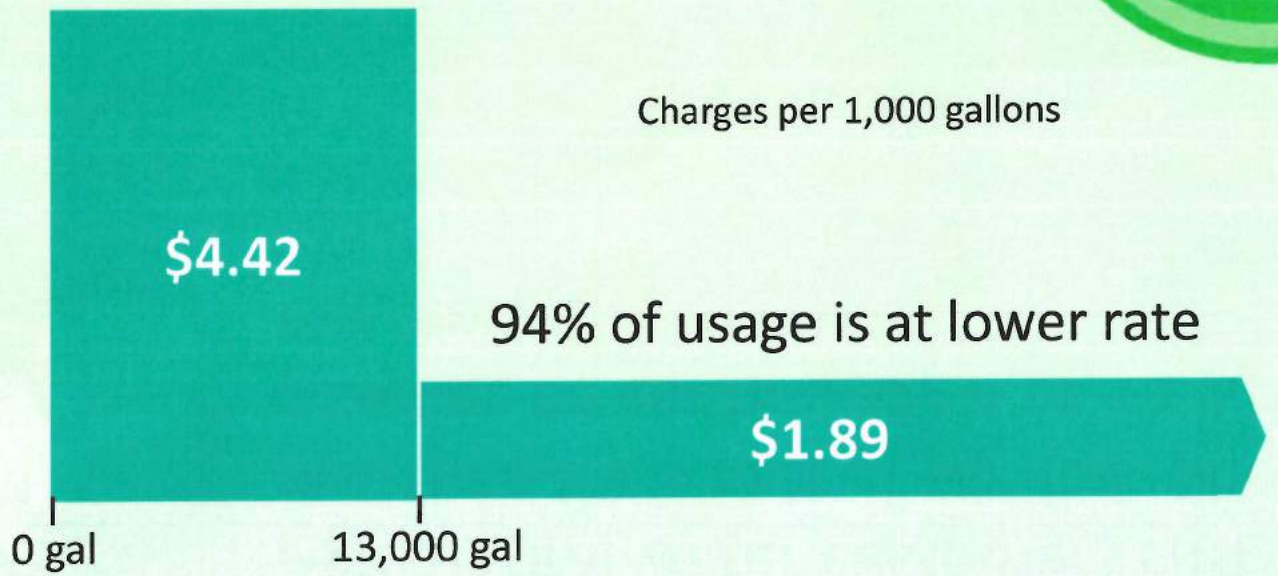
Option 1	Option 2	Option 3
Make no changes to recycled/non-potable rates	Increase recycled/non-potable rates to recover more of cost of service, especially for RO customers (may exceed 100%)	Adjust rates to recover full cost of service

Item 5: Agricultural Rates

Agricultural water customers currently pay less than their cost of service. Should this practice be continued? If so, to what degree?

Agricultural Customers Pay a Lower Rate

- Decreasing block rate structure



Reduced rates encourage local farming of fresh, healthy produce.
Rate participation requires application and approval.

BWS has about 500 Agricultural Customers

- ~2.5% of total BWS water usage
- 60% subsidy compared to cost of service
- Amount of subsidy $1.4 million

Meter size distribution

5/8 inch	55
3/4 inch	92
1 inch	127
1-1/2 inch	116
2 inch	114
3 inch	2
4 inch	1
8 inch	1

BWS has Offered Ag Rates for Well Over 50 Years

To secure an Ag Rate, a customer must:

- Apply to BWS
- Actively engage in commercial crop production, stock raising, or dairy farming
- Submit to a field inspection for verification
- Provide a copy of their General Excise License
- Meet cross connection and backflow prevention requirements
- Re-apply annually, including their most recent General Excise Tax Return

