



Honolulu Board of Water Supply
Stakeholder Advisory Group

Meeting 15 – Thursday, May 18, 2017 4:00 to 6:30 pm
State Building, House Conference Room 309

Meeting Notes

PURPOSE AND ORGANIZATION OF MEETING NOTES

The purpose of these notes is to provide an overview of the Board of Water Supply (BWS) Stakeholder Advisory Group meeting. They are not intended as a transcript or as minutes. Major points of the presentations are summarized herein, primarily for context. Copies of presentation materials were provided to all participants and are available on the BWS website. Participants made many comments and asked many questions during the meeting. These are paraphrased to be more concise.

ATTENDEES

There were 14 stakeholders present, as well as BWS and CDM Smith staff. The stakeholders represent diverse interests and communities island-wide.

The following Stakeholders Advisory Group members attended:

Matt Bailey	Aqua-Aston Hospitality
Pono Chong	Chamber of Commerce Hawaii
Bill Clark	Resident of Council District 6
Shari Ishikawa	Hawaiian Electric Company
Micah Kāne	Hawaii Community Foundation
Will Kane	Mililani Town Association
Bob Leinau	Resident of District 2
Robbie Nicholas	Resident of Council District 3
Dean Okimoto	Nalo Farms
Alison Omura	Coca-Cola Bottling Co.
Dick Poirier	Resident of Council District 9
Elizabeth Reilly	Resident of Council District 4
John Reppun	KEY Project
Cynthia Rezentes	Resident of Council District 1

MEETING AGENDA

- Welcome and Introduction
- Public Comment on Agenda
- BWS Updates

- Accept Notes from Meeting 14
- Existing Water Rate Structure and How Funds Are Used
- Attributes of Water Rates

WELCOME AND INTRODUCTION

Dave Ebersold, meeting facilitator and Vice President of CDM Smith, welcomed the group to its second meeting in the State Capitol. Dave reviewed the agenda and noted that the agenda item on the Existing Water Rates Structure is a holdover from last month's meeting.

Dave introduced Matthew Bailey, President and CEO of AQUA Hospitality and Aston Hotels and Resorts, who is joining the stakeholder group to represent the tourism industry on Oahu.

PUBLIC COMMENT ON AGENDA ITEMS

None.

ACCEPTANCE OF NOTES FROM MEETING 14

Accepted.

ANSWERS TO QUESTIONS AT MEETING 14

Dave provided answers to questions posed at Meeting 14 that needed follow-up investigation. The first was: "What is the process for the BWS board to convene an emergency meeting?" Dave explained that to call an emergency meeting regarding an *imminent peril to public health and safety*, the board must first document their reason for this finding, then 2/3 of the board must agree with need for the meeting. If these criteria are met, following the emergency meeting the agenda and findings must be filed with the Office of the Lieutenant Governor or the appropriate County Clerk, with prompt notification to people regularly included in the distribution for BWS board meeting agendas.

An emergency meeting also may be called for an *unanticipated event*. The process for this is similar, with the added step of requiring the State Attorney General to concur with the need for the meeting. In both cases, the board must limit its actions to the single, urgent topic.

The second question asked for more details about the BWS's use of the power adjustment factor, which can be applied if electricity prices exceed the amount used to calculate the BWS's schedule of rates and charges. The adjustment is applied by increasing the Water Quantity Charge one cent per 1000 gallons of water for every \$600,000 (or fraction thereof) additional cost to the BWS. The adjustment is added in the following fiscal year. In 2009 there was an adjustment of 5.8 cents per thousand gallons. In 2010, that was reduced to 2.8 cents per thousand gallons, and in 2011, the adjustment was eliminated.

BWS UPDATE

Ellen Kitamura, BWS Deputy Manager and Chief Engineer, began the update by introducing Michelle Thomas, BWS's new Human Resources Officer. Ellen then announced that on May 8 the BWS board adopted the financial policies as had been recommended by the Stakeholder Advisory Group. Ellen thanked the group for their hard work and advice in developing those policies.

Ellen congratulated Micah Kāne on his new position as Chief Operating Officer for the Hawaii Community Foundation, and promised that the BWS will continue its strong relationship with the foundation. She then congratulated Josh Stanbro on his appointment as Honolulu's first Chief Resiliency Officer. As Josh now is part of the Mayor's cabinet, he no longer will be part of the BWS Stakeholder Advisory Group. Josh will remain active with BWS in addressing water related issues, including climate change and watershed management.

