

## Update on the Public Hearing #2 Held on May 14, 2018

At about 6:30 p.m. on May 14, 2018, in the Kapolei Hale Ground Floor Conference Room at 1000 Uluohia Street, Kapolei, Hawaii, the Public Hearing commenced to discuss the Five Year Water Rate Proposal.

NOTE: Presentation of Proposed Water Rates is the same as shown at the April 26, 2018 Public Hearing #1. Please refer to these minutes for an overview of the presentation or view the video on our website at [www.boardofwatersupply.com](http://www.boardofwatersupply.com). Minutes for the May 14, 2018 Public Hearing #2 will focus on questions, responses and testimony from the audience.

## QUESTIONS AND ANSWERS

Speaker #1: Please explain the variables that indicate single-family residential customers pay less than their fair share (less than the cost to serve them).

David Ebersold: "Cost of service" of any class of customers looks at all the costs for the Board of Water Supply to operate and maintain the water system, plus the costs of capital improvements. We determine how much of those costs are associated with each different customer class (e.g., single-family residential, multi-unit residential, non-residential, agricultural, and non-potable/recycled water customers). It is a complicated process, but it is documented in the rate study that will be available around July.

Then we look at the revenue that comes in from that same group of customers. We compare the revenue collected from that customer class to the cost to serve them. We determine whether those customers pay more than the cost of service, or if they pay less. The result of that analysis is that single-family residential customers, for example, currently pay about 88 percent of the cost to serve them.

Speaker #1: I still don't understand why residential are not paying as much as apartment buildings.

David Ebersold: It is an artifact of a rate structure that was set many years ago, and over time water use patterns change. There is also better data available now to do a more comprehensive analysis and better analyze the actual costs associated with those different customer classes. It is a factor of a couple of different things working together.

Single-family uses more than multi-unit on a per unit basis. The impact on usage of water each day is much greater for a household as opposed to a dwelling unit in a townhouse complex or an apartment building, especially in the high-rise condominiums. Multi-unit developments typically have a landscaped area that is a smaller footprint. The effect of multi-unit residential on system capacity in terms of peak demand is less than single-family residential.

There are also differences with non-residential customers too. The single-family residential customer pays about 88 percent of the cost to provide services. Non-residential customers are actually paying about 120 percent of the cost of service, so they are providing a subsidy to other customer classes in the system.

Speaker #2: I am here to ask questions. I work for the Board of Water Supply. I am a meter reader. I am here because I believe that they (BWS) have been using the employees to save money, because they don't hire enough employees, so the employees that are there have to work harder. That is how the Board of Water Supply saves money. When you get the senior employees to leave, you save much more money because they are paid more. So they (BWS) bring in contract workers, they threaten them. You are trying to do your job, and the contract worker is afraid to speak up, because of retribution. You people can tell anybody anything, but you know when it comes out in the wash, we'll see who's telling the truth, because that's what I've been watching. I have been watching a lot of our co-workers going out with less people than they should be.

Now, all of a sudden, you see them hiring all new people. Why? Is it because the investigation is coming through? Yeah, we are being investigated, because of things that happen at the Board of Water Supply. I am not at liberty to give all this information, when the investigation comes out please read and watch. Because it is not all hunky dory at Board of Water Supply.

We have T-shirts that are green, and they have a water drop (logo). Then all of a sudden, they decide to put BWS and another water drop on the back because of branding. Now I ask all the customers that walk by, "Do you notice our new T-shirts?" They said, "No, what's the difference?" Because the shirt looks the same thing. The only thing that is missing is the pocket. On top of that, they tell us, "Oh, we forgot to put the pocket on it." To this day, the pocket has never returned. We have to put our writing utensils somewhere. They want us to wear this plastic thing so we can stick all our pencils inside there. You know what, that's [expletive].

Dave Ebersold: We are talking about water rates tonight.

Speaker #2: Well, if you take all the money that you have been saving on the workers; you're getting a lot of money from them.

Also, when they (BWS) bought this (automatic meter reading) system, they never put it out to bid. Why? They cannot tell me I was not there, because I was there. They bought a system. The first day we read 4,500 meters; 1,500 did not read. That is one third. And we were warned by the guys who were putting it in. These things suck.

Dave Ebersold: I am going to ask you to wrap up your comments now.

Speaker #2: Okay, so that's millions of dollars they wasted. I don't think they should be in charge of more money so they can waste some more.

Speaker #3: How does what you are proposing here dovetail into the presentation you made about three or four years ago relating to water rates? There was a proposal at that time. The reason I came here tonight was to listen to what presentation you were going to make and what kind of rationale was going to be used to support the water rates. I want to know, how do these water rates that you are proposing dovetail into the water rates that have been in use for the past couple of years? I think all of you realize that there have been steady increases in the water rates over the past three or four years.

Ernie Lau: Thank you sir. It would be great if I could remember exactly what presentation it was.

Speaker #3: It was at a Neighborhood Board meeting in Waipahu. As part of your presentation, you mentioned that the reason for BWS having to increase the rates was to pay for deferred maintenance by your predecessors. My statement to you at that time was, "I hope that my granddaughters are not present at another presentation that they go to, and your successor is making the same kinds of arguments."

Ernie Lau: The current water rates were adopted by the BWS Board in 2011. That was a series of 9.65 percent increases each year for about five years, compounding close to about 70 percent over the period. The rationale then, which is actually very similar to the rationale today, is the need to continue to invest into our water system infrastructure. The idea then was to develop additional revenue to provide a larger capital program. That has happened, and since then we have also embarked on developing a long term Water Master Plan that looked ahead 30 years, and evaluated the entire water system infrastructure.

The components of the water system are pretty large. Island-wide, we have 2,100 miles of pipeline, 171 water tanks all over the island, almost 200 well and source pumps in the system, 11 tunnels, 21,000 fire hydrants, 170,000 water meter accounts that are read every month. This system is so huge, if we had to replace it all at once; one estimate of costs in today's dollars was about \$16 billion.

We look at revenue needs for about a five-year period. We project what our capital program for that five-year period is going to be, and we try to develop the rates to bring in the money that we need to implement that program. But the effort never stops. It is almost like painting the Golden Gate Bridge; they go from one end, and proceed, and by the time they reach the other end and finish painting, they actually start again.

The infrastructure needs to be sustained over time. We cannot let it degrade. That is why we need to continue to invest in the infrastructure. And you're right, sir, there was a period of deferred maintenance. There

was a period of about 11 years where the water rates were not increased. That meant the revenue coming in was pretty steady, but the costs continued to rise, so the investments into the infrastructure started to decline, and that's why main breaks started to go back up. We saw that in 2010, we had around 400 main breaks a year.

So sir, we look at the infrastructure needs of the system, usually in five-year increments. We determine the water rates and revenues that we need to implement that program. But it doesn't mean the program is completed, because we'll never get to the end. We have to continue to invest in replacing aging infrastructure.

Speaker #3: So are you getting ahead of the curve?

Ernie Lau: That is what we are trying to do. We are trying to get ahead of the curve.

Speaker #3: Trying or succeeding?

Ernie Lau: Time will tell. Hopefully we're still around by the time we can see the results of this, because it doesn't happen overnight. But the idea is to start ramping up to 21 miles a year, which is 1 percent of the 2,100-mile system. That is probably just the minimum necessary and what the American Water Works Association recommends nationwide. We are going to ramp up gradually in about 10 years, and sustain that at 21 miles a year going forward.

So you're absolutely right. The test is going to be: Can we implement and can we sustain this, and will it provide the results over time? That is one of the reasons, sir, I asked the BWS Board to adopt the Water Master Plan. Water managers come and go. Some of my predecessors were only there for two years. I've been here six years.

But the idea is the reason the Board of Water Supply was created semi-autonomous, and that board members had overlapping terms was so that BWS could develop and support implementation of long range plans. So by having the BWS Board adopt the water master plan as policy, I'm hoping to sustain this program going forward.

Speaker #3: That does not mean that they will.

Ernie Lau: There is nothing certain in life except death and taxes. But the reality is, this is the best shot we have at the future. I have two young daughters. I want to leave a future for them because I will not be around on this earth forever. But, what is our legacy that we leave behind?

