### MINUTES

### REGULAR MEETING OF THE BOARD OF WATER SUPPLY

August 26, 2013

At 2:02 PM on August 26, 2013 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, Board Chair

Mahealani Cypher, Vice Chair

Theresia C. McMurdo Adam C. Wong

Kaulana H. R. Park (arrived at 2:06 p.m.)

Ross S. Sasamura

Also Present: Ernest Lau, Manager and Chief Engineer

Ellen Kitamura, Deputy Manager and Chief Engineer

Tracy Burgo Alex Ubiadas Daryl Hiromoto Marc Chun Karen Tom Paul Kikuchi Stuart Wong Sandy Moriki Susan Uyesugi Jason Takaki Arthur Aiu

Others Present: Krishna Jayaram, Deputy Corporation Counsel

Marilyn Ushijima, Deputy Corporation Counsel Kapua Sproat, University of Hawaii Law School Michael Hernandez-Soria, Hawaiian Cool Water LLC

Chris Cleveland, Brown and Caldwell

Brenton Awa, KITV4 Dan Churma, KITV4 Tai Hiranaka, KHON2 Marisa Yamane, KHON2

Dan Purcell

Absent: Glenn M. Okimoto

APPROVAL OF MINUTES

Approval of the Minutes of the Regular Meeting held on July 22, 2013

MOTION TO APPROVE Ross Sasamura and Mahealani Cypher motioned and seconded, respectively, to approve the Minutes of the Regular Session Meeting of July

TOPICS FOR FUTURE BOARD MEETINGS Chairman and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii 96843

Chairman and Members:

Subject:

Topics for Future Board Meetings

We would like to take this time to allow the members of the Board to inform us of any topic or concern pertaining to Board of Water Supply operations that the Board would want addressed at future Board Meetings.

There is one pending topic that was requested by the Board, which is the Human Resources long-term strategy plan that will be presented at the November 25, 2013 Board meeting.

Respectfully submitted,

/s/

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

DISCUSSION:

Manager Lau stated that this is an opportunity for the Board to request topics that they would like discussed at a future meeting. He stated that today's agenda includes two topics that the Board had requested in previous meetings; 1) a presentation by Ms. Kapua Sproat from the University of Hawaii Law School and 2) an update on the estimated bills issue.

BWS'S KULEANA UNDER HAWAI`I'S PUBLIC TRUST Chairman and Members
Board of Water Supply
City and County of Honolulu
Honolulu. Hawaii 96843

Chairman and Members:

Subject:

Board of Water Supply's Kuleana Under

Hawai`i's Public Trust

Ms. Kapua Sproat, Assistant Professor for the Ka Huli Ao Center for Excellence in Native Hawaiian Law and the Environmental Law Program, and the Director of the Environmental Law Clinic at the University of Hawai`i, will do a presentation on Board of Water Supply's Kuleana Under Hawai`i's Public Trust.

Respectfully submitted,

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

The foregoing was for information only.

### DISCUSSION:

Board Vice Chair Cypher stated that she and Chair Miyashiro attended a workshop at the University of Hawaii Law School and were impressed with the information that Professor Kapua Sproat shared about Hawai`i's Public Trust doctrine and Hawai`i's rights under the State law so they wanted to invite her to share the information with the rest of the Board Members. Ms. Cypher introduced Ms. Sproat who gave her presentation on BWS' Kuleana under Hawai`i's Public Trust.

After Ms. Sproat's presentation, Ms. Cypher inquired if BWS is responsible for just the water sources or is it also responsible for the water system. Ms. Sproat replied that BWS needs to consult its enabling laws and if it is responsible to deliver the water to the general public then the water system could also be included as part of the Department's responsibility under the Hawai'i Public Trust.

Mr. Lau inquired if preservation enhancements of the watersheds, such as restoration of native forests and control of invasives, are ways of fulfilling some trust responsibilities. Ms. Sproat responded that it is and that would be a perfect example of how Public Trust also includes looking at investments into the future, making sure that water is not only provided for today's generation but also for future generations. Mr. Lau questioned if the BWS's ability to do long term planning is also a way to be a good trustee of the resources, the infrastructure and the future of the community.

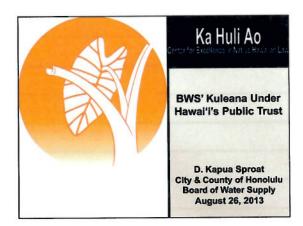
Ms. Sproat replied yes, especially having to face challenges like global climate change, increasing droughts, and shifting weather patterns, which make long-range planning necessary. Ms. Cypher commented that Native Hawaiians planned for seven generations.

Ms. Sproat replied to Board Member Park's inquiry stating that Kauai Springs is not a Maoli business and if it was on Department of Hawaiian Homes Lands (DHHL), it probably would raise the same Public Trust implications, but the outcome would likely vary, especially given that zoning laws do not apply to DHHL in the same way.

Deputy Manager Kitamura inquired how the Public Trust applies to private water users. Ms. Sproat replied that under the constitution and the code, the Water Commission has a kuleana to manage water everywhere but it has the best administrative tools to be able to do that in designated water management areas. The County Boards of Water Supply also have Public Trust responsibilities, and they are often the ones delivering water in non-designated areas.

Ms. Cypher inquired if Counties and States have comparable Public Trust responsibilities. Ms. Sproat replied that they do and referred to the Kelly case where the Supreme Court said it wasn't just the State's kuleana, but it was also the County's responsibility.

Mr. Miyashiro and Mr. Lau thanked Ms. Sproat for attending and sharing the information with them.



### Roadmap for today's session

- ➤ Role and significance of water in Pre-European contact Hawai'i
- ➤ Legal and cultural framework for water resource management in Hawai'i today
- ➤ What does this all mean for you as the BWS?
- > Will do my best to save time for Q&A at the end

### Kānaka Maoli worldview

- ➤ Creation story details the genesis of life in Hawai'i: Papa & Wākea gave birth to the islands
- gave birth to the islands

  After all of the Hawaiian Islands
  were born, Wākea had a child with
  Hoʻohōkūkalani. It was stillborn,
  but a kalo plant grew from its grave
- ➤ Wākea & Hoʻohōkūkalani had a second child: the first Kanaka Maoli
- ➤ This relationship is a kuleana to care for our natural and cultural resources as a public trust for present and future generations



### From Wai to Kānāwai In 'Ōlelo Hawai'i: > Wai = fresh water > Waiwai means wealth > Kānāwai is the law

> Both wealth and the law are defined by fresh water

## Ola i ka wai: Water is life > Provided drinking water > Enabled kalo cultivation > Recharged ground water > Supported estuaries & fisheries > For Kānaka Maoli, this was just common sense! > Supported a population ≈ Hawai'i's current population

## Kānāwai: law developed around water > Kānāwai = relating to water > Water was a kinolau of Akua Kāne > Could not be reduced to physical ownership > Resource managed for the good of the larger community

### Kingdom of Hawai'i 1840 Constitution Declared that the land, along with its resources,

"was not [the King's] private property. It belonged to the Chiefs and the people in common, of whom [the King] was the head and had the management of landed property."



### Gifts from the West

- > 1778: beginning of the end; physical & cultural genocide
- ➤ Native Hawaiians decimated by disease: population of ≈ 1 million collapsed to < 40,000 within 1st century of contact
- > Foreign demands for goods fueled political instability



### The impacts of sugar plantations







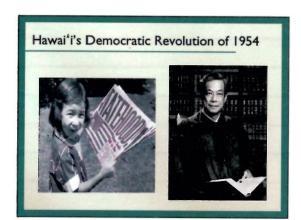


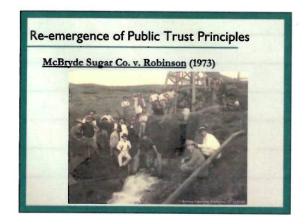
### From Kalo to Sugar and "Hard Crackers"

DESPAIRI WAILUKU IS BEING DESTROYED BY THE SUGAR PLANTATION.—A letter by S.D. Hakuole, of Kuila, Maui arrived at our office, he was declaring that the land of Wailuku is being lost due to the cultivation of sugarcane. Furthermore, he states the current condition of once cultivated taro patches being dried up by the foreigners, where they are now planting sugarcane. Also, he fears that Hawaiians of that place will no longer be able to eat poi, and that there will probably only be hard crackers which hurt the teeth when eaten, a cracker to snack on but does not satisfy the hunger of the Hawaiian people. Although, let it be known that the Hawaiian people were accustomed to eating poi.

