

Honolulu Board of Water Supply Stakeholder Advisory Group

Meeting 1 – May 05, 2015, 4:00 pm to 6:30 pm
Neal S. Blaisdell Center, Hawaii Suites

DRAFT Meeting Notes

PURPOSE AND ORGANIZATION OF MEETING NOTES

The purpose of these notes is to provide an overview of the Board of Water Supply (BWS) Stakeholder Advisory Group meeting. They are not intended as a transcript or as minutes. Major points of the presentations are summarized herein, primarily for context. Copies of presentation materials were provided to all participants and are available on the BWS website. Participants made many comments and asked many questions during the workshop. These are paraphrased to be more concise.

ATTENDEES

There were 22 stakeholders in attendance, one member of the public, and BWS and CDM Smith staff. The stakeholders represented diverse interests and communities island-wide.

The following Stakeholders Advisory Group members attended:

Eric Au	Sheraton Waikiki
Jackie Boland	AARP Hawaii
Bill Clark	Resident of Council District 6
Mark Fox	The Nature Conservancy of Hawaii
Gregg Fraser	Hawaii Restaurant Association
Neil Hannahs	Kamehameha Schools
Rick Hobson	Building Industry Association of Hawaii
Shari Ishikawa	Hawaiian Electric Company
Micah Kane	Pacific Links Hawaii
Will Kane	Mililani Town Association
Ralph Mesick	First Hawaiian Bank
Helen Nakano	Resident of City Council District 5
Robbie Nicholas	Hawaii Kai Golf Course
Alison Omura	Coca-Cola Bottling Co.
Kathleen Pahinui	Resident of City Council District 2
Dick Poirier	Resident of City Council District 9
Elizabeth Reilly	Resident of City Council District 4
Cynthia Rezentes	Resident of City Council District 1
Francois Rogers	Blue Planet Foundation
Josh Stanbro	Hawaii Community Foundation
Lee Yamamoto	Marine Base Corps Hawaii
Suzanne Young	Honolulu Board of Realtors

The following Stakeholder Advisory Group members were not in attendance:

Vina Cruz Jr.	Resident of Council District 8
Richard Dahl	James Campbell Properties, LLC
Kekoa Ho	Resident of Council District 3
Chris Wong	Resident of Council District 7

MEETING AGENDA

- **Welcome**
- **Public Comment on Agenda Items**
- **Introductions and Expectations (Information Only)**
- **Overview of the BWS (Information Only)**
- **Overview of O'ahu's Water System (Information Only)**
- **Introduction to the Water Master Plan (Information Only)**
- **Top Priorities of Stakeholder Advisory Group (For Possible Action)**
- **Summary and Next Steps**

WELCOME

Ernest Lau, the BWS Manager and Chief Engineer, welcomed stakeholders and members of the public to the first BWS Stakeholder Advisory Group meeting. He thanked stakeholders for their willingness to serve.

Ernest explained that this is the first time the BWS has formally created a Stakeholder Advisory Group. The BWS hopes the group will provide valuable feedback and input for the BWS to consider when making plans for the future.

Ernest said the BWS has determined that it needs to engage with customers to a higher degree. For a long time, the BWS has been seen as a silent service and little is heard about it unless something goes awry. In truth, BWS employees are working 24/7 to provide water to customers. The BWS wants to engage more frequently and more transparently with customers, and to provide a means for the public to have a voice in the future of water. The Stakeholder Advisory Group is one of the pieces of this approach to transparency and public engagement.

Another piece of this approach is a customer survey that was conducted in February and focus groups conducted in March regarding awareness and satisfaction with the BWS. The results will be presented to the Stakeholder Advisory Group at an upcoming meeting.

Ernest encouraged stakeholders to ask questions. He expressed appreciation of the diversity of the Stakeholder Advisory Group. Questions asked by stakeholders representing a broad spectrum of interests will greatly help the BWS prepare plans for the future.

Ernest took a moment to introduce the BWS team, commenting that “moving water takes people in addition to infrastructure.” He introduced Ellen Kitamura, Deputy Manager and Chief Engineer; Shawn Nakamoto, Information Officer; Keoni Mattos and Tracy Burgo, Communications Office; Jennifer Elflein, Customer Care Program Administrator; and Barry Usagawa, Water Resources Program Administrator.

