


Slide 1




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

Stakeholder Advisory Group

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

Tuesday, February 07, 2017

Slide 2



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

Board of Water Supply
City of Eugene, Oregon


Dave Ebersold
Facilitator

WELCOME

The slide features a teal background with a decorative border at the bottom. The top banner includes the 'WATER FOR LIFE' logo and the slogan 'Safe, dependable, and affordable water now and into the future'. The Board of Water Supply logo for the City of Eugene, Oregon, is also present. The name 'Dave Ebersold' and title 'Facilitator' are listed, followed by the word 'WELCOME' in large, bold, teal letters.

-

Slide 3




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

Board of Water Supply
City of Eugene, Oregon

Public Comments on Agenda Items


The slide features a teal gradient background with a decorative border at the bottom. The top banner includes the 'WATER FOR LIFE' logo and the slogan 'Safe, dependable, and affordable water now and into the future'. The Board of Water Supply logo for the City of Eugene, Oregon, is also present in the top right corner.




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

Meeting Objectives

- ◆ Receive updates regarding the BWS
- ◆ Seek your input on straw man financial policies
- ◆ Identify typical customer types for rate impact evaluation
- ◆ Review Kalanianaʻole main break and relevance to pipeline replacement strategy






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

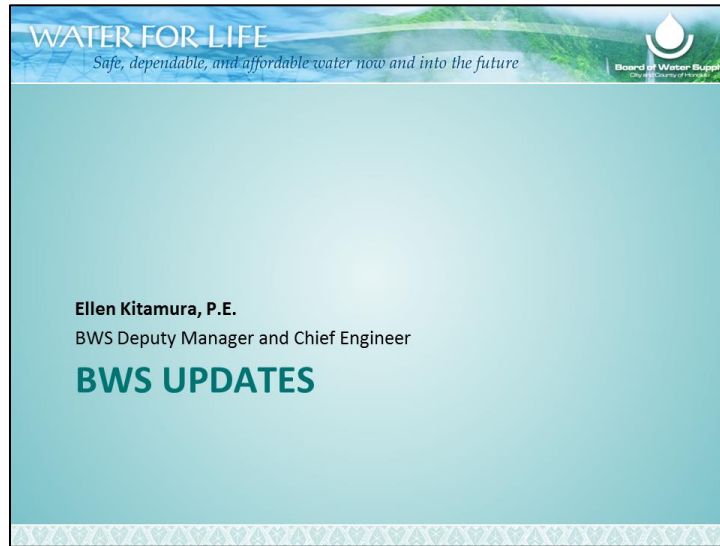
Board of Water Supply
The City of Phoenix

Action


Review and accept notes from
Stakeholder Advisory Group Meeting #11
held on Tuesday, January 10, 2017



Slide 6




Ellen introduced BWS Board President Bryan Andaya, who praised the Stakeholder Advisory Group and thanked them for their excellent work on the Water Master Plan and ongoing efforts.



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


Board of Water Supply
City and County of Honolulu

Mahalo! **Questions & Answers**



ENTRUSTED TO US TO
PRESERVE
FOR FUTURE GENERATIONS

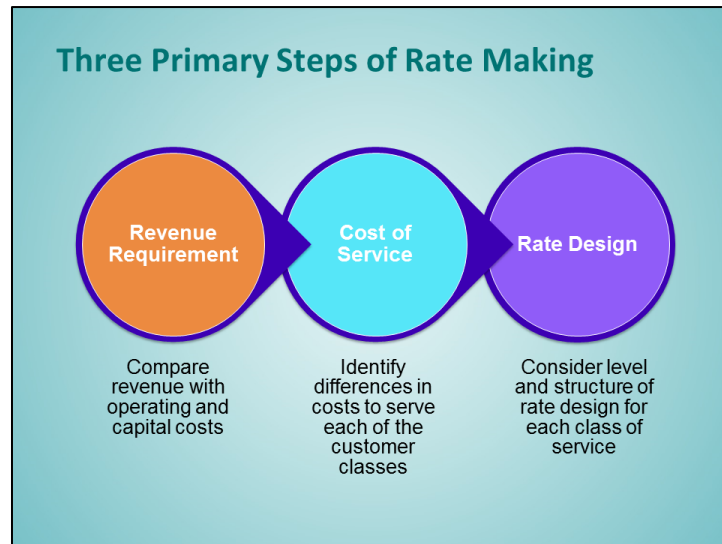
The slide features a teal background with a decorative border at the bottom. The top banner includes the 'WATER FOR LIFE' logo and tagline, and the Board of Water Supply logo. The main content area contains the text 'Mahalo!' and 'Questions & Answers' in bold teal font. Below this is a photograph of a young boy splashing water, with the text 'ENTRUSTED TO US TO PRESERVE FOR FUTURE GENERATIONS' overlaid on the right side of the image.