Ellen invited members of the Stakeholder Advisory Group to take part in meetings and provide input for the Primary Urban Center Watershed Management Plan. A meeting announcement was included in the group's handouts.

She also called attention to BWS's solicitation of comments regarding the Environmental Impact Statement (EIS) Notice of Preparation for the Haiku Stairs. The draft EIS will explore multiple options for the future of the stairs, including removal, providing legal access and improving for public use, transferring the stairs to another government agency, and taking no action. To date, 230 responses were received by the BWS. All will be reviewed and considered in preparation of the EIS.

Ellen explained that the BWS has worked very hard to transfer the stairs to another government agency, as it is not appropriate to have BWS customers pay for its management and maintenance. Unfortunately, no agency has been willing to take on the responsibility.

QUESTIONS, ANSWERS AND COMMENTS

Q. Are BWS funds spent on liability insurance or stair maintenance?

A. Ellen Kitamura responded that BWS's responsibility and funding are for everything. If we open up the stairs, the BWS takes on responsibility and then will have to maintain them. Right now, even though the stairs are closed, BWS has a 24/7 guard to warn people that use of the stairs is illegal. We try to get people not to go up, but BWS does not have the authority to arrest. If people are seen coming down, we call the police to come and issue a citation, but that's not working as an effective deterrent.

Q. How did the BWS get involved in the stairs, and what is your relationship with the stairs?

A. Barry Usagawa shared information he and Kathleen Pahinui have pulled together. In the 1960s, the BWS purchased land from the Bishop Estate for water development in the Haiku Valley. The parcel was U shaped and basically the vertical side of the valley, which is a very big amphitheater. Prior to that, the stairs were installed so the Coast Guard could maintain a big antenna that served as a means of navigation for ships and submarines in the Pacific.

BWS put in new water resources, including the Haiku Tunnel and Well. This involved subdividing the parcel, to the point where it became land locked. The H3 Highway was also constructed, further restricting access. So, beyond the safety issues associated with climbing the stairs, accessing the stairs now requires passing through the private property of local homes. BWS feels that as part of the transfer the stairs to another responsible entity, the legal issue of access must also needs to be resolved.

The issues are complex. The stairs may be historic. The panoramic view at the top of the stairs may be historic.

Q. When did the City make improvements to the stairs and what was the purpose of that?

A. The City planned on opening the stairs. On a clear day, from the top there's a panoramic view from Waimanalo to Chinaman's Hat. But the issue of access was not addressed.

Somewhere between the late 1980s and the early 2000s, there seems to be a gap in legal documentation as to who owns the stairs. The City and County of Honolulu thought they owned it. The Parks department was paying for security. Then, a legal evaluation indicated the stairs belong to the Board of Water Supply, so we started paying for security.

Ellen Kitamura indicated that the stairs were closed by the City and County to public access in 1987. In 2003, the City and County paid to upgrade the stairs with the intent of opening it up for use. Ellen said she believes that when the recent City administration was facing budget restrictions, they started looking at things they could cut. As part of their research, they learned that transfer of ownership from the BWS to the City fell through sometime in the mid-2000s, so the City gave the stairs back to the BWS.

Finally, Ellen mentioned the BWS 2017 poster and poetry contest for local school children. The awards ceremony was held recently. The children are amazingly creative and skilled. Their work will be on display throughout the community over the coming months.

SOURCES AND USES OF FUNDS

Dave introduced Joe Cooper, BWS Waterworks Controller. Joe explained he would be presenting a primer on where BWS gets its money and where that money is spent, as foundation information for designing water rates.

Nearly all of BWS's revenues come from customers.

Residential customers provide about 50 percent of BWS's revenues. There are two categories of residential customers: single-family and multi-family.

Single-family residential customers are charged using an increasing block (or tiered) rate structure. The first 13,000 gallons of water used per month is charged at \$4.42 per 1000 gallons. The next tier up to 30,000 gallons is charged at \$5.33 per 1000 gallons. Use above that is charged at \$7.92 per gallon. This structure is designed to encourage conservation.

Multi-family residential customers also are charged at a tiered rate. These customers generally have less irrigation, so although the rates are the same as for single-family, the tiers are different, to encourage conservation. The first tier, charged at \$4.42 per 1000 gallons, ends at 9,000 gallons rather than 13,000 gallons. The third tier kicks in at 22,000 gallons rather than 30,000 gallons for single-family residential customers.

The tiers for residential customers are based on what was considered "average consumption" at the time the rates were established.

