

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



# Stakeholder Advisory Group Meeting #2

Board of Water Supply City & County of Honolulu

Tuesday, July 21, 2015



# Shari Ishikawa Hawaiian Electric Company Dave Ebersold Facilitator WELCOME

### WATER FOR LIFE

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



# **Welcome to New Participants**

- Organization
- What you hope to get from this process

## **Meeting #2 Objectives**

- Review and accept Meeting #1 notes.
- Discuss and reach consensus on objectives of the Water Master Plan.
- Provide updates regarding the Red Hill site and the City's audit of the BWS.
- Discuss the findings of the Customer Survey and Focus Groups.

### The BWS's Commitment

- Conduct open public meetings.
- Provide staff and resources to support the group's meetings and activities.
- Provide accurate and transparent information.
- Fully consider the Stakeholder Advisory Group's recommendations and advisement.

### **Your Commitment**

- Attend and participate in all meetings.
- Be prepared to discuss issues on the agenda and any information distributed by staff in advance.
- Be willing to explore goals, constraints, and options.
- Listen attentively with an open mind. Respect ideas and perspectives of others. Give everyone a chance to speak. Avoid side discussions. Don't interrupt.
- Maintain focus on the topic currently under discussion. Avoid repeating issues that have already been raised or recorded.
- Achieve consensus.

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### Action:

Accept Notes of May 5, 2015 BWS Stakeholder Advisory Group Meeting #1

### WATER FOR LIFE

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### Barry Usagawa, P.E.

Board of Water Supply Water Resources Program Administrator

### **David Ebersold**

Facilitator

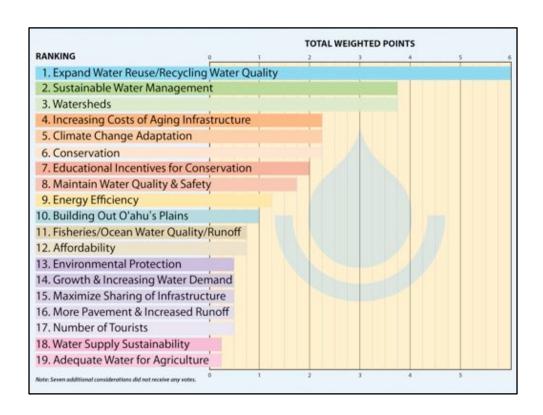
# DRAFT OBJECTIVES OF THE WATER MASTER PLAN



Stakeholder Advisory Group Meeting 1 included a priorities exercise, based on members' input in pre-meeting interviews and an opportunity to add water-related issues during the meeting.

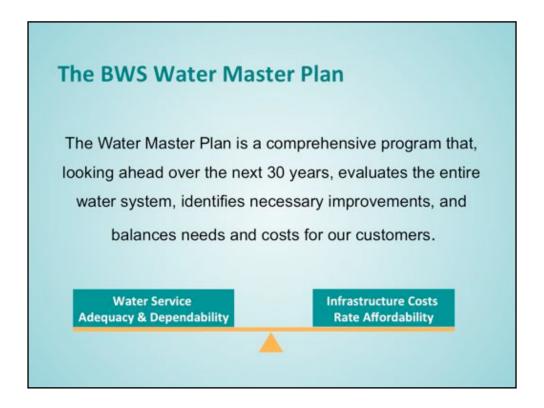
As a group, the members discussed and consolidated or eliminated issues, to avoid duplication. To capture the aggregate priority of these topics among the group: Each of the remaining topics was presented on large Post-it sheets (shown in yellow in the photo.)

Each stakeholder was given three small Post-it notes to designate their choice of the top 3 most important water issues (in order with the numbers 1, 2, and 3.)



The graph above shows the weighted results of stakeholders' votes for their highest priorities in Meeting 1.

These Stakeholder Advisory Group priorities have been carried forward into the development of Draft Objectives for the Water Master Plan.



A Water Master Plan is a best practice of water utilities to ensure stewardship of water supplies and infrastructure.

The BWS's Water Master Plan will provide information for policy makers to make decisions about balancing water service adequacy and dependability with the cost of infrastructure improvements and rate affordability to customers.

# Draft Water Master Plan Objectives Water Quality, Health and Safety System Reliability and Adequacy Cost and Affordability Conservation and Efficiency Water Resource Sustainability

Draft objectives were developed by reviewing the stakeholders' priorities and input.

It should be noted that draft objectives of Conservation and Efficiency and Water Resource Sustainability were added following the first meeting of the Stakeholder Advisory Group, based on group's issues prioritization together with comments made during the pre-meeting interviews. The group has already made an impact on the content of the Water Master Plan.

### Water Quality, Health and Safety

Water is consistently safe to drink. Water served meets or is better than regulatory standards and also is suitable for the intended water use, including recycled water. Water system facilities are secure as well as structurally and operationally sound, protecting the public, employees and the community. The exceptional natural quality of O'ahu's source water is sustained.

Stakeholders Advisory Group members were asked to review, discuss and refine proposed definitions of each draft objective (above, and in the following four slides). Each of the draft objectives was edited during Meeting 2 to reflect the group's input.

(This series of slides reflects the draft definitions as originally presented. The revised definitions, with the group's input, will be included in the Notes from Meeting 2 that will be posted on the BWS website in September 2015.

### System Reliability and Adequacy

Water service is uninterrupted and at proper pressures, when and where it's needed. Water system is designed to consistently support vital emergency services, such as hospitals and fire protection. System protections support basic functions during natural disasters.

### Cost and Affordability

Infrastructure project expenditures balance system needs, community values, and affordability for rate payers. Water system is designed and operated to deliver water at the most responsible cost to the customer.