What we're trying to get to is, let's not do a period of zero rate increases for a long time, like say 11 years, and then have to do this big catch up where the customers suffer because the rate increases have to generate lots of money in a short period of time. But let's see if we can step the

increases up incrementally. Over the four years of increases being proposed in this rate proposal for the single-family residential customers, increases would be about five percent per year. If we can increase rates on this incremental basis over time and at the same time ramp up our capital program, and also leverage floating more revenue bonds to balance out the cost to current customers, that will help keep rates affordable for our customers. The 70 percent compounded increase was a shock to our customers. But we had to do it because the capital program was shrinking. We didn't have enough money to cover those costs.

So in about 10 years, you and I'll still be here, and you can tell me: "Ernie, you were wrong," or "Ernie, you were right."

Dave Ebersold: Other questions?

Speaker #4: Obviously, with all the building going on, we are bringing on new customers. If BWS is going to stick to replacing 21 miles per year, we are not going to replace enough because as you add new customers and adding new developments, you are also adding more miles of pipelines. I didn't see how these new customers that you're bringing on, who are adding new funds, help with what you're going forward with? Shouldn't that (increasing the miles of pipeline replaced annually proportionally with expanding the system for growth) be part of the plan? I know that in 10 years we're going to have more people, or at least more customers, more pipelines, and more of everything else. But yet you're not adding them into this mix. So when we come back in 10 years, will we say: "Oops, 21 miles isn't going to cut it anymore"? In 10 more years, are we going to come back here and start over again? I don't see where you're adding in future people.

Dave Ebersold: Great question.

Ernie Lau: In the Water Master Plan, we used population projections going out to the year 2040. We converted those projections to increases in water demand. You're right that the service area will probably grow, but what we're looking at is, hopefully, more compact development, especially along the transit line as it gets built out, and that infill development will help reduce the spread of our infrastructure over time.

BWS doesn't necessarily put in all of the infrastructure. Sometimes we have others put it in, which would also address your concern. In the larger developments, the developers put in the water system infrastructure.

Speaker #4: Yeah, but we still have to maintain it.

Ernie Lau: Yes, we have to maintain it.

Speaker #4: We are talking about replacing 21 miles a year, so when you get past five years, you are still looking at serving this bigger population; so 21 miles will not be enough.

Ernie Lau: The target of replacing 21 miles over the long term might have to increase. Like I mentioned earlier, replacing 1 percent of the system annually is the minimum (1 percent of the 2,100-mile system is 21 miles). If the system creeps up to 2,500 miles total, then that 1 percent will be 25 miles replaced a year to sustain that.

Dave Ebersold: Could you touch quickly on the process of updating the Water Master Plan periodically, because that is the question that you are getting to: "What's the process to go through to update these plans?"

Speaker #4: Revenues will be increasing, so do you really need to float that many more bonds when you sell more water or have more money coming.

Barry Usagawa: The customer base will grow, so more potential revenue coming in. Good point. The Water Master Plan is updated every 10 years. As developers build, they're going to add the miles of pipeline they need for their developments. For every hundred miles of pipe added, our "one percent" goes up. If the system increases to 2,200 miles, we will have to replace 22 miles of pipeline a year. That'll increase incrementally. Now, how do we pay for that? Large developers put in the infrastructure themselves. They install it at their cost, which is passed on to the homeowners that purchase the properties there. Then the infrastructure is dedicated to us.

Those pipes are brand new, so they should last 100 years. We won't need to replace them for quite some time if they're put in right and they use the right materials. So our cost to replace new pipe is very low. The 21 miles of pipeline that we're talking about are 50-100 years old. In the Water Master Plan, we analyzed the entire water system, and prioritized which pipes we need to replace. We prioritized by risk, which looked at the consequence of failure and the likelihood of failure.

We have all the data of main breaks in the last several decades. If a pipeline is serving a facility like a hospital, it's a high consequence if we disrupt water service. Those pipes are ranked higher, and they get replaced quicker than others.

We know which pipes we want to replace. We just have to put our nose to the grindstone and get them replaced. It is on us to make sure that we can put the capital projects out, get the funding for them, and then implement the plan.

Five years ago, we didn't have such a comprehensive plan. Now we do. And we can only make it better, and we'll keep updating that. You folks hold us to the candle, right.

Speaker #5: With regard to maintenance, is that only for changing pipes?

Ernie Lau: No, it is not.

Speaker #5: You have preventative maintenance, basically. Is that a high percentage of what the Board of Water Supply will do with the upcoming increase? I'd like to understand it a little more.

Ernie Lau: There is a category of projects called "renew and replacement". Those projects replace or fix existing infrastructure. The renew and replacement component of our capital program is the largest part of our capital program. It isn't only pipes.

In the early years, when we projected out what capital projects are needed, we identified pumps, tanks, and treatment systems that we need to address. Then over time the focus will become the big component items, like pipelines. We'll replace some pipelines right now because we're ramping up to 21 miles in 10 years. The proposed Capital Improvement Program for next year is to replace seven miles.

Dave Ebersold: All right. Other questions? Yes sir.

Speaker #6: One of the charts showed a level charge, I believe, of \$9.26 per month. Can you go back to that chart?

Ernie Lau: Yes, that is the customer charge.

Speaker #6: My question to you is: Why is the charge for a five-eighth inch meter \$9.26 per month, and the charge for a 12-inch meter is also \$9.26 per month? I noticed that there's a big proposed adjustment for those in the future. But why is it those rates are (currently) all the same for all the categories?

Ernie Lau: Thank you, sir, for pointing that out. After the rates were adopted in 2011 – I started in 2012 – that was one of the big questions people had: Why was the customer charge the same for all meter sizes? Remember, the five-eighths and three quarters meters are usually your homeowners. A major shopping center might have four eight-inch meters. We're proposing a change come July 1st of 2019, to vary the customer charge by meter sizes, so customers with the bigger meters pay more per month.

Speaker #6: When I look at nine dollars versus \$598 per month for the largest meters, I'm asking what the heck happened here? Not that you should not be charging that amount. Why were we charging only \$9.26? Are you saying that's because it was the error on the part of the previous administration?

Ernie Lau: A decision was made at the time that they wanted to structure it that way. I can't explain, but I did suffer the consequence of after it was adopted. I

started after the rates kicked in in 2012. So you're right. The charge for an eight-inch meter will jump to \$276 per month. For that customer with an eight-inch meter, probably a non-residential customer, \$276 is a small percentage of their total water bill.

Speaker #6: Is it?

Ernie Lau: Yes, it's probably about 2 percent. So you're right. That's why we're proposing this change to vary that charge by meter size. There are two components to this fixed charge. One component is related to providing the customer service and the billing. That's the same whether or not you have a large meter or a small meter. The other component varies by the cost of the maintenance required for the larger meter.

Speaker #7: Does the Board of Water Supply have any say in the construction of monster homes being built on this island?

Ernie Lau: We are asked if we can provide water service to those projects when they come in, but it's really the responsibility of the Department of Planning and Permitting in the city.

Speaker #7: So you don't have any input on that? You see all these bathrooms going in, 17 bathrooms in one house, and you have no input?

Ernie Lau: We have the input of whether or not we can serve them, and if we can serve them, what the cost will be. There is a Water System Facilities Charge, which is an impact fee. It's calculated by fixture units, so the more plumbing fixtures you have in the house, like 10 bathrooms, then they're going to be paying that much more to the Board of Water Supply, for the up front water system facilities charge. But the decision to approve the permit or not is mainly made by the Department of Planning and Permits with the input from all the agencies. BWS provides comments whether or not we can provide service to that project.

Speaker #7: Have you done that?

Ernie Lau: We probably have.

Speaker #7: But you don't know that.

Ernie Lau: Just driving around the community, I don't know for sure what's classified as a monster home, but I see these big structures in a mostly single family residential area, but these large structures take up most of the lot.