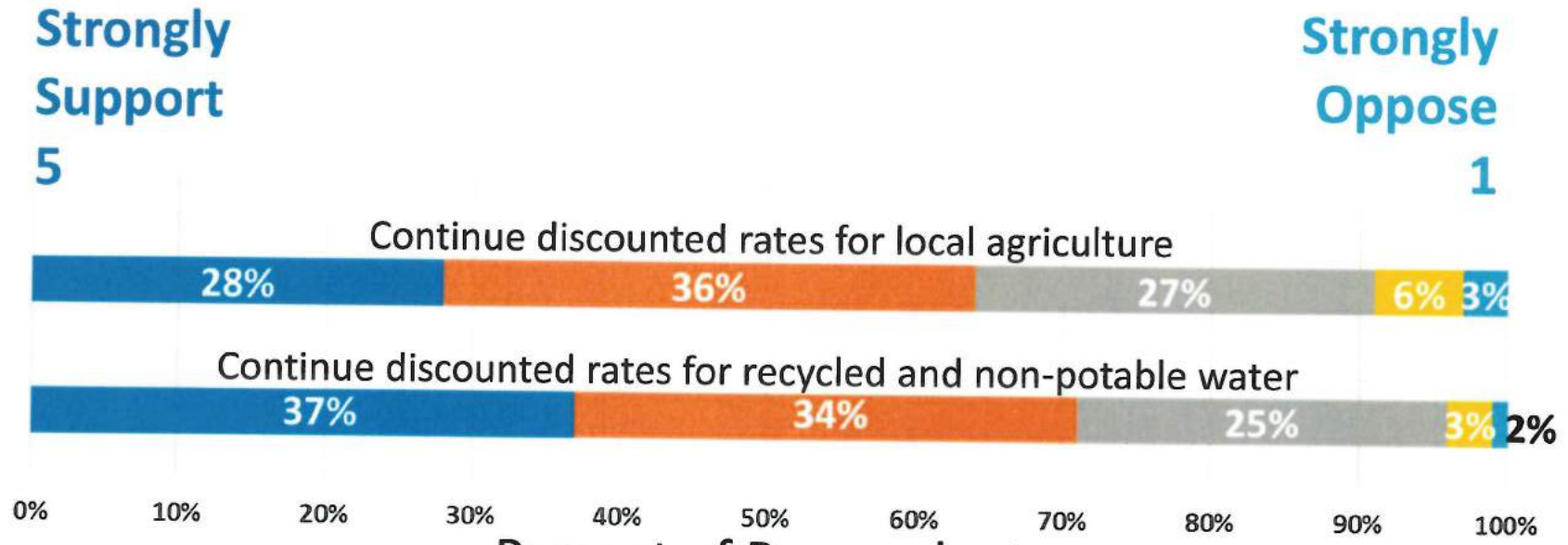
Comparison to Other Islands' Ag Rates

	Maui	Kauai	Hawaii
Volumetric (k-gal/month)	>15 = $1.10/k-gal (~20% of the charge for other customers usage in that range)	$2.20/k-gal (~60% of first block)	0-5 = $0.92/k-gal 5-15 = $2.01/k-gal >15 = $1.27/k-gal
5/8	$19.25	$17.75	$18.30
¾	$31.00	$24.75	--
1	$46.00	$36.50	$39.00
1.5	$88.00	$65.50	$73.00
2	$137.00	$100.00	$113.00
3	$242.00	$181.00	$207.00
4	$420.00	$297.00	$342.00
6	$770.00	$587.00	$678.00
8	$1,215.00	$934.00	$1,081.00
10	--	--	$1,560.00
12	--	--	$2,720.00

Stakeholder Advisory Group Input

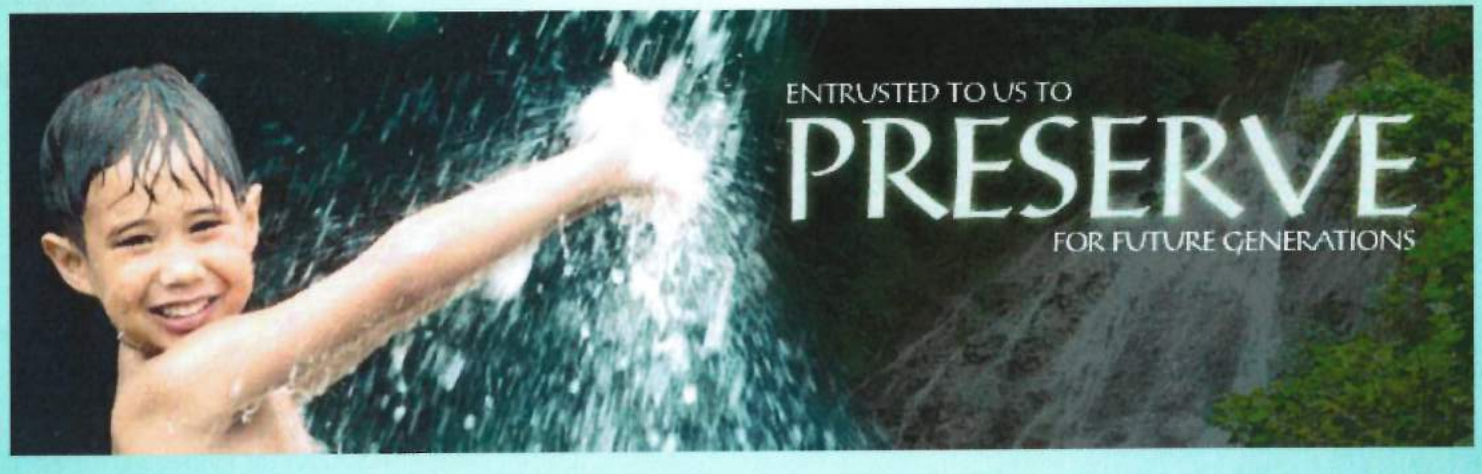
- Local agriculture is important to the community
- Many small farmers rely on access to the potable water system
- Food Safety Modernization Act is increasing financial pressures on farmers
- Due to increasing financial pressures, about 1/3 of farms in Hawaii are not expected to survive in the coming years
- Even though the dollar amount is small overall, it is very important to this class of customer

Customer input on subsidies for recycled water and agriculture



Ward Research Hawaii Panel (above) and BWS on-line survey show similar results

Questions & Answers



Public Comment on Agricultural Rates

Item 5: Agricultural Rates

Option 1	Option 2	Option 3
Retain existing subsidy levels	Reduce subsidy levels but continue to recover less than the full cost of service	Adjust rates to recover full cost of service

Item 6: Non-residential rates

BWS currently charges a uniform rate to all non-residential BWS customers. Should this be maintained?

BWS's non-residential customers pay a uniform rate

- Common structure for non-residential rates
- About 8,500 customers
- 32% of BWS revenues
- 37% of potable usage

$4.96 per 1,000 gallons

Comparison of Non-Residential Rates 1-Inch Meter

Agency Monthly Charge	BWS $9.26	Maui $46.00	Kauai* $36.50	Hawaii* $39.00
Tier 1	All $4.96	5 $2.00	3 $3.80	5 $0.91
Tier 2		15 $3.80	68 $4.85	15 $1.88
Tier 3		>15 $5.70	137 $5.65	40 $3.30
Tier 4			175 $9.50	>40 $4.35
Tier 5			>175 $10.00	

* No difference between residential and non-residential rates

Comparison of Non-Residential Rates 3-Inch Meter

Agency Monthly Charge	BWS $9.26	Maui $242.00	Kauai* $181.00	Hawaii* $207.00
Tier 1	All $4.96	5 $2.00	50 $3.80	5 $0.91
Tier 2		15 $3.80	**600** $4.85	**2,000** $1.88
Tier 3		>15 $5.70	**1,200** $5.65	**5,000** $3.30
Tier 4			**1,750** $9.50	**>5,000** $4.35
Tier 5			**>1,750** $10.00	