### Nupepa 🗑 Ruokoa

Auwe! Pau Wahling i ka manuso.—Ua hidi nai ma ko makou nei keena hann, he pal-pah na S. D. Hakoule, o Kinh, Masi, e hai mai nan i ka pue koo o ka sina o Waji luku i ka mahina i ke ko. A ke hai hou mai nei ng ke heemaloo in nei no loi kena Zalo e na bhole, i wahi e kana si i ke ko. A ke makau nei oli , e puu ana ka ni ana o na lanaka ola wahi e ka au ani i ka poi, a e ai wale na ua na no pena i ka berna solea hocha siho, a na nang adaa manue e moona de aigaa kanaka Hawaii. Otal un maa na kanaka i ka air ka poi,





### 1978 Constitutional Convention

- ▶ 1978 Constitutional Convention facilitated progressive changes in education, workers' rights, natural resource protection, & other areas
- State Constitution amended to protect and preserve Native Hawaiian culture and practices
- Established the framework for water law and management in Hawai'i today



### Water Law in Hawai'i today:

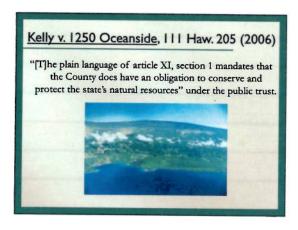
- Constitution of the State of Hawai'i
- ➤ State Water Code Hawai'i Revised Statutes chapter 174C
- ➤ Hawai'i Admin. Rules Chapters 13-167 to 13-171
- Court decisions interpreting the laws listed above

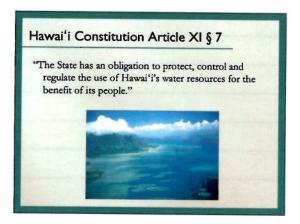


### Hawai'i Constitution Article XI § I

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai'i's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.

# Hawai'i Constitution Article XI § I "All public natural resources are held in trust by the State for the benefit of the people."





### Waiāhole I, 94 Haw. 97 (2000) "article XI, section 1 and article XI, section 7 adopt the public trust doctrine as a fundamental principle of constitutional law in Hawai'i"

### The Public Trust Doctrine

- > Imposes a dual mandate of
- (1) protection
- (2) maximum reasonable & beneficial use
- ➤ Establishes an "affirmative duty to take the public trust into account in planning and allocation of water resources, and to protect public trust uses whenever feasible"

### Hawai'i Constitution Article XI § 7

- ➤ Article XI, section 7 also lays the groundwork for the Water Commission & Code
- ➤ Commission is comprised of 7 members, all of whom need "substantial experience in the area of water resource management"





### Hawai'i Constitution Article XI § 7

The legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and ripatian uses and establish procedures for regulating all uses of Hawai'i's water resources.

### Hawai'i Constitution Article XII § 7

"The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes"



### Ka Pa'akai, 94 Hawai'i 31 (2000)

- > State and County agencies must protect Native Hawaiians' reasonable exercise of traditional & customary rights to the extent
- Agencies must make an independent assessment and specific findings regarding: (1) the identity and scope of "valued cultural, historical, or natural resources" in the affected area, including the extent to which T&C rights are exercised in that area; (2) the extent to which T&C rights will be affected by the proposed action; (3) feasible action, if any, to reasonably protect T&C rights, if they are found to exist

### State Water Code, HRS ch. 174C

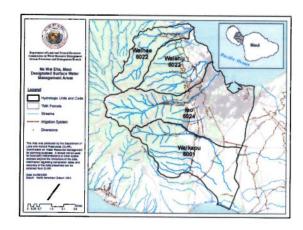
- > The Commission has dual mandates to promote "reasonable-beneficial use," and protect the public's interest in the resources
- ➤ Regulates ground water through Sustainable Yields, and well construction and pump installation permits
- ➤ Manages surface water through Interim Instream Flow Standards; some permits as well
- ➤ Issues Water Use Permits in designated Water Management Areas only

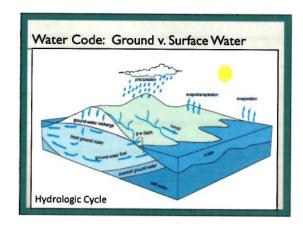
### Water Code: Designation

- Designation is a legal process under the Water Code that identifies areas where water resources are currently or may become threatened
- ➤ Designation imposes additional permitting requirements on almost all consumptive uses of water
- ➤ Initially conceived as a way to phase-in water management; was a political compromise to appease Maui County and enable passage of the Water Code
- Ground or Surface Water Management Areas may be designated



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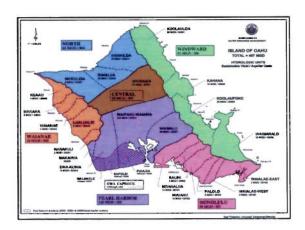


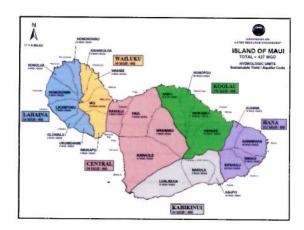
### Stream Protection: IFS/IIFS

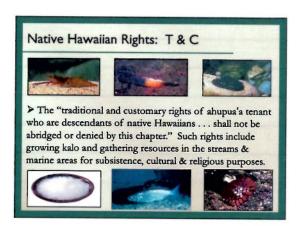
- ➤ The Commission manages surface water through Instream Flow Standards ("IFSs") and Interim Instream Flow Standards ("IIFSs")
- ➤ An IFS is the amount of stream flow required in a particular stream to protect beneficial instream uses (fish, wildlife, recreational, scenic, aesthetic, etc.)
- ➤ IIFSs were required to have been set by 1988; Commission adopted the status quo
- ➤ Currently, the only IIFSs based on any actual science were or are being established through litigation

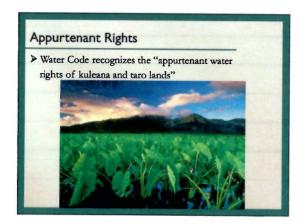


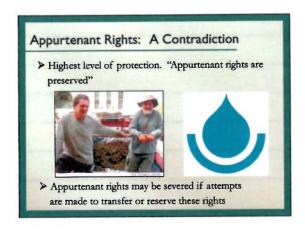
## Ground Water & Sustainable Yields > Just as IFS/IIFS implement Stream Protection & Management, Sustainable Yields are the Commission's principal mechanism to ensure adequate management of ground water supplies > A "sustainable yield" is the maximum amount of water that may be taken from an aquifer over a given period of time while still maintaining the integrity of that water source

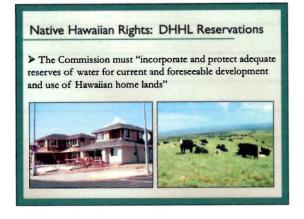


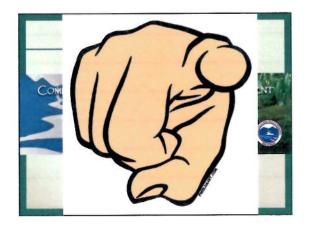












### Hawai'i Constitution Article XI § I

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai'i's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.

### Kelly v. 1250 Oceanside, 111 Haw. 205 (2006)

➤ Community groups sued the County of Hawai'i and DOH for violating the public trust doctrine by failing to prevent Oceanside 1250 from violating water quality standards ➤ The Circuit Court agreed and



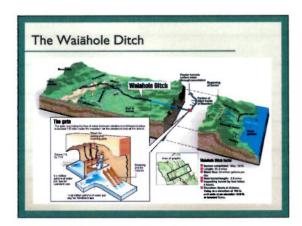
the developer appealed

> Supreme Court decision is complex. Most relevant to our training, the Court held: (1) the County had an affirmative duty under PT to protect coastal waters from polluted runoff (2) DOH's PT duties included ensuring conditions were actually implemented

### What does this mean for you?

➤ What does having a public trust over water resources really mean?
➤ How do you fulfill your kuleana to protect and conserve water resources?
➤ And how does this fit in with other laws and policies that BWS is charged with implementing?