When someone wanting to build a monster home (or any home) comes in, they have to file a building permit application. It starts at the Department of Planning and Permitting. It comes through the Board of Water Supply, and we count what their water use going to be, based on fixtures. If they have 10 toilets, it's probably going to result in installing a



larger water meter, and they would be paying a larger impact fee. That's a one time capacity charge, because if they all flushed at one time, it would impact our system. So we have a permitting process that reviews all new development for water availability, fire protection, and other considerations. The new development has to be consistent with our rules and regulations. All of that is regulated through a city permit system.

Dave Ebersold: I wanted to go back to the current uniform customer charge of \$9.26 per month, because I think I heard you characterize this as an error. What I would add, from a perspective of what's acceptable and what discretion water utilities have in establishing water rates and charges, that this is a discretionary decision that a water utility has available to it. They consider what costs it is trying to recover, and should the charge be the same for every customer or vary by meter size? What I heard you say is that it made a lot of sense to you to vary it by meter size regardless of what was done before in that decision.

Speaker #7: It just made sense. I wasn't criticizing the increases, because I think it's warranted. But why wasn't it done before?

Ernie Lau: It was a policy decision made at the time. This is our only real fixed charge that recurs every month. What we wanted to do is generate more of our revenue through the charges for water usage (per 1,000 gallons) and keep our fixed charge lower. We wanted to encourage customers to practice water conservation so you try to manage your water bill more. We want to empower our customers by keeping our monthly fixed charge at a smaller size.

Speaker #8: I was complaining earlier about the way my water bill is apportioned – 80 percent of the water bill allocated to inside the house, and 20 percent to the landscaping. In my case, it's just reverse of that. My water use is 80% for landscaping. You told me that particular ratio was not determined by the Board of Water Supply; that it's done by the Department of Environmental Services.

Ernie Lau: That's correct. That relates to your sewer charges, and you have the ability to sub meter your irrigation system. For the Board of Water Supply, we don't use that.

Speaker #8: The problem with that is, in my case where I use water mostly for landscaping, they're (Department of Environmental Services) charging me all this extra money and I'm not using the sewer.

Ernie Lau: You have the opportunity to install a sub meter, and I know you're going to follow up with the Department of Environmental Services about that. Thank you. Good point.

Speaker #9: I am a member of the stakeholders group. I live in a townhouse that's behind Buzz's Steakhouse. We have two-inch water meters that feed our

complex. I'm telling the president of my board that currently we pay \$9.26 per bill. Now, in 2019, that bill goes up to \$38.81. But I have seven meters. So my association will have to pay seven times that \$38. Now, to your point, what I did some years ago when I was the president of my board, I demanded to spend \$35,000 to have a sub meter on my association, because I don't want to pay the sewer charge for water for my sprinkler system that doesn't go into the sewer. The residence manager is tasked on a monthly basis to read the sub meter and send that information to the Department of Environmental Services. They subtract the amount of water that we use for our lawn system from water from the Board of Water Supply, and that's how we compensate for that. I paid for that thing (sub meter) in five years. It was worth it to have a sub meter installed.

The problem coming up now is that the association pays for everybody's water. I'm demanding another \$45,000 to sub meter all the units, because I live in a townhome. I believe you pay for what you use, and it is fair. So as a member I expressed this point to all the stakeholders. That is what we are trying to do.

I think this is equitable. We need to sustain our system, because I'll be long gone, but the water system remains. We have to take care of that. Thank you.

Dave Ebersold: Great, thank you.

Speaker #10: Does that mean that you don't determine what ag land is, or who is in ag? Is it done by someone else?

Barry Usagawa: Are you talking about diversified farmers trying to come in for a water meter to irrigate the crops?

Speaker #10: I'm talking more gentleman farmers than real ag land.

Barry Usagawa: Okay, now that's a different question.

Speaker #10: Who actually determines what's ag?

Barry Usagawa: Part of setting the ag rates is anticipating one house on a farm. With the ag rate, you pay the same amount as a single family home for the first 6,000 gallons, then for water use above 6,000 gallons per month, you get the subsidized rate at \$1.89 per thousand gallons. That's going up to \$2 per 1,000. The rate is subsidized to promote diversified ag because we all benefit from fresh produce in our stores and in our farmers markets. To get that subsidized rate, they have to submit an annual application and provide GE tax information that they are in commercial agricultural business to get that rate.

Country farmers and gentleman farmers are an approved land use on agricultural land. A lot of communities are concerned that they just buying that land for the view and they're growing some fruit trees to make like they're farmers. Are you not taking away prime ag from real farmers because you're building on house instead?

That's a big land use question that the Department of Planning and Permitting has to grapple with too. But for BWS to give them a subsidized agricultural rate, they have to show that GE tax license, and they have to use more than a certain amount to get the lower water use rate – more than the proposed 6,000 gallons per month. If they don't have those two things, then they don't get the subsidized rate, and then it's just a country estate. They also need to apply every year to get that rate.

Speaker #11: The chart showed a proposed monthly charge of \$598 for customers with large meters. Is that a flat rate? If they exceed that in their use of gallons of water, do they pay extra?

Ernie Lau: The customer charge is a fixed charge. It's tied to the size of the meter. Their water use is billed at the cost per 1,000 gallons. The customer with and eight inch meter is probably a non-residential customer or a large condominium complex. This charge is regardless of customer type, just based on meter size.

Speaker #11: Normally who would pay \$598 as of July 2022?

Ernie Lau: There are not too many customers with a 12-inch in the system.

Speaker #11: If they happen to go beyond the \$598, they're getting charged by the gallon too.

Ernie Lau: There are two components to your bill. One is the fixed charge, which is what we are calling the customer charge. It's a flat rate per month based on your water meter size.

Speaker #11: So you are paying \$598.53 per month just because you have that meter?

Ernie Lau: Right. And then they pay the usage charge on top of that.

Speaker #11: It is going to be a hell of a bill.

Ernie Lau: When you take the whole bill and you look at this fixed customer charge per month in relation to the total bill amount, not counting the sewer part, it is still a smaller percentage of their total bill, because their water usage bill is so large. This customer would have a large meter because they had lots of water usage on their property.

Speaker #12: I have a comment, then a question. The first comment is, I would suggest that at your future meetings that you have proposed, you encourage the homeowner and attendees to bring their water bill.

Ernie Lau: Excellent point.

Speaker #12: Because as you were explaining this, I was trying to imagine what my bill looked like and all the components that went into it, how that relates to me as to how that is going to change. I would suggest that your information officer get that word out.

Ernie Lau: Excellent suggestion. We have two more public hearings coming up, tomorrow night and also next week.

Speaker #12: The other comment that I wanted to make is, you're looking for conservation means. I don't know if this is a conservation measure – I know it would conserve my money – but I understand a little bit about putting in a sub meter for agriculture or for my landscaping, such as this gentleman spoke about. Would it be appropriate for some kind of credit for people that are going to make that kind of a change? You're looking for ways for people to want conserve, and also people are going see these kinds of changes in their costs. They're going to be looking for ways to offset that. For the Board of Water Supply to offer that as a alternative or something that they might want to consider and pursue as a means of saving money for the future like Cruz did with his condominium association.

Many years ago, people watered their plants by hand. Right now, the vast majority of homes going in have sprinkler systems. That may be a reason why you are getting higher consumption. I don't know if that's part of your calculations that have gone into, but I'm thinking about that.

The last thing I want to ask is what was the rationale, historically, for having implemented subsidies to residential homes in the first place?

Ernie Lau: I can't answer the question at this time. We can look into it. But you have a good suggestion about looking for different ways for water conservation, because it's cheaper to save water through conservation than to build new wells, put in new pipes and tanks in the system.

We're bringing back the rebate program. We used to have a toilet rebate program. We're bringing back rebates right now for water efficient clothes washers. So if you're in the market right now for water efficient clothes washers, we're going to be offering a rebate of \$75 back from the purchase of a water efficient clothes washer.

Barry Usagawa: We're only scratching the surface with rebates at this point. We have rebates for rain barrels coming out next month. Rebates for irrigation controllers will be available in the fall of this year. Using a sub meter is a

definite way to conserve water. I firmly believe that if you don't know how much water you're using, you don't know how to conserve water. You have to measure it.

