

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
WWW.HBWS.ORG



August 16, 2016

KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chair
ADAM C. WONG, Vice Chair
DAVID C. HULIHEE
KAPUA SPROAT
BRYAN P. ANDAYA

ROSS S. SASAMURA, Ex-Officio
FORD N. FUCHIGAMI, Ex-Officio

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

RECEIVED
CITY CLERK
C & C OF HONOLULU
2016 AUG 16 AM 9:30

NOTICE

The Regular Meeting of the Board of Water Supply, will convene on Monday, August 22, 2016, at 2:00 p.m. in the Board Room, Public Service Building, 630 South Beretania Street, Honolulu, Hawaii.

SPEAKER REGISTRATION

The Board of Water Supply is committed to allowing public testimony at open meetings of the Board.

Please provide your name, phone number and subject matter of testimony when registering **prior to the day of the meeting** by one of the following options:

1. Emailing to board@hbws.org;
2. Faxing to 748-5079;
3. Calling 748-5061;
4. In person – 630 S. Beretania Street, Room 311

Persons wishing to testify may also register by filling out the registration form **on-site on the day of the meeting**.

Persons who have not registered to testify will be given an opportunity to speak on an item following the oral testimonies of the registered speakers.

Testimony is limited to three minutes and shall be presented by the registered speaker only.

WRITTEN TESTIMONY

Written testimony may be emailed to board@hbws.org or faxed to 748-5079, **prior to the day of the meeting**, for distribution at the meeting.

13 copies are requested if written testimony is submitted **on-site on the day of the meeting**.

If submitted, written testimonies, including the testifier's address, email address, and phone number may be posted on the Board of Water Supply website.

PHYSICALLY CHALLENGED REQUESTS

If you require special assistance, auxiliary aid and/or service to participate in this meeting (i.e. sign language interpreter; interpreter for language other than English, or wheelchair accessibility), please contact 748-5061 or email your request to board@hbws.org **at least three business days prior to the meeting date**.

MINUTES

REGULAR MEETING OF THE BOARD OF WATER SUPPLY

August 22, 2016

At 2:07 PM on August 22, 2016 in the Board Room of the Public Service Building at 630 South Beretania Street, Honolulu, Hawaii, Board Chair Miyashiro called to order the Regular Meeting.

Present: Duane R. Miyashiro, Chair
Adam C. Wong, Vice Chair
David C. Hulihee
Bryan P. Andaya (arrived at 2:09 p.m.)
Ross S. Sasamura

Also Present: Ernest Lau, Manager and Chief Engineer
Ellen Kitamura, Deputy Manager and Chief Engineer
Erwin Kawata
Barry Usagawa
Karen Tom
Daryl Hiromoto
Jason Takaki
Joe Cooper
Robert Morita
Kevin Ihu
Kathleen Pahinui
Henderson Nuuhiwa
Jennifer Elflein
Thelma Kimura
Neil Oyama

Others Present: Moana Yost, Deputy Corporation Counsel
Jeff Lau, Deputy Corporation Counsel
Tom Myers, Brown and Caldwell
Kay Matsui

Absent: Ford N. Fuchigami
Kapua Sproat

APPROVAL OF
MINUTES

Approval of the Minutes of the Regular Meeting held on July 25, 2016

MOTION
TO APPROVE

David Hulihee and Adam Wong motioned and seconded, respectively, to approve the Minutes of the Regular Session Meeting of July 25, 2016. The motion was unanimously carried.



BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 867, 2016

NANCY L. MATSUMOTO
2016 EMPLOYEE OF THE YEAR

WHEREAS, NANCY L. MATSUMOTO, a Hydrologist-Geologist VI with the Water Resources Division, has been a dedicated and exceptional employee since joining the Board of Water Supply (BWS) in July 2011, and has been selected as the Department's 2016 Employee of the Year; and

WHEREAS, MS. MATSUMOTO is an exemplary employee whose hard work and dedication has enabled the Department to strengthen its efforts to keep Oahu's water resource viable; and

WHEREAS, MS. MATSUMOTO has improved the BWS's water level monitoring and data collection for Oahu's water resources through a program to upgrade field data collection equipment that are critical in evaluating the health of the water sources; and

WHEREAS, MS. MATSUMOTO's outstanding efforts have led to the establishment of numerous memorandum of agreements between the BWS and community groups for collaborative projects to protect watershed lands and conduct climate and groundwater related studies with the University of Hawaii at Manoa; and

WHEREAS, NANCY L. MATSUMOTO plays an important role in the Red Hill Underground Fuel Tanks leak issue, reviewing voluminous documents produced to ensure Oahu's water supply remains safe to drink; and

WHEREAS, MS. MATSUMOTO's efforts to promote knowledge transfer and succession planning within her branch ensures that the staff is prepared to fulfill critical objectives when needed; and

WHEREAS, NANCY L. MATSUMOTO has been selected as a Board of Water Supply Employee of the Year and will go on to represent BWS in the upcoming City Employee of the Year Recognition Ceremony, bringing pride and honor to the Department, her family, and friends; now, therefore

BE IT RESOLVED by the Members of the Board of Water Supply, City and County of Honolulu, that we do hereby express to NANCY L. MATSUMOTO our sincere appreciation for her outstanding service to the Department and to the City and County of Honolulu; and

BE IT FURTHER RESOLVED that the Members of this Board express to NANCY MATSUMOTO our sincere congratulations upon her selection as the Board of Water Supply Employee of the Year for 2016; and

BE IT FINALLY RESOLVED that this Resolution be presented to MS. MATSUMOTO with our heartfelt aloha and best wishes for success in all her future endeavors.



Resolution No. 867, 2016

Adopted this 22nd day of August 2016
Board of Water Supply, Honolulu, Hawaii

DUANE R. MIYASHIRO
Chair of the Board

Manager Lau read Resolution No. 867, 2016.

MOTION TO
ADOPT

David Hulihee motioned to adopt Resolution No. 867, 2016, Nancy L. Matsumoto - 2016 Board of Water Supply Employee of the Year, and was seconded by Bryan Andaya. On behalf of the Board, Chair Miyashiro thanked Ms. Matsumoto for her service and dedication to the BWS and congratulated her on the award. Mr. Miyashiro stated that this is what makes it a pleasure to serve on the board. The motion was unanimously carried.

In recognition as the BWS 2016 Employee of the Year, Chair Miyashiro presented Ms. Matsumoto with a plaque and a framed signed resolution. Ms. Matsumoto will represent the Board of Water Supply at the City and County of Honolulu's annual Employees' Recognition Program later this year.

RESOLUTION NO. 867, 2016, ADOPTED ON AUGUST 22, 2016 – NANCY L. MATSUMOTO, 2016 EMPLOYEE OF THE YEAR			
	AYE	NO	COMMENT
DUANE R. MIYASHIRO	X		
ADAM C. WONG	X		
DAVID C. HULIHEE	X		
KAPUA SPROAT			ABSENT
BRYAN P. ANDAYA	X		
ROSS S. SASAMURA	X		
FORD N. FUCHIGAMI			ABSENT



BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 868, 2016

DARYL K. HIROMOTO
2016 MANAGER OF THE YEAR

WHEREAS, DARYL K. HIROMOTO, Program Administrator of the Field Operations Division, has been selected as the Board of Water Supply's (BWS) Manager of the Year for 2016; and

WHEREAS, MR. HIROMOTO literally worked his way up "from the trenches" since joining the BWS as a pipefitter apprentice in January 1982 and moved up through the ranks to his current position, which he attained in 2009, gaining a first-hand understanding of the BWS's water system operations that delivers about 145 million gallons of water daily to Oahu's one million people; and

WHEREAS, his 34 years of personal field experience have enabled him to successfully incorporate best management practices to effectively and efficiently plan and oversee the work of BWS employees who maintain and repair the 2,100 miles of BWS pipeline throughout the island; and

WHEREAS, understanding that organizational sustainable is key to the BWS's success, MR. HIROMOTO works to ensure he staffs his division with proficient employees -- from hiring them, to growing their skills, to mentoring them, and inspiring them to reach their full potential; and

WHEREAS, this 2007 BWS Employee of the Year and 2011 Manager of the Year uses his strong communication skills to promote collaboration within his division and among other divisions, working with cross-divisional teams to resolve billing system issues to achieve timely and accurate billing for BWS customers and determine main break causes to improve the water system infrastructure and reduce pipe failures in years to come; and

WHEREAS, DARYL K. HIROMOTO has proven himself to be a deeply dedicated, dependable, and highly skilled BWS manager who leads by example and personifies attributes that employees desire in their leaders; and this ability to inspire others has earned him the respect of his subordinates, colleagues, and BWS management; and

WHEREAS, MR. HIROMOTO's selection as the 2016 Board of Water Supply Manager of the Year and his nomination to the City Manager of the Year Recognition Ceremony has brought pride and honor to the BWS and all his family and friends; now, therefore

BE IT RESOLVED by the Members of the Board of Water Supply, City and County of Honolulu, that we hereby do express to DARYL K. HIROMOTO our heartfelt appreciation for his exemplary service to the Department and to the City and County of Honolulu; and

BE IT FURTHER RESOLVED that the Members of this Board express our sincere congratulations upon his selection as the Board of Water Supply Manager of the Year for 2016; and

BE IT FINALLY RESOLVED that a copy of this Resolution be presented to MR. HIROMOTO with our warmest aloha and best wishes for all his future endeavors.



Resolution No. 868, 2016

Adopted this 22nd day of August 2016
Board of Water Supply, Honolulu, Hawaii

DUANE R. MIYASHIRO
Chair of the Board

Manager Lau read Resolution No. 868, 2016.

MOTION TO ADOPT Ross Sasamura motioned to adopt Resolution No. 868, 2016, Daryl K. Hiromoto - 2016 Board of Water Supply Manager of the Year, and was seconded by Bryan Andaya. On behalf of the Board, Chair Miyashiro thanked Mr. Hiromoto for his service and dedication to the BWS and congratulated him on the award. The motion was unanimously carried.

In recognition as the BWS 2016 Manager of the Year, Chair Miyashiro presented Mr. Hiromoto with a plaque and a framed signed resolution. Mr. Hiromoto will represent the Board of Water Supply at the City and County of Honolulu's annual Employees' Recognition Program later this year.

RESOLUTION NO. 868, 2016, ADOPTED ON AUGUST 22, 2016 – DARYL K. HIROMOTO, 2016 MANAGER OF THE YEAR			
	AYE	NO	COMMENT
DUANE R. MIYASHIRO	X		
ADAM C. WONG	X		
DAVID C. HULIHEE	X		
KAPUA SPROAT			ABSENT
BRYAN P. ANDAYA	X		
ROSS S. SASAMURA	X		
FORD N. FUCHIGAMI			ABSENT

UPDATE
CHARTER
COMMISSION
PROPOSALS

Chair and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii 96843

Chair and Members:

Subject: Update on Charter Commission Proposals Pertaining
to the Board of Water Supply

This report addresses the current status of various Charter Amendment proposals as of August 4, 2016. On this date, the City and County of Honolulu Charter Commission (Commission) took final action on all remaining Charter proposals under consideration. A brief description and disposition of each proposal of interest to the Board of Water Supply (BWS) are as follows:

Proposed Amendment No. 6: Requires greater oversight of the BWS in order to save taxpayers money. The proposed amendment also suggests that the BWS is neither proactive nor efficient in addressing water main breaks.