* No difference between residential and non-residential rates

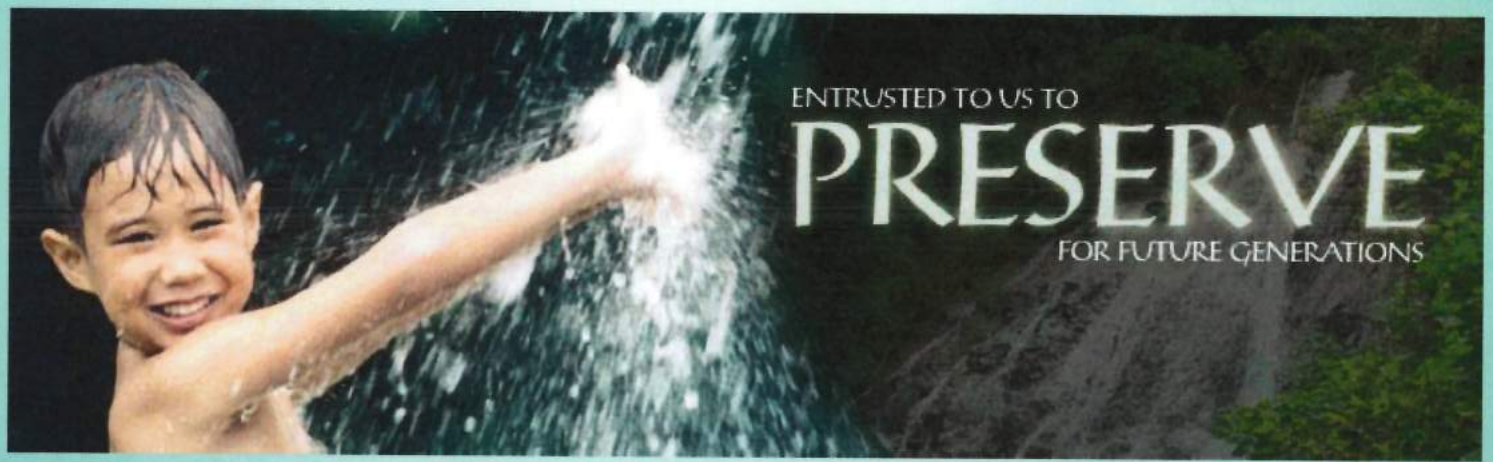
Distribution of non-residential meters by subcategory

Subcategory	5/8"	3/4"	1"	1-1/2"	2"	3"	4"	6"	8"	Totals Number of Meters	Percent of Meters
Agricultural	36	45	53	43	22	--	--	--	--	199	2.3%
City Government	10	47	65	163	255	47	10	6	16	619	7.3%
Commercial	823	1513	1054	782	733	84	49	22	64	5124	60.2%
Commercial/Residential	40	51	27	12	33	3	6	5	10	187	2.2%
Federal Government	3	2	2	13	8	2	4	5	5	44	0.5%
Golf Course	--	--	3	1	6	2	2	2	2	18	0.2%
Hotel	18	27	18	25	54	17	25	19	3	206	2.4%
Industrial	75	197	106	79	67	11	4	2	--	541	6.4%
Irrigation	62	77	72	161	186	3	--	--	--	561	6.6%
Private School	8	11	14	27	27	7	1	2	2	99	1.2%
Religion	91	92	89	88	51	1	--	--	--	412	4.8%
State Government	8	28	35	83	188	75	17	23	51	508	6.0%
Total Number of Meters	1174	2090	1538	1477	1630	252	118	86	153	8518	100%
Percent of Meters	14%	25%	18%	17%	19%	3%	1%	1%	2%	--	--
Cumulative %	14%	38%	56%	74%	93%	96%	97%	98%	100%	--	--

Benefits of BWS's uniform non-residential rate

- Addresses wide diversity of customer types and usage characteristics
- Provides usage-based price signal
- Does not penalize large, EFFICIENT water users
- Easy to understand and administer
- Provides equitable recovery of costs in absence of more detailed customer and usage data
- Additional conservation can be effectively achieved through tailored programs

Questions & Answers



Public Comment on Non-residential Rates

Item 6: Non-residential rates

Option 1	Option 2	Option 3
Make no changes to non-residential rate structure	Direct staff to develop data for comprehensive evaluation of alternatives for next rate study	Revise non-residential rates to include at least two tiers for water delivery