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

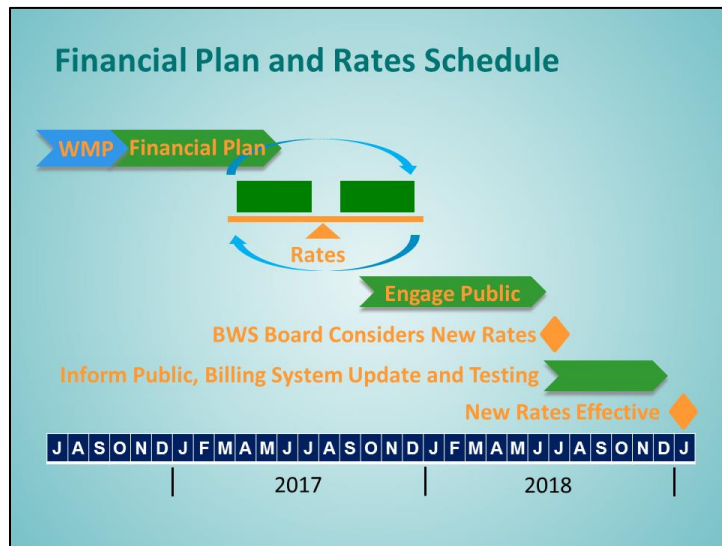
Dave Ebersold
Facilitator

STRAW MAN FINANCIAL POLICIES

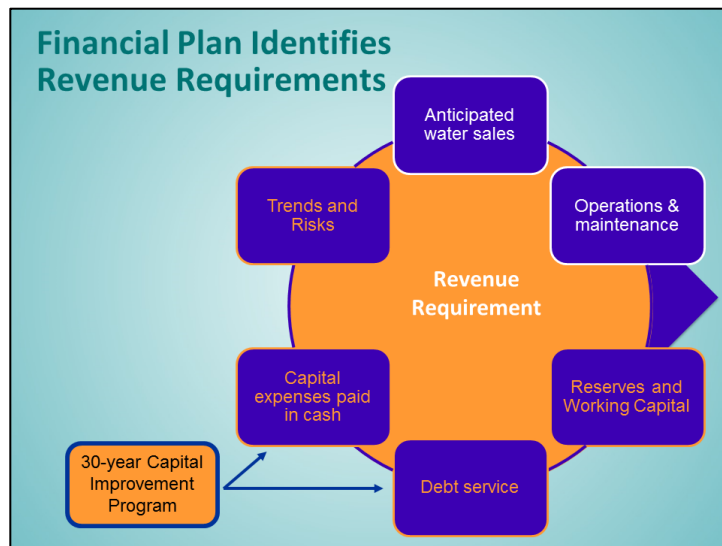


Using a “pie” analogy to describe the three primary steps of rate making:

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



The schedule for development of the Financial Plan and Rates Study includes a period for public engagement prior to the BWS Board’s consideration of any rate changes. Later on, there’s an additional period for informing the public as well as updating and testing the billing system prior to new rates becoming effective, around the start of 2019.



- The major elements of a financial plan were reviewed at the last workshop.
- The 30-year Capital Improvement Program directly relates to capital expenses paid in cash and debt service obligations.

4 Major Drivers of Revenue Requirements and Rates

Operations & Maintenance	Operations and maintenance costs
Capital Expenses Paid in Cash vs. Debt	How the Capital Improvement Program is financed
Reserves and Working Capital	Financial policies for credit ratings and stability
Trends and Risks	Preparedness to respond to changing trends and risks

Financial Policies are Essential to Sound Public Financial Management

- ◆ Promote stability and continuity
- ◆ Define shared understanding of financial practices and financial resources management to provide best value to community
- ◆ Define boundaries and manage risks to financial condition
- ◆ Promote long-term and strategic thinking
- ◆ Support good bond ratings to lower cost of borrowing

Adopting Financial Policies, GFOA Best Practice, September 2015

Your Reaction to Financial Policies


Direct how the BWS runs the business-side of its operations

Impact on water rates

Need to be determined and adopted for the BWS to prepare viable Long-Term Financial Plan

Today: Your reaction to

- Current Financial Policies
- “Straw Man” policies
- Your ideas

A photograph of a straw man figure constructed from hay bales, standing in a field. The figure has a round head, a rectangular torso, and two horizontal arms. The background shows a clear blue sky and a line of trees in the distance.

The purpose of the financial policies discussion by the Stakeholder Advisory Group is to provide a framework to proceed with financial modeling, as part of the process of determining the revenue requirement.

Summary of BWS's Current Financial Policies

- ◆ Unrestricted fund balance = 45 days operating expenses, including annual debt service
- ◆ 1.60x senior annual debt service
- ◆ 1.30x junior annual debt service
- ◆ 40% to 50% debt to net assets ratio
- ◆ No specific contingency reserve
- ◆ Maintain relationships with rating agencies

An unrestricted fund balance means this is money for which there is no legal restriction on its use.