PUBLIC COMMENT ON AGENDA ITEMS

None

INTRODUCTIONS AND EXPECTATIONS

Dave Ebersold, facilitator and Vice President of CDM Smith, welcomed all stakeholders and asked them to introduce themselves and share what they each expect from their participation.

Responses included:

Learn how to conserve more water.

Contribute to the process and provide useful input as a large water customer and as a private citizen.

Learn more about the BWS and its challenges, help the BWS become the best organization possible, and advocate for the BWS in the public arena.

Explore concerns about the availability of water now and in the future.

Explore concerns about the impacts on water by future development on O'ahu.

Work together on water master planning and explore interests in best uses of potable water and recycled water.

Help the BWS understand how water quality and infrastructure capacity affect home sales and be an advocate for the BWS Water Master Plan.

Explore interests in and provide feedback regarding sustainability, water quality, and water usage.

Promote energy efficiency and identify ways to reach the goal of House Bill 623, which requires that 100% of the islands' electricity must be generated from renewable energy resources by 2045.

Find out more about the future challenges of water on O'ahu and represent the concerns and needs of older adults.

Provide input as a water advocate who is concerned that we will run out of good water.

Provide input as an advocate for housing affordability, a person who likes water for recreation, and recognizes this precious resource is critical to survival.

Learn ways to partner with the BWS on sustainability and work together to stabilize the power grid.

Ensure that the resource [water] that is life-giving is available in perpetuity through watershed stewardship, management of surface systems, development and use of potable water, education, and partnerships.

Better understand the fuller picture of water – like capture, reuse, delivery, storage, and conservation, work together with the BWS and stakeholders, and look for ways to support each other’s work taking care of water for generations to come.

Be here to serve and offer to do anything possible to help the BWS in this planning effort.

Make sure there is enough water for agriculture, see that the BWS and the Stakeholder Advisory Group come up with ideas to make agriculture a priority on the island, and protect water resources.

Accommodate everybody’s needs through the Water Master Plan and identify opportunities to use and reuse water.

Provide feedback on the Water Master Plan, particularly with respect to funding.

Learn how the community can pull together to help preserve and recycle water.

Explore concerns about the long-term availability of water as it is affected by climate change, looking at public-private partnerships and what we can do together.

Work with the BWS and Stakeholder Advisory Group on this project.

Dave described the scope for the Stakeholder Advisory Group as being very broad: anything that is directly related to the BWS’s mission of providing safe, dependable, and affordable water now and into the future. Examples included supply, quality, infrastructure, rates, customer service and sustainability.

He said that recommendations from the group will be consensus-based. Opinions or positions reached by the group as a whole do not require unanimity; consensus-based recommendations may not be each individual’s preference, but something that each stakeholder can live with. Formal voting is not expected. Polling and verbally confirming positions may be used in future meetings.

Dave reported that the Board of Directors of the BWS approved the formation of the Stakeholder Advisory Group. The City Attorney found that the advisory group is not subject to the Hawaii Sunshine Law, but the BWS will follow the intent of that law to support transparency. For example, these meetings are open to the public and are announced on the BWS website. Meeting notes will be posted on the website after the Stakeholder Advisory Group has had the opportunity to review and accept them. Meeting materials like copies of the presentations will also be posted. He advised that anything that is confidential should not be revealed at these public meetings.

Face-to-face interviews with individual stakeholders have been very helpful to forming the Stakeholder Advisory Group and organizing this meeting. Approximately half of the stakeholders have been interviewed to date. The BWS team hopes to schedule and conduct interviews with the remainder prior to the next meeting.

Dave reviewed commitments expected from both the BWS and Stakeholders.

The BWS commits to:

- 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.

Stakeholders are asked to commit to:

- Attend and participate in all meetings.
- Be prepared to discuss the issues on 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.

He asked that alternates not be sent in place of the designated stakeholder if he/she cannot attend. Continuity is important to the success of the Stakeholder Advisory Group. If someone has to miss a meeting, materials will be provided and staff will be available for individual briefings. Meetings may be held at different locations and different days of the week. If members have any concerns about the process, they were asked to please bring them up with Dave or Shawn Nakamoto.