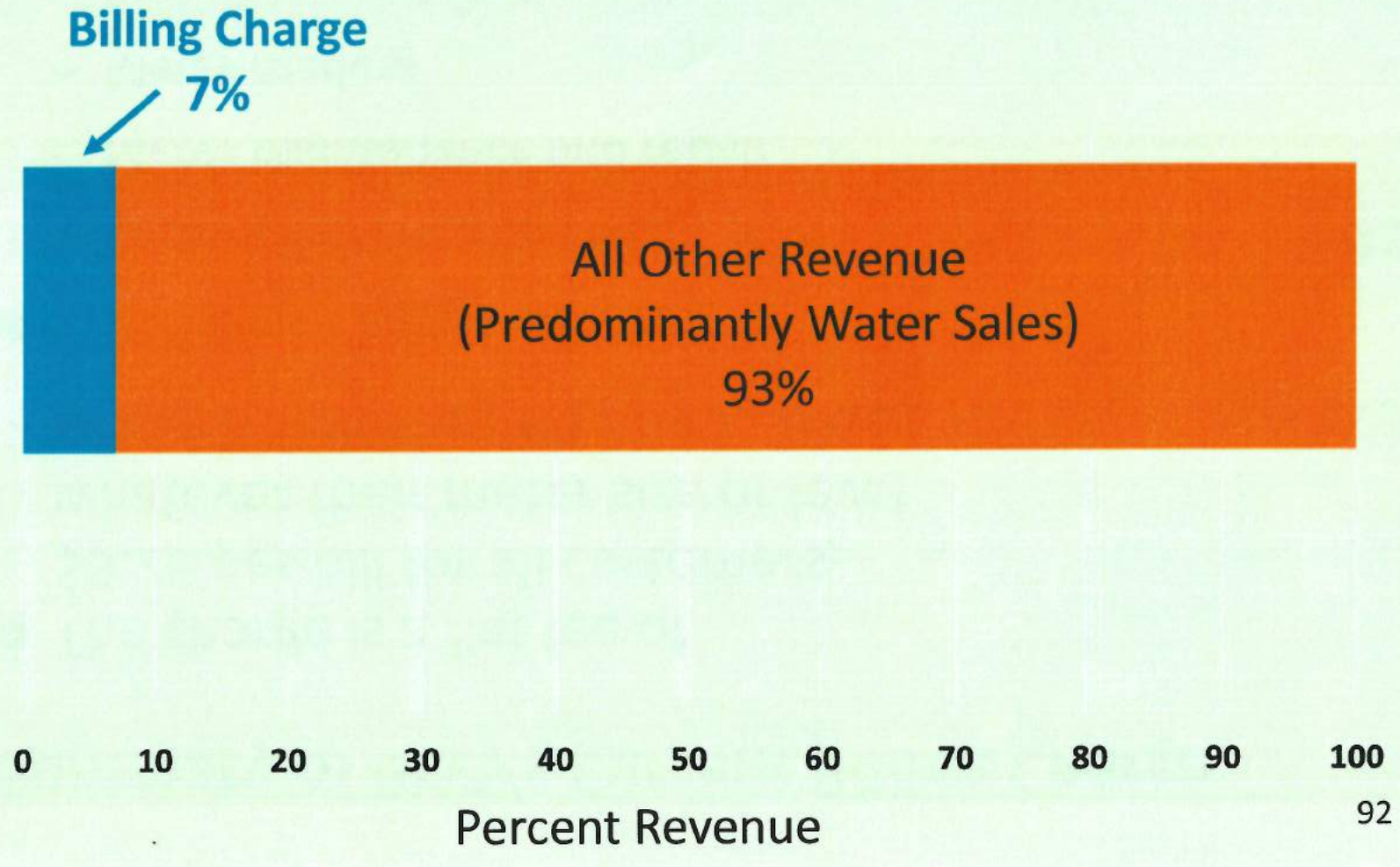
Item 7: Monthly Charge

Should the BWS revise its monthly charge to vary by meter size, which would fulfill AWWA best practice implementation and also recover the higher costs associated with larger meters from those customers with larger meters?

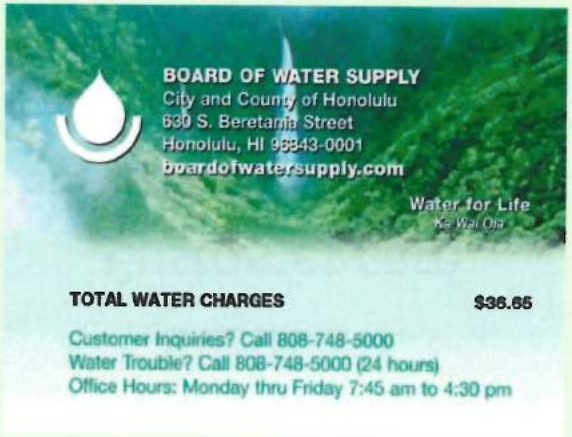
Summary of BWS's Current Billing Charge

- The charge is a flat fee of $9.26 per bill for all customers, whatever their meter size or level of use (implemented July 1, 2015)
- The billing charge covers:
  - Customer service and billing staff
  - Meter maintenance and repair
  - Meter reading
  - Processing and mailing bills
- Noted in 2014 Audit for not being able to clearly justify billing charge, recommended to follow industry best practice (AWWA)

Billing Charge Provides 7% of Total Revenues



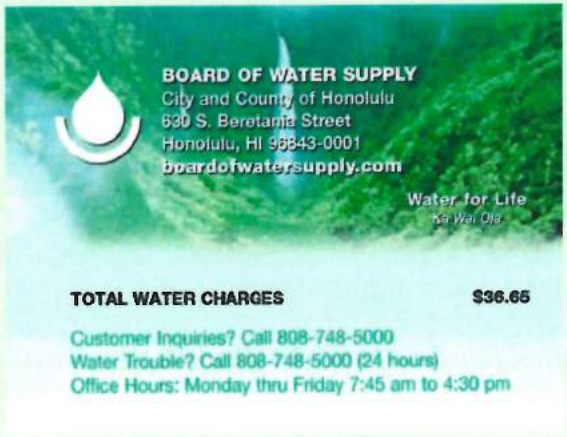
Lower fixed charges gives BWS's customers greater control of their bills through conservation



Customer

Meter

Types of accounting cost categories included in BWS's Customer and Meter allocations



Customer

Customer care
Billing and collections
Information technology
Water resources
Finance

Meter

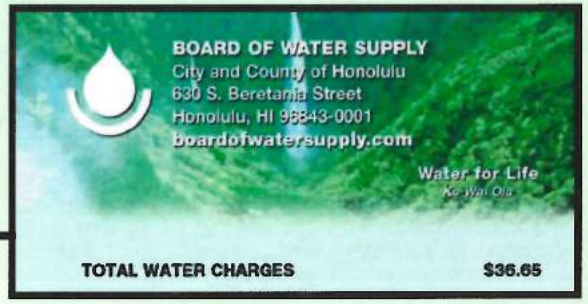
Backflow and Cross Connection
Meter shop/maintain/replace
Automotive
Field operations