The 1.60x senior annual debt is the debt service coverage ratio, or how much money you have on hand to pay off debt. Senior debt is like your first mortgage. If you go into bankruptcy or insolvency, it gets paid first. Junior debt is paid only after the senior debt is covered.

The contingency reserve is non-specific with regard to both amount and potential uses.

Proposed Updated Policy Framework

- 1. Fund balance / working capital**
 - ◆ Unrestricted fund balance of 45 days
 - ◆ No specific contingency reserve
- 2. Purposes and uses of debt**
 - ◆ Maintain relationships with rating agencies
- 3. Debt to net assets ratio**
 - ◆ 40% to 50% debt to net assets ratio
- 4. Debt service coverage ratio**
 - ◆ 1.60x senior annual debt service
 - ◆ 1.30x junior annual debt service

The current financial policies were grouped into four “strawman policies” to facilitate their review and consideration by the group.

Proposed Updated Policy Framework

- 1. Fund balance / working capital**
 - ◆ Unrestricted fund balance of 45 days
 - ◆ No specific contingency reserve
- 2. Purposes and uses of debt**
 - ◆ Maintain relationships with rating agencies
- 3. Debt to net assets ratio**
 - ◆ 40% to 50% debt to net assets ratio
- 4. Debt service coverage ratio**
 - ◆ 1.60x senior annual debt service
 - ◆ 1.30x junior annual debt service

1. Fund Balance / Working Capital (Amount of Cash I Have on Hand)

Problem/Need

- ◆ Ensure timely funding of operating and maintenance expenses, debt service and construction payments
- ◆ Allow for differences between when costs are incurred and when revenues are received
- ◆ Cover contingencies, including disasters and other unforeseen events
- ◆ Provide sufficient flexibility and strength to support credit rating objectives

What are the Minimum Recommended Fund Levels?

- ◆ Government Finance Officers Association (GFOA) recommends
 - Starting at 90 days cash
 - Never lower than 45 days cash
- ◆ Additional working capital could be set aside for
 - Unanticipated “big ticket” repair and replacement
 - Emergencies
 - Disaster recovery
 - Rate stabilization

*Determining the appropriate levels of working capital in enterprise funds,
GFOA Best Practice, February 2011*

What Comparable Municipal Water Utilities Do

Utility	Reserve Fund	Policy
DC Water	Working Capital	60 days cash
	Operating Reserve	\$125 million or 120 days cash
	R&R Reserve	\$35 million
San Antonio Water System	Working Capital	60 days cash
	Total Operating Reserve (including Working Capital)	300 days cash
Las Vegas Valley Water District	Working Capital	180 days cash
	Capital Reserve	1 year of average CIP
	Unforeseen Events	1% of depreciable assets
San Diego Water Department	Minimum	30 days cash
	Target including Emergency Fund	45 days cash
LADWP	Operating reserve	150 days cash

These utilities were chosen for comparison because of their similarities to BWS:

- Large
- Highly rated by bond rating agencies, all are AA or better
- Similar risks, e.g. earthquakes, hurricanes, drought, climate change
- High political visibility

Amount of Cash Influences Bond Ratings

Reserve Levels in Days Cash						
Moody's						
Rating Category	Aaa	Aa	A	Baa	Ba	B
Reserve Levels (All Utilities)	>250	150-250	35-150	15-35	7-15	<7
Fitch						
Rating Category	Stronger		Midrange		Weaker	
Reserve Levels (Water Utilities)	>365		~180		<90	
Standard & Poor's						
Rating Category	AAA	AA	A	BBB	BB	B
Reserve Levels (Water Utilities)	>150	90-150	60-90	30-60	15-30	<15


One of many things that bond rating agencies look at is the amount of cash the utility has available to make bond payments.

Reserves ranging between 150 days to more than 365 days (1 year) of operating expenses are common for high AA and AAA rated water utilities.

Days Cash on Hand Perspectives of Rating Agencies vs. BWS	
Rating Agencies	BWS
◆ Cash	◆ Available
◆ Unrestricted investments (not legally obligated to another purpose)	◆ Available
◆ Funds already committed to capital projects or construction contracts	◆ Requires cancellation of work already under contract
◆ 456 days at end of 2016	◆ 163 days at end of 2016

In consideration of operations and management needs, the BWS’s viewpoint is that it would be unadvisable to consider funds committed to capital or construction projects as “cash on hand”, since that would require cancelling work already under way or under contract.