Non-residential customers (like businesses, schools, parks, etc.) account for about 32 percent of BWS revenue. These customers are billed at the rate of \$4.96 per thousand gallons. Tiered rates, like for residential customers, are not used for non-residential customers. Because the types of non-residential customers and their water use are so different, it's nearly impossible to identify actual water conservation efforts. For example, a large restaurant might use huge quantities of water, but do so efficiently. A smaller "mom and pop" restaurant might use much less, but be careless about efficiency.

Q. With regard to non-residential customers, if you were to find an average for those who use a lot of water, would it trend towards the food and beverage industry, or would it trend towards industrial uses? Are there categories within that class of customers that could be identified?

A. We'll talk more about that when we start getting into rates design, but some of the BWS's larger potable water users are the Hawaii Kai Golf Course; the Kaneohe Marine Base; the big hotels like the Hilton Hawaiian Village and Sheraton; Ala Wai Golf Course; and Chevron, which uses potable water in their cooling.

Non-potable water customers, who provide about 3 percent of BWS revenue, buy R1 and other non-potable water. They also pay a single block rate, but at \$2.47 per 1000 gallons, non-potable water costs considerably less than potable. This is to encourage use of recycled water, which makes it possible to reserve potable water supplies for higher uses.

Q. Do you sell water that's a blend of both potable and non-potable sources?

A. No.

Agricultural water customers provide about 1 percent of BWS revenue. Unlike other rates, agricultural customers pay according to a declining block structure. The first 13,000 gallons are charged the same as for single-family residential customers, based on the likelihood there's a residence on the property. The rate then is reduced to \$1.89 per 1000 gallons, to encourage local farming and production of local produce.

A billing charge of \$9.26 is charged to all customers each month, whatever their meter size or level of use. This accounts for about 7 percent of BWS revenue and covers costs to read the meters, pay billing staff, pay postage, maintain the computer system, and pay for a portion of the call center and customer service staff.

Q. With regard to billing, what would be the consequences of billing every other month? Would you save much money?

A. Some of the costs would go down, but we're pretty much committed to monthly billing as long as the Department of Environmental Services (ENV) is on the same bill. Billing went to monthly in 2013 when ENV rates increased sharply due to the cost of complying with their EPA consent decree. Smaller, monthly bills help customers to budget their payments.

The water system facilities charge, sometimes called an impact fee, brings in about 5 percent of BWS revenues. This is primarily for new developments, but also is applied when someone adds "fixtures" for water use from an existing water service. This charge covers the costs for additional water distribution and storage infrastructure to add capacity to the BWS system. Non-potable services are exempted from this charge as are developments that have paid for and installed all or part of a water system.

Q. Is this the same as a water meter charge?

A. No.

Q. Is it waived for a dual system, both potable and non-potable?

A. It's waived for the non-potable portion of the dual installation. Say a new residential townhouse development is built. The impact fee would be charged based on the potable fixture units within the development. If the outside is irrigated with recycled water, that would not have a water system facilities charge. So, overall, they would pay less.

Q. When the BWS supplies potable water and recycled water on the same site, you require a backflow preventer at the valve. Currently it's the customer's responsibility to install and service these fixtures. Why doesn't BWS provide that service as a source of income and a convenience to customers?

A. Any place where you have a dual water system, a backflow preventer is installed on the potable water meter to prevent recycled water from coming back into the potable system. The backflow preventer is required to be tested once a year. BWS sends a reminder to customers who need to hire a certified backflow tester. BWS staff have the ability to do the test, and there are some instances where they have tested devices. But, they most often are busy with other assignments. The BWS Strategic Plan talks about looking for additional revenue sources, and this might be one.

Other sources that add about 2 percent of BWS's revenue include interest income, rental income, ENV cost recovery for billing services, and miscellaneous. Rental income is mostly telecom fees where varied companies locate their antennas on BWS property or poles.

Q. It's been a grumble of our neighborhood board that the City doesn't seem to plan for where they'll locate cell phone sites. There are BWS facilities all over the place. Maybe you could work a plan with the City to locate these fixtures on BWS property, to provide a new way of generating income.

A. The BWS puts cell towers primarily on reservoirs. The telecom service providers mostly are looking for locations where they can reach the most people. The ones in the back of the valley don't really help them. It's the ones on the ridges they want. BWS has a number of them, but expanding access for telecom facilities means increasing access to our secure sites. Attaching antennas to our reservoirs increases challenges for operations and maintenance of the BWS facility.