Status: The Commission tabled this proposal.

Proposed Amendment No. C-6: Requires BWS to seek City Council approval of the sale, exchange, transfer, or encumbrance of real property, seeks Council approval before issuing revenue bonds, seeks Council review and comment on BWS' annual operating and capital budgets and rate adjustments prior to their adoption, and requires BWS to hold a minimum of three public hearings prior to fixing and adjusting rates and adoption of BWS' operating and capital budgets.

Status: The Commission tabled this proposal.

Proposed Amendment No. 20: Transfers major components of the BWS' semi-autonomous governance to the City Council, including decision-making authority over BWS' Capital Improvement Program, Operating Budget, and related responsibilities, in addition to the authority to delete, add, or change projects and budget line-items.

Status: The Commission tabled this proposal.

Proposed Amendment No. 40: Requires the BWS' Board, along with every other board and commission of the City and County of Honolulu, to be evaluated at least every five years to determine whether they should be retained, amended or repealed.

Status: The Commission amended the proposal to exclude the BWS' Board from review and forwarded it to the Department of the Corporation Counsel (COR) for final review.

Proposed Amendment No. 54: Requires certain departments, including the BWS, responsible for critical infrastructure needs to prepare "functional plans" with a thirty-year outlook, with updates every five years.

Status: The Commission amended the proposal to exclude the BWS and forwarded it to COR for final review.

Proposed Amendment No. 79: A City Administration proposal to require, in part, all written contracts of the BWS be approved by COR for form and legality.

Status: The Commission adopted the proposal and forwarded it to COR for final review.

Proposed Amendment No. 88: A City Administration proposal authorizing the BWS to include any offsets from revenues derived from other sources or activities, in addition to monthly water charges, when setting water rates.

Status: The Commission tabled this proposal.

Proposed Amendment No. 99: Increases the number of City and County of Honolulu positions that would be publicly elected, including among others, the Board of Water Supply and the BWS' Manager and Chief Engineer.

Status: The Commission tabled this proposal.

With the conclusion of this initial phase of the Commission's work, the Commission is seeking to procure the professional services of a public relations firm to assist them in public outreach activities, including the preparation of educational material for distribution to the media and informational brochures relating to each of the twenty Commission ballot questions. All Charter proposals must be finalized and submitted to the City Clerk by August 22, 2016, in order to be placed on the ballot for the General Election in November. Going forward, the Commission will be scheduling public meetings on an as-needed basis. Department staff will continue to monitor their activities.

Respectfully submitted,

/s/ ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer"

The foregoing was for information only.

DISCUSSION

Manager Lau gave the report. Mr. Lau thanked everybody for their hard work, including those who reached out to the Commissioners themselves, and especially Deputy Manager Ellen Kitamura, Robin Yahiku, Board Member Bryan Andaya, former Board member Mahealani Cypher and the Corporation Counsel for all their help. Their support of BWS charter commission issues really made a difference in the final outcome.

Mr. Andaya thanked the Manager and Deputy Manager and commented that this process was a really hard fought meeting that went down to the wire. He also said there were comments regarding transparency and accountability, and for BWS to keep the focus on moving forward.

ITEM FOR INFORMATION NO. 2

"August 22, 2016

UPDATE
STRATEGIC
PLAN AND
PERFORMANCE
METRICS

Chair and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii 96843

Chair and Members:

Subject: Update on 2014-2017 Board of Water Supply
Strategic Plan and Performance Metrics

Ellen Kitamura, Deputy Manager, will present an update on the Board of Water Supply's 3-Year Strategic Plan for Fiscal Years 2014-2017 and performance metrics for Fiscal Year 2016.

Respectfully submitted,

/s/ ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer"

The foregoing was for information only.

DISCUSSION:

Ellen Kitamura, Deputy Manager, gave an update of BWS' three-year strategic plan and performance metrics. Ms. Kitamura summarized what BWS accomplished in the last three years and explained that the Department will begin working on the next five-year plan.

Ms. Kitamura asked if any Board Members are willing to participate in giving feedback on the next five-year plan. Mr. Lau stated if Board Members are interested, BWS may have to create a Permitted Interaction Group to allow more than two members' active participation. This will be a topic for action at the September Board meeting.

In response to Mr. Andaya's inquiry about the Base column in the Performance Metrics slide, Ms. Kitamura answered that the Base is the running average of the last three fiscal years.

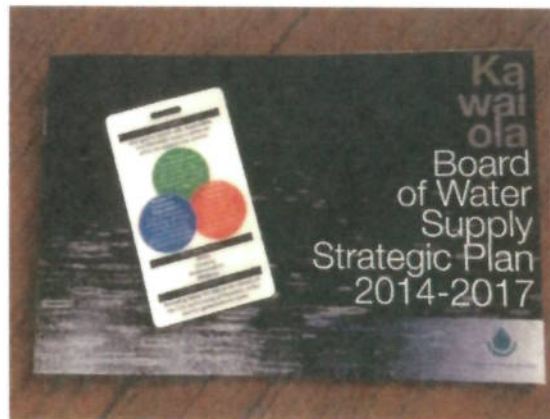
BWS Strategic Plan and Performance Metrics Update



**BWS Board Meeting
August 22, 2016**

Executive Summary

This update will summarize the accomplishments of the FY 2014 – 2017 Strategic Plan and lay the groundwork to develop the next 5-year plan.

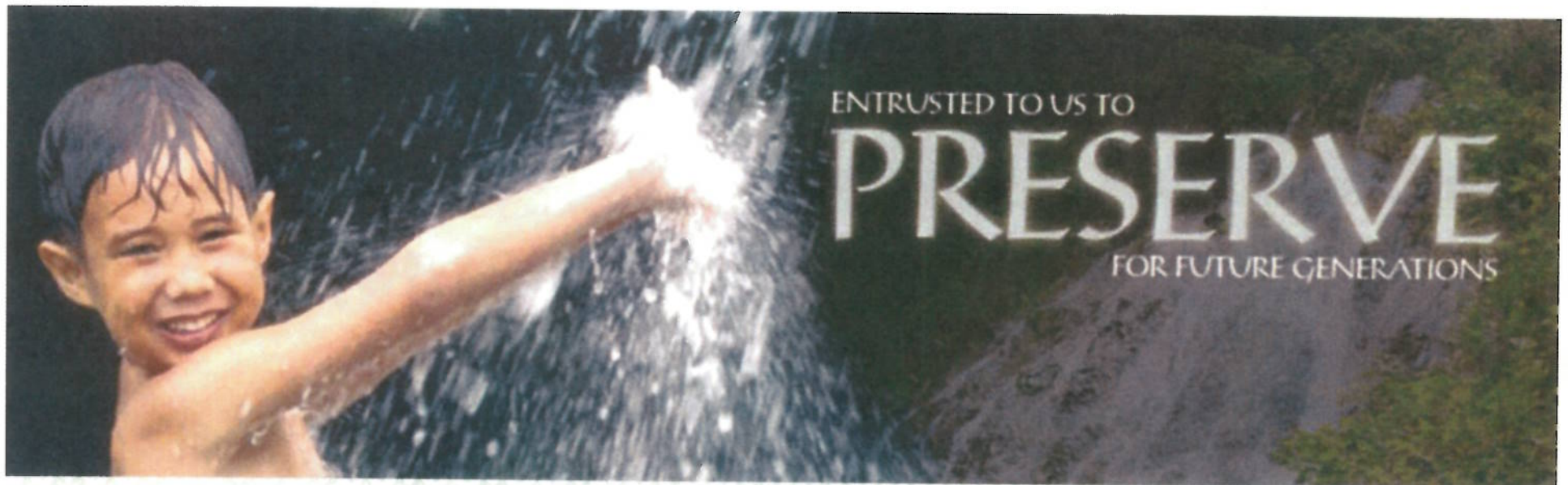


- First Strategic Plan presented and approved by the Board.
- Provided a vehicle to communicate to customers and stakeholders the strategic direction of the Board.
- Set alignment to mission and vision for the Department.
- Developed and reported on 12 high level performance metrics based on strategic plan.
- Progress have been made on sustainability all goals and objectives.



BWS Vision and Mission

- 💧 Vision: 'Ka Wai Ola – Water for Life'
- 💧 Mission: 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



Board of Water Supply
City and County of Honolulu

BWS Values

Environmental

We uphold the Public Trust as thoughtful stewards of Oahu's water resources and the environment.*

Societal

We provide quality service to our customers with the highest level of courtesy and efficiency.

Organizational

We provide a healthy and safe work environment through cooperation, participation and shared decision-making.

Team

We depend upon and support each other and treat each other with dignity and respect.

Personal

We are water professionals who earn and uphold the community's trust everyday through our actions and in doing our jobs right.



Strategic Goals



Resource Sustainability (Safe)

Protect and manage our groundwater supplies and watersheds through adaptive and integrated strategies.

Operational Sustainability (Dependable)

Foster a resilient and collaborative organization utilizing effective and proactive operational practices consistent with current industry standards.

Financial Sustainability (Affordable)

Implement sound fiscal strategies to finance our operating and capital needs to provide dependable and affordable water service.



Key Action Plans Updates

Strategic Objective

We will adapt to climate change to manage Oahu's water resources and protect the limited water supply.

We will protect, preserve and collaborate to ensure the safety and quality of Oahu's fresh water resource.

We will communicate the value of water to engage the community in a shared stewardship of Oahu's water resources.

We will ensure the necessary workforce and competencies to support the BWS needs.

We will renew and improve the water system to ensure water system adequacy, dependable service, and operational efficiency.

We will proactively and consistently provide a quality experience in every customer interaction.

We will ensure that our technology systems are current and leverage opportunities in technology to effectively support current and future BWS needs.

We will pursue and leverage financial opportunities and implement strategies to affordably meet our financial and regulatory requirements.

Action Plans

- Directed hydro-geologic research
- Watershed Management Plans
- Active collaboration with AWWA and other water agencies
- Regular water quality monitoring and reporting
- Source water protection program
- Treatment to meet water quality standards
- Use multi-media to keep internal and external stakeholders informed of BWS programs, projects and plans
- Increase educational workshops and tours to instill better understanding of importance of water stewardship
- Broaden the BWS message of the Value of Water
- Conduct an Enterprise Organizational Study
- Continue Multi-Skill worker program
- Expand/Develop FO and WSO Apprenticeship programs
- Develop Construction Inspector Aide program
- Annual CIP
- 6-Year CIP
- BWS Water Master Plan and 30-Year CIP
- FO and WSO Preventative maintenance program
- FO Leak Detection Program
- Process Improvement
- Quality assurance program
- 5 Year IT Strategic Plan
- Meter Reading Study
- State Revolving Fund (SRF) Refinancing
- Energy Savings Performance Contracting (ESPC)



Resource Sustainability

We will adapt to climate change to manage Oahu's water resources and protect the limited water supply.



Directed hydro-geologic research.



Watershed Management Plans.



Active collaboration with AWWA and other water agencies.



Direct hydro-geologic research.

Actions:



Study

Dynamic Downscaling Climate Change Model (UH)
Assessing Feasibility of Stormwater Harvesting in Nuuanu (UH)
Variations in Cold Front Passages (UH)
Transpiration Study: Native and Invaded Mesic Forest in Makaha (UH)
Pearl Harbor Numeric Groundwater Model (USGS)

Status

Deliverables being worked on.
Funded. Study on-going.
Deliverables being worked on.
Funding Year 2 of 3 in FY 2017
Deliverables being worked on.

