

WATER FOR LIFE

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



Board of Water Supply
The City & County of Honolulu

Stakeholder Advisory Group Meeting #4

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

Wednesday, November 18, 2015

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Board of Water Supply
The City of Denver

Dave Ebersold
Facilitator

WELCOME

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PUBLIC COMMENTS ON AGENDA



Meeting #4 Objectives

- ◆ Provide input and ideas for water conservation programs and initiatives.
- ◆ Learn more about Hawaii Fresh Water Initiative and provide input on the role of the BWS.
- ◆ Refine Water Master Plan objectives.
- ◆ Get an update on other BWS news.

Action

- ◆ Review and accept notes from Stakeholder Advisory Group Meeting #3 on Wednesday, September 16, 2015

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WATER CONSERVATION

(CONTINUED FROM MEETING 3)

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



People on O'ahu take water conservation to heart!



Seven Easy Ways to Save Water



1. Water lawns just 2-3 times a week.

It promotes deeper root growth, making your lawn healthier and more water-efficient.



2. Don't water lawns between 9 am and 5 pm.



3. Check for leaks in plumbing and toilets.

Checking toilet leaks is easy with a free leak detection tablet, available for pickup at the BWS.



4. Install water-efficient plumbing fixtures.



5. Take shorter showers.

Every minute you trim from your shower saves three to six gallons of water.



6. Put a nozzle on your garden hose.

A garden hose left running can waste over 100 gallons in just minutes.



7. Don't let the faucet run and run.


Turn off the tap while brushing teeth or shaving, and in the kitchen washing dishes.





Board of Water Supply


The official water utility of Hawaii

 boardwatersupply.com

 (808) 748-5041

 contact@hbws.org

 [facebook.com/HBWS Hawaii](https://www.facebook.com/HBWS Hawaii)

 twitter.com/HBWS Hawaii

The BWS Has Many Resources Available to You!

Water resources in Hawai'i are limited, so let's not waste a drop.

The BWS offers many resources to help you learn more about water conservation and what you can do to help.

For more information, call (808) 748-5041 or contact@hbws.org.



Education and School Programs

Educational materials, classroom tours of the BWS facilities, annual water conservation poster and poetry contests, and the Hawai'i State Science Fair



Public Tours (Free!)

Tours of the Hālawā Xeriscape Garden, Nu'uano Watershed, Honouliuli Water Recycling Facility or Waie'e Tunnel



Special Events (Free!) and Workshops*

Hālawā Xeriscape Garden Open House and Unthirsty Plant Sale, rain barrel workshops through a partnership with Friends of Hālawā Xeriscape Garden, Detect-a-Leak Week, Water Conservation Week, community events, and exhibitions



Guest Speakers (Free!)

Speakers to talk with interested clubs and organizations about O'ahu's water and water conservation



Much More!

Water conservation publications, water conservation calendar, summer media campaign, information line, landscape water conservation classes, and more

*Some workshops have a small fee.

1. Insights for Water Conservation

What's coming?

What's needed?

What impact could it have over the next 30 years?

Changes in technologies and practices lead to water conservation successes in Hawaii and nationwide.

Each of you represents an area of interest with respect to water – restaurants, agriculture, travel/tourism, industry, development, etc.

Please advise us on what you see on the horizon with respect to water conservation and your area of work or interest or location on O'ahu.

What's coming?

What's needed?

What impact might it have on planning for water over the next 30 years?

2. Incentives for Water Conservation

What incentives would you like to see?

Why are those incentives important?

Incentives can motivate change.

Utilities often create incentive programs to get customers to change to more efficient, more conserving use of resources.

Please advise us on incentives you would like to see, and tell us why they are important.

3. Research or Pilot Programs for Water Conservation

What research could the BWS do?

Why would it be important?

Should the BWS do it on its own or should it include partners?

Recognizing your backgrounds are very diverse areas of expertise, do you have any advice regarding research or pilot programs that would be helpful to advance water conservation and save more water?

This would include water recycling.

Should these research or pilot programs be things that the BWS could do on its own or should it include partners?

4. Business Decisions to Invest in Water Conservation

How are those decisions made?