Moving on with the presentation, Joe provided a look at the history of BWS water rate increases over the past four decades. Back in 1975, water was 27 cents per 1000 gallons. In 1977, there was a rate increase of about 37 percent, bringing rates up to a little less than 50 cents per 1000 gallons. In 1979, rates increased quite a bit, followed by a stretch of smaller increases, then several years with no increases at all. Rate increases resumed in 2007. Then, in the last 5 years, there have been rate increases just under 10 percent each year. With the Water Master Plan and Strategic Plan in

place, BWS is trying to level out rates increases, so they are more predictable and operations and capital improvements can be staged in a manner that is planned, stable, and predictable. (See chart that follows.)



Joe then explained how revenues are spent.

Capital Projects account for 25 percent of expenditures.

Fixed Charges account for 24 percent of BWS expenditures. The majority of costs in this category are for electricity, retirement, and employee benefits.

Q. There is a city in Washington that uses turbines in their water lines to produce electricity. Are you researching that option, to offset a part of BWS’s electrical use?

A. This is called in-line micro-hydro. There are very few places in the BWS system that can accommodate this practice. The biggest project we’re looking at that incorporates this concept is the Nu’uanu pump-hydro managed aquifer recharge project. We’ll capture storm water, drop it down from the reservoir through a hydro plant, make electricity, filter the water, and inject it into the ground to recharge our Kalihi pump station.

Over the past 10 years, costs for fuel have been declining, and BWS energy use has been declining as well. This is primarily because our pumpage is decreasing. We’re pumping 10 percent less than in 1990. We also have made efficiency improvements in the system, and we’ve invested \$33 million in energy efficiency contracts.

Q. Is electricity is 41 percent of the 24 percent total for fixed costs?

A. Yes.

Comment: It's amazing that given all of your operating costs, electricity is only 10 or 11 percent of your expenditures.

Q. Is there a reason why you have the retirement contribution and employee benefits as a fixed charge, and don't include them as a salary cost?

A. Generally, these are not considered direct salary costs. The City, the State, and most government agencies in Hawaii consider these a fixed charge. There are actually three components: retirement contributions, health care for retirees, and benefits for current employees.

Operations and Maintenance (O&M) makes up about 23 percent of BWS expenditures. This category is further broken down into Services (38 percent of O&M), Supplies (27 percent), Miscellaneous (25 percent), then small percentages for Equipment, Repairs and Maintenance, and Education and Training. The Miscellaneous category is further broken down to cover recycled water (operations of the water treatment plant), workers comp insurance and claims, State Revolving Fund loan fees, investment, and USGS cooperative studies.

Q. Under Services, I assume those are companies you contract with. Why do you contract with a profit-making company and not do it internally?

A. One reason is the expertise for doing the work. For example, the cost of service and rate-making studies are a very technical efforts, and BWS doesn't have the bandwidth or technical expertise to tackle them internally. The second reason is being able to staff up. Filling staff vacancies is a long and difficult process, particularly for the more technical positions. Without contracting it would be all the more difficult to get the work done.

Another consideration is emergency services, such as if we need a contractor to come in to handle an emergency situation right away. And, there's contracting for big equipment that we don't use all the time. It's more efficient to rent it for one-time use, rather than trying to buy and maintain it.

Employee Salaries make up 19 percent of BWS costs. Almost all of this is direct hourly wages, with a small amount for overtime. This also includes vacation payouts when people retire.

Q. I understand that's how you budget. But if you take the 19 percent of total costs from the Employee Salaries slide and add it to 52 percent of the 24 percent of total costs on the Fixed Charges slide (about 12 percent employee

costs), it adds up to 31 percent of your total operation being personnel costs. How does this compare with other municipal water supply systems?

A. We can look at other water agencies, but will need to consider how they handle those costs especially since retirement costs are in the total shown here. Others water utilities may not include these costs or may handle them differently.

Brian Thomas said that the Metropolitan Water District of Southern California employee budget includes direct salaries plus retirement, medical benefits, holidays -- the whole thing. It is about 15% of their costs, but that's because it has very large contract to purchase water from the state, which drives up its overall budget. The Las Vegas Valley Water District is more like the BWS because they don't have high costs to purchase water. Their payroll and payroll-related expenses are about 30% of their costs. Other water utilities have payroll budgets that range from about 12% all the way up to 40% depending on the amount of water they purchase and their capital programs.

Q. What is the average (percent) of debt service that BWS pays?

A. Our average percent on municipal bonds is about 3.5%.

Q. It looks like not much has been spent on equipment. The line shown is pretty flat. Are you anticipating a big fluctuation of your equipment having to be replaced? When you haven't been spending money on your equipment for that long that would worry me.