### Conservation and Efficiency

Achieve water and energy efficiency via water conservation, infrastructure design, system operations and maintenance, and consideration of renewable energy options.

### Water Resource Sustainability

Water sources are protected and available now and into the future by managing the watershed and groundwater supply, conducting long-range planning (including risks due to climate change), and considering alternative sources of water (e.g., stormwater, recycled water, brackish water and seawater).



This chart shows the Stakeholder Advisory Group priorities. The filled-in buttons on the left indicate how each of these issues correlate with the Draft Objectives of the Water Master Plan.

For reference, the Draft Water Master Plan Objectives are: Water Quality, Health and Safety System Reliability and Adequacy Cost and Affordability Conservation and Efficiency Water Resource Sustainability

All 19 of the Stakeholder Advisory Group Priorities align with at least one of the five Draft Water Master Plan Objectives.

For example, the priorities of **Watersheds** and **Adequate Water for Agriculture** each align with four of the five Draft Water Master Plan Objectives.

### **Watershed Management Plans Goal**

To formulate an **environmentally holistic**, **community-based**, and **economically viable** watershed management plan that will provide a balance between:

- The protection, preservation and management of O'ahu's watersheds
- Sustainable ground and surface water use and development to serve present users and future generations

In addition to the Water Master Plan, another major planning initiative of the BWS is developing Watershed Management Plans, in conjunction with local communities.

This slide shows the overarching goal of these plans.

## **Watershed Management Plan Objectives**

**Promote Sustainable Watersheds** 

Protect and Enhance Water Quality and Quantity

Protect Native Hawaiian Rights and Traditional and Customary Practices

Facilitate Public Participation, Education, and Project Implementation

Meet Future Water Demands at Reasonable Rates

These five objectives inform development of all of the Watershed Management Plans.

There will be eight individual Watershed Management Plans for O'ahu, of which three have already been completed and approved.

Staliahaldan Advisanu Cuarra Drianitias	Watershed Management Plans Objectives					
Stakeholder Advisory Group Priorities	•	8	•	0	<b>E</b>	
1. Expand Water Reuse/Recycling Water Quality						
2. Sustainable Water Management	•					
3. Watersheds						
4. Increasing Costs of Aging Infrastructure						
5. Climate Change Adaptation						
6. Conservation						
7. Educational Incentives for Conservation						
8. Maintain Water Quality & Safety		•				
9. Efficiency						
10. Building Out O'ahu's Plains						
11. Fisheries/Ocean Water Quality/Runoff						
12. Affordability						
13. Environmental Protection						
14. Growth & Increasing Water Demand	•					
15. Maximize Sharing of Infrastructure						
16. More Pavement & Increased Runoff						
17. Number of Tourists						
18. Water Supply Sustainability						
19. Adequate Water for Agriculture						

This chart shows the Stakeholder Advisory Group Priorities, the Objectives of the Watershed Management Plans, and how they correlate, as indicated by the darkened buttons.

For reference, the Watershed Management Plans Objectives are:
Promote Sustainable Watersheds
Protect and Enhance Water Quality and Quantity
Protect Native Hawaiian Rights and Traditional and Customary Practices
Facilitate Public Participation, Education, and Project Implementation
Meet Future Water Demands at Reasonable Rates

The priorities of **Conservation** and **Environmental Protection** align with all five Watershed Management Plans Objectives.

The objective of **Promote Sustainable Watersheds** aligns with 12 of the 19 Stakeholder Advisory Group priorities.

Draft Water Master Plan Objectives				1	Stakeholder Advisory Group Priorities	Watershed Management Plans Objectives						
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6	1	1		0	2. Sustainable Water Management							
					3. Watersheds	•	•	•				
(6)	0	0	Ad.	100	4. Increasing Costs of Aging Infrastructure	(6)	(88)	(66)	(88)	(6)		
0	(6)	0	0	0	5. Climate Change Adaptation	•	(0)	(6)	(0)			
	0	0			6. Conservation	•		•				
10				16	7. Educational Incentives for Conservation							
	0	0	100	0	8. Maintain Water Quality & Safety		•					
0	0		0	(4)	9. Efficiency					6		
				0	10. Building Out O'ahu's Plains							
9	0	9	42		11. Fisheries/Ocean Water Quality/Runoff							
15	165	0	0	0	12. Affordability	18	思	(8)	$\Theta$	6		
	6	0	10)	0	13. Environmental Protection	9						
					14. Growth & Increasing Water Demand							
0				(60)	15. Maximize Sharing of Infrastructure					6		
	0	0	0		16. More Pavement & Increased Runoff							
0			0	0	17. Number of Tourists							
0	0	0	0		18. Water Supply Sustainability							
4			0	0	19. Adequate Water for Agriculture							

This chart shows how the Stakeholder Advisory Group Priorities align with Draft Water Master Plan Objectives or the Watershed Management Plans Objectives, and in many cases, with both.

Taken together, the Water Master Plan and the Watershed Management Plans reflect the efforts of the Board of Water Supply to provide safe, dependable, and affordable water now and into the future.



### WATER FOR LIFE

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



Ernest Lau, P.E.

**BWS Manager and Chief Engineer** 

Ellen Kitamura, P.E.

BWS Deputy Manager and Chief Engineer

### **BWS UPDATES**

STATUS OF RED HILL FUEL FACILITY AND AQUIFER PROTECTION
THE MANAGEMENT AND OPERATIONAL PRACTICES AUDIT:
ONE YEAR LATER

# **Red Hill Fuel Storage Facility**

On January 13 2014, Navy reported a 27,000 gallon leak of jet fuel from its Red Hill Bulk Fuel Storage Facility.