How does it vary by business size?

How does it vary by industry?

What goes into making business decisions about water conservation?

Examples of water conservation projects:

- water features
- pools
- fish ponds
- kitchen equipment
- chilled water air conditioners
- irrigation
- rain catchments/cisterns
- gray water reuse

Do large businesses and small businesses differ in their approaches?

What is unique to:

- | | |
|-------------------|---------------------|
| - agriculture | - restaurants |
| - land management | - golf |
| - large HOAs | - food and beverage |
| - land developers | - real estate |
| - Construction | - military |
| - travel | - Utilities |

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Mahalo!

Questions & Answers



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Josh Stanbro

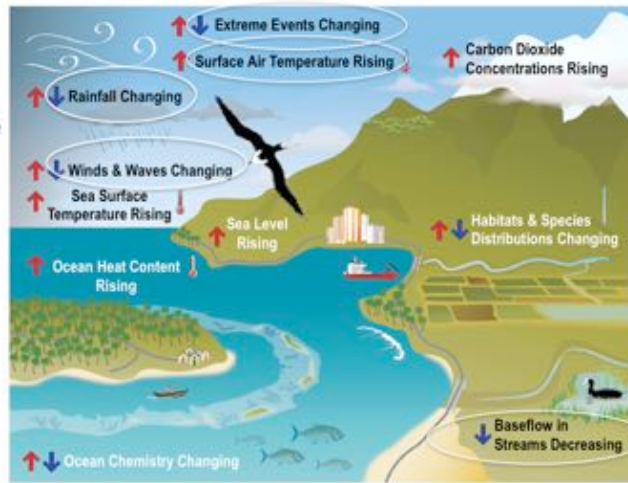
Hawai'i Community Foundation

OVERVIEW OF THE HAWAI'I FRESH WATER INITIATIVE

Water Security

Indicators of Climate Change in Hawai'i

- Extreme Events
- Winds
- Rainfall
- Air Temperature



Fresh Water Initiative and Council

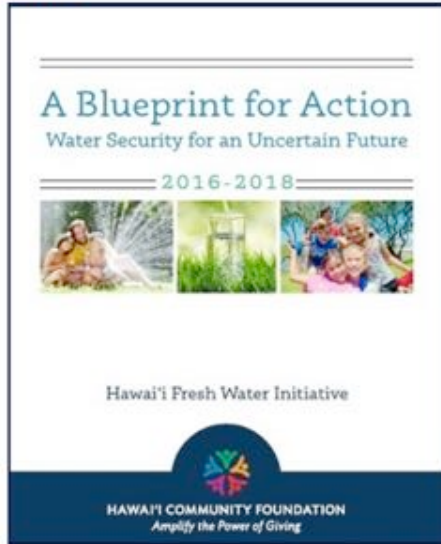


William Aila	Ka'eo Duarte	Ernest Lau
Steve Anthony	Sumner Erdman	Jerry Ornellas
Michael Buck	Mark Fox	Monty Richards
Suzanne Case	Tom Giambelluca	Kapua Sproat
Reggie Castanares	Tim Johns (Chair)	David Taylor
Meredith Ching	Howard Killian	Dennis Teranishi
	Patrick Kobayashi	Barry Usagawa

Council Recommendations

“No Net Loss” Goal Statewide

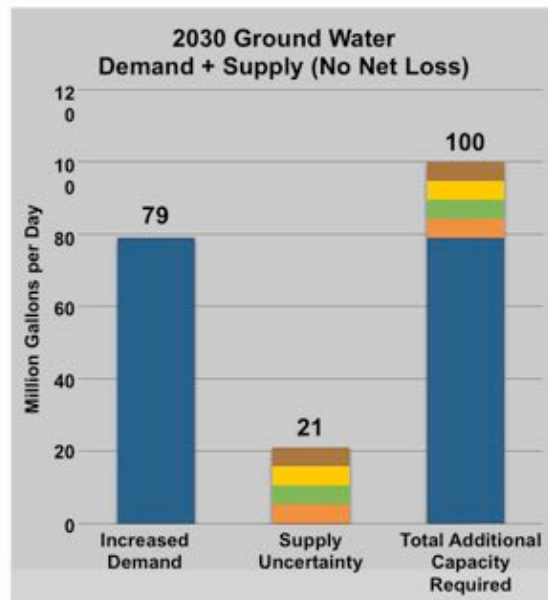
To achieve “no net loss” for our current aquifer water stores by creating 100 million gallons per day in additional, reliable, fresh water capacity by 2030.