A. Our spending on equipment is not as large or as volatile as other elements of our budget. Most of what you see reflected here is spent on trucks. Vehicles are replaced on a regular schedule. Extremely large pieces of equipment, like an excavator, may be reflected under the Capital Improvements Program budget, and it may be paid for using cash, debt, or a combination. That's another reason why the equipment line is so stable.

Q. When you purchase a piece of equipment such as a million-dollar piece of equipment, do you depreciate that money out and put it into the capital budget?

A. Yes, we depreciate the cost of equipment.

Q. What happens with retirement investments in a really good year when the stock markets take off? Do retirees continue to take out money at the same rate or are adjustments made?

A. Joe said that BWS is part of the state ERS system. The state conducts an actuarial study and projects what our contribution requirements are. Then

they tell the different counties and agencies what our percentage contribution is to try to meet and smooth out that obligation.

Brian added that he is most familiar with the California retirement system. He said that CalPERS tries to smooth out the boom and bust years. Each of the retirement systems has different levels of return. For example, in California, they're looking at about a 7% to 7-1/4% return. In Nevada, they have about an 8% return. In a boom year, retirement systems are going to invest and keep that money. In a bad year where the return is either negative or zero, the retirement system is not going to increase those contributions dramatically because they're going to try and smooth those losses out over the next 20 years. That's the basic accounting of pension funding.

Joe then discussed actual spending compared to annual budgets. He said that the BWS never wants to spend more than its budget. Many times the actual comes close to the amount budgeted, and other times, actual spending is well below the budget. Basically those savings are used to help fund our capital program in future years. Joe said we are starting to implement a more rigorous budgeting process where we try to identify and budget more precisely so that we're not over-budgeting and are narrowing the gap between our budget and our annual projections.

He said that the BWS is also addressing hiring -- one of our most challenging problems. As we budget for vacant positions, we're trying to be more realistic in how we do that and budget for when we expect to fill the positions. In general, we are trying to align our budget with our expected cash flows in the coming year.

Q. How often does the BWS adjust your budget?

A. Annually. Our proposed budget will go before the BWS Board of Directors next week. In that budget, we've reduced our operating expenses about 20 million dollars from our 2017 budget. We'll be getting savings of:

- About seven million dollars from lower debt service.
- A little over a million and a half dollars from a reduced budget for salaries.
- Just under a million dollars from lower operations and maintenance expenses.
- Almost \$10 million from lower fixed charges compared to our 2017 budget.

Joe said that the budget for capital projects is proposed to increase by about \$45 million, raising our capital budget next year from roughly around \$80 million to approximately \$140 million.

COMMUNITY VALUES AND OBJECTIVES FOR WATER RATES

Dave identified a few reasons why we establish objectives for water rates and water rate structures:

- They provide a common language that we can use to help understand what it is we're trying to achieve.
- They illustrate the complimentary and sometimes competing aspects of certain objectives. For example, when we were talking about financial policies and going to working capital of 180 days, we talked about the impact that it has on water rates, which might be an affordability objective. Sometimes, these things work in a bit of a competition with each other.
- Having objectives supports clear communications for you to express what your interests and values are and what the stakeholders that you represent really care about.
- They help us as we start to look at how the pie gets split up amongst the different types of ratepayers. Objectives help us understand what those various alternatives are and their impacts, the impacts of potential changes and rates on those groups.

Once we have these in place, we will ask stakeholders to help weight them.

When we talk then about objectives, these are the types of things that we're talking about. Below is a list of possible objectives that can be added to or subtracted from.

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

Q: You've got "values" and "objectives". You've got a good list of objectives. What you've done is you've dropped in the word "values", but haven't followed up with any values per se. Do you consider them one and the same? Would you do a compare and contrast on how you would regard values versus objectives?

A. Great question. The idea is that, within the context of something like "affordable", there are community values in terms of providing an affordable rate for certain types of customers, e.g. low-income customers. A value that you might bring to that, as a community is: Yes, we should provide assistance within our rates to low-income people; or No, we should not. Those are the types of community values we were thinking about, and how they would be reflected in a set of objectives like this.

Dave discussed each of the possible objectives briefly for context:

Legal – We consider this a threshold objective. It's non-negotiable. We're not going to do anything that violates state law, violates the city charter or anything like that. The reason that we bring it up as an objective is that, in different places, there are very different laws. For example, in California, Proposition 218 says that you can't do anything with a water rate that varies from the cost of service. You couldn't provide an incentive, or you couldn't provide a lower water rate for agricultural customers (for example) if that rate was less than what it actually cost you to serve them. In California, that would be illegal. In Hawaii, it's not illegal.