### What is the Public Trust over water?

### Waishole, 94 Haw. 97 (2000)

- > "[T]he public trust doctrine applies to all water resources without exception or distinction."
- > "In view of the ultimate value of water to the ancient Hawaiians, it is inescapable that the sovereign reservation was intended to guarantee public rights to all water, regardless of its immediate source."
- ➤ Protected "trust purposes" include resource protection, Native Hawaiian rights and practices, appurtenant rights, & domestic water. Wai'ola added DHHL reservations
- > Presumption in favor of trust purposes; burden on the Comm'n and commercial users to justify proposed uses

### Fulfilling your kuleana under the Public Trust

### Waiāhole, 94 Haw. 97 (2000)

- > Imposes "a dual mandate of 1) protection and 2) maximum reasonable and beneficial use."
- ➤ Establishes an "affirmative duty to take the public trust into account in the planning and allocation of water resources and to protect public trust uses whenever feasible."
- ➤ Agencies "may compromise public rights in the resource pursuant only to a decision made with the high priority these rights command under the laws of our state."

### How does the PT work with other laws?

### Waiahole, 94 Haw. 97 (2000)

- The public trust provides independent authority to guide agencies in fulfilling their mandates
- ➤ Practically speaking, the public trust is a prism through which members of state and county agencies like you must examine their responsibilities under specific laws the agency – here, BWS – is charged with enforcing
- ➤ Agencies must hold permit applicants to their burdens of proof & actively protect water resources
- > Decisions must articulate a reason(s) in the context of the laws and policy the agency enforces

### Got it?

➤ Everyone still with me?
➤ Just in case, let's look at
how one county agency
worked valiantly to fulfill its
public trust duty to protect
and conserve Hawai'i's
water resources



### Kaua'i Springs

- ➤ Kaua'i Springs operates a private water bottling business in Kōloa, Kaua'i
- > The facility is on land zoned for agriculture & needs permits
- ➤ KS buys water from Grove Farm taken from Kahili Mountain via tunnel & ditch
- ➤ Planning Comm'n held public hearings & sought input from Water Comm'n & PUC, which was inconclusive



### Kaua'i Springs, cont.

- ➤ Planning Comm'n ruled that KS failed to carry its burden of proof & denied the permit
- KS appealed and the circuit court ruled in its favor
   The Planning Comm'n did an
- admirable job of fulfilling its
  Public Trust duties, e.g., holding
  KS to its burden of proof
  On April 30, 2013, the ICA
- ➤ On April 30, 2013, the ICA issued an opinion



### Kaua'i Springs, cont.

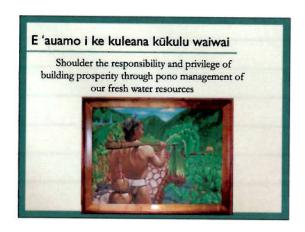
- ➤ The ICA remanded the case to the Planning Comm'n to reconsider KS' permit apps
- The Comm'n must now analyze the proposed water use under the public trust, ground its decision in laws that authorize zoning power, & take reasonable measures to protect the water resources at issue
- ➤ KS filed a notice of appeal in July; there may be more to come

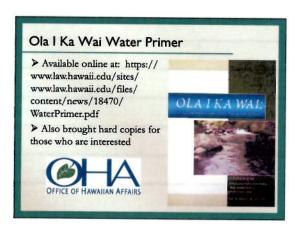


### Kaua'i Springs, cont.

- What does this mean for you?Carefully examine BWS's
- ➤ Carefully examine BWS's mandates and how they impact fresh water resources
- ➤ Use the public trust as a framework for your analysis: presumption in favor of public trust purposes, permit applicants bear the burden of proof, etc.
- ➤ Consider what impact your decision will have on traditional & customary Maoli practices









UPDATE ON CITY COUNCIL RESOLUTIONS 13-62, 13-118 AND 13-177 Chairman and Members Board of Water Supply City and County of Honolulu Honolulu, Hawaii 96843

Chairman and Members:

Subject:

Update on City Council Resolutions 13-62,

13-118 and 13-177

I will provide an update on City Council Resolutions 13-62 Urging the Board of Water Supply to Implement a Billing Program that Does Not Increase Costs to Rate-Payers; 13-118 Requesting that the Board of Water Supply Explore Equitable Options for Assessing its Billing Charge; and 13-177 Initiating Amendments to the Revised Charter of the City and County of Honolulu 1973, as Amended, Relating to the Board of Water Supply.

Respectfully submitted,

/s/

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

Attachments"

The foregoing was for information only.

DISCUSSION:

Mr. Lau stated that BWS's testimonies and the City Council resolutions were included in the Board's packets and also posted on the Department's website. Mr. Lau briefed the Board on Resolution Nos. 13-62, 13-118, and 13-177.

Resolution No. 13-62 was deferred in the Budget Committee in April. The City Council acknowledged that going to monthly billing was because the water/sewer bill was getting so high. Chair Kobayashi also asked Mr. Lau about putting the Wastewater Division under BWS and Mr. Lau replied that he needs to resolve all of BWS's issues before something like that could be done.

The BWS was neutral on Resolution No. 13-118. BWS will be exploring equitable options for assessing the billing charge, based on the customer's meter size, in the next rate study. BWS testified that the rate study could take about two years and it would be shared with the City Council when it becomes available. Mr. Lau responded to Mr. Miyashiro's inquiry stating that he was unsure how other comparably-sized municipalities in the mainland assess their billing charge, but the three other County Water Departments base it on the customer's meter size.

Councilmember Anderson attempted to introduce Resolution No. 13-177 at the August City Council meeting; however it was not placed on the regular agenda, so it was withdrawn due to potential violations of the Sunshine Law. The resolution may be placed on the agenda for the September 2013 City Council meeting. Mr. Lau stated that currently the Board reviews and approves condemnation of land and he feels it's important for the Board to have authority to do so. The BWS rarely condemns property for its facilities' needs, but there may be times where the Department may need to obtain a property in fee for a well site, a water tank site, or pipeline easements to gain access into BWS facilities.

Mr. Lau referred to Ms. Sproat's discussion about the Public Trust responsibilities of both State and City agencies and stated that he has a trust responsibility to look at decision making and planning for the long term. He stated that it's important that the implementation of those plans are supported by the operating budgets and the capital budgets of the BWS, therefore, the BWS needs the ability to make decisions, plans, and have a long term vision to fulfill its trust responsibilities. Semi-autonomy was created back in 1929 in order to keep politics out of decisions related to water supply because it is such an important resource for the community. The BWS is completely financially self-sufficient, as funds are derived only from rates and fees for water. Those funds are meant to be used for the maintenance of the infrastructure and facilities of the BWS to serve the community with water. It is important to ensure over the long term that none of these funds are used for other purposes. Mr. Lau explained that his discussion with the Council will continue to be along these lines and he believes a trust responsibility of the Manager and Chief Engineer is to keep the water system and water resources for the community not only for the present, but also for the future.

Mr. Lau also stated that this resolution gives the impression that the water Board and Department do not follow the ethical standards of conduct laid out in Article 12 in the Charter. Mr. Lau pointed out that this is untrue, that the Board and Department are subject to those requirements and follow those requirements.

Ms. McMurdo inquired if Mr. Lau has met with Councilmembers to explain his position on these resolutions. Mr. Lau replied that he and Ms. Kitamura have been meeting with them, and Mr. Miyashiro and Ms. Cypher have been accompanying them to some of these meetings also. Mr. Lau replied to Ms. McMurdo's inquiry stating that even after speaking to Councilmember Anderson regarding Resolution No. 13-177, he is still standing by his position and that Councilmember Kobayashi did not state her position.

Mr. Lau informed the Board that another resolution requesting a comprehensive management performance audit of the BWS was introduced last week and is posted on the Council website for viewing.

### **BOARD OF WATER SUPPLY**

CITY AND COUNTY OF HONOLULU 630 SOUTH BERETANIA STREET HONOLULU, HI 96843



KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chairman MAHEALANI CYPHER, Vice Chair THERESIA C. McMURDO ADAM C. WONG KAULANA H. R. PARK

ROSS S. SASAMURA, Ex-Officio GLENN M. OKIMOTO, Ex-Officio

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

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

The Honorable Ann H. Kobayashi, Chair and Members
Committee on Budget
Honolulu City Council
530 South King Street
Honolulu. Hawaii 96813

Dear Chair Kobayashi and Members:

Subject: Board of Water Supply Opposition of Resolution 13-62

The Board of Water Supply (BWS) respectfully opposes City Council Resolution 13-62 which seeks to return to a bi-monthly billing schedule until the BWS can implement a monthly billing program that does not increase costs to rate-payers beyond the water use rate increases.