Agenda meeting topics will generally address three areas:

1. The water system
2. The Water Master Plan
3. Focused topics

Planned topics for meetings scheduled from May 2015 to March 2016 were presented and briefly discussed.

Stakeholders were given binders of information that included the meeting agenda, contact information, and copies of the presentations and fact sheets. Dave briefly reviewed the contents, and noted that at future meetings, they will receive copies of the presentations, handouts, and other relevant information.

QUESTIONS/ANSWERS

Q. There is a lot going on in the world and it might be good hear about Best Practices Review of the field of water. Is there a place for that in one of the agendas of a future meeting?

A. The suggestion was noted and will be considered as a future agenda item.

OVERVIEW OF THE BWS

Dave Ebersold introduced Ernest Lau as the BWS Manager and Chief Engineer and gave the group a brief overview of Ernest's career. He served as Administrator of the Public Works Division under the State Department of Accounting and General Services; Deputy Director of the State Commission on Water Resource Management, Department of Land and Natural Resources; Manager and Chief Engineer of the Kauai Department of Water from 1996 to 2003 and Deputy Manager from 1995 to 1996. He began his career working for the BWS as an engineer in long-range planning. Ernest returned to the BWS in 2012 as its Manager and Chief Engineer.

Ernest Lau began by giving the group some information about Dave Ebersold. Dave has a background of facilitating communications for water programs throughout the western US, including for the Los Angeles Department of Water and Power's efforts in the Owens Valley and its Recycled Water Master Plan. Similarly, he facilitated stakeholder advisory group meetings for the Southern Nevada Water Authority's Integrated Resources Plan.

Ernest continued with an overview of the BWS. The BWS takes its vision of Ka Wai Ola – Water for Life very seriously and recognizes that water is essential to the island's economy and survival. In ancient times, native Hawaiians were able to support a statewide population of 1 million people. The current state population is approximately 1.2 million. The BWS is responsible for stewardship of water resources and that responsibility is included in the State's constitution. When necessary, the BWS will take a position, such as dealing with the threat to water quality in the Red Hill area. Water in Hawaii is held in trust for the public and that is central to everything that the BWS does. He said stewardship is the BWS's kuleana [responsibility]. It is a kuleana shared with stakeholders as well.

The BWS mission is to provide safe, dependable, and affordable water now and into the future. That mission is fulfilled through 6 main functions:
Sustain > Capture > Treat > Move > Store > Deliver

The BWS has 550 employees island-wide who work within 10 major divisions. Ernest told the Stakeholder Advisory Group that the BWS Strategic Plan for 2014-2017 emphasizes sustainability:

- Resource sustainability (safe) – to protect and manage groundwater supplies and watersheds through adaptive and integrated strategies.
- Operational sustainability (dependable) – to foster a resilient and collaborative organization that uses effective and proactive operational practices, consistent with industry practices.

- Financial sustainability (affordable) – implement sound fiscal strategies to finance our operating and capital needs to provide dependable and affordable water service. The BWS believes that the neediest among us must be able to afford water; this is one element of ensuring financial sustainability. BWS revenue comes from water rates and charges. It is important that we have adequate rates going forward.

QUESTIONS/ANSWERS

Q: It has been said that 80% of the water used in California is for agriculture. Is it the same on O‘ahu?

A: No, only 3% of BWS customers are agricultural customers. A lot of agriculture uses its own non-potable resources or gets water from sources other than the BWS.

OVERVIEW OF O‘AHU’S WATER SYSTEM

Dave Ebersold introduced Barry Usagawa, Program Administrator for the Water Resources Division and gave the group a brief overview of his career. Barry has worked for about 30 years at the BWS in water systems analysis, environmental, capital planning and water resource management. He is a licensed civil engineer and a graduate of the University of Hawaii at Manoa. He administers the Water Systems Planning, Water Conservation, Long Range Planning and Hydrology-Geology functions of the division. The Water Resources Division conducts long-range water resource and capital planning for O‘ahu to ensure sustainable water resources and dependable water systems for current and future customers.