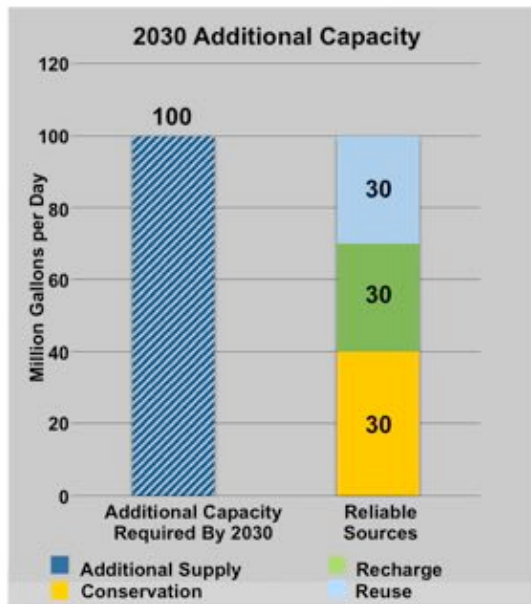
**100 MGD Goal
Statewide**

Increased Demand

Supply Uncertainty



100 MGD
Goal Statewide
How To Get There
Reuse (30 MGD)
Recharge (30 MGD)
Conservation
(40 MGD)



2030 Blueprint Targets Statewide



➤ **Conservation:** Improve efficiency of population's use by 8%.



➤ **Recharge:** Improve storm water capture and double the size of actively protected watershed areas to 210,000 acres.



➤ **Reuse:** Double the amount of wastewater currently being reused in the Islands to 50 million gallons.



Conservation (40 MGD Statewide)

Reduce Potable Water
Use On Landscape Areas



Encourage Leak
Detection Systems

Improve Agricultural
Water Efficiency





Recharge (30 MGD Statewide)

Authorize and Implement
Storm Water Utilities



Enhance and Increase
Large Recharge and
Reservoir Areas

Strengthen and Expand
Watershed Partnerships





Reuse (30 MGD Statewide)