They have meters now for just the shower, or for the hose bib/garden hose and you can reset it every time. If you're washing your car, or you're irrigating by hand, you know how much water you're using. In Kapolei, a developer was looking at building a combination of uses with commercial on the bottom and residential on top. They're talking about installing sub meters in the residential so they pay for what they use. Instead of paying a non-residential for mixed use, you can segregate.

It is the same thing with electricity too. The idea is, if you could sub meter it, people have a greater awareness of how much they're using and move to try to save.

Speaker #12: Have you looked into plans for implementing water sub metering in condominiums that are built? Many of the condominiums 40 years old or more are currently going through retrofitting of all of their plumbing. It's a good time to strike right now because if the condominiums are going through retrofitting, now's the time to help them.

Ernie Lau: Excellent point. This may be just an opportune time. Thank you sir. I'll work on it and I'll let you know.

Dave Ebersold: We're at the part that I want to transition now into public testimony so we have enough time for that. I do have one card. Sir, I don't know if what you said at the beginning was your public testimony or if you have other testimony that you wanted to provide at this time.

Speaker #13: Nothing further to add.

Dave Ebersold: Would anyone else like to provide public testimony on the proposed water rates as opposed to asking questions?

Okay, seeing none, then what I do want to remind you is that there is the opportunity to provide comment or testimony over the website, by phone, by mailing in. We've got two more public meetings.

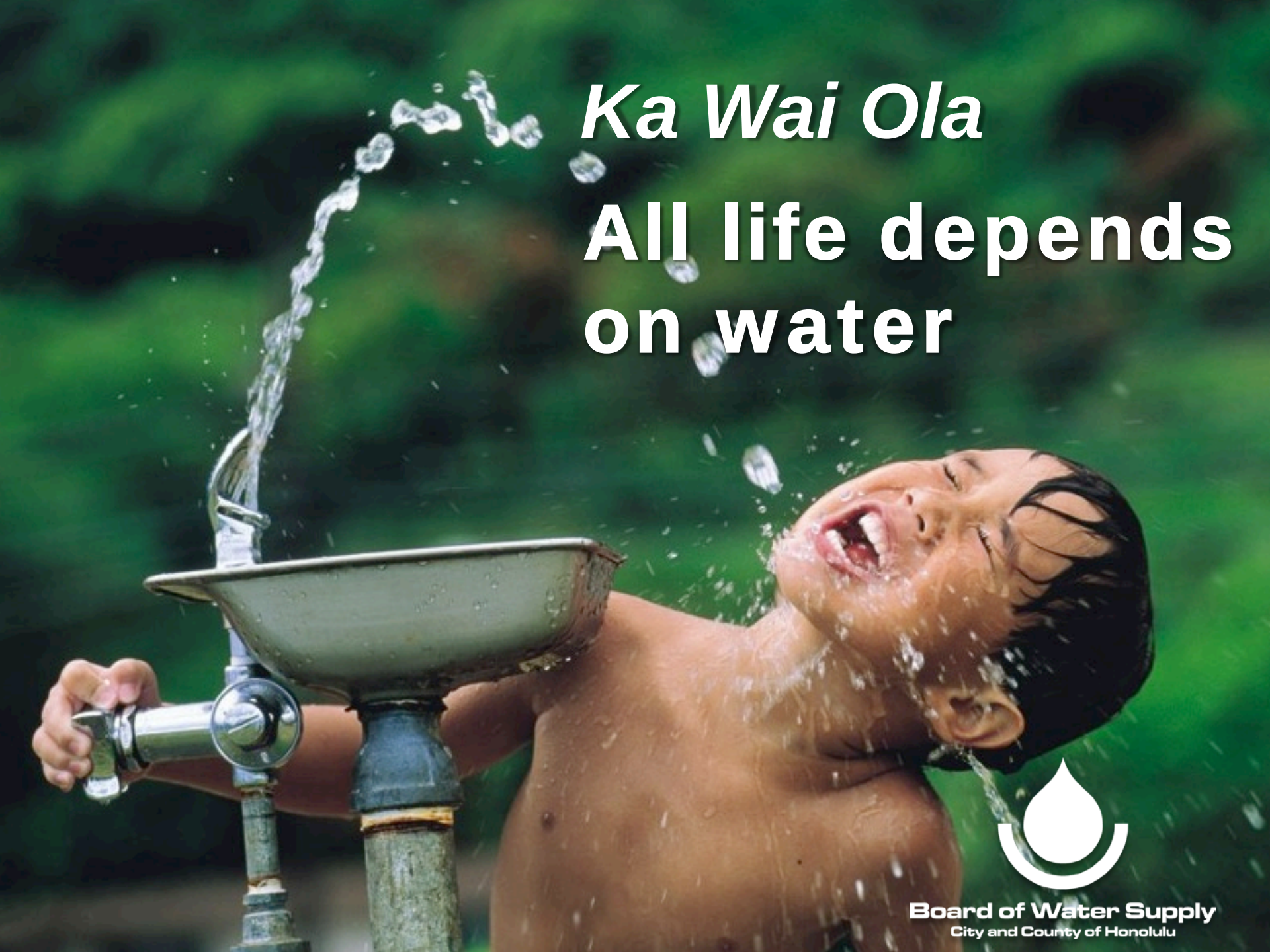
I want to thank you all for being here tonight for asking a great set of questions. I hope you got answers to your questions, and I know that the Board of Water Supply is looking for any other input you may have, so want to thank you for being here.

Speaker #14: I just wanted to say that prior to my arrival here, I was ready to pretty much fight this, but I thank the gentleman sitting there. He said to wait until I came into this hearing, and I'm very glad because you're all very good at presenting this, and you made me see that it is quite a fair effort, and I'm going to advocate for this to friends and family, and I'm so glad

that I did come to tonight's hearing. I really appreciate all of you taking the time to educate us. Thank you so much.

Ernie Lau:

Thank you so much, ma'am. Thank you.

A young child is shown from the chest up, splashing water from a public fountain. The child's head is tilted back, and water is spraying from their face. The fountain is a metal structure with a basin. The background is a blurred green field.

*Ka Wai Ola*

**All life depends  
on water**



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



The Board of Water Supply (BWS) delivers  
**safe, dependable, affordable water**  
to your tap ...