Barry thanked the Stakeholder Advisory Group for helping the BWS improve its programs and services.

In his presentation, Barry provided details about each of the six components of the BWS water system that Ernest Lau addressed broadly earlier:

Sustain > Capture > Treat > Move > Store > Deliver

Details are summarized below:

Sustain: Barry told the Stakeholder Advisory Group that the BWS’s model for a sustainable future is based in large part on the ahupua‘a model that served pre-contact Hawaii for centuries. The ahupua‘a system ensured that natural systems were kept in balance and acknowledged inherent relationships between land and sea, natural resource management and cultural practices, and between water and life.

The BWS developed watershed management plans through community outreach. Barry and his staff looked for a watershed-based model that would be environmentally holistic, community-based, and economically viable. He thanked stakeholder Cynthia Rezentes for her collaboration with his division to develop a sustainable model. What resonated with the community was using the apuhua‘a model as a guide to a sustainable future, where forested watersheds are healthy, streams flow, and there is enough water for agriculture to grow food and enough high quality drinking water for people.

Barry told stakeholders that the BWS pursues water resource strategies that together support climate change adaptation. Watershed management, water conservation, and diversification of water supplies are all BWS programs under the Water Resources Division.

Watershed management includes the protection of forested recharge areas. Keeping forests healthy involves partnerships and is tied to the control of invasive species. The forested recharge areas collect the rain that recharges aquifers and provides water. Water conservation has significantly helped preserve the water supply. The water conservation strategy includes implementing infrastructure efficiencies. The BWS also has a diversified water portfolio that includes strategies for recycled water, desalination, and brackish water.

The BWS protects the resource, uses it wisely, and includes supply diversification strategies to adapt to climate change.

Barry explained a graph of potable water use and projections for future water supplies:

- During 1985 – 1990, Waikiki was building out rapidly and water consumption was on the rise.
- The BWS Water Conservation Program began in 1990 and since then, O‘ahu’s consumption of potable water dropped 10% by 2014 despite an increase in population.
- As O‘ahu’s population grows, water conservation efforts will make an even bigger difference in potable water saved. In 2030, without conservation, O‘ahu’s population would consume a projected volume of 212 million gallons per day (mgd); but with conservation, that projected volume drops to 168 mgd (20% less).

He said that water conservation has effectively flattened the projection of future water demands. This is a great success story, and there’s more that the BWS can still do.

Capture, Treat, Store, Move, Deliver: Barry explained what a typical water system consists of: wells, pumps, treatment in the form of disinfection, storage reservoirs, waterlines, and delivery to homes, businesses, and emergency systems (e.g., fire hydrants).

When this typical water system is expanded island-wide, the result is a system of:

- 94 source stations (wells and tunnel sources; no centralized treatment plant)
- 2,100 miles of water pipelines
- 171 storage reservoirs
- 1 million customers served including tourists

The BWS has an integrated, interconnected water system on O‘ahu. Barry described where water is moved throughout the island and the systems needed to accomplish that safely and reliably. The water system sources are distributed throughout the island. Treatment is provided at the source; there is no centralized treatment plant on O‘ahu.

100% of BWS’s drinking water supply comes from the ground. This supply starts with rain. About 1/3 of the rain that falls on the island percolates into the aquifers, which are porous geologic formations underground. O‘ahu is about 3.7 million years old and is surrounded by caprock. Caprock is corals and sediments that have accumulated on the coastline when sea

levels were much higher. It protects the water supply. The caprock acts like a dam, capturing freshwater and creating a very thick freshwater lens

Tradewinds carrying moisture move in from the northeast and hit the Ko'olau Mountains. The mountains cause the moisture to rise, where it then cools and creates rain. Then the tradewinds blow the rain over the mountain crests to the leeward side, where all the big aquifers are. There are also frontal storms that soak the entire island. Barry showed a map of O'ahu with locations of the aquifers.

Treat: Treatment is done to eliminate water borne diseases and, where needed, to take out contaminants like pesticides. Treatment makes the water safe to drink. The BWS conducts 30,000 tests per year to ensure water safety.

Move: The BWS moves water two ways. Water is pumped up ridges in about 200-foot increments. Water is also moved around the island.