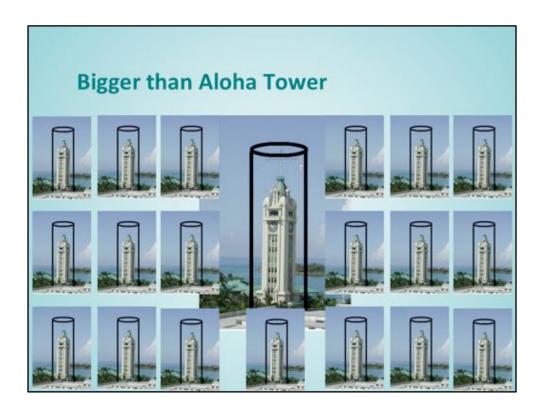




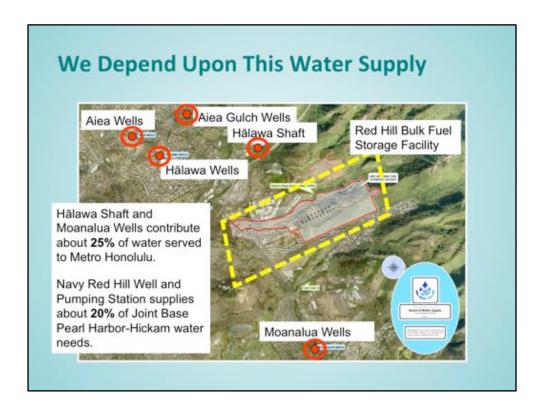
The Red Hill fuel facility was constructed between 1940 and 1943 to supply fuel to the Pacific Fleet at Pearl Harbor.

Located near Moanalua, the facility consists of 20 tanks, each 250 feet high and 100 feet in diameter.

Each tank holds 12.5 million gallons of fuel. The total capacity is 250 million gallons.



The Aloha tower could easily fit inside each of the 20 tanks.



The BWS is taking a strong stand on the Red Hill issue because the safety of the island's water supply is at risk. We are depending on the Navy to take protective measures.

The tanks are only 100 feet above the irreplaceable Moanalua and Waimalu aquifer systems.

Five BWS wells (identified by target symbols on this slide) are nearby and are supplied by these aquifers.

These five wells contribute about 9% of our average daily supply and about 25% of the water serving the Metro Honolulu system, which extends from Moanalua all the way to Hawai'i Kai.

Contamination will be difficult and expensive to treat.

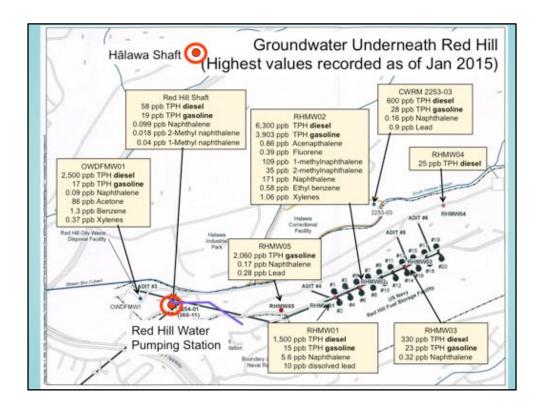
There is no replacement for this pure water supply.

## Underneath Red Hill Tanks

- Basalt core samples taken from under each tank show petroleum stains in 19 of 20 tanks (1998-2002 Investigations).
- Estimates are that up to 200,000 gallons have been released from 1947-1980s.



Ref: Navy Phase II Site Characterization Report, Section 4, page 11, March 1999. (Related to Release ID 990051)



This map shows the location of the tanks, two major water sources -- the BWS's Hālawa Shaft and the Navy's Red Hill Water Pumping Station, identified by the targets, and monitoring wells that are used to test water quality.

Gas, diesel and other contaminants have been found in almost all of the monitoring wells surrounding the Red Hill Pumping Station.

BWS wells currently show no sign of contaminants from the Navy's fuel storage.

# What are the EPA and Department of Health (DOH) Doing?

- Proposed Administrative Order on Consent (AOC) and Statement of Work was issued June 1, 2015.
- AOC is a negotiated agreement that requires the Navy and Defense Logistics Agency to take actions to minimize the threat of future leaks.
- Statement of Work describes the actions for the Navy and Defense Logistics Agency to comply with the AOC.

## Why The BWS Does Not Support the Current Version of Proposed AOC?

- Needs to require thorough study of the site and clean up of existing contamination.
- Allows more studies rather than implementing quick improvements based on previous Navy studies (1998 and 2008).
- Time frames for doing the work are too long and lack deadlines to ensure progress (22-27 years not including DOH and EPA review time).
- Too limited public and major stakeholder participation.

The BWS does not support the current version of the proposed AOC because:

- Documents lack public transparency, corrective action specificity, and the immediate implementation of improvements that would protect our groundwater and the environment.
- The recent Tank 5 leak, which occurred after a multi-year clean/inspect/repair/ modernize process, demonstrates that the status quo approach is not protective of our drinking water and the environment
- The AOC provides no required cleanup of the contamination present in the rocks and groundwater beneath the tanks to prevent it from migrating to uncontaminated parts of the aquifer.
- Stakeholders and the public were not included in an open process that requires immediate installation of improvements that will protect groundwater and the environment.