Recover Full Cost of Water – The rates must provide adequate revenues to cover costs, required reserves, and desired working capital. “Recovering the full cost of water” came out very strongly when you were looking at objectives for the Water Master Plan. It’s one of the reasons that we included those objectives in the handouts today. That objective states that the full cost of water should be covered, meaning cover the full cost to provide water service including watershed protection, infrastructure, investments sufficient staff resources, maintenance, plan management, and long-term water sustainability.

Comment: You’ve got the magic buzzword in there: sustainability.

Comment: If you don’t take that full active approach, if we ever do not cover the full cost, we may never get back up to that point again in the future.

Q: Why not just call it a value?

A: The objective is to cover the full cost of water. This expression of it is very much a community value, contained within the objective.

Response: Those (watershed protection, infrastructure, investments sufficient staff resources, maintenance, plan management, and long-term water sustainability) are the hidden costs that we often forget. What we're trying to do is not compromise those values as we go. Why not just use the word “value” throughout each one of these boxes?

A: Call them all values as opposed to objectives?

Response: No, but go back to what was raised earlier, that this is looking at objectives and values, and the values have a price tag. We need to correlate the values to the rate objectives. I think using the terminology of values in each of these boxes could be really helpful. As you look back to figure out how rate structure was arrived at, it's because we're not ignoring hidden costs.

Dave acknowledged that this was a good approach. He then continued to briefly describe the other possible items for consideration.

Credit Strength – The idea here is that you want to generate a reliable revenue stream and support favorable bond ratings, and also strike a balance between using cash and loans to meet revenue requirements.

Fair and Equitable – When we talk about fairness and equity, one perspective is that all customers within a given class are charged on the same basis (e.g., all single-family residential customers). You don't charge differently because of someone's income level. You don't charge differently because they have a bigger house compared to a smaller house because a big house might use less water than a smaller house if there are more people living in the smaller house. The other perspective is that differences in rates between customer classes are based on differences in the cost to serve those classes, service level requirements, and community values. Two aspects – consistency of rates within a customer class and then the justification for the differences of rates between classes – make up the concept of fair and equitable.

Q: How do you deal with somebody who needs that lifeline rate? Let's say someone needs oxygen concentrators to be able to breathe. If they are cut off from their electricity because of inability to pay for it, they no longer have access to their oxygen concentrators to breathe. Electric utilities are trying to figure out how to deal with that customer. The mirror of that with water is anybody who does home dialysis. If you do home dialysis, you need access to that water source. How do you treat these special cases? It's not going to be fair and equitable in one sense and, yet, it is life support that you have to deal with and whether you cut them off and say, “Oh too bad, so sad.” People in this situation need reliable, clean water.

Q: Is that more of a reliability issue, a service reliability issue?

A: It's a service reality issue, but it's also one of: Where does that fit in to the business conscience?

Comment: It's a community value.

Response: It's a community value, but how do you determine whether it's fair and equitable? It's not fair and equitable. It may be a matter of affordability; it may not. But how do you fit that into this picture, so that those people, who absolutely need those resources and may or may not be able to afford them, continue to get water and electricity, because they are facing a life-threatening situation?

Comment: I just believe that's something that we as a community decide: that it is worth not being fair and equitable – that we value a life so much that

we should give that (reliable lifeline) service. When you do community values, this is what to take into account.

Comment: I just want to make sure we don't get so technical and straight line (about water rates) that we forget about the human side. The electric company has just started a program for people on life-support, like my mother who has to have oxygen 24/7. It's a two-year program that they're testing and I think it's a fantastic program. You never know what is going to come down the line. Maybe the Board of Water Supply will want to take a look at rate alternatives that take into consideration these life-supporting needs.

Comment: I don't disagree with what you're saying, but there are a lot of people who have needs. In a perfect world, there would be one clearinghouse where people could go with all their needs and get a commensurate amount of help for their needs. The Board of Water Supply would have to quantify and validate the customer's problem. Then, they would have to monitor the resolution. A clearinghouse may be a dream, but I can see how it could be a nightmare for BWS to take on something like that in-house, for one specific topic like water where there's multiple uses in one meter. It could be really complicated.

Response: I'm just asking for us to keep that issue in mind. The federal Low Income Home Energy Assistance Program was dropped from the proposed budget that came out of the executive office this year. This program was the safety net for electrical use for people who had a hard time paying their utility bills. If that program is done away with, I know a number of people in this state would have had a very, very difficult time with their utility bills. How do we help people that won't have that safety net?