Benefits:

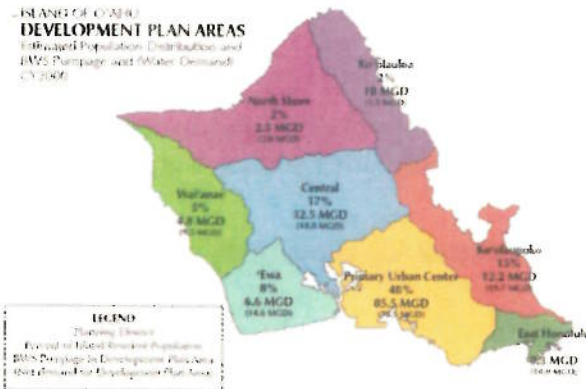
-  Greater understanding of climate change impacts to future weather patterns and their impacts to forest health and watershed recharge potential.
-  Increase understanding of groundwater movement in critical aquifers to guide future water resource planning.



Watershed Management Plans.

Actions:

ISLAND OF OAHU
DEVELOPMENT PLAN AREAS
 Estimated Population, Distribution, and
 BWS Pumpage and Water Demand
 CY 2000



Plan

Ko'olaupoko
 Ko'olaupoko
 Wai'anae
 North Shore
 Ewa
 Central
 Primary Urban Center
 East Honolulu

Status

NB, DPP & City Council Approved.
 NB, DPP & City Council Approved.
 NB, DPP & City Council Approved.
 NB Approved; At Council for Approval.
 Public Review Draft by Dec. 2016.
 On-going.
 NTP awarded 08/08/2016.
 To be Funded in FY 2018.

Benefits:

- Meets Ordinance/Statutory requirements of the Hawaii Water Plan.
- Guides the BWS long range capital improvement program.
- Guides the BWS watershed partnerships, demand-side requirements and recycled water programs.



Active collaboration with AWWA and other water agencies.

Actions:

Collaboration

Climate Change Vulnerability Analysis (WRF) (Barry)

National Blue Ribbon Commission to Advance Innovation in Decentralized Nonpotable Water Systems (Barry)

Western Water Agency Engineering Managers Group – CLEAN 17 (Jason)



Status

Fully funded. Analysis and deliverables under development. September 13 WRF Workshop scheduled.

National collaboration with US Water Alliance and 30 water utilities to provide a forum for identifying new business models, guidelines, policies and research to advance on-site nonpotable water systems as a conservation measure to reduce potable demands.

Representatives for engineering division of 17 utilities in 5 western states formed to hold regular meetings. Group has instituted a website and blog for interaction and networking between the member organizations

Benefits:

-  Identifies climate change impacts to recharge and source yields and infrastructure vulnerability from coastal regions.
-  Opportunities for sharing solutions for common challenges facing water industry.



Resource Sustainability

We will protect, preserve and collaborate to ensure the safety and quality of Oahu's fresh water resource.



Regular water quality monitoring and reporting.



Source water protection programs.



Treatment to meet water quality standards.



Regular water quality monitoring and reporting.

💧 Actions:

- 💧 BWS conducted chemical, microbiological and chlorine tests on water samples collected from its sources, distribution systems and treatment facilities.
- 💧 All regulatory requirements are being met and possible future rule changes are being monitored.

💧 Benefits:

- 💧 Ensured safe drinking water for customers.
- 💧 In compliance with all federally mandated drinking water standards.



Source water protection programs.

💧 Actions:

- 💧 Department of Health's (DOH) completed Source Water Assessment Program (SWAP) plan established capture zone delineation maps that BWS uses to evaluate land use activities for contamination impacts to BWS sources.

💧 Benefits:

- 💧 Protects potable wells by review of land uses and individual wastewater systems within the capture zone delineation maps.



Treatment to meet water quality standards.

💧 Actions:

- 💧 BWS conducted necessary water quality tests on water samples collected from BWS treatment plans.
- 💧 All regulatory requirements are being met and possible future rule changes are being monitored.

💧 Benefits:

- 💧 Ensured safe drinking water for customers.
- 💧 In compliance with all federally mandated drinking water standards.

Resource Sustainability

We will communicate the value of water to engage the community in a shared stewardship of Oahu's water resources.



Use multi-media to keep internal and external stakeholders informed.



Increase educational workshops and tours.

e mālama
i ka wai



Broaden the BWS message of the Value of Water.



Use multi-media to keep internal & external stakeholders informed.

💧 Actions:

- 💧 Continuing to expand use of social media.
- 💧 Updating of Red Hill Fuel Storage Tanks webpage.
- 💧 Launched redesigned, more user-friendly BWS internet site.

💧 Benefits:

- 💧 Redesign of web pages are easier to read and encourage users to access website.
- 💧 Keep public updated on Red Hill and BWS actions regarding Red Hill issues and concerns.
- 💧 Build awareness of BWS services and programs to customers to educate and actively engage them on key water concerns and issues.



Increase educational workshops and tours.

💧 Actions:

- 💧 Workshops to be expanded to weekday, during and after work hours.
- 💧 Community Relations Specialist I trained to conduct BWS tours and workshops.

💧 Benefits:

- 💧 Weekday workshops will reach different audience and groups.
- 💧 Staff cross-training promotes organizational stability and career progression for staff.





Broaden the BWS message of the Value of Water.

Actions:

-  Successfully completed 6 bi-monthly Stakeholder Advisory Group (SAG) meetings since July 2015.
-  Incorporated the “Value of Water” message in the theme of the 2017 Water Conservation Week Poster and Poetry Contests – “Conserve to Preserve”.

Benefits:

-  SAG members provide a diverse voice of key stakeholders to give input and feedback on issues facing their constituents and BWS; input enhanced BWS Water Master Plan.
-  “Value of Water” theme introduced to and discussed by younger generation.



Organizational Sustainability

We will ensure the necessary workforce and competencies to support the BWS needs.

Enterprise Organizational Study
BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU



Conduct an Enterprise Organizational Study.



Continue Multi-skill worker program.



Expand/Develop FO and WSO
Apprenticeship Programs.



Develop Construction Inspector Aide
Program.



Enterprise Organizational Study
BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU



Conduct an Enterprise Organizational Study.

Actions:

- Draft report completed and recommendations under review by staff.
- Recommendations to be reported to Board by December 2016.

Benefits:

- Analyze information flow and use of data within the organization.
- Evaluate the organization of BWS in comparison to other water utilities of comparable size.
- Incorporate recommendations/findings of on-going organizational process improvement projects.
- Recommend alternative plans for organizational structure, span of control, staffing levels and training programs.



Continue Multi-skill worker program.

💧 Actions:

- 💧 Working with Field to reorganize and officially incorporate MSW into division. Consultation with Unions to follow.
- 💧 Drafting position descriptions for MSW positions; new classes of work being created.
- 💧 Revising Trades Apprentice Work Standards to incorporate additional MSW trade skills.
- 💧 Developing transition plan from EMP to Civil Service.

💧 Benefits:

- 💧 Metrics developed for tracking productivity in maintenance work.
- 💧 Increase efficiencies in repairing water main breaks by utilizing cross-trained multi-skilled workers.
- 💧 Increase efficiencies by reducing job cancellations due to lack of specific journey level trades.



Expand/Develop FO and WSO Apprenticeship Programs

💧 Actions:

- 💧 Plant Electrical Electronic Repairer (PEEER) program approved by DLIR in 2014.
- 💧 2 PEEER apprentices hired.
- 💧 Ratio of Pipefitter Apprentice to Journey Worker temporarily increased from 1 to 2 for 3-year period.

💧 Benefits:

- 💧 Classroom & on-the-job training results in a more knowledgeable & competent employee.
- 💧 Knowledge transfer about the water system is passed down to apprentices from senior employees.
- 💧 Increased pool of qualified candidates for supervisory positions.
- 💧 Will produce journey-level licensed trades employees with BWS water system experience.



Develop Construction Inspector Aide Program

💧 Actions:

- 💧 Five (5) new Construction Inspector Aides began training and integration in to inspector work force in 2015.
- 💧 Construction Inspector Aides reallocated to Assistant Construction Inspector positions in 2016.
- 💧 Two (2) additional aide positions created and under recruitment.

💧 Benefits:

- 💧 Entry-level class expanded eligible pool of trainees.
- 💧 Provides succession planning and career progression for staff.



Organizational Sustainability

We will renew and improve the water system to ensure water system adequacy, dependable service and operational efficiency.



Annual CIP.



6-Year CIP.



BWS Water Master Plan and 30-Year CIP.



FO and WSO Preventative
Maintenance Program.



FO Leak Detection Program.



Annual CIP.

💧 Actions:

- 💧 FY 2017 CIP budget approved at May 23, 2016 Board Meeting.

- 💧 Total budget \$80,790,500.

Fiscal Year	% \$ Awarded/\$ Budgeted
2014	98%
2015	103%
2016	93%

💧 Benefits:

- 💧 CIP Program consistently receives annual funding for necessary water system improvements projects.
- 💧 Water system improvements maintain water system reliability and adequacy.



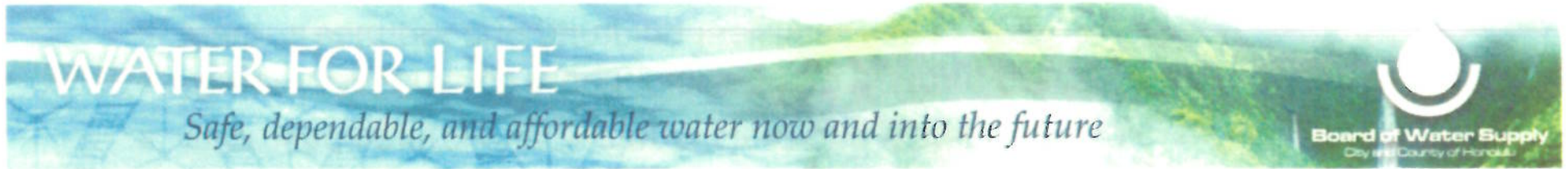
6-Year CIP.

💧 Actions:

- 💧 FY 2015 – 2020 plan adopted at the February 23, 2015 Board Meeting.

💧 Benefits:

- 💧 Fulfills Section 7-105(d) of the Revised Charter of Honolulu that requires the Department to adopt a six-year long range capital improvement program.
- 💧 Provides a multi-year guidance for project implementation and financial planning for water infrastructure projects.
- 💧 Meets BWS mission of providing safe, dependable and affordable water now and into the future.



BWS Water Master Plan and 30-Year CIP.

💧 Actions:

- 💧 Draft Water Master Plan completed in July 2016.
- 💧 Public comment period underway; deadline September 12, 2016.
- 💧 Draft of 30-Year CIP undergoing staff review.

💧 Benefits:

- 💧 Provides a comprehensive understanding of O'ahu's water supplies, water needs and the water system.
- 💧 Prioritizes investment in water system infrastructure projects based on benefit and risk.
- 💧 Increases water system reliability for customers so that water is available when and where it is needed/
- 💧 Fulfills mission of providing safe, dependable and affordable water now and into the future.



FO and WSO Preventative Maintenance Program.

💧 Actions:

- 💧 Field Operations 18-month maintenance program ongoing.
- 💧 Water Systems Operations (WSO) maintenance program approved.
- 💧 WSO hired 8 PSCs and were trained to perform water treatment work previously done by Water Maintenance Mechanics.
- 💧 WSO recruiting 4 more water treatment PSCs, HVAC mechanic and building electrician.