# Why The BWS Does Not Support the Current Version of Proposed AOC?

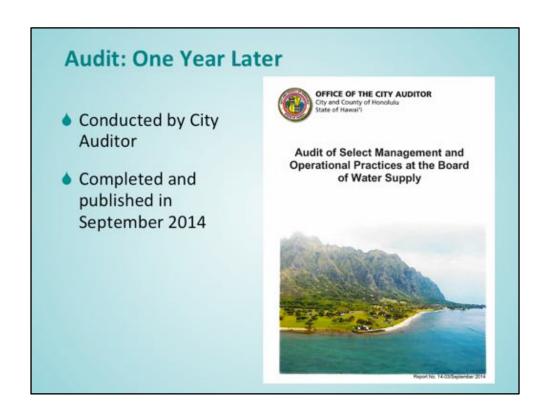
- Doesn't require full disclosure and access to all records, data, and studies about fuel leaks.
- It allows the Navy to override compliance with existing and future regulations.
- It lacks a written commitment to fund all of the tasks and improvements in a timely manner.

### Where are we today?

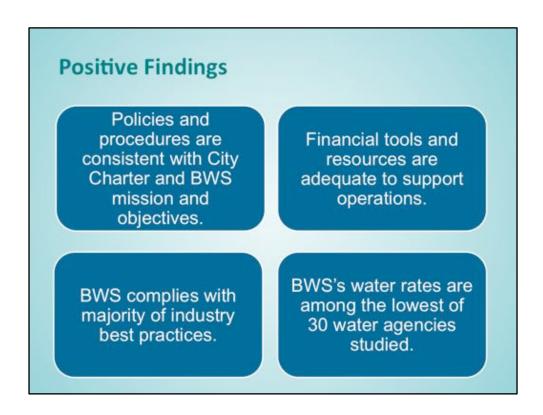
- EPA and Dept. of Health held a public meeting on June 18, 2015.
- EPA extended public comment deadline from July 1 to July 20, 2015.
- The BWS submitted comments on the AOC and Statement of Work (for details, go to www.boardofwatersupply.com).
- The BWS is conducting a groundwater study, a health effects study and a modeling study with the U.S. Geological Survey.
- The BWS will remain vigilant and inform you and our customers of the latest developments.

The EPA and Department of Public Health held a public meeting on June 18, 2015.

Approximately 200 people attended the meeting and about 30 of the individuals provided public comment.



On another topic, as we approach the 1-year milestone, we want to share some of the Audit findings and what the BWS has been doing to address them.



These are some of the positive findings of the audit.

It is notable that the Auditor confirmed the BWS complies with the 23 of 29 best practices established by a consortium of industry experts.

## **Positive Findings**

A Charter Amendment to increase oversight by the City is not likely to increase the BWS's operations, efficiency or effectiveness.

". . .Citizens are unlikely to realize significant benefit with a transfer to city management."

The Auditor found that increasing oversight by the City is not likely to increase the BWS's operations, efficiency or effectiveness.

The BWS's governance should remain as a semi-autonomous agency.

# Major Recommendations Plan and Prepare for New System Implementations Substantiate Water Rates and Monthly Charges Improve Meter Reading Processes Improve Operations

Today we're going to cover progress made in four key areas since the audit was performed.

## Plan and Prepare for New System Implementations

### Recommendation

Increase number of call center staff.

### Actions and Results

- Hired additional staff
- Developed and implemented telephone service standards to improve quality and consistency
- · Developing service standards for email and letters
- Conducted training for all customer service representatives

The BWS hired additional staff and a new Customer Service Program Administrator, Jennifer Elflein, who has worked closely with her staff to develop and implement service standards. The BWS has also conducted training for all customer service representatives to improve the quality and consistency of their interactions with customers.



This chart shows the number of customer calls to the BWS call center for the calendar years 2012, 2013, and 2014.

The y-axis (vertical) shows the total number of calls. The first set of three bars shows the total number of incoming calls for each year. The middle set shows the number of calls we answered. The last set shows the number of customers who hung up.

The new customer care and billing system was introduced in January 2013, along with a transition from billing every 2 months to every month. We believe this drove the significant increase in incoming calls from 2012 - 2013. We took actions to improve service and incoming call levels dropped back down in 2014.

Unfortunately, in both 2012 and 2013, there was a significant gap between incoming calls and calls answered. There also was a large number of customer hang ups in both of these years. This is attributable to high call volume and under-staffing. However, as a result of the improvements we've made in staffing levels and processes, our call volume has dropped, our calls answered is over 92%, and the number of hang-ups is far below 2012 levels.



This chart shows the trend in wait times experienced by our customers due to the improvements make to the call center.

The y-axis (vertical) shows the average wait time in minutes.

The average wait time decreased dramatically from about 14 minutes in 2012 and 2013 to less than 1 ½ minutes in 2014.

# **Substantiate Water Rates and Monthly Charges**

### Recommendation

Justify and communicate water rates and future rate increases.

### Actions and Results

- Commissioned independent review (expected Aug 2015)
- · Will discuss with Auditor
- Preliminary Findings:
- Water rates are substantiated
- Need more public understanding of and input to rates process
- Water Master Plan process includes financial analyses, rate study and public involvement

The auditor's report identified concerns related the BWS rate-making process and recommended that BWS substantiate its water rates and charges. To address this recommendation, BWS commissioned an independent review of our rate development process. The final draft of the report is due soon, after which we will discuss the report with the Auditor.

Preliminary findings from the report conclude that the BWS's water rates are justified and an adjustment is not necessary, nor is a refund is warranted. However the report recommends that the BWS should increase public involvement in the rate making processes. BWS agrees with this finding and is implementing a Public Engagement Strategy.