1. Fund Balance / Working Capital (Amount of Cash I Have on Hand)



POLICY

Current

- Unrestricted fund balance = 45 days of operating expenses
- Includes annual debt service
- Allows setting aside net revenues that exceed budget for general contingencies (no limits)



Straw Man

- Target 180 days, never less than 60 days
- Exclude annual debt service (for consistency)
- Cover disasters and unforeseen circumstances
- Large enough to provide some rate stabilization
- >180 days may be re-programmed to fund CIP

2. Purposes and Uses of Debt (When and Why I'll Borrow)

Problem/Need

- ◆ Ability to finance growing need for system repair and replacement
- ◆ Align payment for projects with useful life of facility
- ◆ More effectively allocate facility costs with customers who benefit
- ◆ Mitigate spikes in capital investment needs, thus stabilizing rate impacts

2. Purposes and Uses of Debt (When and Why I' ll Borrow)



Current

- Select most economical financing source
- Term of debt limited to life of facility it is funding
- Cannot fund operations & maintenance
- No more than 20% variable rate debt
- Pay-as-you-go funding "...in a range in conjunction with debt to net assets ratio."



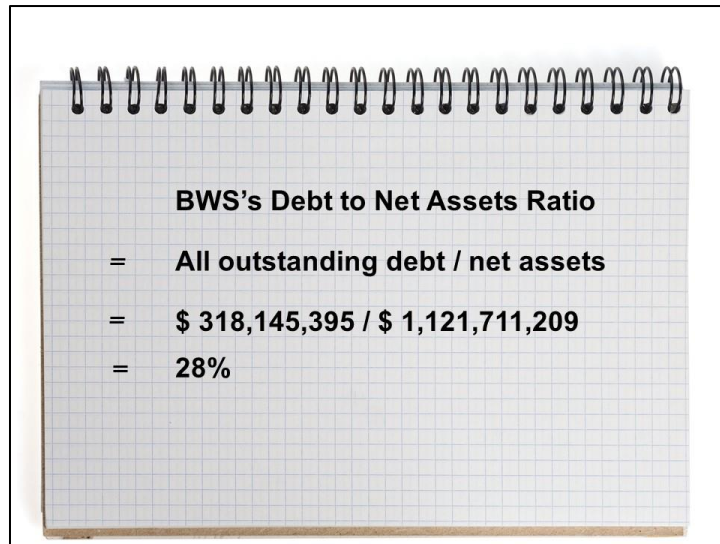
Straw Man

- Select most economical financing source
- Term of debt limited to life of facility it is funding
- Cannot fund operations & maintenance
- No more than 25% variable rate debt

3. Debt to Net Assets Ratio (How Much I Can Borrow)

Problem/Need

- ◆ Manage financial leverage, the amount of debt being used to build new assets
- ◆ Provide flexibility for additional borrowing to meet needs
- ◆ Maintain strong credit ratings



BWS's Debt to Net Assets Ratio


= **All outstanding debt / net assets**

= **\$ 318,145,395 / \$ 1,121,711,209**

= **28%**


A Debt to Net Asset Ratio of 40% to 50% is in line with an AA rating. The BWS's Debt to Net Asset Ratio of 28% is sound.

3. Debt to Net Assets Ratio (How Much I Can Borrow)



Current

- 40% to 50% debt to net assets ratio



Straw Man

- No more than 50% debt to net assets ratio

4. Debt Service Coverage (DSC) Ratio (Ability to Make Loan Payments)

Problem/Need

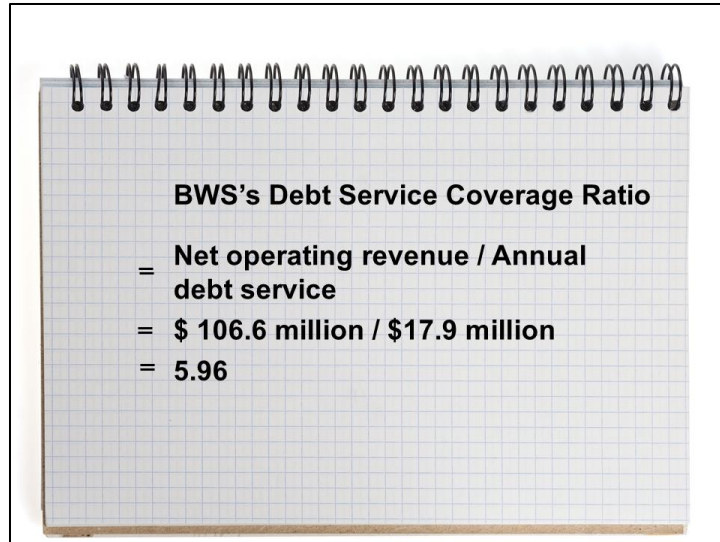
- ◆ Manage ability to pay debts after also paying for all operating and maintenance expenses
- ◆ Provide flexibility for additional borrowing to meet needs
- ◆ Maintain strong credit ratings

DSC Ratio Targets for Comparable Municipal Water Utilities

Utility	Reserve Fund Policy
DC Water	Senior = 1.4x Total = 1.2x
San Antonio Water System	1.7x
Las Vegas Valley Water District	1.5x
San Diego Water Department	1.5x
LADWP	1.8x