SENSUS


4
95

Over 25 of 77 accounting cost categories include allocations to customers or meters

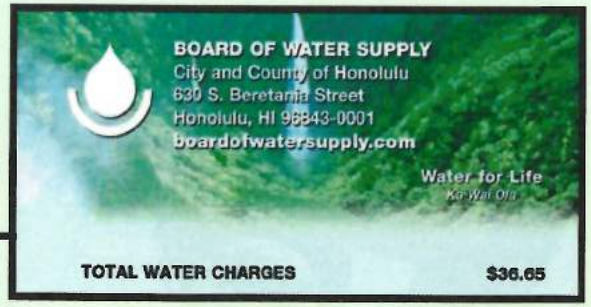
Total
$10,906,000
$12,473,300
$23,379,300



Example amounts

Two options for monthly Customer Charge

Total
$10,906,000
$12,473,300
$23,379,300

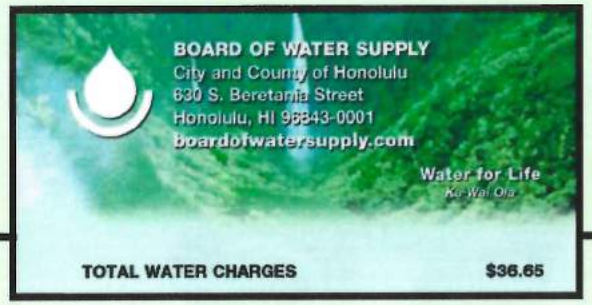


Spread uniformly over 1.9 million bills = $12.05 per bill

Example amounts

Two options for monthly Customer Charge

Total
$10,906,000
$12,473,300
$23,379,300



Total
$10,906,000
$12,473,300
$23,379,300

Spread uniformly over 1.9 million bills = $5.60 per bill

Spread by meter size

Example amounts

Two options for monthly Customer Charge

Meter Size	# Mtrs	Uniform Customer Charge	Average Monthly Bill	% of Bill that is Fixed	Customer Charge by Meter Size	Average Monthly Bill	% of Bill that is Fixed
5/8 or ¾	162,508	$12.05					
1	8,384	$12.05					
1.5	3,097	$12.05					
2	3,851	$12.05					
3	456	$12.05					
4	294	$12.05					
6	154	$12.05					
8	325	$12.05					

Example amounts

Two options for monthly Customer Charge

Meter Size	# Mtrs	Uniform Customer Charge	Average Monthly Bill	% of Bill that is Fixed	Customer Charge by Meter Size	Average Monthly Bill	% of Bill that is Fixed
5/8 or ¾	162,508	$12.05			$10.40		
1	8,384	$12.05			$13.30		
1.5	3,097	$12.05			$15.20		
2	3,851	$12.05			$38.70		
3	456	$12.05			$47.80		
4	294	$12.05			$81.45		
6	154	$12.05			$163.40		
8	325	$12.05			$249.25		

Example amounts

Two options for monthly Customer Charge

Meter Size	# Mtrs	Uniform Customer Charge	Average Monthly Bill	% of Bill that is Fixed	Customer Charge by Meter Size	Average Monthly Bill	% of Bill that is Fixed
5/8 or ¾	162,508	$12.05	$52	23.2%	$10.40		
1	8,384	$12.05	$235	5.1%	$13.30		
1.5	3,097	$12.05	$458	2.6%	$15.20		
2	3,851	$12.05	$911	1.3%	$38.70		
3	456	$12.05	$2,900	0.4%	$47.80		
4	294	$12.05	$6,036	0.2%	$81.45		
6	154	$12.05	$10,552	0.1%	$163.40		
8	325	$12.05	$11,681	0.1%	$249.25		

Example amounts

Two options for monthly Customer Charge

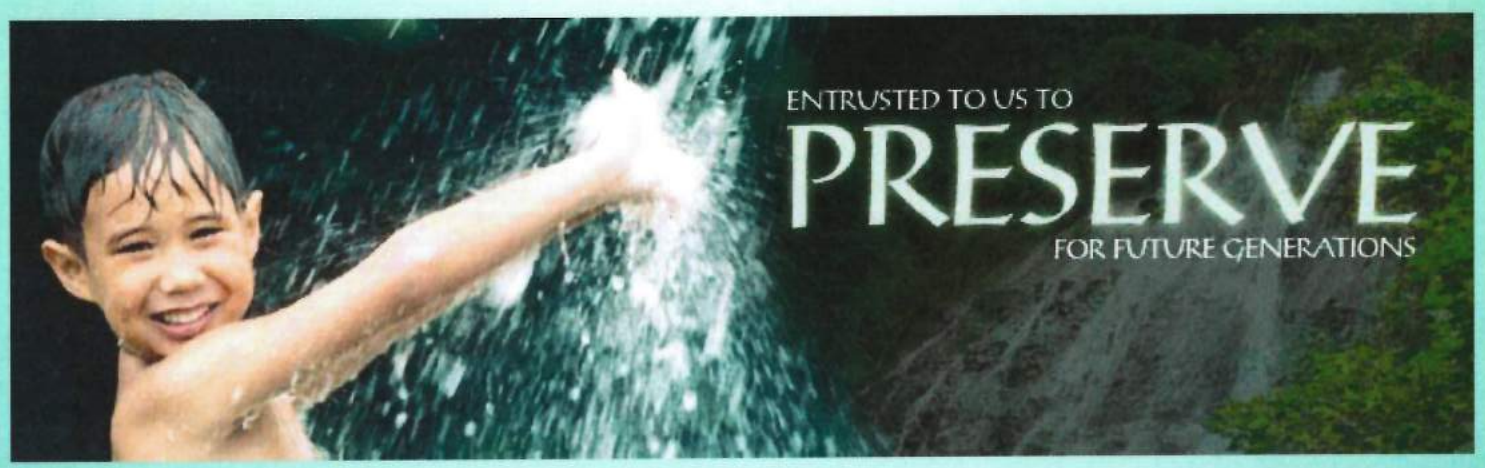
Meter Size	# Mtrs	Uniform Customer Charge	Average Monthly Bill	% of Bill that is Fixed	Customer Charge by Meter Size	Average Monthly Bill	% of Bill that is Fixed
5/8 or ¾	162,508	$12.05	$52	23.2%	$10.40	$50	20.8%
1	8,384	$12.05	$235	5.1%	$13.30	$236	5.6%
1.5	3,097	$12.05	$458	2.6%	$15.20	$462	3.3%
2	3,851	$12.05	$911	1.3%	$38.70	$938	4.1%
3	456	$12.05	$2,900	0.4%	$47.80	$2,935	1.6%
4	294	$12.05	$6,036	0.2%	$81.45	$6,116	1.5%
6	154	$12.05	$10,552	0.1%	$163.40	$10,704	1.5%
8	325	$12.05	$11,681	0.1%	$249.25	$11,919	2.1%