Store: The BWS has 171 reservoirs. They are enclosed and located at elevations high enough to provide sufficient water pressure.

Deliver: Water is delivered whenever a faucet or hydrant is opened. First and foremost is the inherent trust that our water is always safe. It's dependable; any time it's needed, it's there, even after natural disasters. Lastly, it's affordable. The BWS balances its needs and costs with an eye towards affordable rates.

QUESTIONS/ANSWERS:

Q. Cemeteries and golf courses use a lot of water. Is there a way they can be irrigated using gray water [the waste water from baths, sinks, and washing machines] instead of potable water?

A. Cemeteries and golf courses can be and are irrigated with recycled water. Gray water is different from recycled water. There are plumbing codes now that enable a family to use gray water to irrigate their yards, but there is not a program to use gray water on a large scale. Certain cemeteries, new development, and large landscaped areas are required to evaluate how they can be irrigated without using potable water before the BWS will allocate water for their irrigation. Matching water quality to its use is a strategy that helps conserve potable water.

Q. How does the caprock help prevent saltwater intrusion?

A. If the BWS over-pumps groundwater resources, brackish water and salt water start to draw towards the pumping wells. Part of the 30,000 tests conducted annually is looking for evidence of chlorides in the pumped water [indicating seawater intrusion]. The presence of chlorides signals the BWS to cut back pumping at that source.

For saltwater intrusion from rising seas, caprock plays a vital role. Climate change predictions are for a 3-foot rise by 2100, and 1-foot rise by 2050. O'ahu's caprock is about 35 feet or higher above mean sea level. The sea level would have to rise higher than the caprock to overtop it and contaminate our freshwater aquifers.

Q. Boosted water systems sound more expensive than moving water around. Do customers in the hills have to pay more for boosted water or is the cost averaged out?

A. The BWS residential rates apply to residents across the island. This helps keep water affordable for all.

Q. Are all of the BWS's pumps operated by electricity?

A. Yes. The BWS is one of the Hawaiian Electric Company's largest energy users. The BWS has just launched an energy savings performance contract and an audit of BWS energy usage is under way. That will be followed up by opportunities to become more energy efficient. Barry encouraged ideas from stakeholders. Ernest added that the initial objective is to reduce energy use by 20%. The BWS pays about \$27-28 million per year for electricity and is looking at ways to leverage renewable energy opportunities.

Q. Does the BWS have a desalination system up and running and does desalination make sense economically?

A. The only desalination the BWS has at this time is in the recycled water system. It is used to remove salts and produce industrial process water. The BWS has two desalination plant sites that are vacant at this time. Through conservation, the BWS has been able to defer those projects and the related costs.

Q. Is there any consideration of injecting recycled water into aquifers, like is done in California?

A. Not at this time. The BWS pursues conservation's low hanging fruit first (e.g., converting to low flush toilets and education) before implementing more costly and less acceptable types of conservation. The BWS is looking at an option to capture stormwater, treat it, and inject it into the ground in Nu'uuanu.

Q. What is the reason that gray water has not been used on parks and golf courses?

A. There is a distinction between gray water and recycled water. Almost all golf courses and a cemetery in Ewa are irrigated with recycled water. Gray water is more applicable for use for home irrigation. The uses of recycled water will be addressed in more detail at a future Stakeholder Advisory Group meeting.

OVERVIEW OF THE WATER MASTER PLAN

David Ebersold introduced Jon Toyoda, Sr. Vice President of CDM Smith and the consultant project manager of the Water Master Plan for the BWS. He has worked on a number of utility planning projects, including projects for the City of San Francisco, the East Bay Municipal Utilities District, and the Contra Costa Water District. He joined CDM Smith in 1986 and is a graduate of the University of California, Davis.

Jon described the water master planning process as a comprehensive program that looks ahead 30 years, evaluates the entire water system, identifies necessary improvements, and balances needs and costs. The Water Master Plan gives policy-makers the information they need to balance water service adequacy and dependability with costs and rate affordability.

