



**PRIMARY URBAN CENTER WATERSHED MANAGEMENT PLAN (PUC WMP)
Notes from Community Meeting #1B**

Meeting Location: Farrington High School Cafeteria

Date: May 24, 2017

Time: 7:00 p.m.

Meeting Purpose

The purpose of the meeting was to share preliminary research on water resource issues and to seek public input on important water-related issues for the Primary Urban Center. Seven individuals from the community attended the meeting.

The Honolulu Board of Water Supply (BWS) and Townscape, Inc. presented a slideshow that provided an overview of the following:

- Background and Overview of the O'ahu Water Management Plan
- About the Honolulu Primary Urban Center
- Watershed Overview
- Watershed Issues
- Next Steps

The slideshow is available on the BWS website at: <http://www.boardofwatersupply.com/water-resources/watershed-management-plan/primary-urban-center-plan>

A project fact sheet and a questionnaire were provided at the meeting. Both documents are available on the BWS website at: <http://www.boardofwatersupply.com/water-resources/watershed-management-plan/primary-urban-center-plan>

After the slideshow, meeting participants were asked to share their issues and concerns about the watersheds and water resources in the Primary Urban Center. A summary of the various questions, comments, and discussions is provided below. BWS and consultant comments and responses are in *Italics*.

- Q What fencing projects are planned in the watersheds? How is access provided to trails?
- A *The BWS is not directly and independently doing fencing, so we would defer any specific questions to the Ko'olau Mountains Watershed Partnership (KMWP), which is doing fencing projects in the PUC. The planning team is getting information on fencing from the KMWP and will include that in the Plan. There is a new fence planned in the Waiawa watershed.*
- A *Fences typically have gates to allow for access to trails. It is important for conservation fencing projects to coordinate with hunters and other users to accommodate access to watershed areas.*
- Q Kapi'olani Community College is incorporating water issues into its curriculum. How can students get involved in watershed projects?
- A *There are many non-profit organizations doing watershed restoration and culturally based education projects. This plan will describe those projects and highlight opportunities for participation and collaboration.*
- A *We can provide information on the projects and organizations that we learn about ahead of the release of the Plan, if requested.*
- Q Many high rise condominiums have been coming up in Town. Will there be more in the future and how will the Plan account for their water needs? What is the carrying capacity of the PUC in terms of infrastructure?
- A *The City's General Plan directs future population growth to the PUC and 'Ewa districts. Therefore, more growth is expected in the PUC.*
- A *Many of the new condos have been built in Kaka'ako, which is governed by the State Hawai'i Community Development Authority, and not by the City. HCDA's plans for Kaka'ako also anticipate additional growth and development.*
- A *The PUC WMP will be projecting water demands for four future growth scenarios: Low, Mid, High, and "Ultimate." Therefore, we will be anticipating two growth scenarios that are over and above the City's official population projections and will have a water supply plan in place in case growth is faster than expected.*
- A *Conservation is a tool that BWS will continue to emphasize to make the most efficient use of our water resources. Conservation efforts have already allowed BWS to pump less water in 2010 than in 1990, even though population has increased.*
- A *"One Water" is the idea that all water in its many different forms, is connected and should be planned for together. BWS has embraced this approach for its Watershed Management Plans as a way to open up opportunities to collaborate with the water resource agencies that are responsible for wastewater, storm water, and drainage.*
- *Utilizing other forms of water for non-potable demands allows us to preserve high quality ground water for drinking and other potable purposes.*
 - *There are opportunities to implement decentralized recycled water facilities, allowing for reuse of the recycled water and lessening the strain on sanitary sewers, some of which are nearing capacity.*

A *Climate change is another factor that we are planning for. The models are predicting less rainfall in some areas, leading to higher water demands but less source; higher rainfall/more storms in other areas, leading to potential flooding; and sea level rise, which will cause coastal erosion and inundate low lying areas with shallow ground water tables.*

- *Conservation and diversification of water supplies will help us to respond to less rainfall and higher demand.*
- *Storm water capture can be used to recharge the aquifer, create hydroelectric power, and provide water for non-potable water demands.*
- *Comprehensive responses to sea level rise, such as shoreline protection and raising of buildings and roads, will need to be developed by the City.*

Q *What can be done to provide for the long-term success of forest ecosystem restoration projects? Areas of focus: financing/grants, accessibility, eco-tourism, public participation, and visibility.*

A *The PUC WMP will highlight existing and planned projects that are working to restore and manage the forested watersheds. This will hopefully raise awareness and opportunities for participation and collaboration.*

A *BWS also has several initiatives in support of ecosystem restoration:*

- *The BWS Water Master Plan (2016) set goals for watershed management and conservation, including a target spending value of \$3.3 million per year.*
- *Appropriations are awarded to the O'ahu Invasive Species Committee, Ko'olau Mountains Watershed Partnership and the State Division of Forestry and Wildlife for work in BWS priority watersheds that sustain the BWS wells that provide water supply to O'ahu.*
- *BWS is funding studies to better understand the forest's ability to capture water in an effort to develop more effective restoration projects.*
- *BWS is collaborating with and funding cultural learning centers on BWS land to provide opportunities for restoration projects, educational experiences, and partnership opportunities. Funding is targeted to specific projects.*

Q *What is the current status of our water infrastructure? Are there plans for expansion/upsizing to accommodate expected development?*

A *BWS has just completed its long-range infrastructure plan called the BWS Water Master Plan available on the BWS website. The plan identified capacity expansion and repair and replacement projects for the next 30 years. The BWS has determined that it needs to increase the rate of pipeline replacement to 21 miles per year from 6 miles, to reduce water main breaks. This rate of replacement will be tempered by how much of a rate increase customers will be asked to pay. Conservation savings have reduced water demand that reduces water bills, conserves natural water resources and defers the need to upsize water system facilities.*

- A *BWS is conducting contingency planning in case the Red Hill fuel tanks leak and contaminate the underlying aquifer. BWS continues to participate with the Navy, EPA and the State Department of Health on the long-term repairs of the 20 underground fuel tanks that have leaked fuel to the underlying potable aquifer.*

Two questionnaires were submitted at the end of the meeting. Comments are listed below:

What are your issues and concerns regarding water and watershed management as it applies to the Primary Urban Center and O'ahu in general?

Stormwater management infrastructure (Nu'uuanu and Pauoa)

Preservation of 'auwai systems in our valley

Native Hawaiian gathering rights and access to cultural resources

The main rainforest areas like Roundtop-Tantalus are degraded by invasive species, litter, including dumping, feeding feral cats. Other invasive species like grasses and guava, which encourages sheet runoff, should be replaced by locally endemic subspecies of 'ōhi'a from those forests, as they create rainforest conditions that enhance rainwater absorption into the soil.

Rainforest restoration should incorporate ecotourism, ecosystem restoration for complex relationships, compatible recreation, and related values.

What water resource projects, programs, or other initiatives should we know about as we develop the Primary Urban Center Watershed Management Plan? Who is leading these initiatives?

Mānoa Cliff Reforestation Project: restoration, education, recreation (contact information provided)