We share the Council's concern about the perception that the same bi-monthly billing fee was applied to the monthly billing fee which effectively doubled the charges over the course of the year. However, the monthly fee is justified based on the "Cost of Service Study" done by Tokumoto & Company, CPAs LLC (Tokumoto) in June 2011. The water rate increases, which factored in the increased billing charges, were necessary to meet the needs of a five-year capital improvement program as well as to cover all projected operating costs for that five-year period. The study recommended billing charge and quantity charge increases over the five-year period (2012-2016) to generate revenue sufficient to meet projected operating and capital improvement expenditures for that period. It was based on converting bi-monthly to monthly billing for our residential customers. The original Tokumoto financial plan assumed income from a monthly billing fee starting on July 1, 2011; but the Board adopted new water rates in November 2011 that would take effect on January 1, 2012. However, due to delays in the implementation of our new Customer Information System, we were not able to implement monthly billing until January 2013. As a result, during the period from January 2012 to January 2013, we remained on bi-monthly billing and collected only 50 percent of the revenue relating to the billing (i.e., customer) charges which were developed based on monthly billing. Within the utility industry, the term "billing charge" and "customer charge" are used interchangeably, and our monthly billing charges are in concert with the other local utilities.

The Honorable Ann H. Kobayashi, Chair and Members April 24, 2013 Page 2

Our recent analysis also showed that the adopted billing charge was not covering the total costs for services associated with keeping a customer on our water system with the ability to use water at any time.

Should the BWS return to a bi-monthly process, any cost savings due to a reduction in staffing, billing/postage, and other related services would be offset by a 50 percent reduction of anticipated billing fees that were to be collected and the additional cost associated with re-configuring the billing system. Considering all these mentioned factors, our analysis shows that returning to bi-monthly billing will have a negative impact on the BWS budget by reducing our net income by approximately \$7.01M for fiscal year 2014, \$8.28M for fiscal year 2015, and \$9.14M for fiscal year 2016.

In conclusion, the BWS changing from monthly to bi-monthly billing would result in a shortfall of projected revenue. Consequently, this would either result in an increase to the bi-monthly billing charge or a reduction of water system capital projects, in order to balance the respective budget years covered in the water rate study.

Therefore, I respectfully urge the Honorable Council to not pass Resolution 13-62.

I appreciate the opportunity to provide testimony on this matter.

Very truly yours,

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



No.	13-62
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URGING THE BOARD OF WATER SUPPLY TO IMPLEMENT A BILLING PROGRAM THAT DOES NOT INCREASE COSTS TO RATE-PAYERS.

WHEREAS, Section 7-101, Revised Charter of the City and County of Honolulu 1973, as amended ("RCH"), establishes a semi-autonomous City agency known as the Board of Water Supply; and

WHEREAS, the Board of Water Supply ("Board") is overseen by a sevenmember policy-making board which has significant powers, duties and functions including determining the rates and charges for the furnishing of water and water services; and

WHEREAS, in 2013, the Board switched to a monthly billing system from a bimonthly billing system and stated that the change would result in better customer service by allowing customers to align water payments with other monthly bills, receive more frequent water consumption data, and identify unusual water usage to detect leaks and make prompt repairs; and

WHEREAS, with consumers now receiving 12 bills for water use each year as opposed to the 6 under the bi-monthly system, this has doubled the frequency of the Board's billing charge; and

WHEREAS, the Board's states that its billing charge pays for costs associated with billing customers, including costs of the billing system, costs to process billing information and payments, meter maintenance and repair, costs for personnel for billing and customer service, and future improved payment services such as online bill payment; and

WHEREAS, prior to the change to monthly billings, the billing charge was already scheduled to increase from January 2012 to July 2015 from an effective charge of \$3.20 per month under the bi-monthly system to \$9.26 per month per consumer; and

WHEREAS, the move to monthly billings will apply the same billing charge to each monthly bill, effectively doubling such charges over the course of a year; and

WHEREAS, in the Executive Program and Budget for the Flscal Year 2014, Volume 1 (Operating Program and Budget), the Department of Environmental Services requests a 29.2% increase in the department's Administration program, primarily due to higher costs for monthly billing and associated computer software maintenance and sewer charge billing service from the Board of Water Supply; and



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WHEREAS, the Council finds that conversion of the billing system from bimonthly to monthly should have halved the billing charge, not doubled it; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that it urges the Board of Water Supply to return to a bi-monthly billing schedule until it can implement a monthly billing program that does not increase costs to rate-payers beyond the water use rate increases; and

BE IT FINALLY RESOLVED that this Resolution be transmitted to the Mayor, the Managing Director, the chair of the Board of Water Supply and the Manager and Chief Engineer of the Board of Water Supply.

."	INTRODUCED BY:
DATE OF INTRODUCTION:	
MAR 2 1 2013	
lonolulu, Hawaii	Councilmembers

### **BOARD OF WATER SUPPLY**

CITY AND COUNTY OF HONOLULU 630 SOUTH BERETANIA STREET HONOLULU, HI 96843



KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chairman MAHEALANI CYPHER, Vice Chair THERESIA C. MCMURDO ADAM C. WONG KAULANA H. R. PARK

ROSS S. SASAMURA, Ex-Officio GLENN M. OKIMOTO, Ex-Officio

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

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

The Honorable Ann H. Kobayashi, Chair and Members
Committee on Budget
Honolulu City Council
530 South King Street
Honolulu, Hawaii 96813

Dear Chair Kobayashi and Members:

SUBJECT: Board of Water Supply Position of Resolution 13-118

The Board of Water Supply (BWS) understands the intent of City Council Resolution 13-118, which seeks to explore options for assessing the billing charge that are equitable and fair to the various types of ratepayers. As mentioned at individual meetings with Council members over the past couple of months, the BWS intends to change the term "billing charge" to a "customer charge" and look into the possibility of assessing monthly charges based on the size of the water meter, as is done by the other County Water Departments. We will require our next water rate consultant to look at different options in determining the customer charge, as there are many considerations to be addressed. A full cost of service study will be conducted to ensure that all customer classes are treated fairly and equitably in this new customer charge.

The process of conducting a rate study takes about two years, as many issues have to be addressed and vetted to ensure that the proposed water rate revenues are adequate to recover the projected future BWS operating and capital costs. A cost of service analysis is performed to properly allocate the revenue requirements to the various customer classes in a fair and equitable manner. We plan to engage the different customer classes, through various public outreach efforts, to discuss how each would be impacted by the proposed rate structure and to ensure that we hear and address their concerns as well as to explain why and what the charges are for.

We anticipate the water rate study will be included in our Water Master Plan project. This project will identify our critical water infrastructure needs inclusive of a rehabilitation and replacement plan of all existing pipelines, pump stations, and reservoirs; a plan to reduce main breaks and service interruptions; a plan to identify the "root cause" of water pipeline failures; a plan for water system adequacy to support future growth; as well as a plan to assess the impacts of climate change on the water system. This project will also assess and balance the financial impacts of the water infrastructure needs with a water rate structure that is affordable to our rate payers. The goal is to develop a sustainable long-term implementation plan that ensures safe drinking water to the public in perpetuity at a reasonable cost. We intend to share the water rate study with the City Council as it becomes available.

I appreciate the opportunity to provide testimony on this matter.

Very truly yours,

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



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REQUESTING THAT THE BOARD OF WATER SUPPLY EXPLORE EQUITABLE OPTIONS FOR ASSESSING ITS BILLING CHARGE.

WHEREAS, the Honolulu Board of Water Supply ("BWS"), citing the need to make vital upgrades to its infrastructure, has instituted its current increase in water ratepayer costs since January 1, 2012; and

WHEREAS, these increased costs include a cumulative 70% increase in water rates spread annually over the five years that began on January 1, 2012, which works out to about a 10% increase each year through 2016; and

WHEREAS, in addition to the increase in the annual rate, increased costs also include a monthly billing charge that will cumulatively increase 45% from January 1, 2012 through 2016; and

WHEREAS, according to the EWS, the monthly billing charge covers costs associated with billing customers for their water use, including the costs of the new billing system, meter maintenance and repair, and billing and customer service personnel; and

WHEREAS, like Honokulu, the counties of Maui (water service charge), Kauai (service charge), and Hawaii (monthly standby charge) also assess a monthly charge in addition to water usage rate charges; and

WHEREAS, unlike Honolulu, which assesses the same billing charge to all types of ratepayers, all three neighbor island counties assess different monthly charge amounts to different ratepayers based on the size of their water meter; and

WHEREAS, the Council questions the fairness of applying the same billing charge to a single family ratepayer as to a condominium containing as many as tens or hundreds of dwelling units with one master water meter; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that it requests the Board of Water Supply to explore other options for assessing the billing charge that are equitable and fair to various types of ratepayers; and

BE IT FURTHER RESOLVED that it report its findings to the City Council within 90 days of the approval of this Resolution; and



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BE IT FINALLY RESOLVED that copies of this Resolution be transmitted to the Chair of the Board of Water Supply.