Revise Water Reuse Guidelines



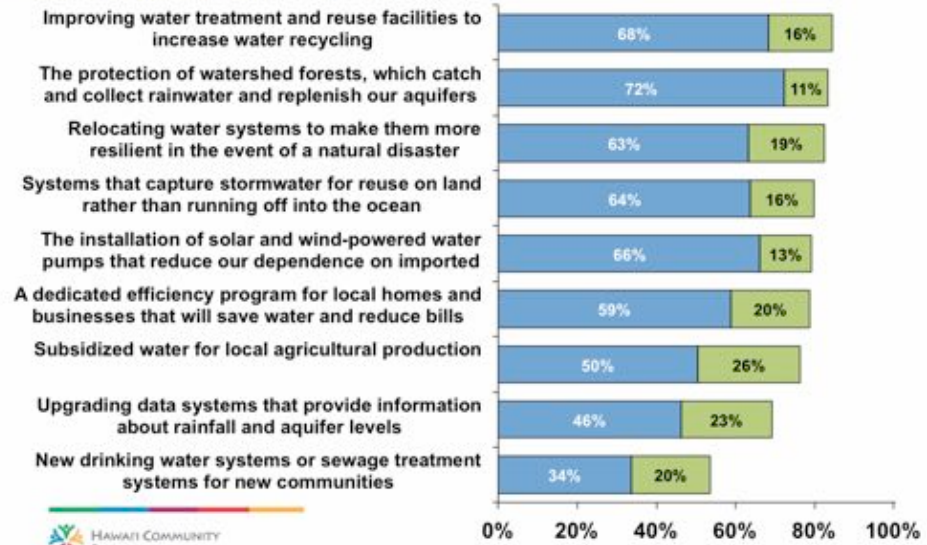
Increase Greywater Use

Increase Water Reuse for Large Landscape Areas



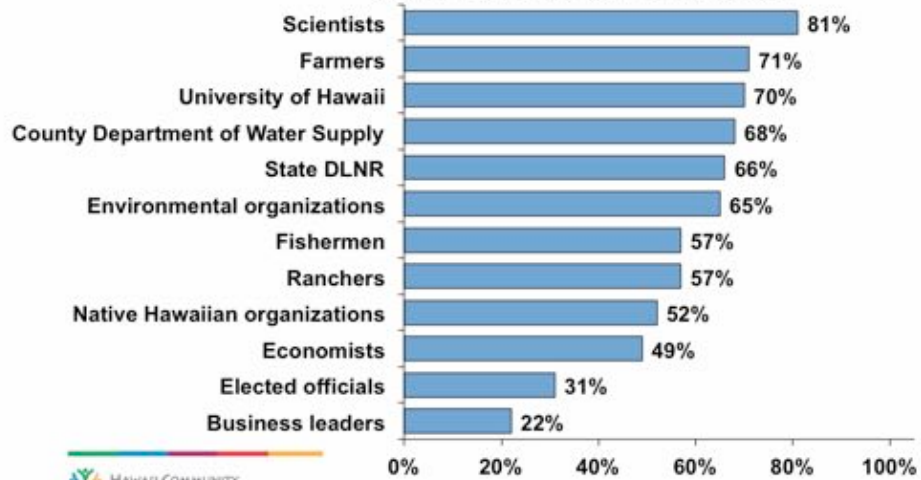
Statewide Polling

■ Willing to pay \$5/month ■ Willing to pay \$1/month (not \$5)



Statewide Polling

Who can be trusted to communicate honest, accurate information about fresh water issues in Hawai'i?



Water Security

- Invest in watershed protection
- Expand reuse opportunities
- Perform water audits and reduce leakage
- Support storm water utility formation
- Decentralize infrastructure for efficiency and resilience



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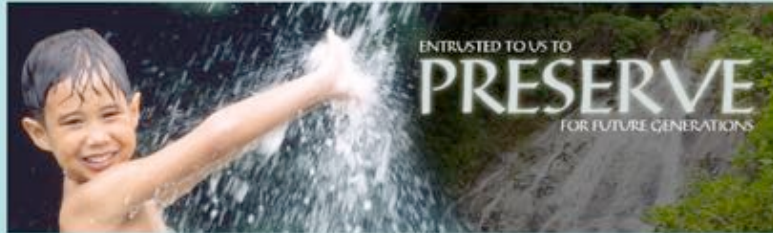
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Mahalo!

Questions & Answers



What Should the BWS's Role Be in Implementing These Strategies?



Conserve



Recharge



Reuse

What are your thoughts regarding BWS's role to implement the strategies in the Blueprint?

You can talk about implementing one of the 3 strategies or any specific action aligned with a strategy.