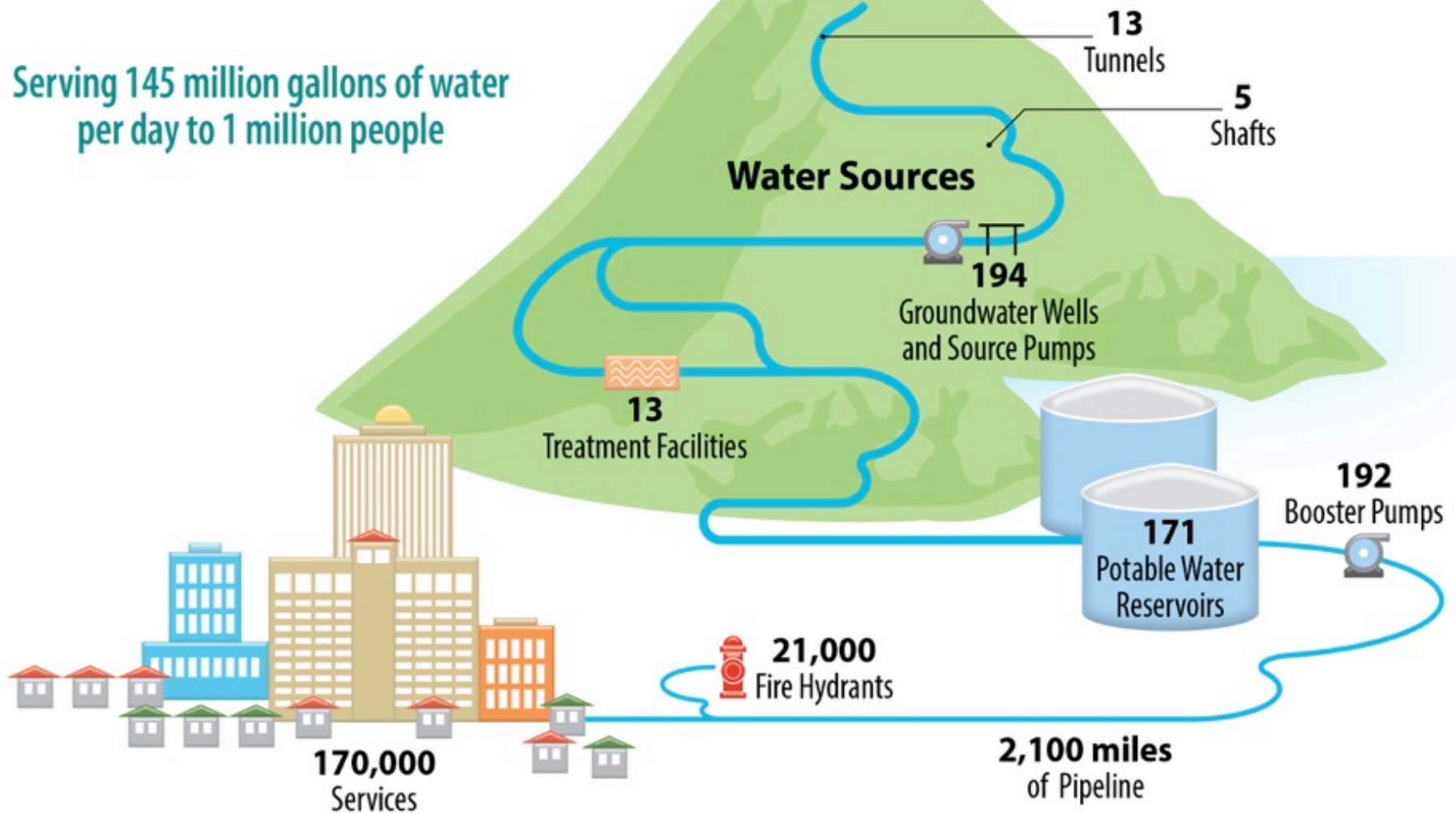
A close-up photograph of two hands, one from an adult and one from a child, gently holding a clear glass filled with water. The background is a soft-focus outdoor scene with green foliage and a bright, hazy sky. The text is overlaid on the image.

... every minute of every hour  
of every day.



# Delivering water from **underground water sources to your home** requires a large and complex system.

Serving 145 million gallons of water per day to 1 million people





Are we prepared  
to provide safe,  
dependable, and  
affordable water  
for **the next  
generation?**

# The BWS Water Master Plan ...



- ... **Looked ahead** 30 years
- ... **Evaluated** the entire water system
- ... **Identified** necessary improvements
- ... **Balanced needs with costs** of providing water to our customers



**Here** are some of the  
**findings** of the **Water Master Plan.**



*Finding:* We need **new drinking water** supplies for Ewa, Waianae, and Honolulu.





*Finding:* We have sufficient pumping capacity today, but we need **additional backup** pump capacity.





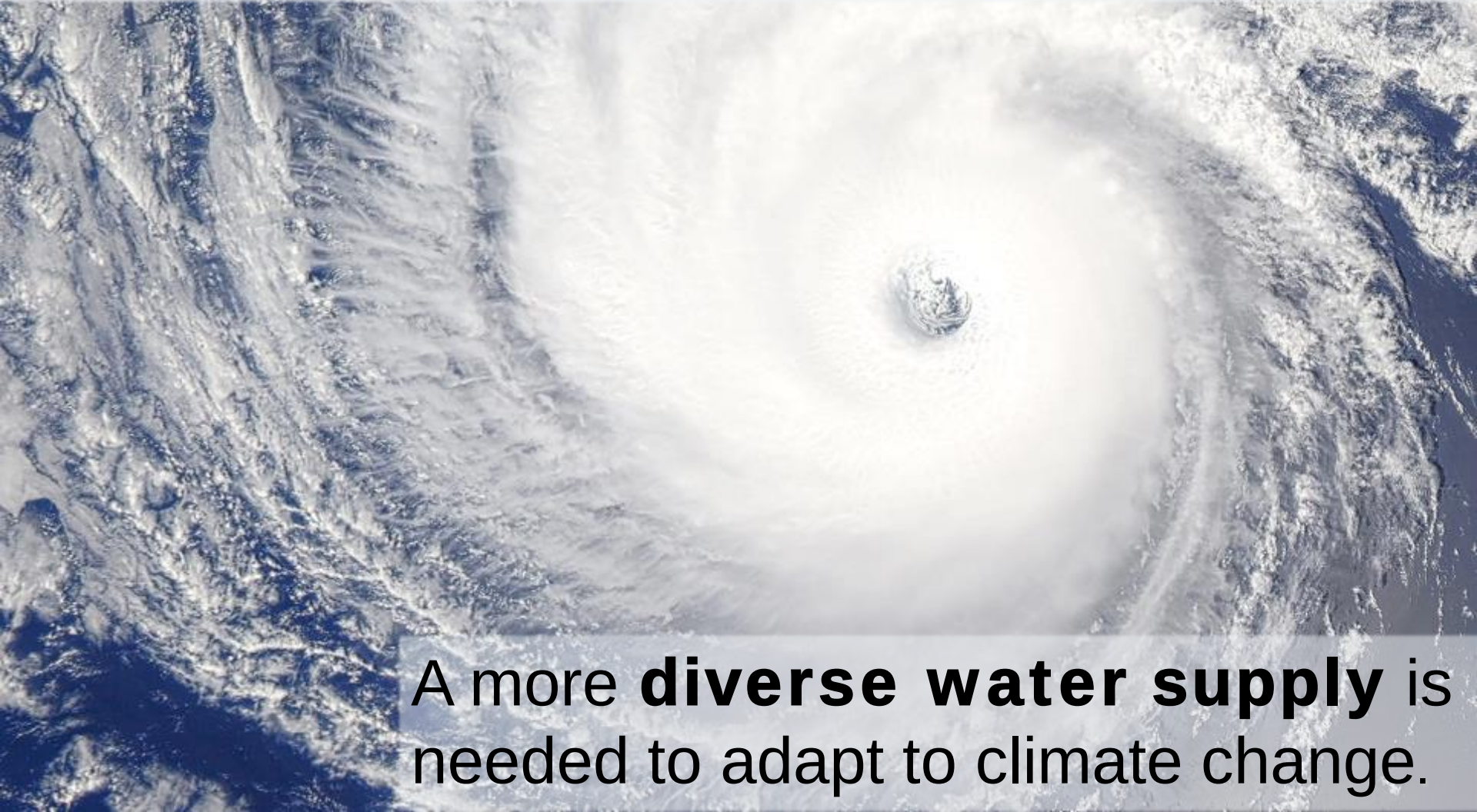
*Finding:* BWS pipelines suffer **deterioration from age, corrosion, and soil**, leading to more than 300 water main breaks per year.

*Finding:* Oahu cut its daily water use by **30 gallons** per person since the 1990s, saving over 12 million gallons per day, but **we still need to do more.**





*Finding:* We expect **rainfall to decrease** in West Oahu, but the **intensity of storms** to increase.



A more **diverse water supply** is needed to adapt to climate change.