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### BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU 630 SOUTH BERETANIA STREET HONOLULU, HI 96843



KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chairman MAHEALANI CYPHER, Vice Chair THERESIA C. McMURDO ADAM C. WONG KAULANA H. R. PARK

ROSS S. SASAMURA. Ex-Officio GLENN M. OKIMOTO, Ex-Officio

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

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

The Honorable Ernest Y. Martin, Chair and Members Honolulu City Council 530 South King Street, Room 202 Honolulu, Hawaii 96813

Dear Chair Martin and Members:

SUBJECT: Board of Water Supply Position of Resolution 13-177

The Board of Water Supply (BWS) respectfully opposes City Council Resolution 13-177, which seeks to amend the Revised City Charter to require that decisions of the BWS to condemn land be subject to review and approval by the City Council, to require that the proposed annual operating and capital budgets of the BWS be subject to appropriation and amendment by the City Council, and to clarify that City ethical standards of conduct apply to the BWS and its policy-making Board.

The BWS does not feel that it is necessary for the City Council to review and approve any acquisition of property by eminent domain, purchase, lease, or otherwise for the construction, maintenance, extension, or operation of the waterworks system. This is contrary to what is provided to the BWS in HRS 54-27.

The BWS opposes the proposal to submit the annual operating and capital budgets to the City Council for review, amendment, and approval. As the BWS does not receive any funding from the City, it makes sense that the Board has the responsibility and authority to fix and adjust water rates to ensure that appropriate funds are available for the activities proposed in the annual operating and capital budgets. The BWS presently holds public hearings prior to fixing the water rates and adopting the annual operating and capital budgets.

The BWS already complies with all aspects of Article XI of the Revised Charter of the City and County of Honolulu. The proposed amendment to Section 7-107 of the Revised Charter of the City and County of Honolulu is unnecessary.

I appreciate the opportunity to provide testimony on this matter.

Very truly yours,

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



No.	13–177

INITIATING AMENDMENTS TO THE REVISED CHARTER OF THE CITY AND COUNTY OF HONOLULU 1973, AS AMENDED, RELATING TO THE BOARD OF WATER SUPPLY.

WHEREAS, Section 7-101, Revised Charter of the City and County of Honolulu 1973, as amended ("Charter"), establishes a semi-autonomous City agency known as the Board of Water Supply; and

WHEREAS, the Board of Water Supply is overseen by a seven-member policy-making board, including two ex officio members, the Chief Engineer of the Department of Facility Maintenance, and the Director of the State Department of Transportation; and

WHEREAS, the agency known as the Board of Water Supply has broad powers, duties and functions including: (1) controlling all water systems of the City and County of Honolulu ("City"), such as "water rights and water sources, together with all materials, supplies and equipment and all real and personal property used or useful in connection with such water systems"; (2) "full and complete authority to manage, control and operate the water systems and properties used or useful in connection with such water systems"; and (3) devising "ways and means for the economic distribution and conservation of water"; and

WHEREAS, the policy-making board of the Board of Water Supply ("BWS Board") has significant powers, duties and functions including: (1) appointing and removing the head of the Board of Water Supply, known as the manager and chief engineer; (2) creating and abolishing positions within the Board of Water Supply; (3) determining the rates and charges for the furnishing of water and water services in the City; (4) issuing revenue bonds under the name of the Board of Water Supply; (5) acquiring real property by eminent domain, purchase, lease or other means, in the name of the City, for water systems purposes; and (6) modifying and approving the annual operating and capital budgets of the Board of Water Supply; and

WHEREAS, although decisions by the BWS Board regarding budgetary expenditures and condemnation of real property significantly affect water users, ratepayers, property owners, and the general public, the members of the BWS Board are not directly accountable to the public because they are appointed, not elected officials; and

WHEREAS, the Council finds that greater public scrutiny of BWS Board decisions relating to budgetary expenditures and condemnation of real property are



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needed in order to ensure that the Board of Water Supply and BWS Board are accountable to the people they serve; and

WHEREAS, the Council is an elected body that can provide appropriate checks and balances on the foregoing actions by the BWS Board; and

WHEREAS, pursuant to Article XI of the Charter, and Chapter 3, Articles 6 and 8 of the Revised Ordinances of Honolulu 1990, as amended, City standards of ethical conduct apply to elected and appointed officers and employees of the City, and should apply without ambiguity to the BWS Board and the officers and employees of the Board of Water Supply; and

WHEREAS, Mayoral approval is required for any Charter amendment proposed by the Council at a general election held in a year ending in a "4"; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu:

- 1. That the following question be placed on the ballot at the 2014 general election:
  - "Shall the Revised City Charter be amended to require that decisions of the Board of Water Supply to condemn land be subject to review and approval by the City Council, to require that proposed annual operating and capital budgets of the Board of Water Supply be subject to appropriation and amendment by the City Council, and to clarify that City ethical standards of conduct apply to the Board of Water Supply and its policy-making board?"
- 2. That Section 7-105 of the Revised Charter of the City and County of Honolulu 1973, as amended, is amended to read as follows:
  - "Section 7-105. Powers, Duties and Functions of the Board of Water Supply --

The board of water supply shall:

- (a) Appoint and remove the manager and chief engineer of the department. The manager and chief engineer shall be a registered engineer who shall have had a minimum of five years of training and experience in waterworks activities or related fields, at least three years of which shall have been in a responsible administrative capacity.
  - (b) Fix the salary of the manager and chief engineer.



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- (c) Have the authority to create and abolish positions.
- (d) Determine the policy for construction, additions, extensions and improvements to the water systems of the city which shall include a long range capital improvement program covering a period of at least six years which shall be adopted after consultation with the director of planning and permitting and which may be amended or modified by the board from time to time.
- (e) Have the authority to acquire by eminent domain, purchase, lease or otherwise, in the name of the city, all real property or any interest therein necessary for the construction, maintenance, repair, extension or operation of the water systems of the [city.] city; provided, however that prior to commencing such action, the board shall submit to the council, in writing, a list of the parcels and areas to be acquired. The board shall have the right to proceed with such condemnation action so long as the council does not adopt a resolution objecting to the condemnation within 45 days of such notification. Alternatively, after receipt of the notice from the board, the council may approve, upon a single reading of a resolution, such acquisition by eminent domain. The council shall take no action to acquire real property or any interest therein for the department without the written approval of the board.
- (f) Have the authority to recommend to the council the sale, exchange or transfer of real property or any interest therein which is under the control of the department. The council shall take no action to dispose of such property without the prior approval of the board, and all proceeds from the disposition of such property shall be paid into the special fund of the department.
- (g) Have the authority to enter into arrangements and agreements, as it deems proper for the joint use of poles, conduits, towers, stations, aqueducts, and reservoirs, for the operation of any of the properties under its management and control.
- (h) Have the authority to issue revenue bonds under the name of "board of water supply."
- (i) [Modify, if necessary, and approve and adopt annual operating and capital budgets submitted by the manager and chief



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engineer.] Prepare proposed annual operating and capital budgets for the department for appropriation by the council in accordance with Section 7-120 of this charter.

- Prescribe and enforce rules and regulations having the force and effect of law to carry out the provisions of this article of the charter, including: (1) the regulation of water systems and necessary appurtenances for subdivisions and other properties and requirements for adequate water supply and storage facilities for domestic use and fire protection. (2) the prevention of waste and pollution of water. (3) the manner in which new wells or shafts may be bored, drilled or excavated, cased and capped or recased, (4) the manner in which wells or shafts shall be maintained, controlled and operated to prevent waste of water or the impairment of potability, (5) the limitation to beneficial uses of all water, (6) in times of shortage or threatened shortage of water or of danger to potability of the water of any ground water basin or area by overdraft on such basin, the restriction of the drawing of water in all wells supplied from such basin on a basis proportionate to the proper and beneficial uses served by them respectively, and (7) other matters having for their object the proper conservation and beneficial use of the water resources available for the city.
- (k) Hear appeals from [the] <u>any</u> order of the manager and chief engineer refusing, suspending or revoking any permit for the sinking, drilling or reopening of any well or shaft for the development of underground water supply."
- 3. That Article VII, Revised Charter of the City and County of Honolulu 1973, as amended ("Board of Water Supply"), is amended by adding a new Section 7-120 to read as follows:

#### "Section 7-120. Annual Budget for the Board of Water Supply --

1. The department's proposed operating and capital budgets for the ensuing fiscal year, together with a six-year capital improvement program, shall be prepared by the board, and shall be submitted to the council and available for public review not later than one hundred twenty days prior to the end of the current fiscal year. The proposed operating and capital budgets shall be in the same form prescribed by ordinance for the annual executive operating and capital budget bills, and shall be subject to the same public notice and public hearing requirements prescribed in Section 9-104.1 of this charter relating to the

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council's consideration of the annual executive operating and capital budget bills. The council may add new items to, or delete or amend items in, the department's proposed operating and capital budget bills.