In 2016, we will begin a new rate development process that incorporates the water system improvements identified during the Water Master Plan. The BWS is fully committed to following industry best practices and engaging stakeholders through an open and transparent process.

### **Improve Meter Reading Processes**

### Recommendation

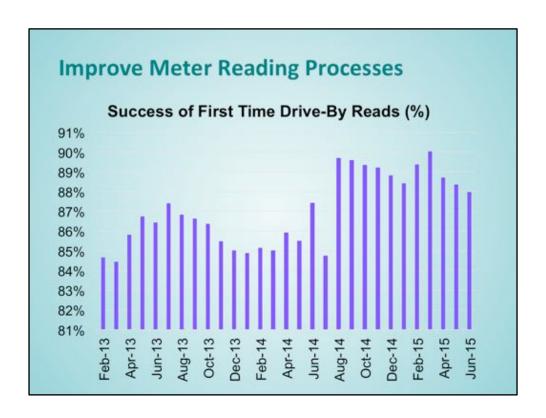
Repair and maintain automated meter reading system to increase successful reading rate.

### Actions and Results

- Pilot new methods improve automatic meter reads
- Revised driving routes to increase efficiency
- · Completed comprehensive study
- · Continuing short-term upgrades
- · Evaluating best long-term approach

The auditor's report identified concerns with our Automated Meter Reading program. The BWS is undertaking a pilot study to test new methods and equipment to improve first-time drive-by meter reads, including optimizing the driving routes to increase efficiency.

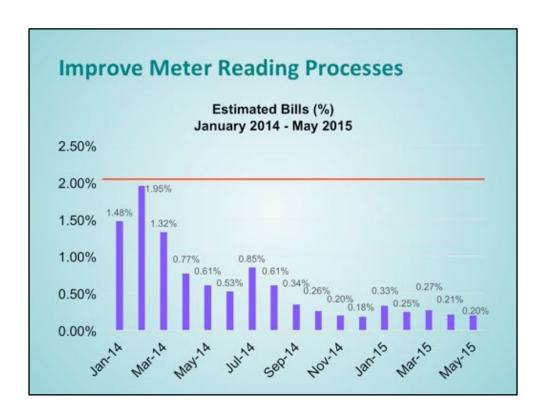
We just completed a comprehensive study that assessed the existing system and developed short- and long-term plans for the program. We will continue to upgrade and maintain the existing system and monitor advances in the industry to determine the best fit for the BWS in the long term.



This graph shows the percentage of successful first-time drive-by reads between February 2013 and June 2015.

The y-axis shows the percent and the x-axis shows the months when the reads were performed.

With the current improvements to the system, we were able to see about a 3% to 5% increase in successful first-time drive-by meter reads over this period.



This graph shows the percentage of estimated bills sent out between January 2014 to May 2015. Bills are estimated when meters cannot be read.

The y-axis shows the percent of estimated bills sent out by BWS and the x-axis shows the time in months.

The BWS target is 2% or fewer estimated bills. By making improvements in automated and manual meter reads, we are able to keep the amount of estimated bills well below this target.

There is no industry standard for a percentage of estimated bills that would be acceptable. However, the BWS participated in a survey by the American Waterworks Association in 2012. Participating agencies reported estimating between 0 and 30% of their bills, with most utilities in the 1-2% range.

## **Improve Communications**

### Recommendation

Establish better and more frequent communications regarding activities that impact citizens.

### Actions and Results

- Focusing on proactive, open and timely communication
- · Launched "Water Matters" customer newsletter
- New publications created to explain BWS operations and activities
- · Established Stakeholder Advisory Group

The auditor's report recommended that the BWS improve the quality and frequency of communication. We agreed and have implemented several initiatives, including creation and distribution of new publications to be distributed to the neighborhood boards, community groups and the general public. We also have established the Stakeholder Advisory Group.

# Improve Operations Recommendation Conduct customer surveys and focus groups; use data to improve operations. Actions and Results Completed island-wide survey of residents awareness and satisfaction with BWS services Conducted focus groups

Lastly, there was a recommendation to improve operations by seeking input from our customers by conducting surveys and focus groups. In the next presentation, you will see the results of a recent customer survey and focus groups.



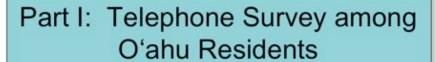
# WATER FOR LIFE Safe, dependable, and affordable water now and into the future Becki Ward Ward Research CUSTOMER SURVEY AND FOCUS GROUPS



# Understanding Resident Perceptions of the Board of Water Supply

Prepared for:

Board of Water Supply May 2015



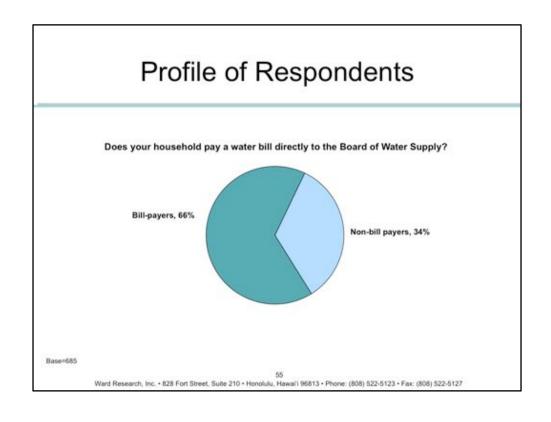
# Objective

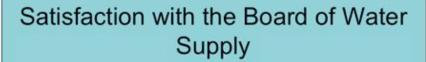
To establish baseline measures of satisfaction and other key metrics related to perceptions of the Board of Water Supply and the fulfillment of its mission.