💧 Benefits:

- 💧 Regular planned maintenance of infrastructure improves system reliability.
- 💧 Reduces emergency repairs and operational costs by extending life of assets.
- 💧 Improved control over water system and water outages.
- 💧 Water Maintenance Mechanics able to perform preventative maintenance of water treatment and pumping facilities.



FO Leak Detection Program.

💧 Actions:

- 💧 Leak Detection function transferred to Field Operations.
- 💧 Program is being re-evaluated to improve and expand program.

💧 Benefits:

- 💧 Early detection of leaks reduces emergency repairs and reduces cost.
- 💧 Conserves water resources.

Fiscal Year	Leaks found	Miles Surveyed
2014	245	361.4
2015	489	373.0
2016	514	304.8

Organizational Sustainability

We will proactively and consistently provide a quality experience in every customer interaction.



Process Improvement.



Quality Assurance Program.



Process Improvement.

💧 Actions:

- 💧 Established Division logging system to track requests and completion of requests.
- 💧 Instituted a review and sign-off process for new or changes to work practices.
- 💧 Revised call center training program for new employees.
- 💧 Instituted a customer escalation process to support prompt resolution of customer issues.

💧 Benefits:

- 💧 Helps ensure responsiveness to the customer.
- 💧 Effectively manages information and tasks.

WATER FOR LIFE

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



Board of Water Supply
City and County of Honolulu



Quality Assurance Program.

💧 Actions:

- 💧 Developed call standards.
- 💧 Initiated library of service standards, procedures and guidelines for staff use and training.

💧 Benefits:

- 💧 Promotes consistent, quality customer interaction to meet their information and service needs.



Organizational Sustainability

We will ensure that our technology systems are current & leverage opportunities in technology to efficiently support current & future BWS needs.



5-Year IT Strategic Plan.



Meter Reading Study.



5-Year IT Strategic Plan.

💧 Actions:

- 💧 5-Year Strategic Plan Update.
- 💧 Upgrade of Maximo and Initiation of Website Redesign and Kronos Upgrade.
- 💧 Migration of SharePoint 2007 to 2013.
- 💧 Chartered IT Standards, Policies and Procedures Committee.
- 💧 Finalized new hydraulic models.
- 💧 Piloting mobile, cloud and video teleconferencing solutions.

💧 Benefits:

- 💧 Ensure alignment of Division with Departmental goals.
- 💧 Consolidate and/or adopt standards, policies and procedures to increase efficiency and effectiveness.
- 💧 Leverage new and emerging technologies to improve delivery of service.



Meter Reading Study.

💧 Actions:

- 💧 Completed draft of Meter Reading Study and held briefing at the April 27, 2015 Board Meeting.
- 💧 Piloted new radio receiver units (MXUs) to improve AMR drive-by reading.

💧 Benefits:

- 💧 Findings of Meter Reading Study to be used to prepare Request for Information to set direction for BWS Meter Reading Program.
- 💧 MXU Pilot data shows improved meter reads (98-99%) and that a full roll-out of an MXU replacement program can be initiated.

WATER FOR LIFE

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



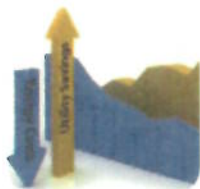
Board of Water Supply
City and County of Honolulu

Financial Sustainability

We will pursue & leverage financial opportunities and implement strategies to affordably meet our financial and regulatory requirements.



State Revolving Fund (SRF) Program.



Energy Savings Performance Contracting.



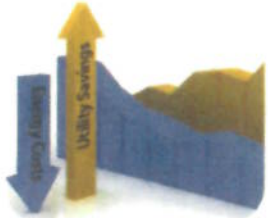
State Revolving Fund (SRF) Program.

💧 Actions:

- 💧 BWS used SRF loans to refinance existing debt in 2014.
- 💧 BWS received \$11M SRF loan in 2015.
- 💧 BWS received loan commitments of \$39.3M.
- 💧 Negotiating with DOH new loan agreements for FY 2017.
- 💧 Paid off \$9.23M in outstanding SRF loans that were at a higher interest rate in July 2016.
- 💧 Anticipate paying off additional \$7M in 2017.

💧 Benefits:

- 💧 Realized \$6M in interest savings in 2014 debt refinancing.
- 💧 Using low interest loans to fund infrastructure improvements.



Energy Savings Performance Contracting (ESPC)

Actions:

- Investment Grade Audit (IGA) completed by the selected Energy Service Company, NORESKO
- IGA accepted by the BWS.
- Executed a Guaranteed Energy Savings (GES) agreement with NORESKO to implement IGA recommendations.
- Received SRF loan commitment for ESPC program.

Benefits:

- Reduces annual electrical consumption by 8.6%.
- Energy savings guaranteed for 17 years after construction.



Performance Metrics

Goals	Performance Metric	Base	Current	Target	AWWA*	Status	Last FY	Lead
Resource	Stable Head Levels at Index Wells	95%	100%	100%	NA	▲	■	WR
Resource	Regulatory Compliance	100%	100%	100%	100%	▲	▲	WQ
Resource	Resident Satisfaction (% Strong Sat)	59%	59%	>59%	NA	▲	▲	CO
Operational	Training hours/FTE	19	22	20	20	▲	■	HR
Operational	Employee Turn-Over Rate	8.3%	8.6%	7.0%	5%	■	■	HR
Operational	CIP Encumbrance Rate	98%	93%	100%	NA	■	▲	CP
Operational	Mainbreaks per 100 Miles of Pipe	15	16	14	16	■	▲	FO
Operational	Call Center Average Wait Time (min)	6.9	1.85	<2.00	1.9	▲	▲	CC
Operational	Call Center Abandon Rate	22%	11%	5%	8%	■	■	CC
Financial	Estimated Bills Rate	7%	1%	<2%	NA	▲	▲	FN
Financial	Operating Ratio	57%	51%	60%	69%	▲	▲	FN
Financial	Debt Ratio	4.07	6.60	1.60	1.45	▲	▲	FN

▲ Excellent

■ Good

■ Fair

▼ Poor

* Source: 2013 AWWA Benchmarking Performance Indicators for Water & Wastewater Utilities Report

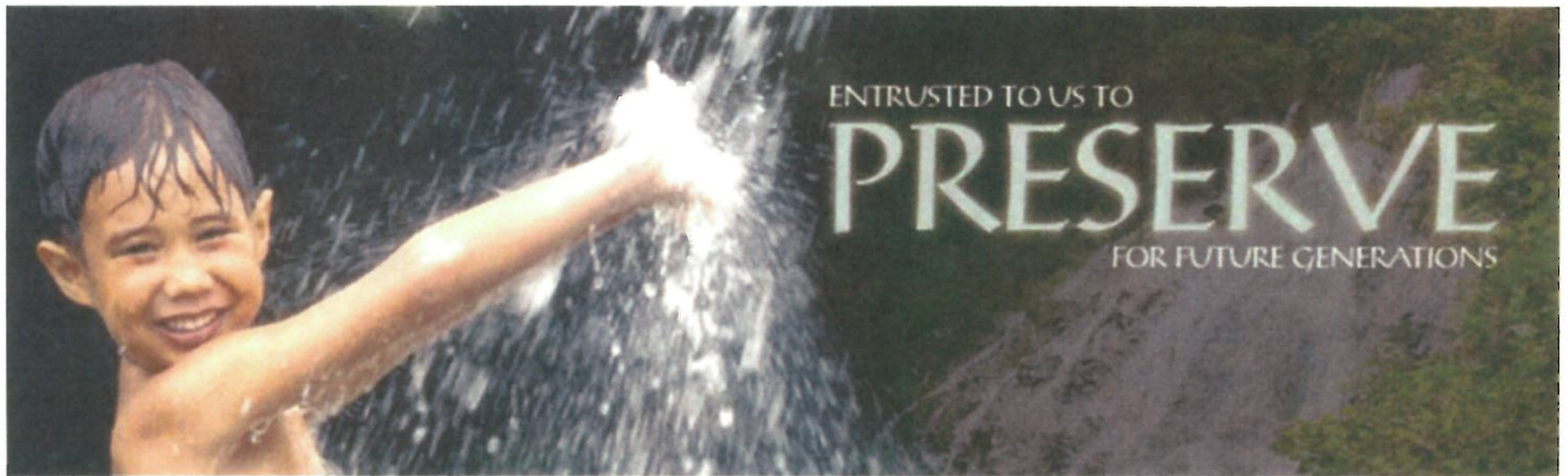


Next Steps

- Final report to close the 2014 – 2017 Strategic Plan.
- Begin work on 2018 – 2022 Strategic Plan.
- Anticipated draft in Dec 2016 and Board adoption in July 2017.
- Board member(s) participation in development of plan would be welcome.



Questions?



ITEM FOR INFORMATION NO. 3

Quarterly Capital Improvement Program Status Report
All Divisions

Quarter Awarded	JUL - SEP		OCT - DEC		JAN - MAR		APR - JUN		Awarded to Date	Total Budgeted
Design Contracts Awarded (#/\$)	0	\$0.00	6	\$2,308,115.00	4	\$1,021,966.63	16	\$10,157,051.73	\$13,487,133.36	\$17,805,000.00
Construction Contracts Awarded (#/\$)	0	\$0.00	6	\$4,504,486.91	3	\$33,439,323.00	18	\$46,117,195.60	\$84,061,005.51	\$86,875,000.00
Project Totals	0	\$0.00	12	\$6,812,601.91	7	\$34,461,289.63	34	\$56,274,247.33	\$97,548,138.87	\$104,680,000.00

Quarter Completed	JUL - SEP		OCT - DEC		JAN - MAR		APR - JUN		Totals
Design Contracts Completed (#/\$)	3	\$748,430.04	2	\$559,034.89	3	\$2,712,819.00	1	\$751,154.00	\$4,771,437.93
Construction Contracts Completed (#/\$)	1	\$684,648.68	2	\$1,527,397.00	0	\$0.00		\$0.00	\$2,212,045.68
Totals	4	\$1,433,078.72	4	\$2,086,431.89	3	\$2,712,819.00	1	\$751,154.00	\$6,983,483.61

Ongoing Projects	
Ongoing Design Projects (#)	207
Ongoing Design Projects (\$)	\$69,702,408.69
Ongoing Construction Projects (#)	118
Ongoing Construction Projects (\$)	\$247,487,068.27