- 2. If the council fails to pass on third reading the annual board of water supply budget bills on or before the fifteenth day of June of the fiscal year currently ending, or if after veto by the mayor, the council fails to pass the budget bills on final reading within the time prescribed in Section 3-203.1 of this charter, which may extend beyond July 1 of the ensuing fiscal year, the operating and capital budget bills as submitted by the department shall take effect as of July 1 of the subject fiscal year. Section 3-203.2 of this charter shall not apply to the annual board of water supply budget bills.
- <u>budget ordinances</u>, the manager and chief engineer of the department shall submit to the director of budget and fiscal services a schedule showing the expenditures of the department anticipated for each quarter of the fiscal year. The schedule shall not require the approval nor can it be altered by the mayor or the council, and the department may proceed without any other authority to incur obligations and make expenditures after the schedule has been submitted. Appropriations for the department's operating budget shall be considered valid only for the fiscal year for which made, and any part of such appropriation that is not encumbered or expended shall lapse at the end of the fiscal year.

  Appropriations for the department's capital budget shall be considered valid only for the fiscal year for which made and for twelve months thereafter, and any part of such appropriation that is not encumbered or expended shall lapse twelve months after the end of the fiscal year.
- 4. Amendments or supplements to the annual board of water supply budget ordinances may be submitted by the department and considered by the council under the same public notice and public hearing requirements prescribed for the enactment of the annual board of water supply budget ordinances, and subject to the same restrictions applicable to the annual executive operating and capital budget ordinances under Sections 9-105.2(a) and (b) of this charter. Such amendments or supplements shall only be made to meet contingencies that could not have been anticipated when the department's budget ordinances were passed.
- 5. Appropriations to fund the activities of the department shall only be made through the annual board of water supply operating and capital budget



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ordinances enacted pursuant to this section, and permitted amendments or supplements thereto."

4. That Section 7-109 of the Revised Charter of the City and County of Honolulu 1973, as amended, is amended to read as follows:

### "Section 7-109. [Rates,] Rates and Revenues [and Appropriations] --

The board shall have the power to fix and adjust reasonable rates and charges for the furnishing of water and for water services so that the revenues derived therefrom shall be sufficient to make the department self-supporting. Such revenues shall be sufficient to meet all necessary expenditures, including expenditures for: (a) operating and maintenance expenses; (b) repairs, replacements, additions and extensions; (c) accident reserve, pension charges and compensation insurance; (d) payment of principal and interest on all bonds, including reserves therefor, issued for the acquisition or construction of waterworks and extensions [thereto,] thereto; and (e) reserve funds under Section 7-112 of this charter. All water furnished to the city or any department thereof shall be charged to the respective departments and collected at the regular rates established by the board. There shall be no free water, except as authorized by the state. [The board may make appropriations for the purposes stated in this section of the charter.]"

5. That Section 7-107 of the Revised Charter of the City and County of Honolulu 1973, as amended, is amended to read as follows:

## "Section 7-107. Personnel Administration; Centralized Purchasing; Auditing; Pension; Standards of Conduct --

- 1. The department shall be subject to the civil service provisions of this charter.
- 2. The department shall be subject to the centralized purchasing and disposal of personal property provisions of this charter.
- 3. The department shall come within the purview of the performance audit conducted by the managing director and such audits as may be required by the council or conducted by the city auditor.
  - Pensions for officers and employees shall be governed by law.



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- 5. Article XI of this charter relating to standards of conduct shall be applicable to the department and its board."
- 6. That in Sections 2 through 5, Charter material to be deleted is bracketed and new Charter material is underscored. When revising, compiling or printing these Charter provisions for inclusion in the Revised Charter of the City and County of Honolulu 1973, as amended, the Revisor of the Charter need not include the brackets, the bracketed material or the underscoring.
- 7. That if these Charter provisions are amended by any other Charter amendment(s) approved by the electors in the 2014 general election, the Revisor of the Charter, in revising, compiling or printing the Revised Charter: (a) May designate or redesignate articles, chapters, sections or parts of sections, and rearrange references thereto; and (b) Shall, except as otherwise expressly provided in this resolution or in the other resolution(s) amending these Charter provisions, give effect, to the extent possible, to all of the amendments approved. The Revisor of the Charter may also change capitalization or the form of numbers and monetary sums for the sake of uniformity.
- 8. That upon adoption of this resolution by the Council and approval by the Mayor, the City Clerk be and is hereby directed:
  - A. To prepare the necessary ballots with the question contained in this resolution and with spaces for "yes" and "no" votes on the question for presentation to the electors at the 2014 general election. The City Clerk may make technical and non-substantive changes to the form of the question presented in order to conform it to the form of other Charter amendment questions presented to the electors at the same election; and
  - B. To publish the above-proposed Charter amendments at length in a daily newspaper of general circulation in the City and County of Honolulu at least 45 days prior to their submission to the electors at the 2014 general election.



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9. That upon approval of the Charter amendment question posed in this resolution by a majority of the electors voting thereon, as duly certified, the Charter amendments in the Revised Charter proposed in Sections 2 through 5 shall take effect on January 2, 2015; provided that any action in eminent domain filed by the Board of Water Supply with the courts prior to the effective date of this Charter amendment may proceed without the Board of Water Supply having to obtain Council approval of such action. Charter amendments relating to new budget provisions requiring Council appropriation through Board of Water Supply capital and operating budget ordinances shall apply to Board of Water Supply fiscal year 2015 to 2016 operating and capital budgets and thereafter.

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DATE OF INTRODUCTION.	
AUG 2 2013	
Honolulu, Hawaii	Councilmembers
APPROVED this day of	, 20
KIRK CALDWELL, Mayor	

#### ITEM FOR INFORMATION NO. 3

#### UPDATE ON ESTIMATED BILL ISSUE

#### DISCUSSION:

Mr. Lau stated that three major factors lead to the number of estimated bills experienced from May 2013. First, BWS went from an old customer information system to a brand new system. Second, BWS went from bi-monthly billing to monthly billing. Back in 2009, the Department of Environmental Services asked BWS to consider going to monthly billing due to high water/sewer bills. The City Council was aware of this and realized that bi-monthly charges were getting very large. Third, BWS faces challenges with the Automatic Meter Reading system – the inability to get actual reads from the system, which requires the Department to create estimated bills. These three major factors provided fertile ground for problems for our customers, and Mr. Lau apologized for this.

Sandy Moriki from the Information Technology Division presented the information on estimated bills.

Chief Financial Officer Paul Kikuchi presented the information on Pre Audit and Meter Reading staffing. Mr. Kikuchi explained that as of August 21, 2013, 21 positions were authorized and currently 15 are filled, and they are continuing to conduct interviews to fill. The meter readers are currently getting 98-99 percent of actual reads. Earlier this year, they averaged about 87 percent. Ms. McMurdo questioned how many people would be needed to get to 100 percent. Mr. Lau replied that they are hiring Personal Service Contracts until they have a better understanding of what the permanent staffing level should be.

Mr. Lau explained that the workload started with the Meter Readers' ability to obtain only about 87 percent of actual reads, resulting in 13 percent of estimated bills; then the workload shifted to the Pre Audit staff doing recalculations of the estimated bills; and the next movement of workload went to the Call Center as the customers try to call to get explanation on their bills.

Customer Care Program Administrator Susan Uyesugi gave an update on the Call Center. She explained that in the Call Center Performance slide, CSR stands for Customer Service Representative, CB stands for call back and the numbers in the chart represent minutes. Ms. Uyesugi stated that the average time the CSR is on the phone with the customer has increased because it's taking longer to explain the customers' estimated bills. They have extended the Call Center hours from 4:30 to 5:30; however, the CSRs help every customer in the queue before leaving so sometimes they don't leave until 6:00 or 6:30. The new contract hires that started in July have a work shift of 9:15 to 6:00. When they are all trained and up to speed, they will be the ones staying late so that the regular employees will end at 4:30.