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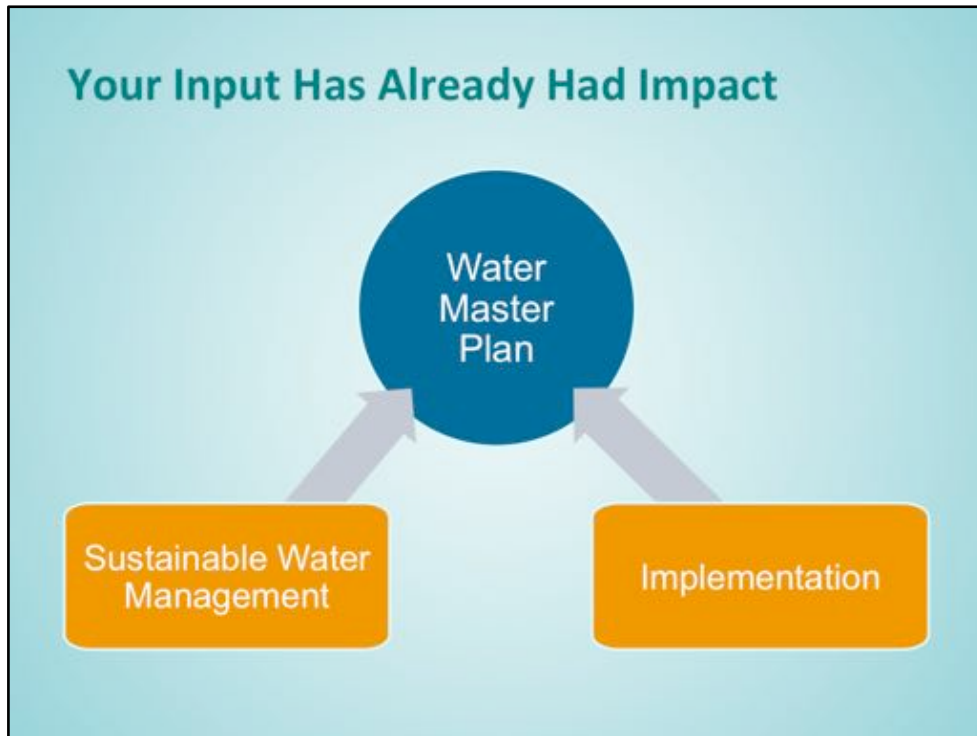
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The City of Phoenix

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Facilitator

WATER MASTER PLAN OBJECTIVES



The BWS is adding these two new sections to the Water Master Plan.

In line with these additions, we are working with you to frame objectives which will guide tough choices among desired initiatives for sustainable water management and program implementation over the coming years.



The Water Master Plan occupies a unique place in that it ties together the Watershed Management Plans and Water Conservation Plan.

It is an infrastructure-focused report. As part of the development of the Capital Improvement Plan, it sets priorities for how funds will be spent based on a risk analysis where probability of failure is combined with negative impact of risk.



The work of this Stakeholder Advisory Group has made clear that the plan needs to go beyond infrastructure AND extend beyond risk consideration in setting priorities.

At the last meeting, we talked about the pivotal role your group will play in striking the critical balance between water service adequacy and dependability, and also costs and affordability.

**We've Covered Some Critical Issues
Regarding Water on O'ahu**

Infrastructure

Supply

Demand

Conservation

Draft Water Master Plan Objectives (Where Do I Want to Be?)

Water Quality, Health and Safety

System Reliability and Adequacy

Cost and Affordability

Conservation and Efficiency

Water Resource Sustainability

We began this process in Meeting 2, focusing on framing objectives that articulate where we want to be in terms of 5 critical areas you had prioritized in our first meeting and the preceding interviews and discussions.

With the subsequent discussions and information sharing, we feel it's time to bring back these objectives for further discussion and definition, and possibly (hopefully) achieve consensus.

Stakeholders discussed the following draft objectives and how to modify them to achieve consensus among the group and to include in the Water Master Plan. That discussion will be documented in the meeting notes for Meeting 4.

Water Quality, Health and Safety

- ◆ Potable 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.

System Reliability and Adequacy

- ◆ Water service is uninterrupted and at proper pressures, when and where it's needed.
- ◆ Water system is designed, constructed and maintained 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 current and future ratepayers.
- ◆ Water system is designed and operated to deliver water at the most responsible (or reasonable) cost to the customer.
- ◆ The price of water reflects the whole cost of providing water to (present and) future generations (e.g., protecting watersheds, investing in infrastructure maintenance, and land management).

Conservation and Efficiency

Achieve water and energy efficiency via infrastructure design and construction, 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:

- ◆ Coordinated management and improvement of the watershed and groundwater supply.
- ◆ Conducting long-range planning (including risks due to climate change).
- ◆ Collaborating with Dept. of Land and Natural Resources and other relevant land owners.
- ◆ Considering alternative source of water (e.g., stormwater, recycled water, brackish water, and seawater).

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SUMMARY AND NEXT STEPS



Next Meeting Date

- ◆ Tues. January 12, 2016
4:30 p.m. – 6:00 p.m.
Hawaiian Electric Company
Training Room
Honolulu Club

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**Best wishes for a joyful holiday season,
and healthy, fulfilling year to come.**



Mahalo!