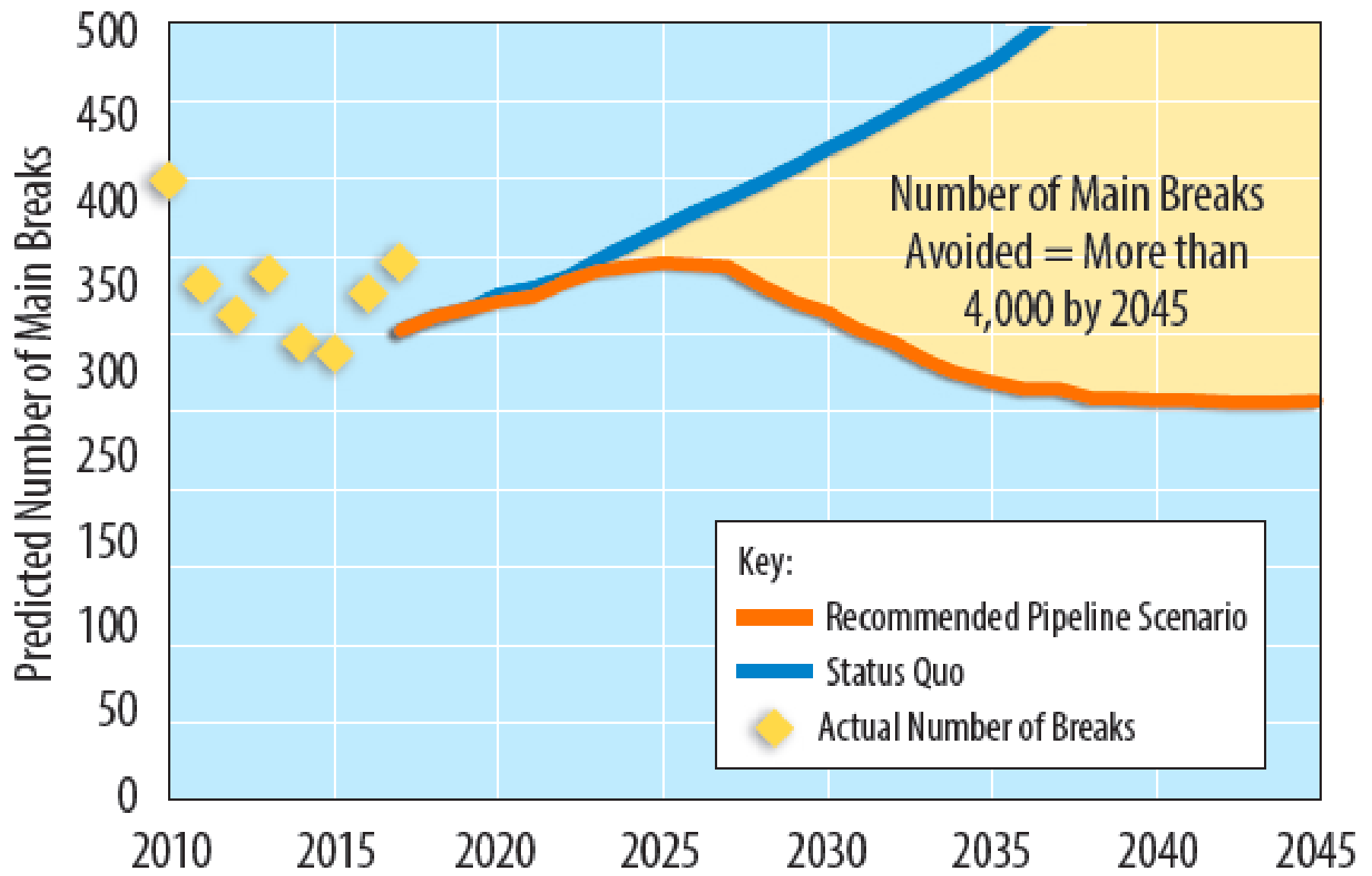
***Finding:*** Healthy watersheds are necessary to sustain our water supply over the ages and require **care and conservation.**



Over the next **30 years**, BWS will invest in **800+ infrastructure projects** island-wide, with total costs above **\$5.3 billion**.

# Over the next **10 years**:

| Results                                                                                                 | Investment                                                        |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 💧 Reliability and resiliency of our water system will increase                                          | <b>\$511 million</b>                                              |
| 💧 The number of main breaks will go down                                                                | <b>\$876 million</b>                                              |
| 💧 Increased investments in conservation will preserve existing supplies and delay the need for new ones | <b>\$3.4 million</b> (per year, 4% of infrastructure investments) |
| 💧 Targeted funding for watershed protection will help us adapt to a changing climate                    | <b>\$3.4 million</b> (per year, 4% of infrastructure investments) |



*Annually replacing 21 miles of pipeline is recommended to reduce main breaks*



## TOTAL WATER CHARGES

Customer Inquiries? Call 808-748-5000  
Water Trouble? Call 808-748-5000 (24 hours)  
Office Hours: Monday thru Friday 7:45 am to 4:30 pm

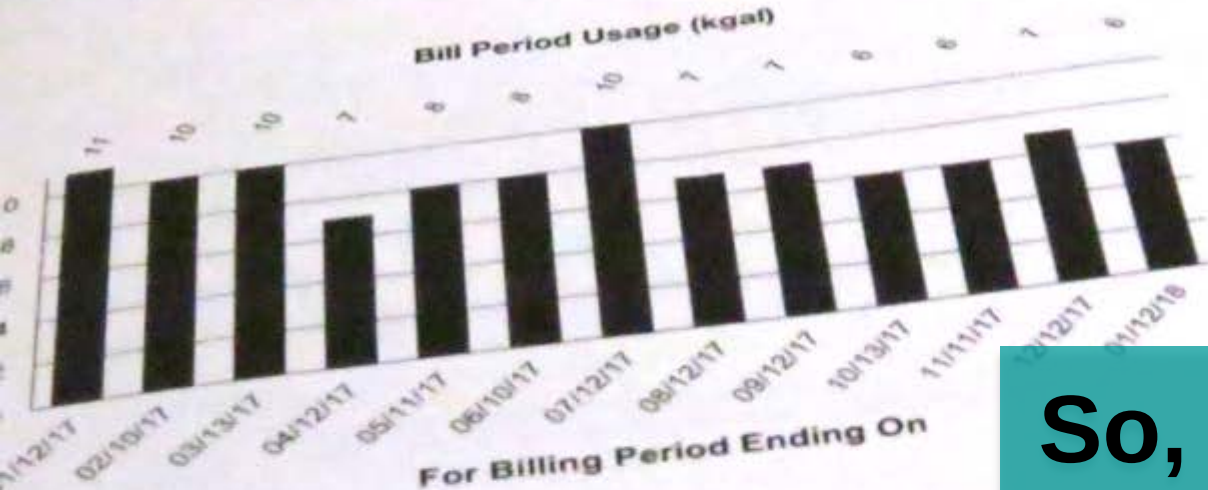
\$35.78

## ACCOUNT INFORMATION

Account Number  
Name  
Address  
Billing Date

01234567890  
ALOHA, NUI K  
1234 ALOHA WY  
01/12/2018

Bill Period Usage (kgal)



Indicate address changes

BOARD OF WATER SUPPLY  
COUNTY OF HONOLULU

## TOTAL SEWER CHARGES

Sewer Questions? Call 808-768-3333  
Sewer Trouble? Call 808-768-7272 (24 hours)  
Office Hours: Monday thru Friday 7:45 am to 4:30 pm

## WATER & SEWER BILLING SUMMARY

Previous Balance  
Payments  
Adjustments  
Corrections  
Current Charges

## TOTAL AMOUNT DUE

PAYMENT MUST REACH US

| DATE       | Water U<br>THOU<br>GAL |
|------------|------------------------|
| 01/12/2018 | 6                      |
| 12/12/2017 |                        |
| 11/11/2017 |                        |
| 10/13/2017 |                        |
| 09/12/2017 |                        |
| 08/12/2017 |                        |
| 07/12/2017 |                        |
| 06/10/2017 |                        |
| 05/11/2017 |                        |
| 04/12/2017 |                        |
| 03/13/2017 |                        |
| 02/10/2017 |                        |
| 01/12/2017 |                        |

So, let's talk  
about rates, the  
way we pay for all  
that we do.