Mr. Lau added that, in the interim, the goal is to have 30 CSRs and will add more if necessary. They have posted new instructions on the website to help customers understand how to interpret their recalculated bills, and are also planning on mailing this out to the customers with recalculated bills.

Board Member Sasamura inquired if the abandoned calls are because customers give up waiting and hang up. Ms. Uyesugi replied yes. Mr. Sasamura asked if there is enough space for the additional hires. Ms. Uyesugi responded that they have moved the field collectors to allow space

for more CSRs and they are looking into modular furniture to accommodate more people in the lobby. Mr. Lau added that they are looking at surplus furniture from the State and acquiring used desks for the additional Pre Audit Clerks on the second floor.

Ms. McMurdo questioned what the wait time goal would be once all the CSRs are hired. Mr. Lau replied that he would like to target five minutes. Ms. McMurdo asked what percentage of the bills being estimated end up with actual bills that are higher than what was estimated. Ms. Moriki responded that it's about 50 percent. Ms. McMurdo commented that the public doesn't trust BWS anymore and suggested considering giving these customers a break. Ms. Cypher stated that she was more concerned about those customers who had a leak and wasn't aware of it because they kept getting estimated bills. Mr. Lau stated that they would look into giving breaks to those customers with leaks on a case by case basis, however, he feels that customers should pay for the water they use that flow through the meter. Ms. McMurdo agreed that the customer should pay for the amount of water that is actually used, but on the other hand, she would like Mr. Lau to take into account the aggravation and lack of trust and peace of mind that the BWS has caused to the customer. Mr. Lau stated that they could have a discussion on that if the Board would like the Department to give some kind of adjustment because the customer had an estimated bill, but he struggles with forgiving part of the bill if it is water that the customer actually used. Mr. Lau asked the other Board Members how they felt on giving the customers an adjustment. Mr. Miyashiro stated that he shares the concerns of Ms. McMurdo and Ms. Cypher, however he feels that they need to approach each case on a fairness basis and that if someone consumes the water, they should pay for that water. He feels that if the customer had a leak and did not know because of estimated billing, then some sort of adjustment should be made. Mr. Miyashiro recommended that the Manager, Deputy and division heads should add a personal touch through letters or phone calls to the customers apologizing, explaining the situation, and assuring the customer that they are correcting the errors.

Ms. Cypher stated that she hopes majority of the customers still trust the Department and added that Mr. Lau is really working hard to educate the community through Neighborhood Boards, Olelo, hearings and meetings. Mr. Lau stated that they did not intend for their customers to be put into this situation and asked if the customers could remember that BWS provides a service of providing safe, clean water and majority of the customers have no water interruptions with the ability to get water when they need it. The BWS will work hard to rebuild the trust and continue to provide a high level of service with high quality drinking water.

Mr. Lau explained that with the 98-99 percent of actual reads they are getting, they hope that the amount of estimated bills will be even lower than 5 percent; however, there will always be some degree of estimation in the system. The problem right now is dealing with the backlog of trying to recalculate the estimated bills. Mr. Lau replied to Ms. McMurdo's inquiry by stating that they did send out an apology letter to the customers with instructions on how to read the recalculated bills. He also added that while customers are holding, the message does inform them that they can pay their bill on-line. Ms. McMurdo inquired how many people are paying their bill on-line and Mr. Lau replied that it's over 5,000 customers. Ms. McMurdo suggested that the Department communicate and encourage customers to pay on-line.

Mr. Dan Purcell requested to give comments on the estimated billing issue and also on the City Council Resolutions. Mr. Miyashiro asked if he had registered to testify, and Mr. Purcell replied no. Mr. Miyashiro informed Mr. Purcell that they could allow him three minutes to present his testimony and asked him to take the podium and state his name.

The following is verbal testimony by Mr. Dan Purcell:

'Dan Purcell, and I currently live in Hawaii Kai, and I've been there for about a month and a half, but I did have an opportunity to review the last six months of the Hawaii Kai meetings, and I've seen the representatives come in make excuses and apologize and all that stuff. Enough of that, that's not getting the job done. You commented on politicos, not being able to make long term decision making. What I'm seeing here is an absolute lack of ability to make long term decisions. I see a lot of systemic problems in this organization, and I hear you trying to find ways to just calm people down, you know do some things here and there. That's not going to get it done. When I came in here today, I didn't have any opinion on the council resolution or not, having been here, I am 100 percent behind some, some oversights, something needs to be done here. I can't imagine the way this whole process was managed in one problem after another, none of those were foreseen, and I can't imagine a crisis management team coming out of this group in any way, shape or form if any particular crisis were to develop. This is the last team I would ever want managing crisis, I'm sorry to say that. I'd come in here and make a lot of friends, not worried if I don't, but you have some serious systemic problems, and I was hoping to see the Board more direction focused on this and taking the lead on this but what I'm hearing is explanations of excuses after excuse, maybe ideas to way to put bandaide on the excuse, and in going forward I don't see a solution. And those 2012 wait times before you got into this problem were completely unacceptable. I know in Hawaii Kai we had 10 main breaks over a short period of time. What are you doing with the infrastructure? And I've heard a lot of concerns about a lot of things on the island regarding the water system so unfortunately barring some drastic changes or some comments by the Board here this afternoon, I intend to support the council resolutions and speak vocally. I'll be at the Hawaii Kai neighborhood board meeting tomorrow and speaking on my observations here today. Thank you.'

Mr. Miyashiro thanked Mr. Purcell for his comments.



### Estimated Bills Issue

**Board of Water Supply (BWS) Board of Directors Briefing** 

Henderson Nuuhiwa Susan Uyesugi Paul Kikuchi

# Agenda

- Estimated Bills
  - Why are bills estimated
  - What's being done
  - Where are we
- Revenue Accounting (Pre Audit) Staffing
- Meter Reading Staffing
- Call Center Performance
  - Impacts
  - Solutions Implemented, On-going and Future
- ♦ Q&A

## Why are bills estimated

## When meter readings are not captured

- Meter or automatic meter reading system malfunction.
- Environmental conditions (e.g., rainy weather floods meter box interfering with radio signal used to read meter).
- Physical objects blocking the meter reading radio signal (e.g., car parked over the meter or other objects such as construction materials, plants, etc.).
- Multiple holidays within a month (reduces the number of meter reading days available).

## When are captured meter reads not used

- The billing system is configured to catch meter reads that may be too high (leaks) or too low (a stuck meter) – the "HiLo" threshold.
- When an actual read falls outside of the HiLo threshold, it is flagged by the system requiring manual review and release.
- If there is no manual intervention, the system does not use the actual read and generates a bill based on an estimated read.

- When are captured meter reads not used (Cont.)
  - The billing system also checks the identification of the meter/register assigned to the account, against the meter/register that was read at the account address. If there is a discrepancy, it is flagged by the system – requiring manual review and release.
  - If there is no manual intervention, the system does not use the actual read and generates a bill based on an estimated read.

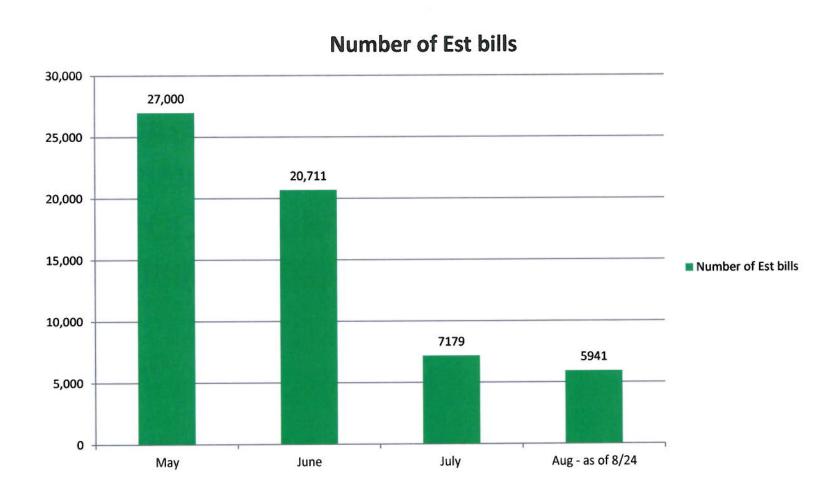
## Industry use of estimated reads

- Billing based on estimated meter readings is a widely-used practice across industries and sectors that use a service or product.
- Billing based on an estimated read may be higher or lower than actual usage – but is "trued-up" when the next usable captured meter read is processed.