Quarterly Capital Improvement Program Status Report
All Divisions

DESIGN AND CONSTRUCTION PROJECTS AWARDED - FOURTH QUARTER FY 2016

Item #	Project Title	Expend Type	Budget Amount	Awarded
16-002	Red Hill Groundwater Monitoring Wells	CONST	\$400,000.00	\$323,911.24
2016-003	Construction Management for Various ECMs in ESPC	P & E	\$1,000,000.00	\$1,250,000.00
16-006K	Makaha Wells II Hydropneumatic Tank Replacement	CONST	\$587,647.00	\$587,647.00
16-007	Keanu Line Booster - Replacement of Pumping Units	CONST	\$1,850,000.00	\$2,373,201.00
16-009	Barbers Point Line Booster Improvements	CONST	\$3,000,000.00	\$2,242,000.00
16-010	Kalihi Pump Station Low and High Service Renovation	CONST	\$9,475,000.00	\$11,059,837.56
16-011A	Hoaeae Wells - Replacement of Pumping Unit No. 2	CONST	\$26,605.44	\$491,180.00
16-012	Anoi Road Water System Improvements	CONST	\$6,600,000.00	\$6,140,245.00
16-013	Mailiili Road 20-Inch Main	CONST	\$2,000,000.00	\$631,928.80
16-014	Fire Hydrant Installations at Various Locations	CONST	\$300,000.00	\$624,700.00
2016-016	Makakilo Water System Improvements, Part III	P & E	\$850,000.00	\$868,211.00
2016-017	Kalihi Water System Improvements, Part VI	P & E	\$940,000.00	\$869,630.00
2016-019	Waiau Water System Improvements, Part II	P & E	\$240,000.00	\$200,007.10
2016-020	North School Street Water System Improvements	P & E	\$840,000.00	\$968,021.39
2016-021	Pearl City Water System Improvements, Part IV	P & E	\$1,250,000.00	\$1,196,084.00
2016-022	Keolu Hills Water System Improvements, Part II	P & E	\$620,000.00	\$1,561,778.43
2016-023	Lanakila Water System Improvements	P & E	\$530,000.00	\$379,671.60
2016-024	Pauoa Water System Improvements	P & E	\$600,000.00	\$789,504.89
16-029B	Hawaii Loa Booster No. 2 Mute Structure and Drainage Improvements	CONST	\$1,851,079.00	\$1,851,079.00
16-029G	Kailua Heights, Waimanalo Boosters Facility Repairs and Kailua Heights 230 Demolition	CONST	\$591,431.00	\$1,210,000.00
16-029E	Facility Repairs - Kalihi Corporation Yard	CONST	\$0.00	\$143,000.00
16-029K	Kawela 228 Reservoir	CONST	\$0.00	\$1,040,000.00
16-030	Storm Water Management Plan Improvements	CONST	\$500,000.00	\$824,700.00
16-032	Emergency Generator Project	CONST	\$7,200,000.00	\$7,658,200.00
2016-036	Waimanalo Tunnels I and II and Waianae Plantation Tunnel III Renovation	P & E	\$300,000.00	\$284,933.60
2016-041	Wikao Street: 8-Inch Water Main	P & E	\$300,000.00	\$225,796.33
2016-042A	Archaeological Services for Slope Stabilization at Various Sites	P & E	\$60,726.41	\$60,726.41
2016-042B	Archaeological Services for Diamond Head Line Booster	P & E	\$51,714.34	\$51,714.34
2016-042D	Emergency Rockfall Assessment and Mitigation	P & E	\$148,645.00	\$148,645.00
2016-043B	Access Road Repair and Drainage Improvements	P & E	\$332,387.00	\$484,279.00
16-045	Lualualei Line Booster Improvements	Const.	\$3,000,000.00	\$4,461,700.00
2016-046	Mililani 994 Booster Station	P & E	\$350,000.00	\$818,048.64
16-049	Honouliuli Water Recycling Facility Improvements	CONST	\$4,453,866.00	\$4,453,866.00
4th Quarter totals			\$50,249,101.19	\$56,274,247.33

DESIGN AND CONSTRUCTION PROJECTS COMPLETED - FOURTH QUARTER FY 2016

Job #	Project Title	Completion Date	Contract Amount
2003-050	Kamehameha Highway 16-Inch and 8-Inch Mains (Heeia)	6/27/2016	\$751,154.00
4th Quarter totals			\$751,154.00

DISCUSSION

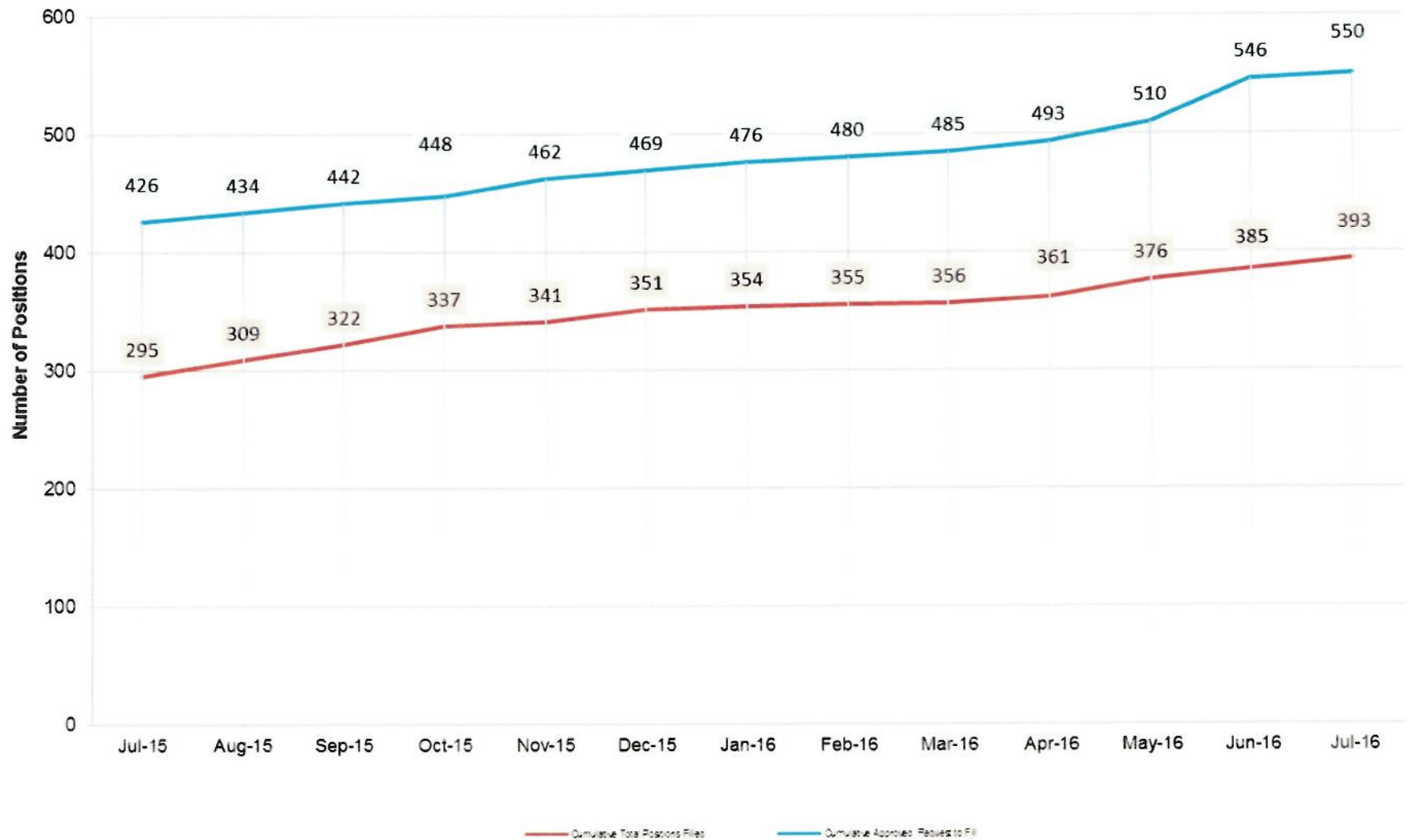
Jason Takaki, Capital Projects Program Administrator, gave the report. There were no comments or discussion.

ITEM FOR INFORMATION NO. 4

Positions Filled July 1, 2015 through July 31, 2016



Cumulative Totals July 1, 2015 through July 31, 2016



DISCUSSION

Karen Tom of the Human Resources Office gave the report. In response to Mr. Wong's inquiry as to whether BWS increased the number of BWS positions to 701, Ms. Tom answered this is the total number of positions funded for fiscal year 2017. BWS authorized position count is 714. BWS is now funding positions that had not been funded previously.

ITEM FOR INFORMATION NO. 5

"August 22, 2016

GROUNDWATER
LEVELS Chair and Members
 Board of Water Supply
 City and County of Honolulu
 Honolulu, Hawaii 96843

Chair and Members:

Subject: Status Update of Groundwater Levels at All Index
 Stations

There were no aquifer index wells within low groundwater status for the production month of June 2016. The monthly production average for July 2016 was 143.44 million gallons per day.

The Board of Water Supply rainfall index for the month of July 2016 was 251 percent of normal; with a 5-month moving average of 129 percent. As of August 9, 2016, the Hawaii Drought Monitor shows no dry conditions for the island of Oahu.

Most index monitor wells have started to exhibit static or increasing trends due to the increased rainfall from the month of July 2016 into the beginning of August 2016, and the associated general decrease in pumpage during the same time period.

Respectfully submitted,

/s/ ERNEST Y. W. LAU, P.E.
 Manager and Chief Engineer

Attachments"

The foregoing was for information only.

DISCUSSION: Barry Usagawa, Water Resources Division Program Administrator, gave the report. There were no comments or discussion.

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF JULY 2016**

POTABLE

STATION	MGD
HONOLULU (1)	
KULIOUOU	0.06
WAILUPE	0.04
AINA KOA	0.32
AINA KOA II	1.05
MANOA II	0.00
PALOLO	1.09
KAIMUKI HIGH	2.53
KAIMUKI LOW	2.36
WILDER	7.57
BERETANIA HIGH	5.08
BERETANIA LOW	1.46
KALIHI HIGH	1.73
KALIHI LOW	3.78
KAPALAMA	0.63
KALIHI SHAFT	8.36
MOANALUA	0.63
HALAWA SHAFT	7.76
KAAMILO	0.00
KALAUAO	7.40
PUNANANI	12.11
KAHUMANU	0.87
HECO WAIU	2.70
MANANA	0.33
WELLS SUBTOTAL:	67.85
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.23
GRAVITY SUBTOTAL:	0.40
HONO. SUBTOTAL:	68.25

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.37
WAIMANALO III	0.47
KUOU I	0.08
KUOU II	0.06
KUOU III	0.36
LULUKU	1.00
HAIKU	0.30
IOLEKAA	0.00
KAHALUU	0.80
KAHANA	0.83
PUNALUU I	0.00
PUNALUU II	2.33
PUNALUU III	1.12
KALUANUI	0.00
MAAKUA	0.26
HAUULA	0.00
WELLS SUBTOTAL:	7.97
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	0.95
WAIHEE TUNNEL	4.80
LULUKU TUNNEL	0.10
HAIKU TUNNEL	0.00
KAHALUU TUNNEL	1.66
GRAVITY SUBTOTAL:	7.69
WIND. SUBTOTAL:	15.66

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.38
OPANA	1.03
WAIALEE I	0.00
WAIALEE II	0.00
HALEIWA	0.00
WAIALUA	2.52
N.SHORE SUBTOTAL:	3.92

STATION	MGD
MILILANI (4)	
MILILANI I	3.11
MILILANI II	0.00
MILILANI III	0.00
MILILANI IV	1.74
MILILANI SUBTOTAL:	4.85

STATION	MGD
WAIHAWA (5)	
WAIHAWA	1.92
WAIHAWA II	1.36
WAIHAWA SUBTOTAL:	3.28

STATION	MGD
PEARL CITY-HALAWA (6)	
HALAWA 277	0.90
HALAWA 550	0.00
AIEA	0.95
AIEA GULCH 497	0.51
AIEA GULCH 550	0.21
KAONOHI I	0.82
WAIMALU I	0.00
NEWTOWN	1.03
WAIU	0.67
PEARL CITY I	0.52
PEARL CITY II	1.05
PEARL CITY III	0.35
PEARL CITY SHAFT	0.94
PEARL CITY-HALAWA SUBTOTAL:	7.95