Higher DSC Ratios = Higher Rating


Debt Service Coverage Ratio						
Moody's						
Rating Category	Aaa	Aa	A	Baa	Ba	B
DSC Ratio (All Utilities)	>2.0x	1.71- 2.00x	1.26- 1.70x	1.01- 1.25x	0.71- 1.00x	<=0.70
Fitch						
Rating Category	Stronger		Midrange		Weaker	
DSC Ratio (Water Utilities)	>=2.0x		~1.5x		<=1.25x	
Standard & Poor's						
Rating Category	AAA	AA	A	BBB	BB	B
DSC Ratio (Water Utilities)	>=1.60x	1.40- 1.60x	1.20- 1.40x	1.10- 1.20x	1.00- 1.10x	<1.00



BWS's Debt Service Coverage Ratio
= **Net operating revenue / Annual debt service**
= **\$ 106.6 million / \$17.9 million**
= **5.96**

The BWS's current Debt Service Coverage Ratio is 5.96, which positions it strongly with the bonding agencies.


4. Debt Service Coverage Ratio (Ability to Make Loan Payments)



POLICY

Current

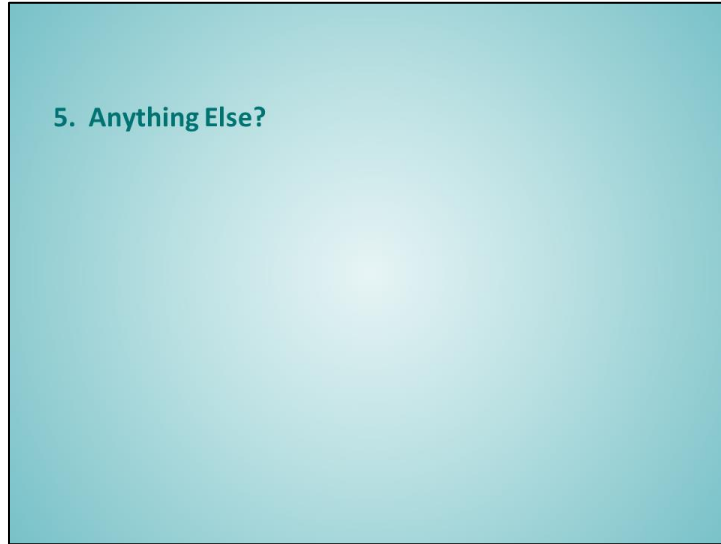
- 1.6x senior annual debt service
- 1.3x junior annual debt service

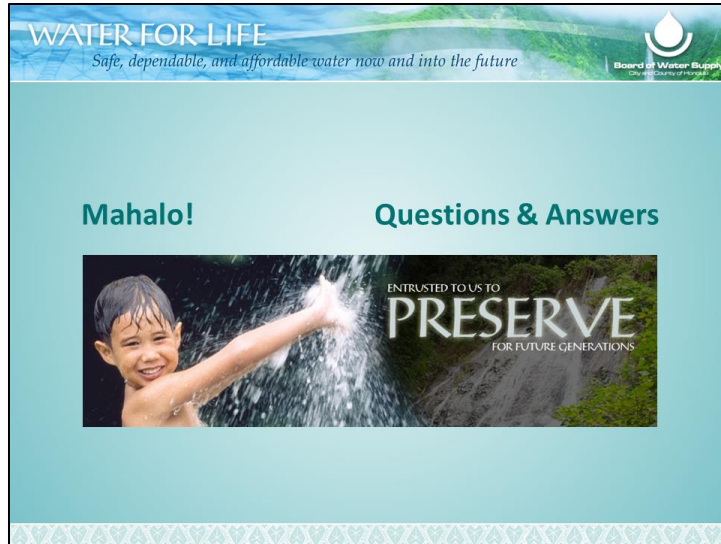


Straw Man

- 1.7x senior annual debt service
- 1.3x junior annual debt service
- 1.6x total annual debt service (including SRF)

SRF refers to State Revolving Fund loans.






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Board of Water Supply
City and County of Honolulu