# Remember – We're Just Talking about **Water Rates**



not Sewer Rates



**Water rates are proposed for a 5-year period beginning in July 2018 through 2022.**

**There would be no increase until July 2019.**

**Increases are expected to generate about an additional \$60 million over that time.**



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



# This is what BWS is committed to do with new rates

- Raise rates **gradually**
- Provide a low cost “**Essential Needs**” tier that rewards conservation
- **Encourage conservation** by highest water users
- Address **subsidy of single-family** residential by multi-unit residential customers
- Everyone pays their **fair share**

# **New:** Essential needs tier



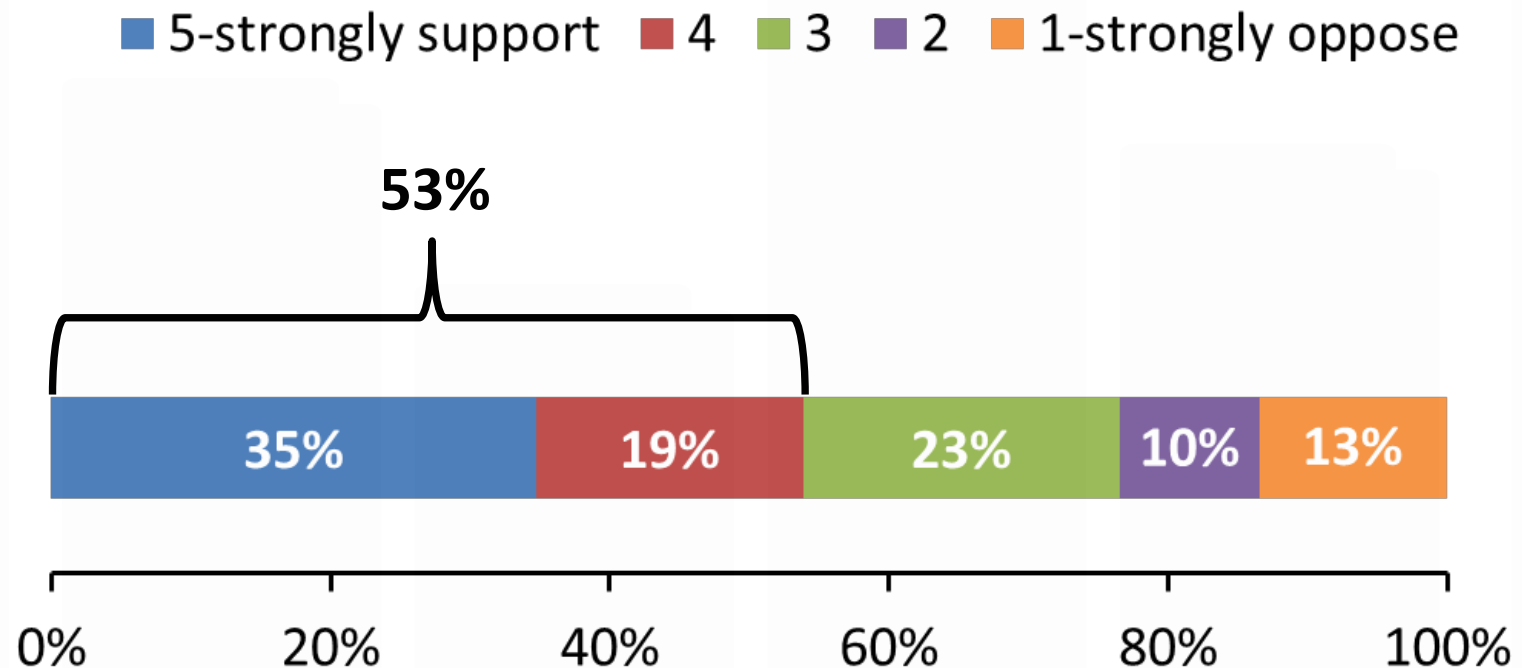
Below-cost rate for first **2,000 gallons per month.**

**All residential customers** get this rate.

**10%** of BWS residential customers **use 2,000 gallons or less.**



Over half of our customers support adding a new tier with a very low rate to ensure affordability and reward conservation.



**New:** Adjust tiers to financially motivate  
**water conservation.**



# Monthly customer charge – Based on water meter size

## Proposed Monthly Customer Charge (per meter)

|  Meter Size | Proposed Monthly Customer Charge in \$ / Month – Effective Dates |           |           |           |           |           |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                                                                             | Current                                                          | July 2018 | July 2019 | July 2020 | July 2021 | July 2022 |
| 5/8-inch or 3/4-inch*                                                                       | \$9.26                                                           | \$9.26    | \$10.42   | \$10.80   | \$11.38   | \$12.09   |
| 1-inch                                                                                      | \$9.26                                                           | \$9.26    | \$13.31   | \$13.79   | \$14.45   | \$15.28   |
| 1-1/2-inch                                                                                  | \$9.26                                                           | \$9.26    | \$15.23   | \$15.78   | \$16.50   | \$17.41   |
| 2-inch                                                                                      | \$9.26                                                           | \$9.26    | \$38.81   | \$40.18   | \$41.61   | \$43.45   |
| 3-inch                                                                                      | \$9.26                                                           | \$9.26    | \$47.95   | \$49.64   | \$51.35   | \$53.55   |
| 4-inch                                                                                      | \$9.26                                                           | \$9.26    | \$91.74   | \$94.95   | \$97.98   | \$101.92  |
| 6-inch                                                                                      | \$9.26                                                           | \$9.26    | \$163.91  | \$169.63  | \$174.84  | \$181.64  |
| 8-inch                                                                                      | \$9.26                                                           | \$9.26    | \$250.03  | \$258.76  | \$266.57  | \$276.78  |
| 12-inch                                                                                     | \$9.26                                                           | \$9.26    | \$541.31  | \$560.18  | \$576.78  | \$598.53  |

\* Typical for single-family residential customer.

# Single-family residential water rates 2018 - 2022



|      | Existing             |        | Proposed Rates, Effective Dates |                      |              |              |              |              |
|------|----------------------|--------|---------------------------------|----------------------|--------------|--------------|--------------|--------------|
| Tier | Gallons/<br>du/month | Rate   | July<br>2018                    | Gallons/<br>du/month | July<br>2019 | July<br>2020 | July<br>2021 | July<br>2022 |
| EssN | 0 to 13,000          | \$4.42 | \$4.42                          | 0 to 2,000           | \$3.79       | \$3.91       | \$4.17       | \$4.46       |
| 1    |                      |        |                                 | 2,001 to<br>6,000    | \$4.46       | \$4.60       | \$4.90       | \$5.25       |
| 2    | 13,001 to<br>30,000  | \$5.33 | \$5.33                          | 6,001 to<br>30,000   | \$5.06       | \$5.20       | \$5.50       | \$5.85       |
| 3    | More than<br>30,000  | \$7.94 | \$7.94                          | More than<br>30,000  | \$8.46       | \$8.60       | \$8.90       | \$9.25       |

EssN – Essential needs

Rates are in \$ per thousand gallons

du – dwelling unit



# Comparing bills – Essential Needs – 10% of **Single-family residential**

## **Essential Needs Tier – The Low Water User** (2,000 gallons per month)

| Current<br>Bill | Future Bill at Proposed Rates |           |           |           |           |
|-----------------|-------------------------------|-----------|-----------|-----------|-----------|
|                 | July 2018                     | July 2019 | July 2020 | July 2021 | July 2022 |
| \$18.10         | \$18.10                       | \$18.00   | \$18.62   | \$19.72   | \$21.01   |

# Comparing bills – Median water user – 50% of **Single-family residential**

**The Median Water User** (6,000 gallons per month)

| Current<br>Bill | Future Bill at Proposed Rates |           |           |           |           |
|-----------------|-------------------------------|-----------|-----------|-----------|-----------|
|                 | July 2018                     | July 2019 | July 2020 | July 2021 | July 2022 |
| \$35.78         | \$35.78                       | \$35.84   | \$37.02   | \$39.32   | \$42.01   |

# Comparing bills – Average water user **Single-family residential**

**The Average Water User** (9,000 gallons per month)

| Current<br>Bill | Future Bill at Proposed Rates |           |           |           |           |
|-----------------|-------------------------------|-----------|-----------|-----------|-----------|
|                 | July 2018                     | July 2019 | July 2020 | July 2021 | July 2022 |
| \$49.04         | \$49.04                       | \$51.02   | \$52.62   | \$55.82   | \$59.56   |

# Comparing bills – High water users – top 3% of **Single-family residential**

## **The High Water User** (35,000 gallons per month)

| Current<br>Bill | Future Bill at Proposed Rates |           |           |           |           |
|-----------------|-------------------------------|-----------|-----------|-----------|-----------|
|                 | July 2018                     | July 2019 | July 2020 | July 2021 | July 2022 |
| \$197.03        | \$197.03                      | \$199.58  | \$204.82  | \$215.82  | \$228.66  |