STATION	MGD
WAIPAHU-EWA (7)	
WAIPIO HTS.	0.06
WAIPIO HTS. I	0.06
WAIPIO HTS. II	0.26
WAIPIO HTS. III	1.28
WAIPAHU	2.74
WAIPAHU II	1.28
WAIPAHU III	3.99
WAIPAHU IV	3.05
KUNIA I	5.10
KUNIA II	3.01
KUNIA III	1.42
HOAEAE	7.91
HONOULIULI I	0.00
HONOULIULI II	3.99
MAKAKILO	0.32
WAIPAHU-EWA SUBTOTAL:	34.47

STATION	MGD
WAIANAE (8)	
MAKAHA I	0.64
MAKAHA II	0.06
MAKAHA III	0.95
MAKAHA V	0.48
MAKAHA VI	0.00
MAKAHA SHAFT	0.00
KAMAILE	0.14
WAIANAE I	0.02
WAIANAE II	0.55
WAIANAE III	0.65
WELLS SUBTOTAL:	3.50
WAI. C&C TUNNEL	1.40
WAI. PLANT. TUNNELS	0.16
GRAVITY SUBTOTAL:	1.56
WAIANAE SUBTOTAL:	5.06

NONPOTABLE

NONPOTABLE	MGD
KALAUAO SPRINGS	0.54
BARBERS POINT WELL	1.27
GLOVER TUNNEL NP	0.42
NONPOTABLE TOTAL:	2.23

RECYCLED WATER (JUNE 2016)

RECYCLED WATER	MGD
HONOULIULI WRF R-1	7.80
HONOULIULI WRF RO	1.44
RECYCLED WATER TOTAL:	9.24

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF JULY 2016**

PRODUCTION SUMMARIES

TOTAL WATER	MGD
PUMPAGE	133.79
GRAVITY	9.65
POTABLE TOTAL:	143.44
NONPOTABLE	2.23
RECYCLED WATER	9.24
TOTAL WATER:	154.91

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS				
POTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE/ BWS YLDS	B JUL 2016	C DIFF. A-B
1	HONOLULU	82.93	67.85	15.08
2	WINDWARD	25.02	9.91	15.11
3	NORTH SHORE	4.74	3.92	0.82
4	MILILANI	7.53	4.85	2.68
5	Wahiawa	4.27	3.28	0.99
6	PEARL CITY-HALAWA	12.25	7.95	4.30
7	WAIPAHAU-EWA	50.63	34.47	16.16
8	WAIANAE	4.34	3.50	0.84
TOTAL:		191.71	135.74	55.97

CWRM PERMITTED USE FOR BWS				
NONPOTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE	B JUL 2016	C DIFF. A-B
7	WAIPAHAU-EWA (BARBERS POINT WELL)	1.00	1.27	-0.27
TOTAL:		1.00	1.27	-0.27

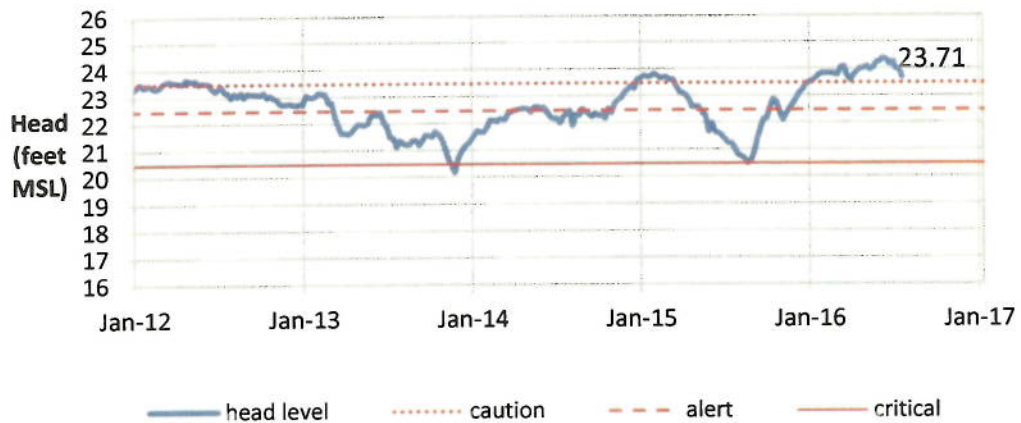
EFFECTIVE WATER DEMAND PER DISTRICT

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS			
FROM	TO		MGD
2	1	WINDWARD EXPORT	0.14
7	8	BARBERS PT LB	5.61

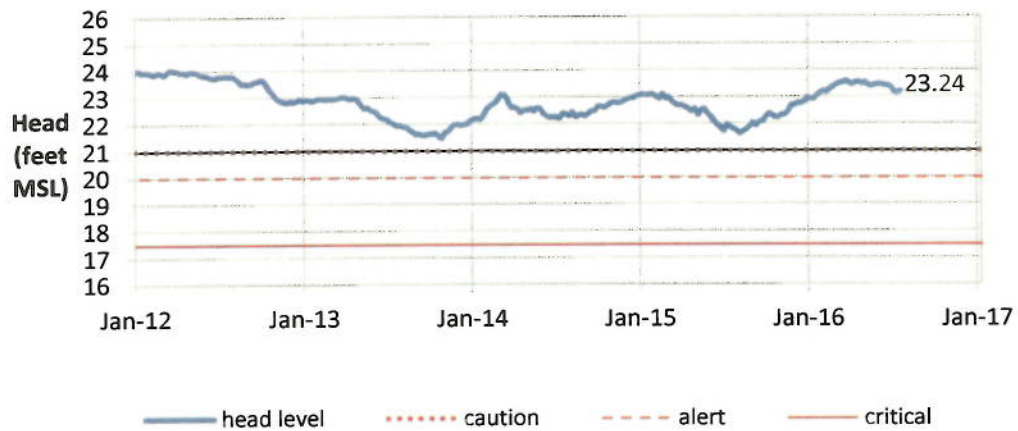
WATER USE DISTRICTS		SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	67.85	0.14	-	67.99
2	WINDWARD	9.91	-	0.14	9.77
3	NORTH SHORE	3.92	-	-	3.92
4	MILILANI	4.85	-	-	4.85
5	Wahiawa	3.28	-	-	3.28
6	PEARL CITY-HALAWA	7.95	-	-	7.95
7	WAIPAHAU-EWA	34.47	-	5.61	28.86
8	WAIANAE	3.50	5.61	-	9.11
TOTAL:		135.74	5.75	5.75	135.74