Mahalo! **Questions & Answers**



ENTRUSTED TO US TO
PRESERVE
FOR FUTURE GENERATIONS

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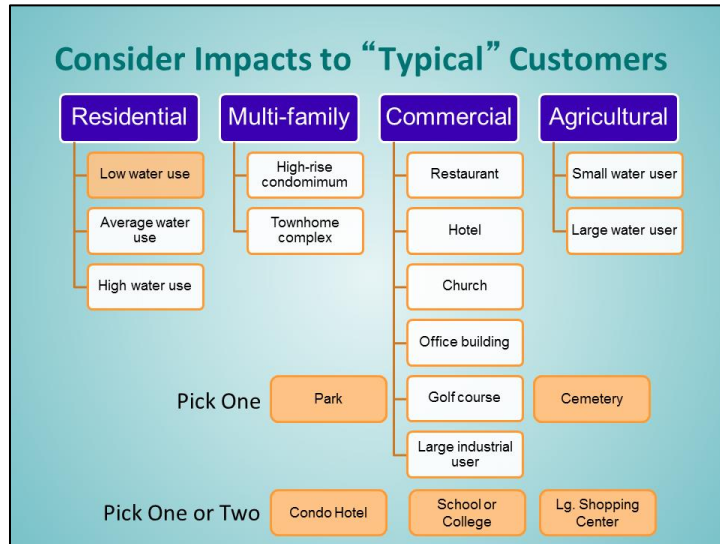
Dave Ebersold
Facilitator

**TYPICAL CUSTOMER IDENTIFICATION
FOR RATE IMPACT EVALUATION**

Board of Water Supply
City of Grand Rapids



The Cost of Service for specific classes of customers differs considerably because of the different way they use water and the infrastructure necessary to meet those demands.




In examining rate options, it can be helpful to identify how specific rate configurations could impact not only the different classes of customer but also specific types of customers within those classes. The Stakeholder Advisory Group was asked to identify specific types of customers, which will assist the group in evaluating the impact of potential rate changes on a broader range of customers.


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Mahalo! **Questions & Answers**



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Board of Water Supply
City and County of Honolulu

Mike Fuke
BWS Field Operations

Kathleen Pahinui
BWS Information Officer

Carl Lundin
Water Master Plan Team

**KALANIANA'OLE HIGHWAY
WATER MAIN BREAK**



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- The pipe failed catastrophically,
- Work required excavating 20-ft deep as the break was at a point where the pipe turned downward to get under a stream.

The break was in a really bad location, near the off-ramp from H1 to Kal Hwy and on-ramp from Kilauea to Kal Hwy.

Kalaniana'ole Break – Information Request

- ◆ How was the break found?
- ◆ How long did it take to mobilize?
- ◆ What equipment was used?
- ◆ What were traffic impacts?
- ◆ How was the public notified?
- ◆ What was the time table?
- ◆ How much did this break cost?

A member of the Stakeholder Advisory Group requested that this information be covered in the presentation. Cost information is not available yet, as not all invoices for vendors and contractors have been received.

Kalaniana'ole Break – How was it found?

- ◆ Pipe broke at approx. 4:45 am Saturday morning.
- ◆ HPD notified BWS and closed H1 at 4:50 am.

Kalaniana'ole Break – Timeline

- ◆ Saturday
 - 4:45 am – Break occurred
 - 5:00 am – BWS troubleshooter dispatched
 - ~ 6:00 am – One-call utility locating notified
 - 8:00 am – Called Grace Pacific for repaving
 - 9:00 am – Water shut off
 - 9:30 am – BWS repair crew arrived on site
 - 10:00 am – Excavation began
 - 10:45 am – Emergency paving began
 - ~ 12:00 pm – Water wagons arrived
 - 1:00 pm – Water service restored to all but 11 customers
 - 1:00 pm – Abandoned pipe encountered above broken pipe
 - 10:00 pm – Repaving of single lane completed

The break occurred early in the morning of Saturday, January 21.

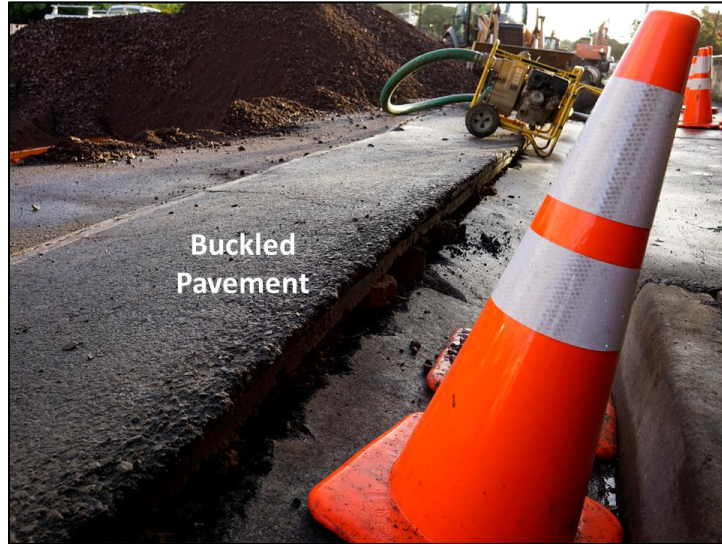
Slide 45



The Honolulu Police Department (HPD) discovered the leak.