Example amounts

Summary of Stakeholder Advisory Group input

- Understand methodology of Customer Charge
- Varying the Customer Charge by meter size is better aligned with cost of service recovery and makes sense

Questions & Answers



Public Comment on Monthly Charge

Item 7: Monthly Charge

Option 1	Option 2
Change the structure of the monthly charge to vary by meter size	Make no change to current structure of the monthly charge

Item 8: Fee Subsidies

Should the BWS waive fees and charges for affordable housing, housing for the homeless, and fire sprinkler retrofits? What criteria should be used to consider future waiver requests?

City requesting waivers of one-time fees and charges from BWS

- Bill 59 (proposed)
  - Would provide incentives to help stimulate affordable housing production
  - City has requested that BWS participate
- BWS receives individual requests for waivers and deferrals for homeless shelters
- Bill 69 (proposed) would require fire sprinkler retrofits of existing high-rise residential buildings to to comply with specified fire safety standards
- City Council Resolution 17-316 (proposed) requests BWS waive fees for fire sprinkler conversions

WATER FOR LIFE

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

Board of Water Supply
City and County of Honolulu

Estimated BWS Meter and WSFC Subsidies for City Affordable &Homeless Housing Projects FY 2017 - 2021

Description	Total Units	Hook-Up	WSFC	Assumptions
Single-Family	96	$172,512	$355,834	• 20 fixture units * $185.33/fxu • ¾" meter & lateral = $1,797
Multi-Family	861	$710,100	$966,610	• 5.5 fixture units * $204.12/fxu • 8"X2" FM meter = $28,404 • 5 developments/year
Homeless	375	$284,040	$420,998	• 5.5 fixture units * $204.12/fxu • 8"X2" FM meter = $28,404 • 2 developments/year
SUBTOTAL	**1,332**	**$1,166,652**	**$1,743,441**	
TOTAL WSFC + HOOKUP = : $2,910,093 OR $582,019/YEAR				

- DPP Projected Demands for Affordable and Homeless Housing Units FY 2017-2021
- Does not include Accessory Dwelling Units
- Fees are estimates only; actual fees to be determined at building permit stage
- Water System Facilities Charges (WSFC) based on charges set in 1993

Sample Monthly Subsidy Amounts

Type of Subsidy	Annual Amount	Sample Monthly Amount
Recycled Water	$6,456,700	$3.39
Non-Potable Water	$744,600	$0.39
Agricultural Customers	$1,422,800	$0.75
Fire Meter Standby Charge	$400,000	$0.21
Fire Sprinkler Retrofit*	$178,888	$0.09
Affordable Housing and Homeless	$582,019	$0.31