The basic steps of preparing the Water Master Plan are:

1. Assess
2. Compare

3. Identify
4. Prioritize
5. Analyze
6. Develop the plan

Assess the condition of the water system. This seems like a simple concept, but it is not that easy to perform. Doing a condition assessment of pumps and other above-ground facilities is relatively straightforward. They can be examined, touched, and tested, and maintenance records are readily available. But the most challenging water system asset is the BWS's pipelines. They are the single-largest asset and the hardest to assess their condition.

Jon showed a graph of water main breaks that have occurred over time. The trend of total number of breaks is heading downward. The BWS has done a very good job of maintaining their system; the total number of breaks is declining, averaging about 300 breaks a year. Is that a good number? Yes. The U.S. average is 25 breaks per year per 100 miles of pipeline. The BWS system averages 15 breaks per year per 100 miles of pipeline.

The BWS's pipelines vary in size from 2 inches to 42 inches in diameter. About 20% of the pipelines are considered large, 16 inches in diameter or more. The BWS's large diameter pipelines average about 12 breaks per year. The trend for large-pipe breaks is upward. Many of these pipes are 70+ years old. Their expected average lifespan is 50-100 years old, and as they get older, they're not getting better. Concerns with large pipeline breaks include the upward trend; the significant, very expensive damage that can result; and the fact that a lot of customers would lose water. Replacing large diameter pipelines is extraordinarily expensive.

Compare: It is very important to know more about the average condition of the pipes. Pipes that are similar size, age, and materials behave in different ways; none of these characteristics by themselves are reliable indicators of pipe degradation. The pipes are buried and pressurized. Unlike sewer pipes, water pipes have no access points, like manholes. Because not many have broken, we don't know a lot about their actual condition.

The Water Master Plan team is employing advanced leak-detection technology, and is helping assess the BWS's pipelines. Jon said that what the engineers see most often is that the exterior of the pipe is corroding [from contact with soil], not the inside of the pipeline. Exterior corrosion does not necessarily indicate interior corrosion, so it is not helpful to making decisions about pipe replacement. Samples of pipes from the BWS water system were passed around so that stakeholders could see different types of damage.

Identify Needs: Most of O'ahu's water comes from aquifers in the central part of the island. Most of the population growth is planned for the Honolulu, Pearl City and Ewa areas. The Water Master Plan team is taking growth projections into account along with water supplies, infrastructure, standards (e.g., storage, pressure, and flow), and natural hazards. The result will be projects that will include the full range of water system facilities.

Prioritize Projects: The Water Master Plan team anticipates identifying hundreds of potential projects, which the plan will then prioritize based upon risk and defined criteria/objectives.

One of the things the BWS will bring back to the Stakeholder Advisory Group will be a discussion of criteria/objectives that will help guide this process.

Analyze Funding: This is an analysis of how much the projects will cost and how their costs affect water rates. The analysis is an iterative process, and the BWS seek input from the Stakeholder Advisory Group on this.

Develop the Plan: The plan will identify improvements (projects), their priority, schedule, costs, financing, and rate structure.

One of the legacies for the BWS's Capital Improvements Plan is that it is safe, sound, and implementable. The benefits of the Water Master Plan include:

- Anticipates future construction needs so that water is available when necessary.
- Proactively plans the delivery of the water infrastructure.
- Enhances the BWS's ability to make infrastructure decisions with greater accuracy and timing.
- Includes improved infrastructure design, construction, and maintenance practices so that system components last longer.
- The financial plan allows the BWS to implement the capital improvements program and maintain affordable rates.

Water master planning is a continuous process. Water Master Plans are typically updated every 5-10 years.

Jon reviewed the schedule of preparing the Water Master Plan. He noted that the Stakeholder Advisory Group is getting started now. There is a lot of work to do, and stakeholders will help shape the future of the BWS.

QUESTIONS/ANSWERS

Q. It appears the plan is focused on potable water. We are coming into an era when people want more sustainable and diverse agriculture. There are many wells on the island besides those operated by the BWS. The other wells could be used for agriculture water and golf course water, saving the BWS's potable water supply. We should not lose track of them in a full Water Master Plan for the whole island.

A. David Ebersold asked that the comment be noted. He wanted to give this important comment considerable thought and follow up. The comment was noted and will be responded to at a later date.