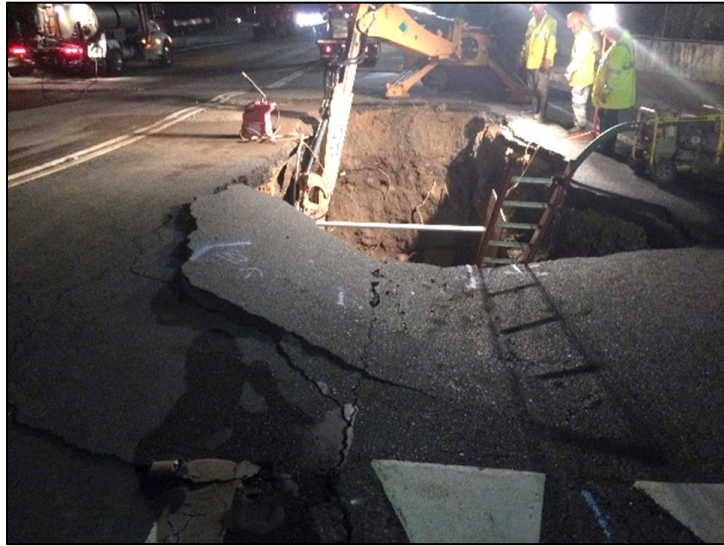
They closed H-1 and notified BWS immediately. This photo shows the hole in the pavement above the break, after the water was cleared from the area.

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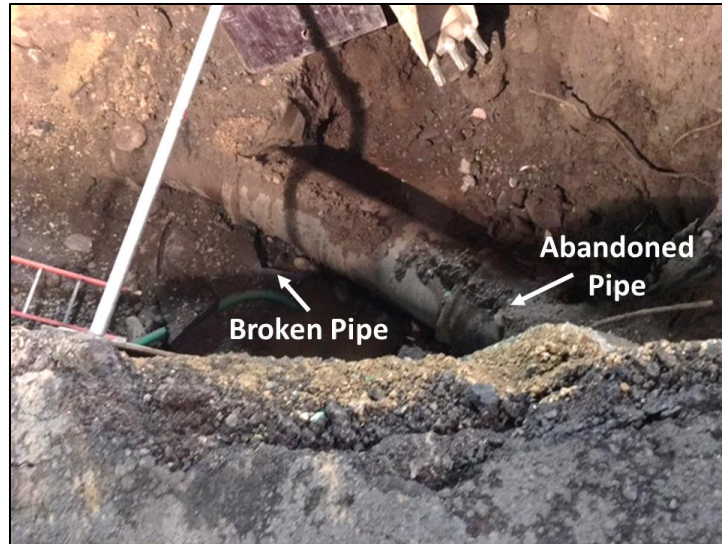


The force of the water had buckled the pavement, between 6 inches and more than a foot.

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BWS crews worked through the night.



An abandoned pipe was found crossing the broken pipe at a higher elevation. This limited access to the broken pipe.

Kalaniana'ole Break – Timeline

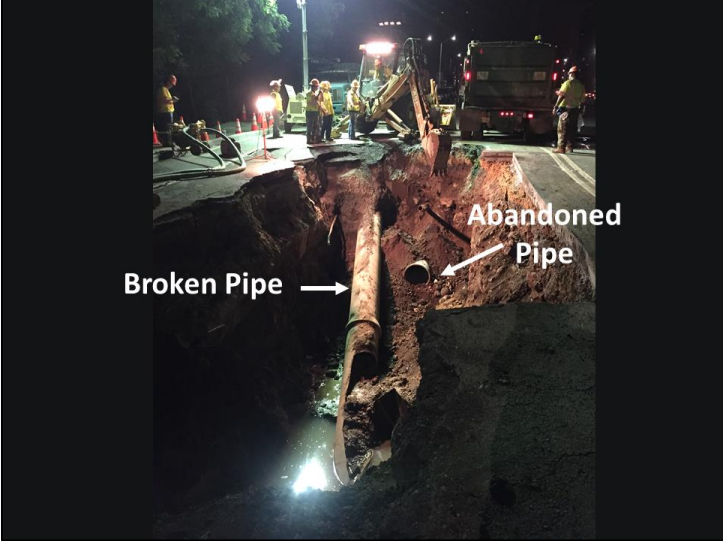
- ◆ Sunday
 - 5:00 am – Abandoned pipe cut
 - 10:00 am – Abandoned pipe removed by crane; trench judged to be too deep for standard shoring
 - 5:30 pm – Paving of second lane began
 - 6:00 pm – Hawaiian Dredging arrived to assess site for trench box delivery
 - 8:30 pm – Paving of second lane completed
 - 10:00 pm – Trench box delivered; excavation continued through the night

Given the depth of excavation that would be necessary, a trench box was ordered. This would keep the soil from caving in. Work on site continued through the night.

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As is shown here, absent the trench box installation, the sides of the hole would be subject to caving in.