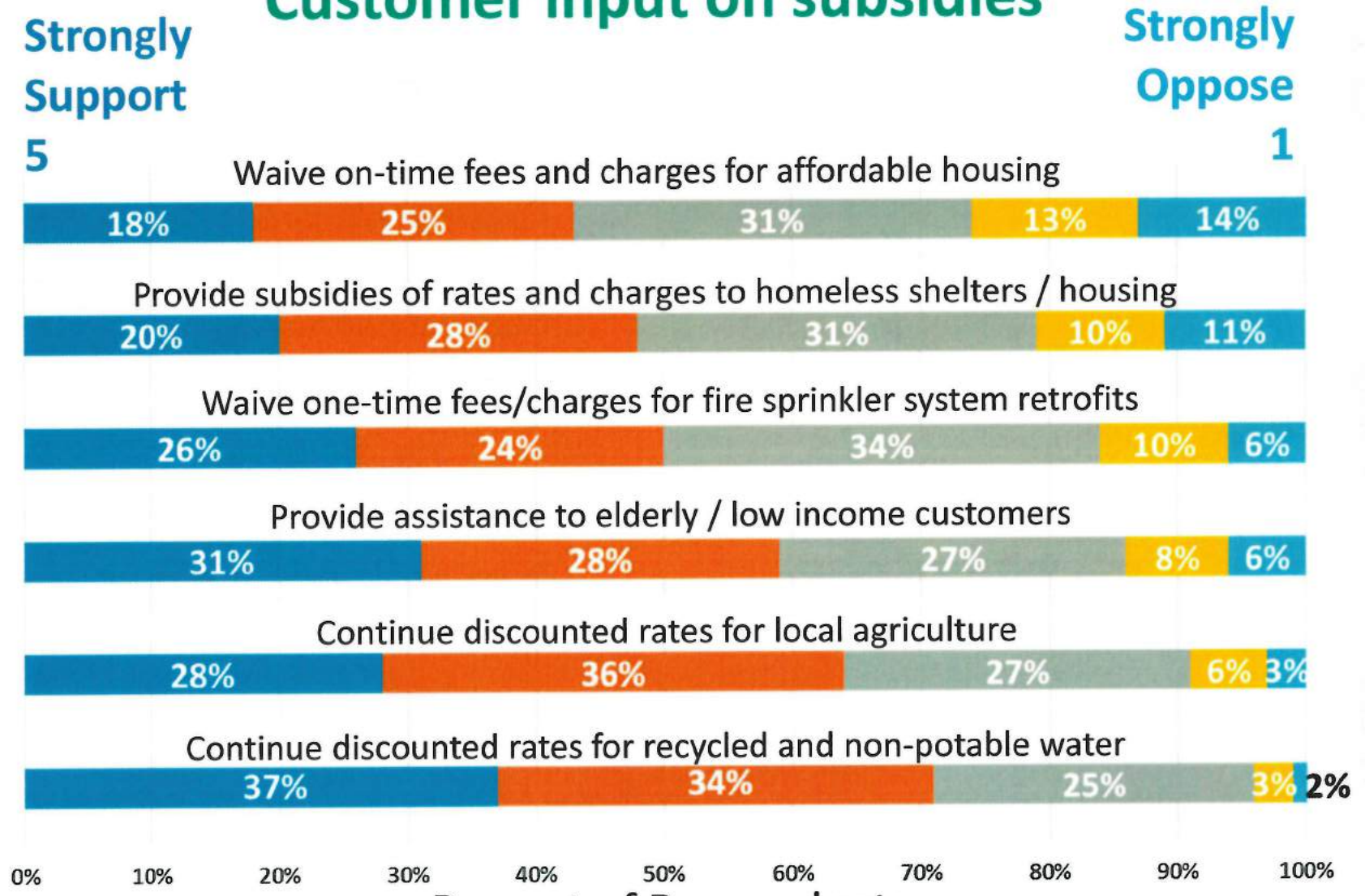
*Over 12 years

Purple indicates new subsidy

Stakeholder Advisory Group – Exercise Summary November 13, 2017

Potential Subsidy	Relative Ranking
Agricultural customers	1
Recycled/Non Potable	2
Affordable housing	3
Fire sprinkler retrofit	4
Homeless shelters/housing	5
No subsidy	6
Fire meter standby charge	6

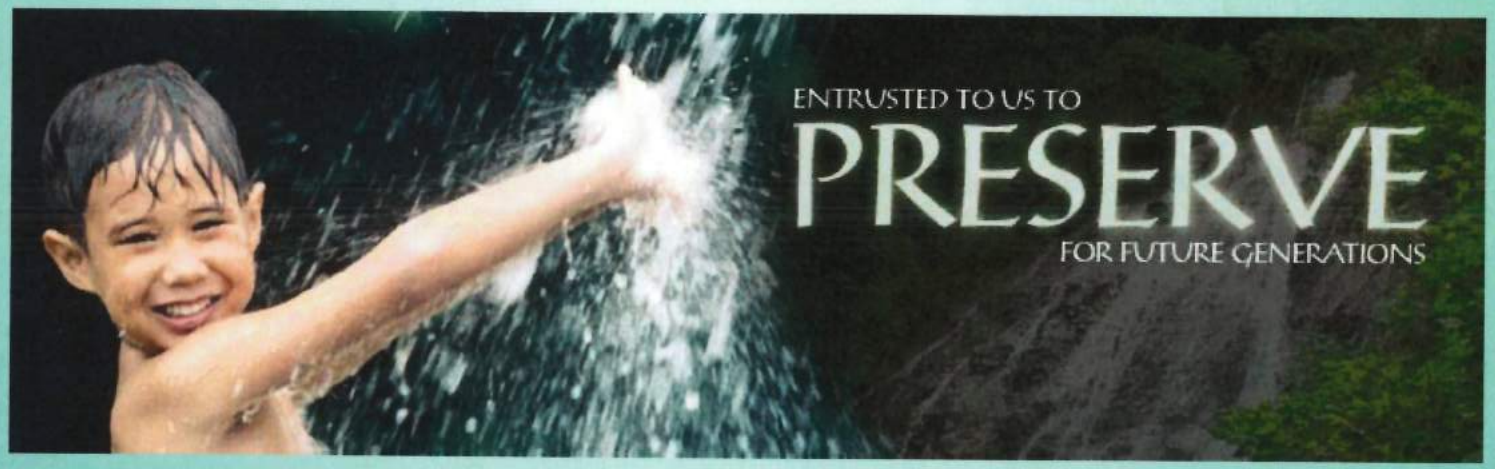
Customer input on subsidies



Ward Research Hawaii Panel (above) and BWS on-line survey show similar results

Mahalo!

Questions & Answers



Public Comment on Subsidies

Item 8: Fee Subsidies

Option 1	Option 2	Option 3
Provide subsidies for: • Affordable housing • Homeless shelters • Fire sprinkler retrofit	Provide no additional fee waivers or subsidies	As determined by Board

Item 9: Fire Meter Standby Charge

To better align cost occurrence and cost recover, should the BWS institute a Fire Meter Standby Charge for private fire meters?