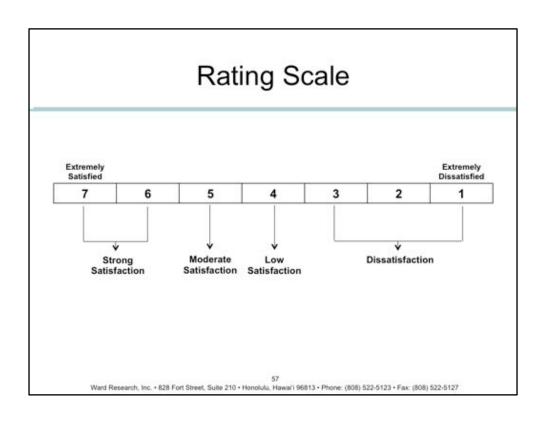
# Methodology

- Telephone survey among n=685 O'ahu residents
- Conducted February 5 to February 19, 2015
- Maximum sampling error is +/-3.6%
- Survey instrument developed by Ward Research with review and approval by Board of Water Supply
- Quotas set so total sample was divided among nine Council districts
- Sample demographically representative of O'ahu population

Council District	# of Interviews
Council District 1	n=83
Council District 2	n=79
Council District 3	n=75
Council District 4	n=75
Council District 5	n=84
Council District 6	n=73
Council District 7	n=67
Council District 8	n=72
Council District 9	n=76
Total	n=685

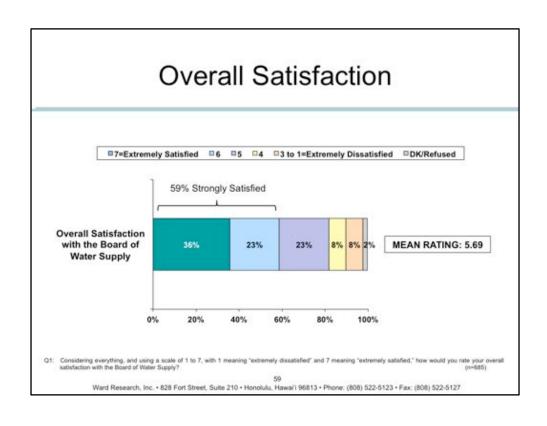




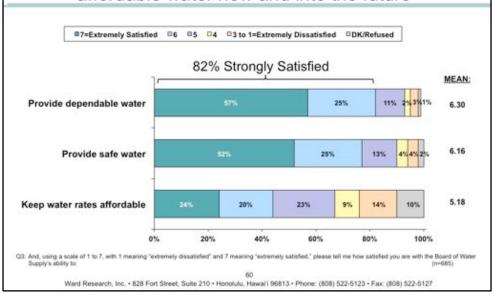


# Summary

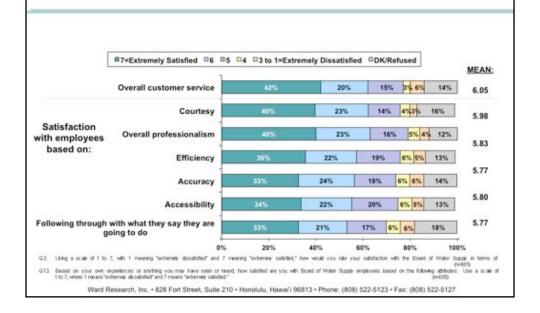
- · Majority of residents strongly satisfied with Board of Water Supply overall
- · Non-bill payers, renters, residents with lower household income more satisfied with Board of Water Supply than bill payers, homeowners, residents with higher household income
- · Satisfaction highest for attributes relating to service, lowest for attributes relating to rates

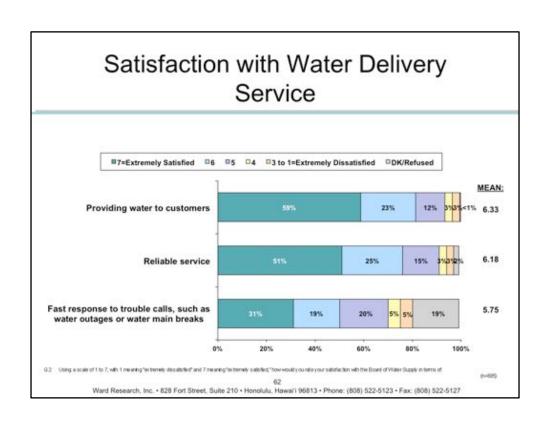


# Satisfaction with Board of Water Supply's Ability to Fulfill its Mission "to provide safe, dependable, and affordable water now and into the future"