Comment: The Hawaiian Electric Company assumes certain things when it creates rates. It assumes things like an amount of electricity that guests use, a certain amount of theft, and a certain amount of uncollected payments, for example. Our consumer advocate approves those assumptions for us. Then we build those assumptions into the utility rate. BWS may want to look at this. Another thing: Hawaii is one of the states where people still actually pay their bills. Our sister utilities on the mainland say, compared to us, they have more customers who just don't pay their bills. Our mainland utility colleagues are amazed. Even when people go through foreclosure or bankruptcy, Hawaii's customers still pay their utility bills.

Q. Would the differences in cost of service for multi-family vs. single-family customers include things like having to put in a 12-inch main instead of a 4-inch main? If you're looking for differences in service, tell me what that entails, because otherwise, cost of service is \$4.42 per thousand gallons of water no matter who you are.

A. Great question. We talked about the water use patterns in previous workshops. The water system is designed to meet the highest demand in the peak hour of the maximum day. Usage is what drives those peak demands and that maximum. The residential customer places the highest cost on the system because their peak is so high. It is this peak usage pattern drives the how the system is designed and hence the costs that different types of customers put on to the system.

Stable and Predictable – Dave said that Joe started talking about this objective when he showed the pattern of historical changes in water rates. Rates should be structured so that increases are relatively consistent. This provides an opportunity for customers and the utility to forecast their costs and revenues respectively.

Encourage Conservation – This comes straight out of the discussions we had that led to objectives of the Water Master Plan: *“Rate structure is effective in encouraging conservation of water and supporting the goal to achieve Low-Range Gallons Per Capita per Day as set in the Water Master Plan.”*

Q. What are your metrics for that?

A. The current usage island-wide from the Water Master Plan is 155 gallons per person per day and the goal is to achieve the low-range demand 145 gallons per person per day by 2040.

Q. Is that a reflection of the gallons that they use or is what's in the building code? Those two may not measure up very well.

A. It's a reflection what's actually used.

Comment: Check your toilets for running water. That makes a big difference.

Dave said that one of the things worth looking at regarding any potential revisions to the rate structure could be: Is the cutoff of 13,000 gallons for the first tier appropriate or should it be changed? Is the tier effectively acting as an incentive?

Comment: The concept of using tiers to encourage conservation should be used for BWS customer groups beyond only the residential class.

Response: Dave said that we will certainly talk more about non-residential rates, including the use of tiers. Most water agencies don't have a tiered rate for their commercial customers. It is challenging to know how efficiently a business is using water based on the quantity they use. We will talk more about setting up that that type of a structure, and give consideration about how it could be implemented and addressing the challenges.

Understandable – Rates should be sufficiently straightforward, simplified, and clear.

Comment: Neighborhood board members always have to explain the charges on the water bill and answer the question about why it's so high. We tell people that the high cost is not necessarily the water part of the bill. Not only does the bill have to be understandable, but it has to somehow separate water charges from wastewater charges in a way that's clear enough that people understand it's not one thing. Maybe it takes a cover letter that says here's your total invoice, and on a second page with the BWS logo say: This is your BWS water bill, and on a third page with the Dept. of Environmental Services say: Here's your wastewater bill. It needs to be that understandable.

Comment: Use color and graphics to help differentiate and explain the charges.

Comment: The telephone bill is more itemized. It provides a lot of clarity. Maybe the BWS bill splits out a certain percent of charges to be applied to charity, or to cover bad debt or for other non-water expenses.

Affordable – What does affordable mean to you? What does it mean that a water bill is affordable? It may be different for a residential customer than a commercial customer.

Comment: Affordable is a relative term. From a business standpoint, I look at affordable as something that's being delivered at the least, most efficient price that I have faith in, the fact that the Board of Water Supply is operating as efficiently as it can.

Comment: I called Hawaiian Telecom's billing department because our service has been horrendous. They said, "We'll put you over to the service people." I said, "No. I'll talk to you because I'm paying a bill, and I don't see any reflection in the bill of not having good service." She said, "Well, you know, but you're getting intermittent service." I said, "What's your logo?"



She cut the bill in half for two years. I said, "That's fantastic, but am I going to get intermittent service?" "Affordable" is a relative thing. People are willing to pay for water service if they can see that it's different from the balance of the bill that we've been just talking about. Affordability is reliability. People are willing to pay for what's reliable and need it.