Q. The BWS infrastructure is getting to the 50-100 year range in age. Is the BWS going to repair it in spots, or repair it on a larger scale? Has technology caught up so that we can put sensors on the pipes to detect early warning of failure?

A. The Water Master Plan will help the BWS proactively assess and renew the system. More information regarding condition assessments will be provided in a future meeting

Q. Can the BWS retain the money in its coffers without having another City or County agency come along and use it for general funding?

A. The BWS is a semi-autonomous agency and its Board has the authority to keep BWS funds for water-related purposes. Revenue from the BWS’s ratepayers is reinvested in the BWS system and maintained for the future because we have to be sustainable.

Q. When a water line has a dead end, if there’s not enough water usage in the line, pipes can become corroded. Will we take factors like this into account [when planning new infrastructure]?

A. Yes, that is considered in the Water Master Plan. More information about this will be presented in a future meeting.

TOP PRIORITIES OF THE STAKEHOLDER ADVISORY GROUP

Stakeholders were given three post-it notes with the numbers 1, 2, and 3 written on them. On the wall were large sheets of paper with a broad range of topics that had been mentioned during stakeholder interviews leading up to the May 5 meeting. Stakeholders were first asked to review the topics posted and add others. Stakeholders added many other topics. Then they were asked to leave their seats, go up to the large sheets of paper, and use the post-it notes to indicate their priorities by voting for their top 3 choices. The table below shows the results of stakeholders’ selections for their highest priorities. The votes were weighted to take into account the hierarchy of first, second, and third choices. Total weighted points for the priorities are shown in the right-hand column in the table below.

Top priorities	Total of number 1s	Total of number 2s	Total of number 3s	Total weighted points (#1=1; #2=.5; #3=.25)
Expand Water Reuse/Recycling Water Quality	5	1	2	6
Sustainable Water Management	2	2	3	3.75
Watersheds	2	3	1	3.75
Increasing Costs of Aging Infrastructure	0	3	3	2.25
Climate Change Adaptation	2	0	1	2.25
Conservation	2	0	1	2.25
Educational Incentives for Conservation	2	0	0	2
Maintain Water Quality and Safety	1	1	1	1.75
Energy Efficiency	1	0	1	1.25
Building OutO’ahu's Plains	1	0	0	1
Fisheries/Ocean Water Quality/Runoff	0	1	1	0.75
Affordability	0	1		0.75
Environmental Protection	0	1	0	0.5
Growth and Increasing Water Demand	0	1	0	0.5

Maximize Sharing of Infrastructure	0	1	0	0.5
More Pavement and Increased Runoff	0	1	0	0.5
Number of Tourists	0	1	0	0.5
Water Supply Sustainability	0	0	1	0.25
Adequate Water for Agriculture	0	0	1	0.25
New Services for BWS to Consider to Generate Revenue	0	0	0	0
Water Facilities for the Homeless	0	0	0	0
Numerous Alternatives to Move Forward (No Matter What the Future Holds)	0	0	0	0
Value of Water Infrastructure	0	0	0	0
Do Things Differently	0	0	0	0
Increase Water Security	0	0	0	0
Developers Bear the Cost of Increased Demand on Water System	0	0	0	0

NEXT STEPS

David thanked everyone for the important feedback they gave throughout the meeting. He told stakeholders the dates of the next three meetings:

- July 21, 2015
- September 16, 2015
- November 18, 2015

Ernest told the group that this will be a journey of discovery. Together we will learn about challenges the BWS faces and we will learn how we can develop solutions. He told everyone Mahalo for giving their time.

FOR FURTHER CONSIDERATION:

1. Consider and respond to request for Best Practices Review at a future meeting.
2. Address recycled water strategies at a future meeting; distinguish between recycled water and gray water.
3. Consider and respond to the request that the BWS Water Master Plan take into account the many wells on the island that are not owned and operated by the BWS, particularly how that resource could help offset the use of potable water for agriculture, golf courses, and other uses.
4. Discuss new technologies and how they help signal potential failures in the water infrastructure.

5. Consider and respond to the question about addressing pipeline dead-ends with accompanying poor water circulation and corrosion in the future BWS water system.
6. Barry will get back to Kathleen Pahinui with information about the North Shore Watershed Management Plan.