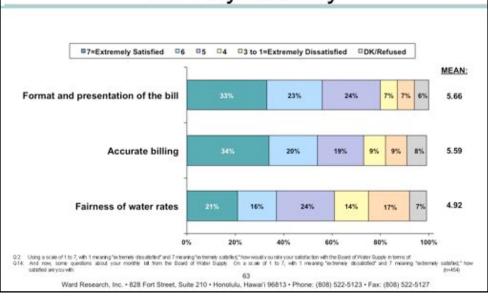


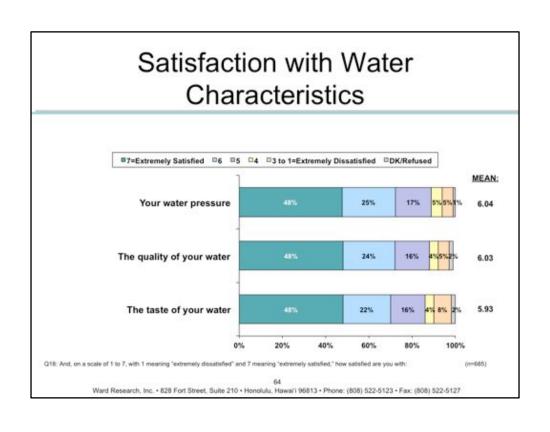




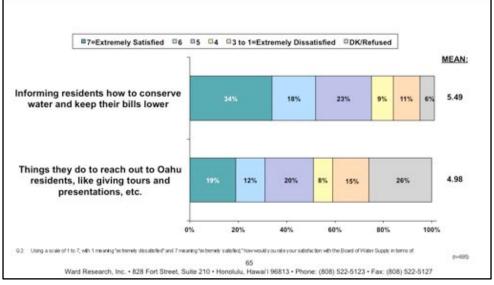


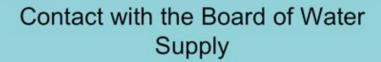
# Satisfaction with Rates and Billing: Bill Payers Only





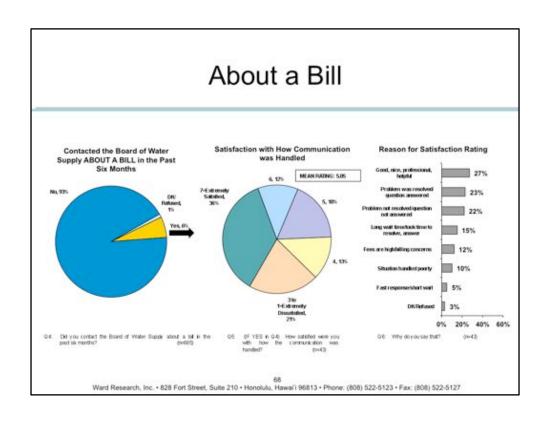


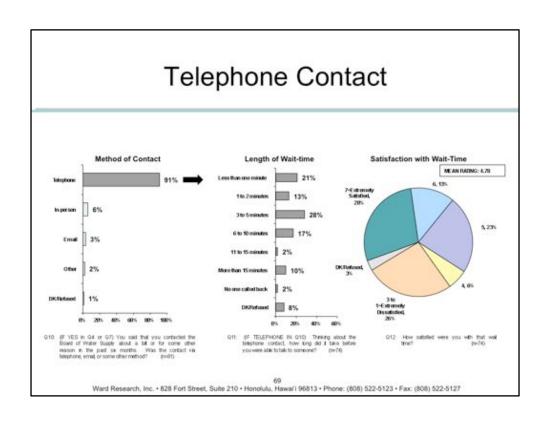




# Summary

- · Few contacted the Board of Water Supply; those who did generally satisfied with response
- · Telephone response issues from a few years ago seem to have been forgotten

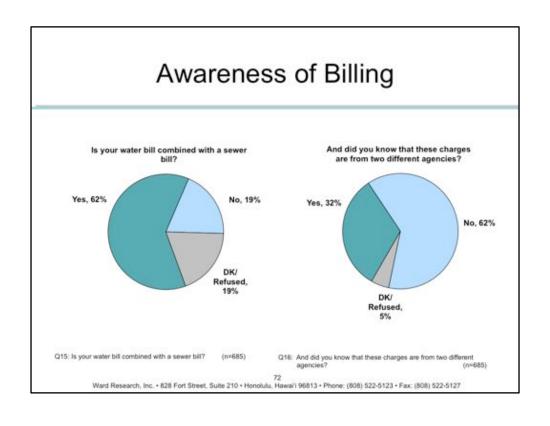


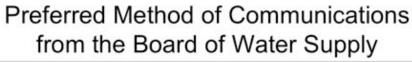


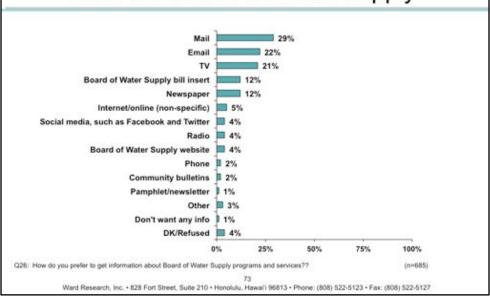
Awareness of Billing, Communications, and Trust in the Board of Water Supply

# Summary

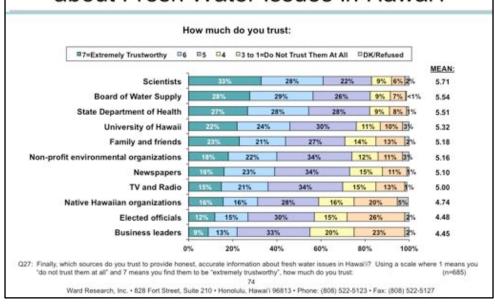
- · Lack of awareness that water and sewer charges set by different agencies
- Board of Water Supply is second-most trusted to provide information about water issues in Hawai'i (after scientists)







# Most Trusted Sources of Information about Fresh Water Issues in Hawai'i



### Part II: Focus Groups among O'ahu Residents

### Objective

To assist the Board of Water Supply in understanding customer satisfaction, with an eye toward developing plans for addressing any areas of needed improvement.