Comment: Look at the different costs of water used for agriculture. There's a huge difference when you compare somebody growing vegetables to somebody growing crops that can use non-potable water. People who use non-potable water for irrigation pay 50 cents per thousand gallons. Compare that to vegetable farmers paying \$1.89 per thousand gallons.

As far as being "affordable" goes, \$1.89 per thousand gallons is a better rate than residential customers pay. The ag rate does help farmers stay in business, but even then, we have to consider the value. Is there a value to people to get that food at the prices they're paying? If you raise the ag water rate, the question may become whether the farmer is going to farm or not, or be profitable or not – that's a different definition of "affordable" in the long run.

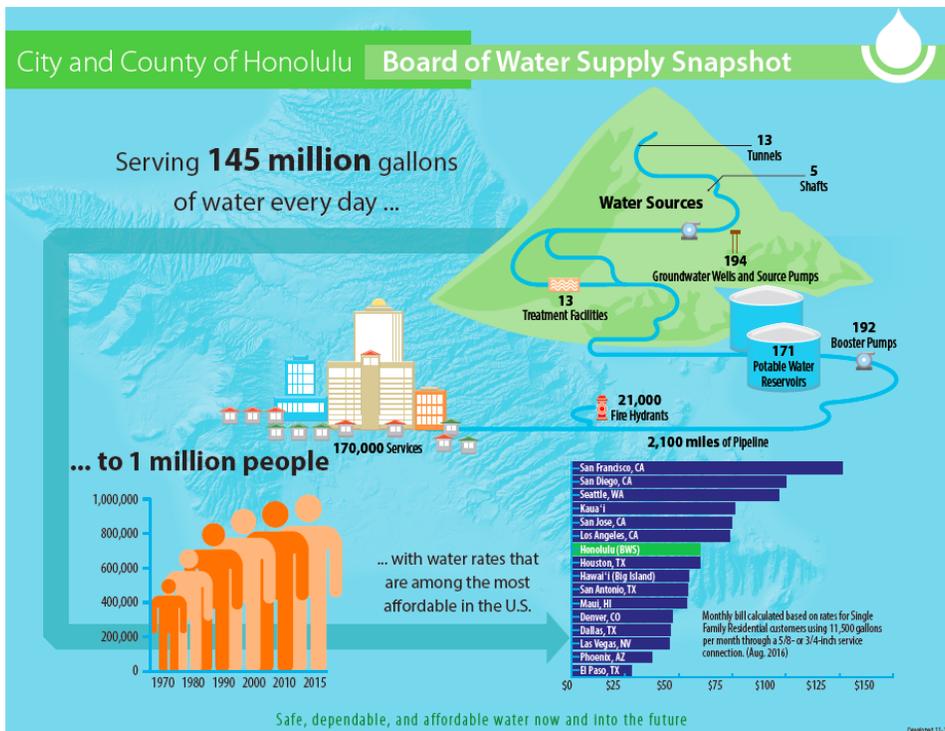
Comment: From a customer point of view, "affordable" might be that the bill we get this month is consistent with the one from last month.

Comment: What's "affordable" might be best measured by what's "unaffordable". If someone doesn't have enough money, then something's not affordable. It depends on your income.

Comment: We have a wide range of incomes in our community, with some people who are just barely making it month to month and others who have no qualms of paying a \$700 a month water bill. It depends on what can you afford in the larger scheme of things. It's the same argument that we're going through with affordable housing. Where does the water come in when you're dealing with those types of social issues? That was part of the reason why I asked about cost of service and what you include in the package to start setting up that rate structure. We can't charge 50 cents per thousand gallons in one community and \$10 per thousand in another that has more wealth. The question becomes: "How do we deal with that?" Do we just ignore the income equity issue and continue to charge straight across the board no matter who, what, when, where, or how? That's the struggle that we all have right now.

Q. What's the actual average water rate for a single-family person that the Board of Water receives, not collect, but that comes to you? The reason why I'm asking is because we're talking about affordability.

A. See information in the lower right hand corner of graphic below:



Barry asked the group if an aspect of “affordability” could be that a customer has the ability to control the costs of their bill by being able to use less water. He said that the customer can use conservation measures and keep their costs down, then that’s more affordable than paying a fixed cost whether or not water is used.

Comment: I like what you're getting at. “Affordable” is using the right quality of water (potable vs. non-potable) for the right purpose at what feels like a reasonable price. We're not going to get at that unless we really start bringing down the different qualities of water that we need to be using.

Summary and Next Steps

Dave thanked everyone for coming and said that we look forward to the next BWS Stakeholder Advisory Group meeting, June 21, 2017 at the Blaisdell Center, Hawaii Suites.