# Multi-unit residential water rates 2018 - 2022



|             | Existing             |        | Proposed Rates, Effective Dates |                      |              |              |              |              |
|-------------|----------------------|--------|---------------------------------|----------------------|--------------|--------------|--------------|--------------|
| Tier        | Gallons/<br>du/month | Rate   | July<br>2018                    | Gallons/<br>du/month | July<br>2019 | July<br>2020 | July<br>2021 | July<br>2022 |
| <b>EssN</b> | 0 to 9,000           | \$4.42 | \$4.42                          | 0 to 2,000           | \$3.70       | \$3.71       | \$3.72       | \$3.77       |
| <b>1</b>    |                      |        |                                 | 2,001 to<br>4,000    | \$4.35       | \$4.36       | \$4.38       | \$4.43       |
| <b>2</b>    | 9,001 to<br>22,000   | \$5.33 | \$5.33                          | 4,001 to<br>10,000   | \$4.95       | \$4.96       | \$4.98       | \$5.03       |
| <b>3</b>    | More than<br>22,000  | \$7.94 | \$7.94                          | More than<br>10,000  | \$5.90       | \$5.91       | \$5.93       | \$5.98       |

EssN – Essential needs

Rates are in \$ per thousand gallons

du – dwelling unit



# Non-residential

water rates

2018 - 2022



| Current | Proposed Rates, Effective Dates |           |           |           |           |
|---------|---------------------------------|-----------|-----------|-----------|-----------|
|         | July 2018                       | July 2019 | July 2020 | July 2021 | July 2022 |
| \$4.96  | \$4.96                          | \$5.01    | \$5.06    | \$5.16    | \$5.27    |

Rates are in \$ per thousand gallons

Examples: hotels, restaurants, government, shopping centers, hospitals, retail

# Current subsidies will be continued



Lower rates for  
**local agriculture**

**and recycled  
water**



A tall building under construction with a yellow crane. The building has a concrete frame with many rectangular openings for windows. A yellow crane is positioned next to the building, and a large concrete slab is being lifted by the crane's cables.

**For affordable housing**

**And new fee waivers**

A large building on fire with thick black smoke. The building is multi-storied and has many windows. Thick black smoke is billowing from the building, and bright orange flames are visible on several floors. The sky is dark and smoky.

**And to retrofit fire sprinklers**

A courtyard with a paved path and small plants. The courtyard is surrounded by a low wall and has a paved path leading through it. There are several small plants and trees in the courtyard, and the sky is overcast.

**For homeless housing**

# Other BWS **charges:**

💧 **Fire Meter Standby Charge**

💧 **Standby Charge** (emergency interconnections)

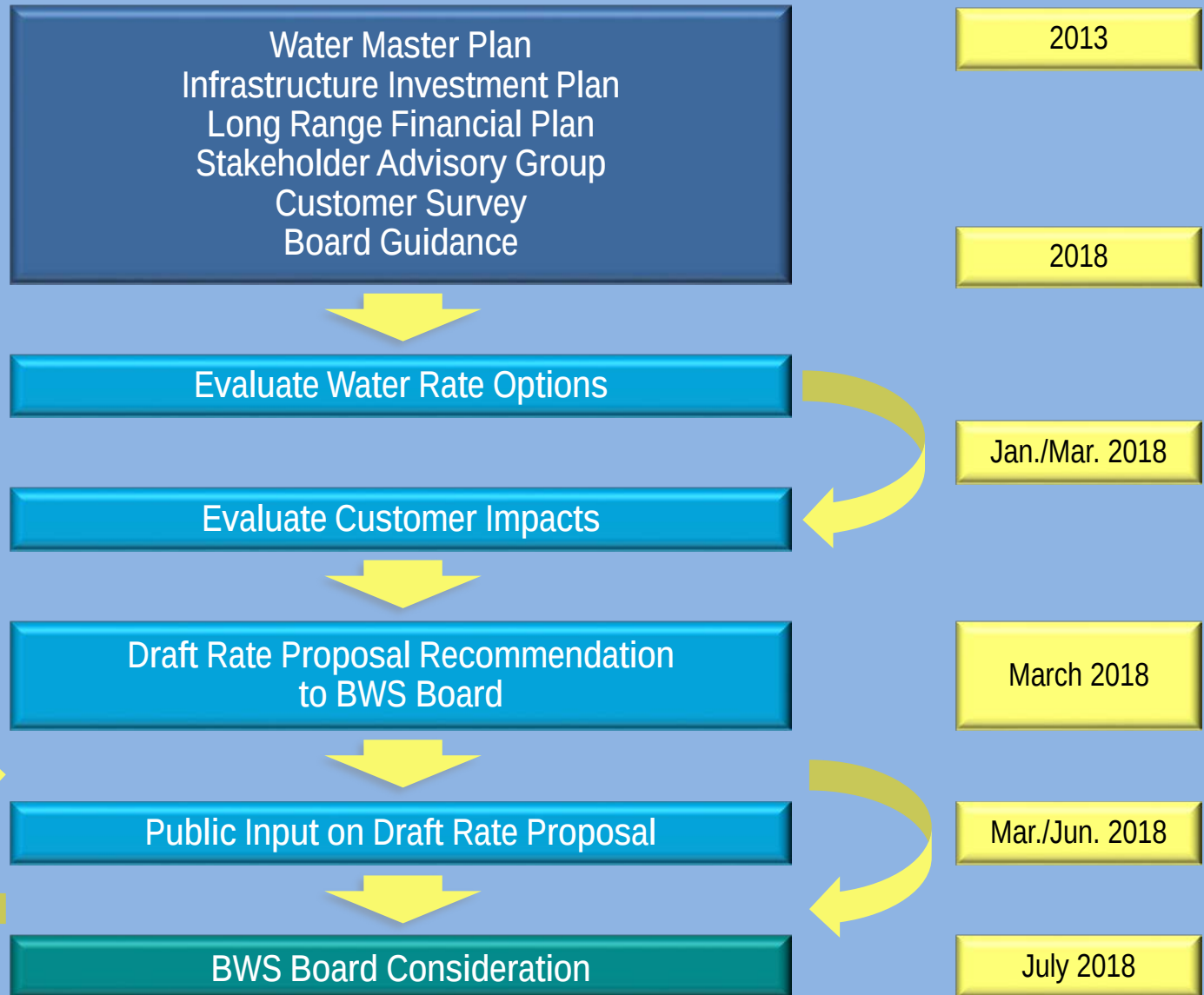
💧 **Water System Facilities Charge**

💧 **Environmental Regulations Compliance Fee  
Cost Adjustment**

💧 **Power Cost Adjustment**



# Process Overview





# **Learn More** at a **Public Hearing** Near You

**All Hearings: 6:30 – 8:30 PM**

## **Honolulu**

**Thursday, April 26**

*Mission Memorial Auditorium*

550 South King St., Honolulu 96813

## **Kapolei**

**Monday, May 14**

*Kapolei Hale, ground floor conference room*

1000 Uluohia Street, Kapolei 96707

## **Kaneohe**

**Tuesday, May 15**

*Benjamin Parker Elementary School Cafeteria*

45-259 Waikalua Road, Kaneohe 96744

## **Mililani**

**Thursday, May 24**

*Mililani Recreation Center #5*

95-1101 Ainamakua Drive, Mililani 96789

# Give Your Input on Proposed Rates

**Send a letter or an email to:**

## **Board of Water Supply**

Attn: Proposed Water Rates

*630 South Beretania, Honolulu 96843*

Email: [contactus@hbws.org](mailto:contactus@hbws.org)

**JUNE 30,  
2018**

## **Questions?**

**Call: (808) 748-5041**

BWS Website: [www.boardofwatersupply.com](http://www.boardofwatersupply.com)

Twitter: [@BWSHonolulu](https://twitter.com/BWSHonolulu)

Facebook: <http://www.facebook.com/BWSHonolulu>

# WATER FOR LIFE

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



Board of Water Supply  
City and County of Honolulu

## Questions?