## Methodology

· 4 focus groups among n=32 O'ahu residents

Description	Total Number of Groups Conducted	Total Number of Participants
Bill Payers (pay a bill directly to Board of Water Supply)	2	16
Non-Bill Payers (pay a water bill as part of rent or maintenance)	2	16

- · Conducted March 17 to March 18, 2015; 90 minutes each
- · Discussion outline created by Ward Research and submitted to Board of Water Supply for review and input

### Summary

- · Perceptions of the Board of Water Supply very positive --- "quietly" doing their job every day to provide safe, "good tasting" water reliably flowing to homes
- Sewer charges (negatively) influence satisfaction with Board of Water Supply
- · Residents generally do not think about the Board of Water Supply unless there is a water main break
- · There is an opportunity to talk more with residents about the Board of Water Supply's plans to replace aging infrastructure and provide for future demand

### Perceptions and Awareness of the Board of Water Supply

#### "A quiet utility"

"It is a pretty quiet utility. I think it's a good thing. It means they're providing the service."

"I think it's good that you don't hear much about them. They are kind of just there, providing

"I really only hear about them when a pipe breaks down and they have to close the road. Traffic gets backed up."

#### Low awareness of Board of Water Supply's programs and activities, especially among non-bill payers

"I honestly don't know what else they do. I know that they have their Christmas lights at Christmas but that's basically it."

"I don't pay water. It's included in my rent, so as long as my water is working, I don't really pay attention. I can't really tell you anything else about what they do."

#### News about water main breaks/repairs recalled most often

"I really only hear about them when a pipe breaks down and they have to close the road. Traffic gets backed up."

"It's water cooler conversation when there are water main breaks or when it's on the news or when it comes up randomly from neighbors."

### Sources of Satisfaction with the **Board of Water Supply**

#### Reliability of water service

"When I turn on the faucet, water comes out. That's basically the only thing I considered for my satisfaction rating."

"As long as I can take a shower and wash dishes, I'm good. There's never been a time when I didn't have water, not even if there is a big storm."

### Quality of water (taste, cleanliness; unaided mentions of Water Quality

"Compared to a lot of other states where there are droughts, like California, we have an abundance of water and the water tastes a lot better here than other places."

"Our water is very good. I don't know why people even buy bottled water. I am comfortable drinking tap water.

#### Customer service

"Whenever there is a water main break, they're out there right away. They stay there until it's fixed. They also bring out their water wagons, so people can get their water. They have a pretty

"They get there right away and you can see them actually working instead of just standing around. It seems like they do the best they can to limit the inconvenience.

### Sources of Dissatisfaction with the **Board of Water Supply**

#### Rising cost of water bill → includes cost of sewer, but still "water bill"

"It's gotten expensive. It wasn't that expensive before. I remember having to pay only every other month and then they changed it to every month and it's higher than what I used to pay

"They raised our user fees so much. We used to get statements every two months. Now we're getting them every month and it's more than what we used to pay because of the increase in sewer fees, I believe."

#### Aging infrastructure

"They keep talking about doing something about the pipe systems and fixing it, and they've been talking about it since I moved here in 2000, but I haven't seen anything done. You just keep hearing about the pipes breaking. It's patchwork."

"There's a lot of aging pipes, that's for sure. I think they're behind in replacing the aging pipes, but maybe they can't afford to change it at all. I'm hoping they're getting enough funds to keep up

### **Testing Messages**

#### The Board of Water Supply is a steward of this precious resource > most preferred

"I think putting 'precious' in there is a really good idea, because water is not just another resource. It really is a precious resource. We need it.

"I think 'steward' is an important word. It's pretty much the soul of the sentence, if you will. And it's obvious for the Board of Water Supply because they are the stewards of the resource."

#### Water for Life/Ka Wai Ola

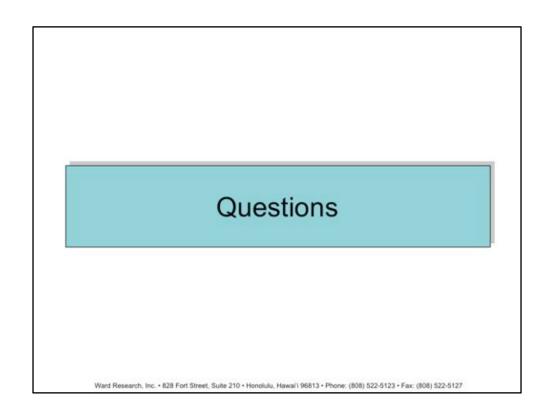
"I like it. You need water to live and it says right there, 'Water for Life.' And it looks like something we already see on the back one of their trucks."

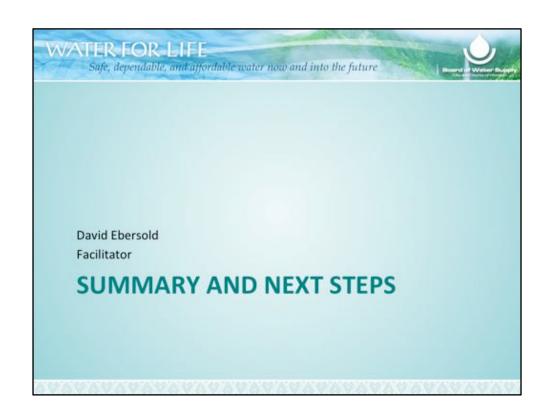
#### Safe, Dependable, Affordable

"I like the words, but it sounds like you're buying a car. It doesn't sound like words I would use for water. I don't have a connection with those words for water."

#### Sustain, Capture, Treat, Move, Store, Deliver → least preferred

"It makes me tired. It sounds like a job description. It makes me think, 'My gosh, that sounds like a lot of work'."





### WATER FOR LIFE

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



### **Next Workshop Dates**

- Wed Sept 16, 4:00 6:30 pm
- ♦ Wed Nov 18, 4:00 6:30 pm