Kalaniana'ole Break – Timeline

- ◆ Monday
 - 9:30 am – Larger excavator arrived to install trench box
 - 12:00 pm – Trench box installed; excavation around pipe continued by hand
 - 10:30 pm – Broken pipe removed

The trench box was so large it was necessary to bring in a larger-than-usual excavator. This further delayed excavation.

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Once the trench box was in place, hand excavation got underway as the only feasible digging option.





Kalaniana'ole Break – Timeline

- ◆ Tuesday
 - 1:30 am – Digging completed
 - 4:45 am – New pipe installed
 - 6:00 am – Began flushing pipe
 - 11:00 am – Flushing completed; water quality samples taken
 - 2:00 pm – Backfill completed
 - 6:30 pm – All BWS vehicles removed
 - 9:00 pm – Final repaving began

After the pipe was fixed, there were multiple additional steps to assure safe water service.

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Kalaniana'ole Break – Timeline

- ◆ Wednesday
 - 3:15 am – Paving completed
 - 4:00 am – H1 reopened
 - 11:00 am – Water quality tests completed; main placed back in service; water service restored to 11 customers

On Wednesday, January 25, water service and road paving were back to normal.



Kalaniana'ole Break – Traffic Impacts		
Saturday	5:00 am	H1 closed
	11:00 pm	One lane on H1 opened
Monday	2:00 pm	Second lane on H1 opened
Tuesday	4:00 am	Second lane closed
Tuesday	1:00 pm	Second lane opened
	9:00 pm	Second lane closed
Wednesday	4:00 am	All lanes of H1 opened

Two lanes kept open during PM rush hours

Decisions regarding lane closures were led by HPD. Rush hour traffic was considered as part of scheduling work on the break.

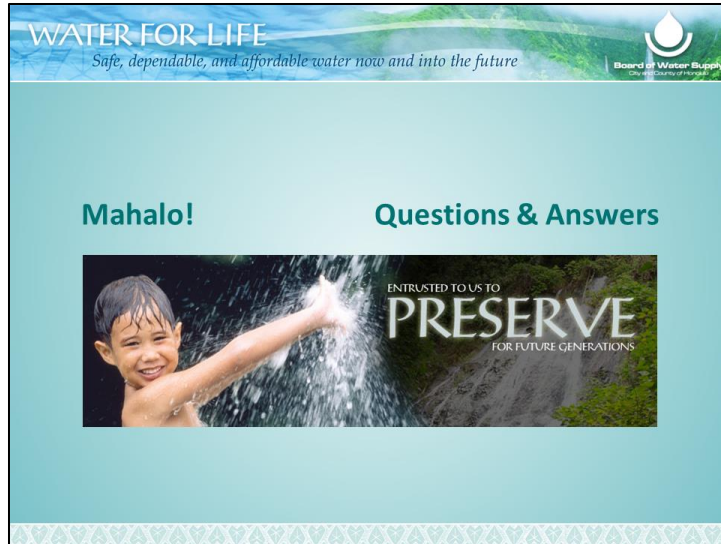
Kalaniana'ole Break – Public Notification (2)

All News Releases were posted to the BWS Web site and also sent to Nixel, which then engaged Twitter and Facebook

◆ Saturday	6:18 am	News release
	9:06 am	News release
	11:37 am	News release
	6:57 pm	News release
◆ Sunday	7:31 am	News release
	9:27 am	“Avoid Kal. Hwy” -- Nixel notice
	11:24 am	“Avoid Kal. Hwy” -- Nixel notice
	1:59 pm	“Avoid Kal. Hwy” -- Nixel notice
	4:52 pm	“Avoid Kal. Hwy” -- Nixel notice
	9:09 pm	News release

Multiple outlets were used to spread information about the break. Spreading the word was complicated by the limitations of live tv and radio broadcast over the weekend.


Kalaniana'ole Break – Public Notification		
◆ Monday	5:00 am	Interviews with media
	6:30 am	Press conference
	3:49 pm	News release
	5:38 pm	News release
◆ Tuesday	12:24 pm	News release
◆ Wednesday	6:19 am	“All lanes open”—Nixle notice
	6:52 pm	News release



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Board of Water Supply
City of Portland, Oregon

Dave Ebersold
Facilitator

SUMMARY AND NEXT STEPS

The slide features a teal background with a decorative border at the bottom consisting of a repeating pattern of small white hearts. The top banner includes a landscape image of water and green hills.

Other Items

- ◆ Next Meeting
Tuesday, March 14, 2017
4:00 – 6:30 pm
Blaisdell Center

WATER FOR LIFE
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City and County of Honolulu

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Mahalo!

The advertisement features a teal background. At the top, there is a banner with the text 'WATER FOR LIFE' and a tagline. Below this is a central image of a young boy splashing water, with the word 'PRESERVE' in large letters. The word 'Mahalo!' is written in a bold, teal font at the bottom left of the image area. The bottom of the advertisement has a decorative border with a repeating pattern of small hearts.