Weekly Head Report

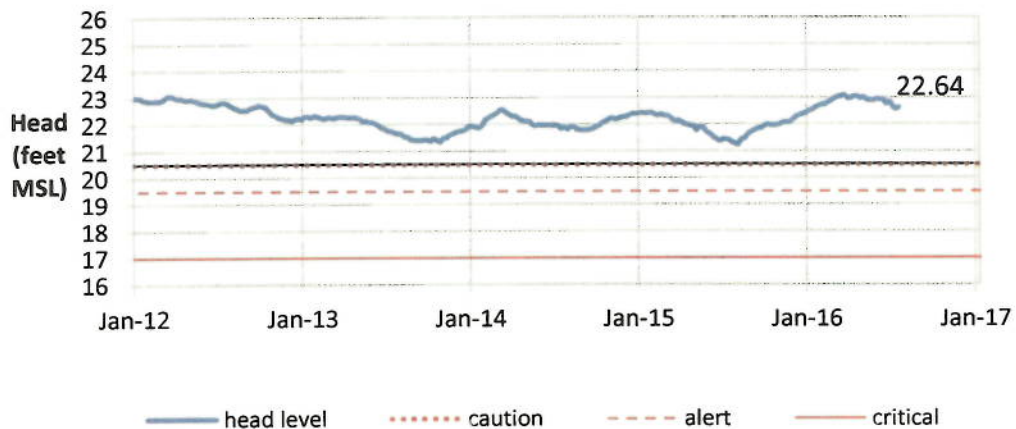
Kaimuki 07/24/16



Beretania 07/24/16

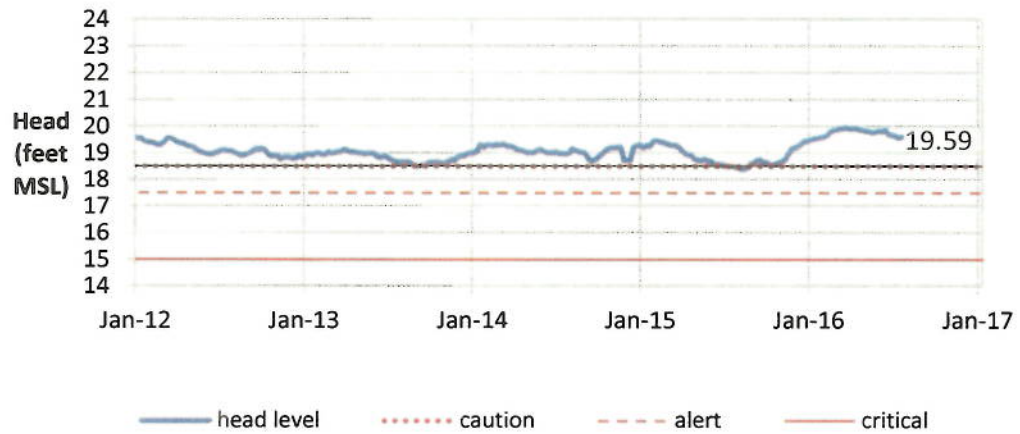


Kalihi 07/24/16

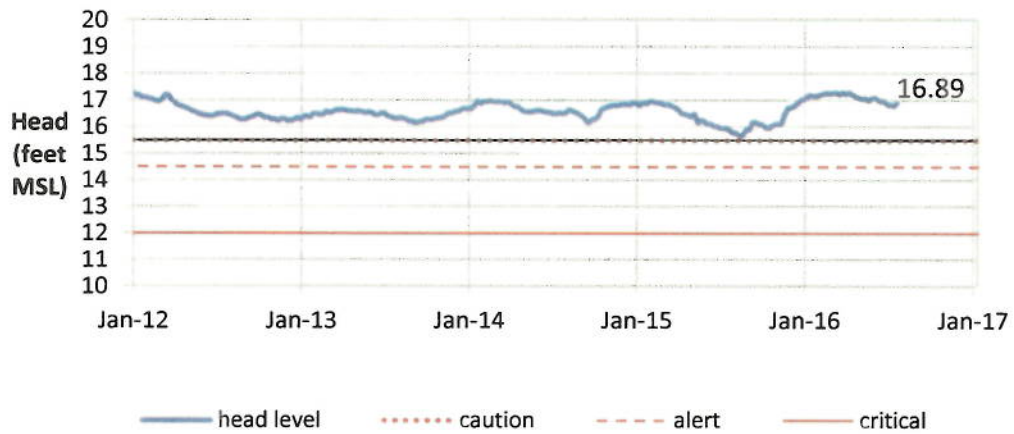


Weekly Head Report

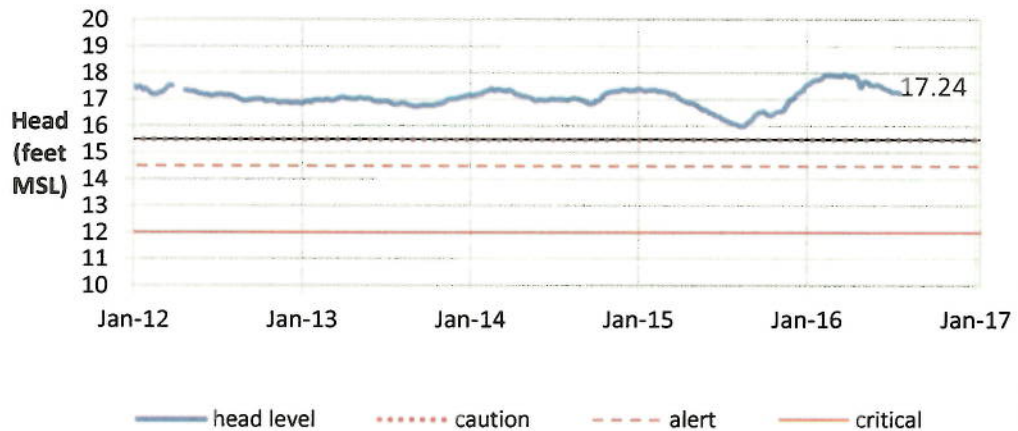
Moanalua 07/24/16



Halawa 07/24/16

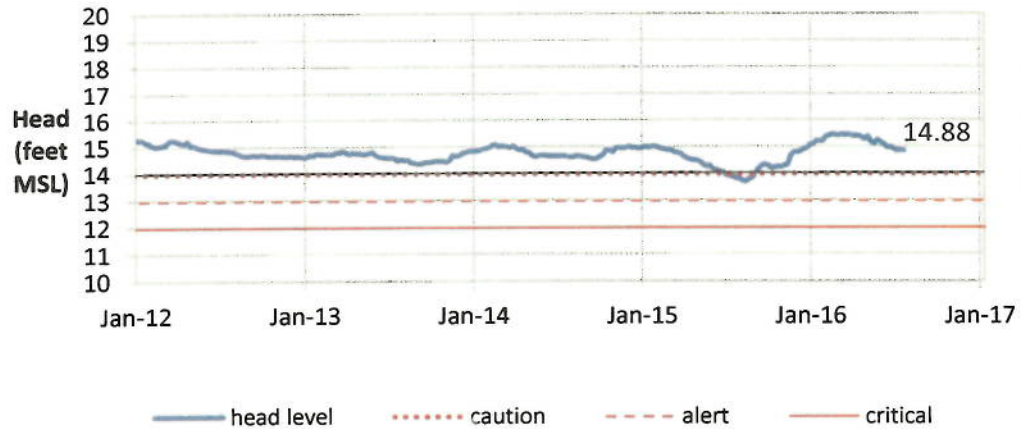


Kalauao 07/24/16

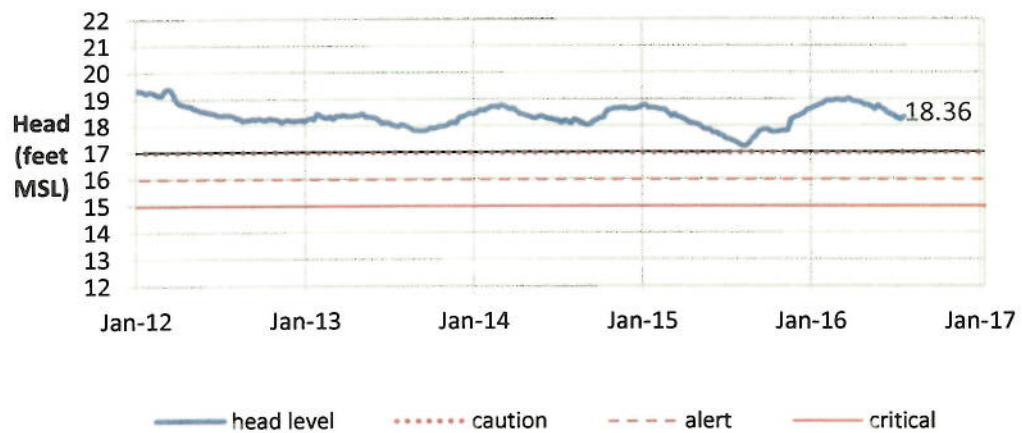


Weekly Head Report

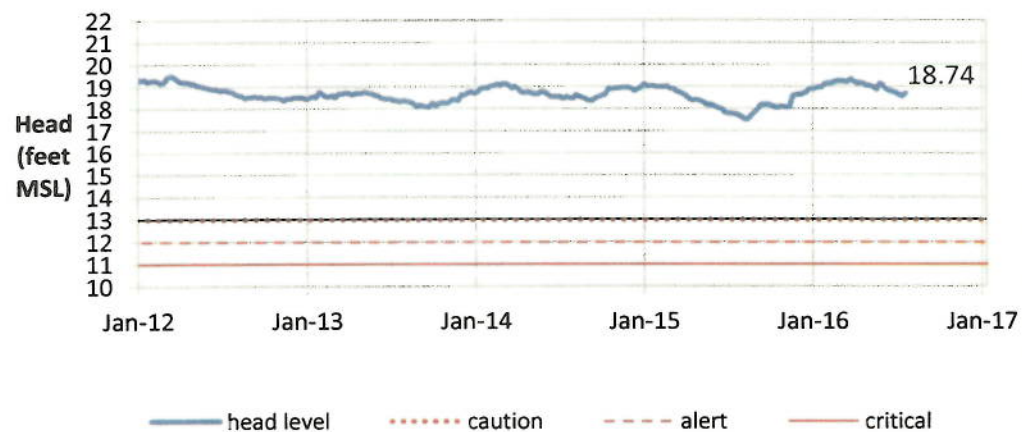
Pearl City 07/24/16



Waipahu 07/24/16

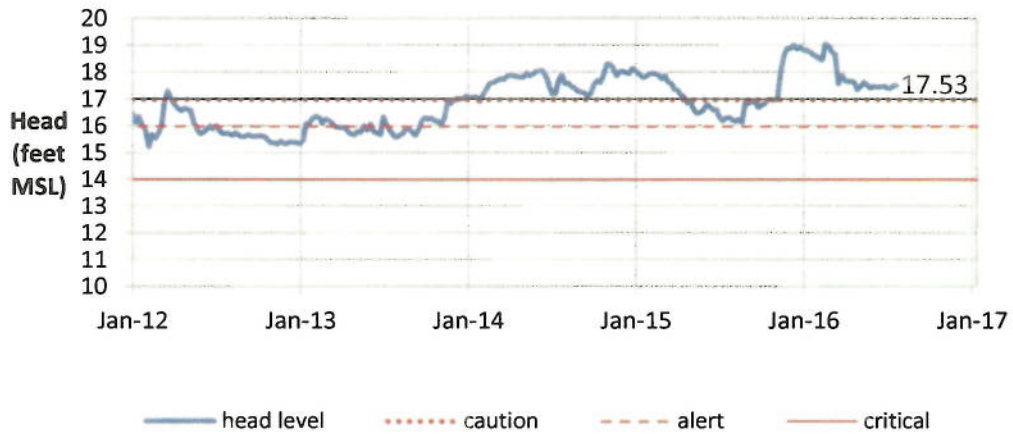


Hoeaee-Kunia 07/24/16

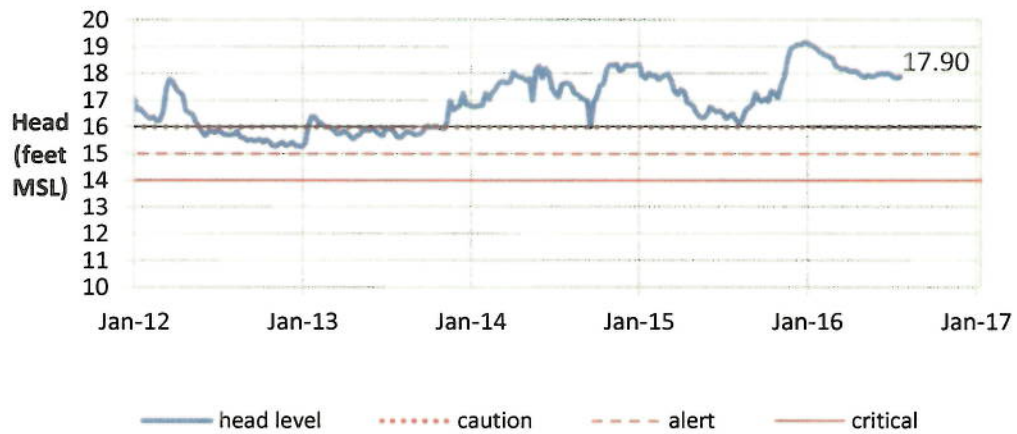


Weekly Head Report

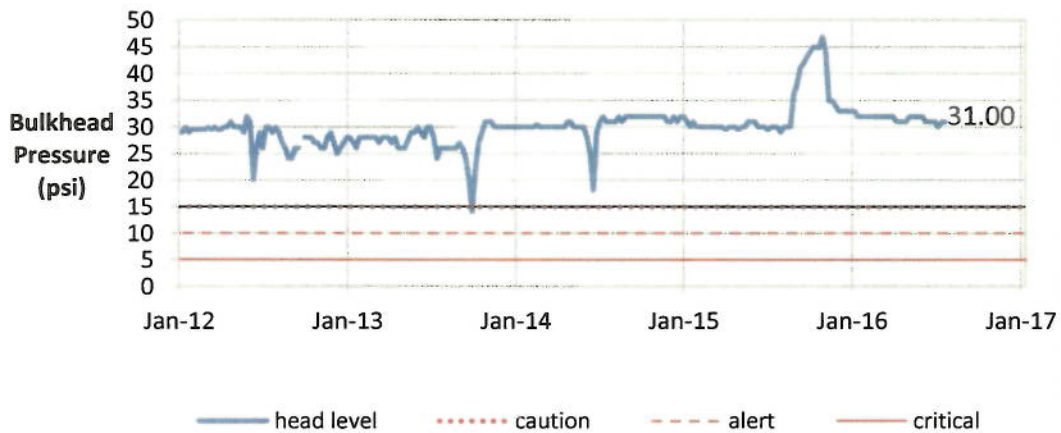
Punaluu 07/24/16



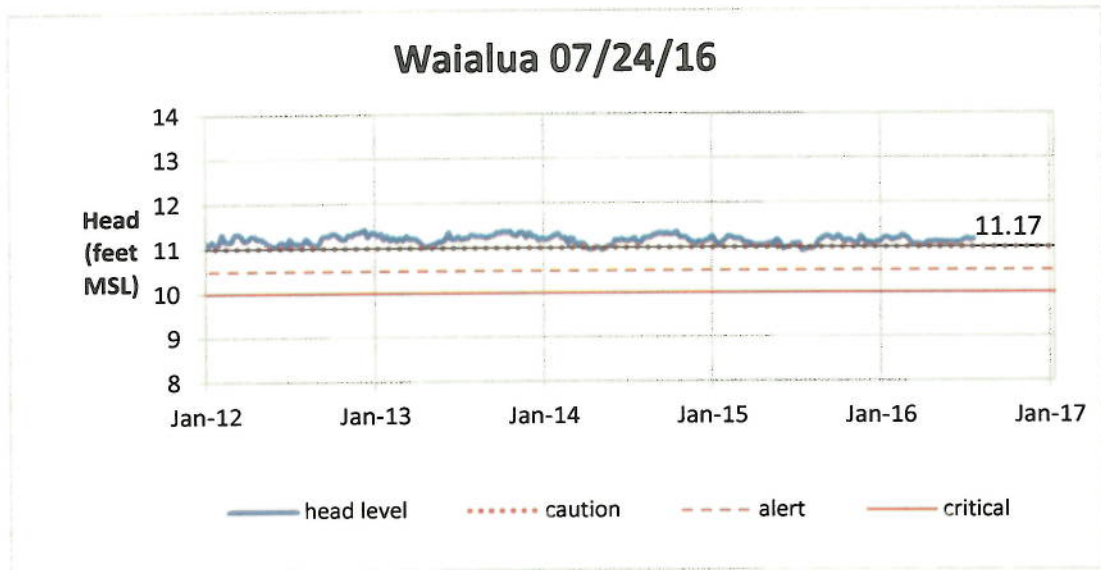
Kaluanui 07/24/16



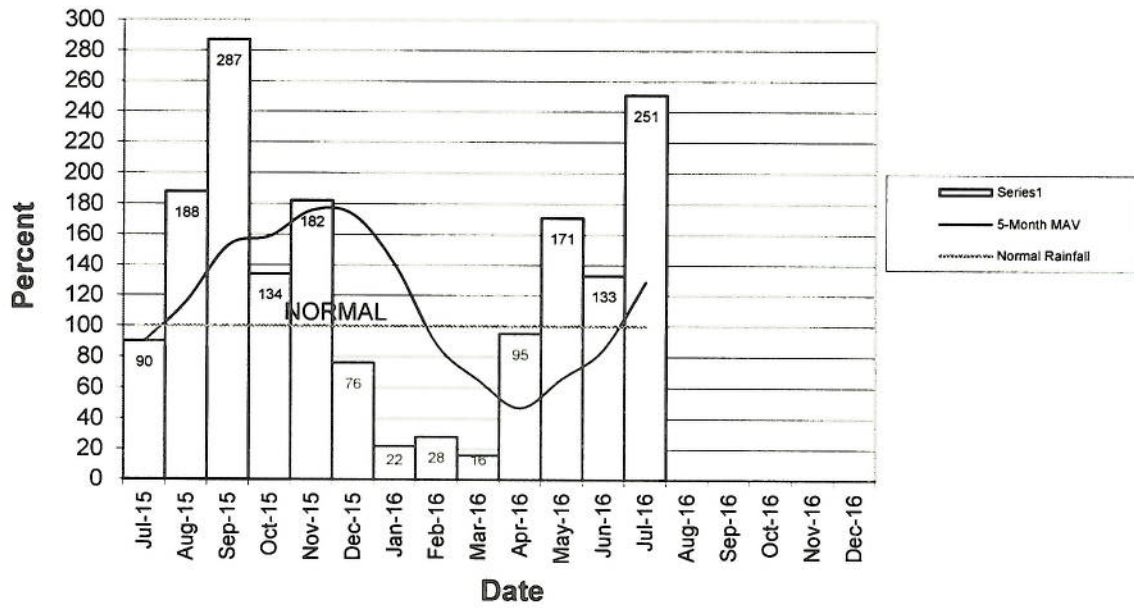
Waihee Tunnel 07/24/16



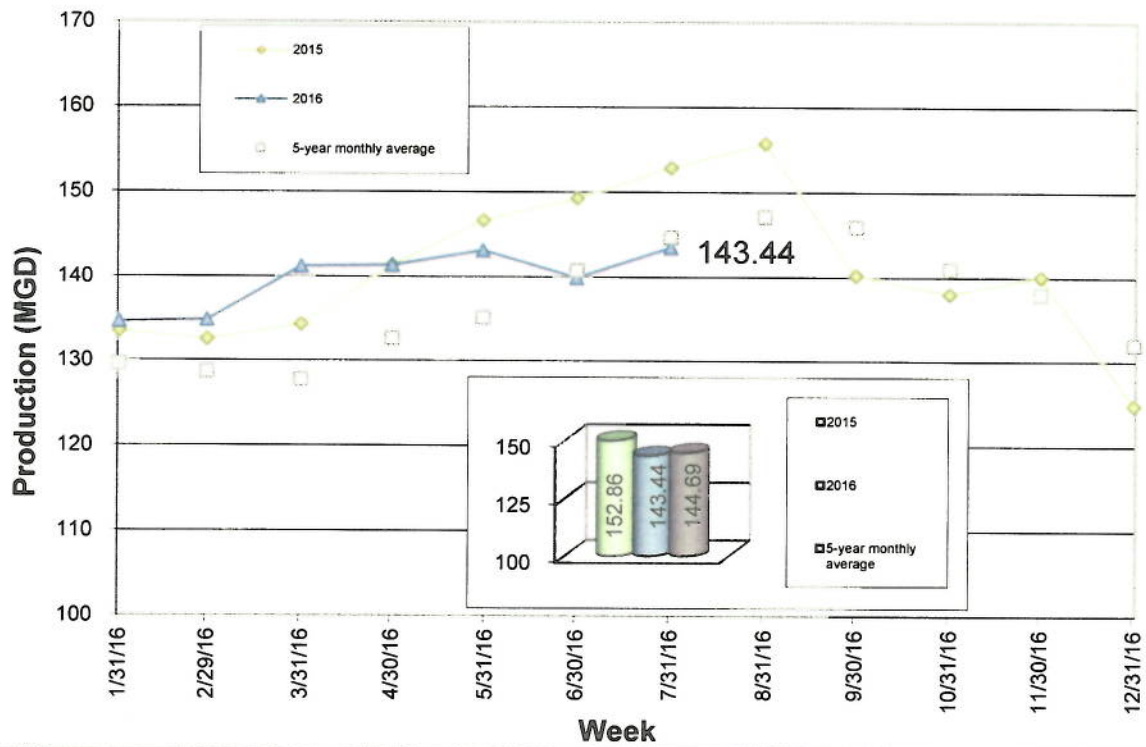
Weekly Head Report



HONOLULU WATERSHED AREA Rainfall Intake



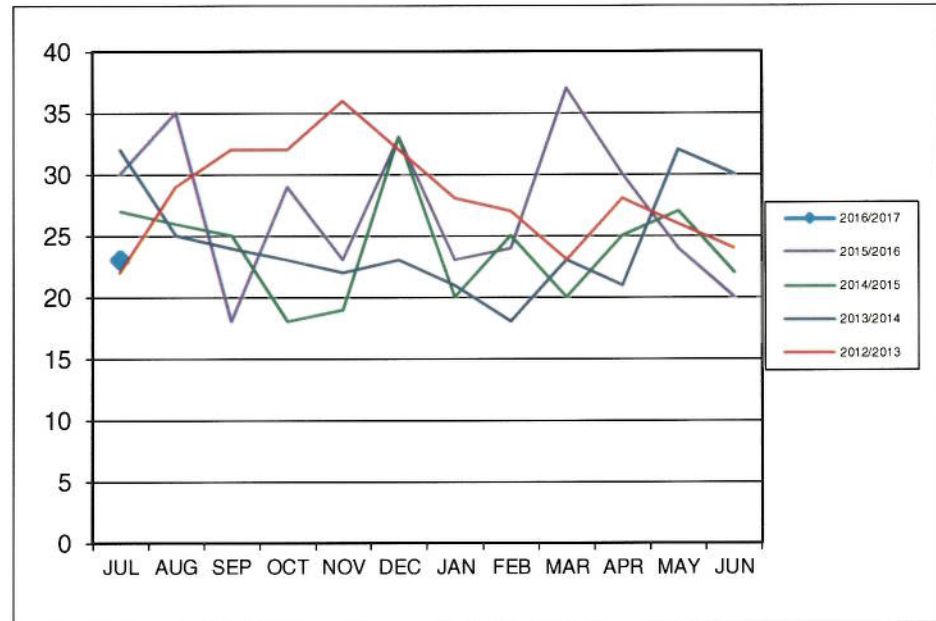
Monthly Production



WATER MAIN REPAIR REPORT for July 2016

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2016/2017	23												23
2015/2016	30	35	18	29	23	33	23	24	37	30	24	20	326
2014/2015	27	26	25	18	19	33	20	25	20	25	27	22	287
2013/2014	32	25	24	23	22	23	21	18	23	21	32	30	294
2012/2013	22	29	32	32	36	32	28	27	23	28	26	24	339

Date	Address	Size
7/1	Kaluanui Rd. & Kamookoa Pl.	12" CI
7/1	45-562 Kaaluna Pl.	8" CI
7/2	5231 Poola St.	8" CI
7/6	577 Kawaihoa Rd.	6" CI
7/6	Liliha St. & Bates St.	12" PVC
7/8	45-706 Kolokio Pl.	4" CI
7/8	1588 Haloa Dr.	8" CI
7/9	1319 Lunalilo Home Rd.	8" DI
7/12	731 Kamehameha Hwy.	8" CI
7/14	1108 Auahi St.	8" CI