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	--	--
¾"		--	$24.75	--	--
1"		--	$36.50	--	--
1.5"		--	$65.50	--	--
2"		$28.25	$100.00	$18.00	--
3"		$49.00	$181.00	$35.00	$188.00
4"		$80.00	$297.00	$48.00	$309.00
6"		$166.00	$587.00	$108.00	$612.00
8"		$283.00	$934.00	$164.00	$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

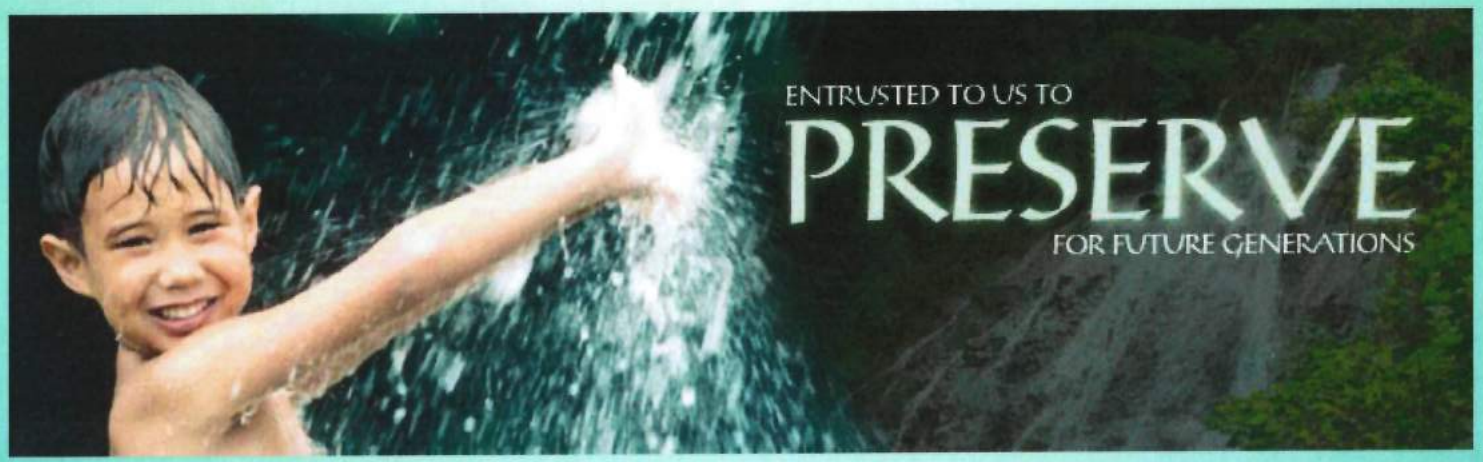
Sample Fire Meter Standby Charge for BWS

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

Public Comment on Fire Meter Standby Charge

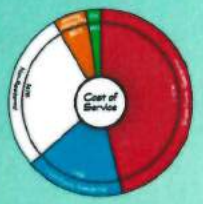
Questions & Answers



Item 9: Fire Meter Standby Charge

Option 1	Option 2
Establish a Fire Meter Standby Charge to recover the cost of service	Continue current practices of no Fire Meter Standby Charge

Today's workshop provided guidance on 9 key water rate policy issues



Cost of Service Alignment

Affordability

Residential Rates

Recycled/Non-Potable Rates

Agricultural Rates

Non-residential Rates

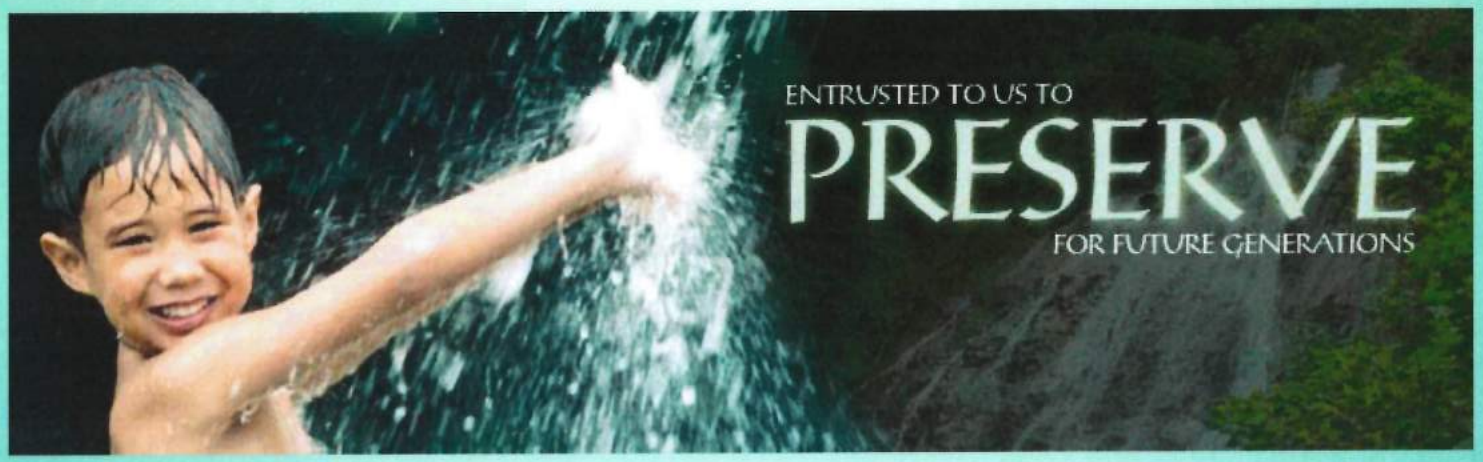
Monthly Charge

Fee Subsidies

Fire Meter Standby Charge

Item 10: Other Board Input

Mahalo!



MOTION TO ADJOURN

There being no further business Chair Andaya at 4:08 PM called for a motion to adjourn the Workshop Meeting. David Hulihee so moved; seconded by Jade Butay and unanimously carried.

Respectfully submitted,

THE MINUTES OF THE WATER RATES WORKSHOP BOARD MEETING ON JANUARY 5, 2018 WERE APPROVED AT THE JANUARY 22, 2018 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
DAVID C. HULIHEE	X		
KAY C. MATSUI	X		
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY			ABSENT

LESLEY C. SOON

APPROVED:

BRYAN P. ANDAYA
Chair of the Board

JAN 2 2 2018
Date