7/15	91-440 Pupu St.	8" CI
7/16	2629 Pamoia Rd.	6" CI
7/19	731 Kamehameha Hwy.	8" CI
7/20	1015 Wilder Ave.	4" CI
7/20	91-1210 Aawa Dr.	8" DI
7/21	1936 Citron St.	16" CI
7/23	7534 Nakalele St.	8" CI
7/24	53-354 Kamehameha Hwy.	16" CC
7/25	7118 Kukii St.	8" CI
7/25	914 Green St.	6" CI
7/25	45-580 Anoi Rd.	8" CI
7/28	45-609 Keaahala Rd.	16" CI
7/29	98-1478 Hoohiki St.	12" CI



Bold * - Pro-active Leak Repair

18.12 miles of pipelines were surveyed by the Leak Detection Team in the month of July.

DISCUSSION

Daryl Hiromoto, Field Operations Division Program Administrator, gave the report. Mr. Hiromoto mentioned that although 400-500 leaks are found annually via our leak detection program, the majority are small leaks like meter and hydrant leaks that have a small chance of rupturing. Leaks found on the pipelines are the ones that can cause BWS a lot of damage and loss of water. However, all leaks are important and BWS is ramping up the leak detection program.

MOTION TO
ADJOURN

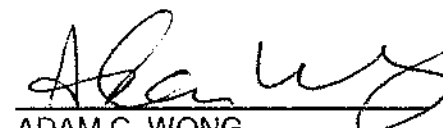
There being no further business Chair Miyashiro at 3:02 PM called for a motion to adjourn the Open Session. Adam Wong so moved; seconded by Ross Sasamura and unanimously carried.

THE MINUTES OF THE REGULAR SESSION BOARD MEETING ON AUGUST 22, 2016 WERE APPROVED AT THE SEPTEMBER 26, 2016 BOARD MEETING			
	AYE	NO	COMMENT
ADAM C. WONG	X		
DAVID C. HULIHEE			ABSENT
KAPUA SPROAT	X		
BRYAN P. ANDAYA			ABSENT
KAY C. MATSUI	X		
ROSS S. SASAMURA	X		
FORD N. FUCHIGAMI			ABSENT

Respectfully submitted,


LORRAINE H. LEE

APPROVED:


ADAM C. WONG
Acting Chair of the Board

SEP 26 2016

Date