- Status of estimated bills
  - Reconciling multiple estimated bills
    - In late May, BWS noticed a significant number of accounts where actual reads were not used because of discrepancies flagged by the system.
    - Staffing constraints hindered timely manual review, resulting in system estimated water usage - sometimes over multiple billing cycles.
      - For customers affected by multiple billing periods, BWS is providing recalculated bills for each period.
    - BWS mobilized a concentrated effort to review, cancel and recalculate these bills using the actual meter readings.

### Where are we

- As of May, over 16% of our customer base was affected, by June this was reduced to 12%, July to 6% and August 23 to 5%.
- BWS targets completion of the recalculation effort in two-three billing cycles – September bills.
- For many customers, the recalculation effort is not necessary.
- BWS has also increased staffing and training/retraining.



# Revenue Accounting (Pre Audit)

### 

## Pre Audit – Staffing

- Pre CC&B: 7 Full Time Equivalent (FTE)
   (6 Civil Service (CS), 1 Personal Services
   Contract (PSC) 5 filled.
- CC&B: 9 FTE (6 CS, 1 Limited Term Appointment (LTA), 2 PSC) 6 filled.
- August 21, 2013: 19 FTE (6 CS, 1 LTA, 12 PSC) 14 filled.

# Meter Reading

### Finance

Meter Reading – Staffing

- Pre CC&B: 11 FTE (6 CS, 5 PSC) 9 filled.
- CC&B: 16 FTE (6 CS, 10 PSC) 14 filled.
- August 21, 2013: 21 FTE (6 CS, 15 PSC) 15 filled.
- Current performance: Average 98% to 99% read rate.

- Impacts
  - Max Queue Time

	2012	CC&B	CC&B		
	PRE CC&B	1/23 to 7/5	7/8 to 8/23		
CSR	49.67	46.27	91.82		
CSR CB	52.42	48.68	114.68		
CREDIT	26.63	27.15	60.79		
OPER	8.68	24.78	39.09		

# **CC&B Project Update**

- - Average Speed of Answer

	2012	CC&B	CC&B		
	PRE CC&B	1/23 to 7/5	7/8 to 8/23		
CSR	19.17	19.27	47.03		
CSR CB	29.50	28.69	74.12		
CREDIT	8.28	8.95	26.62		
OPER	0.41	5.55	4.56		

# **CC&B Project Update**

- Impacts
  - ♦ Average Handle Time

	2012	CC&B	CC&B		
	PRE CC&B	1/23 to 7/5	7/8 to 8/23		
CSR	5.56	6.19	6.94		
CSR CB	5.11	5.45	6.12		
CREDIT	4.78	5.29	5.29		
OPER	2.26	3.92	2.50		

# **CC&B** Project Update

## Impacts

**CALLS HANDLED** 

**CALLS ABANDONED** 

	2012	CC&B	CC&B
	PRE CC&B	1/23 to 7/5	7/8 to 8/23
CSR	181	179	118
CSR CB	182	202	238
CREDIT	170	203	167
TOTAL	534	584	522
%	61%	63%	43%
CSR	303	276	531
CREDIT	43	71	167
TOTAL	346	347	698
%	39%	37%	57%

- Impacts
  - More calls.
  - Longer time spent on the phone with customers.
  - More irate customers.
  - More high bill complaints creating additional work for Investigators.
  - More complaints from various sources for staff to respond to.

- Solutions Implemented
  - Hired additional temporary staff
    - ♦ End of June 15 Customer Service Representatives (CSRs).
    - ♦ Today 21 CSRs.
    - ♦ Goal 30 CSRs.
  - Extended Call Center hours
    - July 17 − 7:45 to 5:30 pm.
    - Using Overtime (OT) until new CSRs fully trained.

- Solutions On-going
  - Trying different call queues
    - Trial A- All in one bucket, eliminate credit card queue.
    - Trial B More people helping people on hold, longer wait for callback, eliminate credit card queue.
    - Continuing Trial B for one month.
  - Extended Call Center hours
    - July 17 − 7:45 to 5:30 pm.
    - Using OT until new CSRs fully trained.

- Solutions On-going
  - Hired additional temporary staff
    - ♦ End of June 15 CSRs.
    - ◆ Today 21 CSRs.
    - ♦ Goal 30 CSRs.
  - Extended Call Center hours
    - July 17 7:45 to 5:30 pm.
    - Using OT until new CSRs fully trained.

- ♦ Solutions Future
  - Filling 5 permanent CSR positions
    - ♦ Advertised August 13 2 day recruitment.
    - 30 CSRs.
  - Extended Call Center hours
    - July 17 − 7:45 to 5:30 pm.
    - Using OT until new CSRs fully trained.



# Questions?

REVISION OF THE 2013-2014 CAPITAL IMPROVEMENT PROGRAM BUDGET -AMENDMENT NO. 1 Chairman and Members Board of Water Supply City and County of Honolulu Honolulu, Hawaii 96843

Chairman and Members:

Subject:

Revision of the 2013-2014 Capital Improvement

Program Budget - Amendment No. 1

The current Capital Improvement Program (CIP) Budget shall be amended as described below:

**Appropriation** 

<u>Present</u>

Proposed

Add the following CIP projects and appropriations:

Item No. 3A CONSTRUCTION
MANAGEMENT FOR VARIOUS
BOARD OF WATER SUPPLY (BWS)
CONSTRUCTION PROJECTS

**OPERATING FUND** 

CONST

1,600,000

The Construction Management Program Management (CMPM) project will investigate and implement process and procedure improvements for construction inspection and contract administration, incorporating new tools, resources and training to improve project management and oversight workforce efficiency and quality assurance/quality control (QA/QC). In support of the project, construction management contracts will be implemented for selected construction projects to demonstrate and reinforce the recommended CMPM and QA/QC improvements.

Item No. 40A MAPUNAPUNA WATER SYSTEM IMPROVEMENTS, PART I

OPERATING FUND

award.

CONST

2,093,000

The low bid for this FY 2012-2013 project exceeded the budget amount due to higher pipe installation costs related to anticipated petroleum hydrocarbon contaminated soils. Additional monies are necessary to fund the contract

### Appropriation

Present

Proposed

Delete the following CIP projects and appropriations:

Item No. 9 MARINER'S RIDGE

BOOSTER I: REPAIR OF PUMPING

UNITS

OPERATING FUND

CONST

263,000

---

Due to delays in scope refinement and the completion of contract awards, the design of these improvements is just underway and the construction plans will not be ready for advertisement in the current fiscal year. This project will be rescheduled for construction next fiscal year.

Item No. 10 AINA KOA BOOSTER I:

REPAIR OF PUMP NO. 2

OPERATING FUND

CONST

175,000

---

Due to delays in scope refinement and the completion of contract awards, the design of these improvements is just underway and the construction plans will not be ready for advertisement in the current fiscal year. This project will be rescheduled for construction next fiscal year.

<u>Item No. 17</u> WAIALAE IKI WELL RENOVATION

OPERATING FUND

CONST

150,000

200 200

This design project will not be initiated in the current fiscal year due to staffing shortages and workload. This project will be rescheduled for next fiscal year.

Item No. 18 MILILANI WELLS II IMPROVEMENTS

OPERATING FUND

CONST

150,000

\_\_\_

This design project will not be initiated in the current fiscal year due to staffing shortages and workload. This project will be rescheduled for next fiscal year.

Decrease the appropriation for the following CIP projects:

Item No. 28 HIHIMANU STREET 20-INCH MAIN

OPERATING FUND

CONST

250,000

100,000

The budgeted amount for the BWS share of this joint project with the Department of Hawaiian Home Lands (DHHL) was based on the estimated costs in a memorandum of agreement between BWS and DHHL. Based on the low bid received and minimal contract changes during construction, DHHL has notified BWS that the actual BWS share will be less than originally estimated.

Appropriation
Present Proposed

Item No. 31 PALOLO WATER SYSTEM IMPROVEMENTS, PART III

OPERATING FUND

CONST

4,700,000

1.895,000

This project and another project in the immediate vicinity, Palolo Water System Improvements Part IV, are intended for construction procurement under an alternative project delivery (APD) pilot implementation and the use of rehabilitation, rather than replacement and technology. The scopes of the projects will be combined and the appropriation for this project can be reduced to reflect an economy of scale.

The appropriate pages of the current Capital Improvement Program budget will be revised for distribution.

Respectfully submitted,

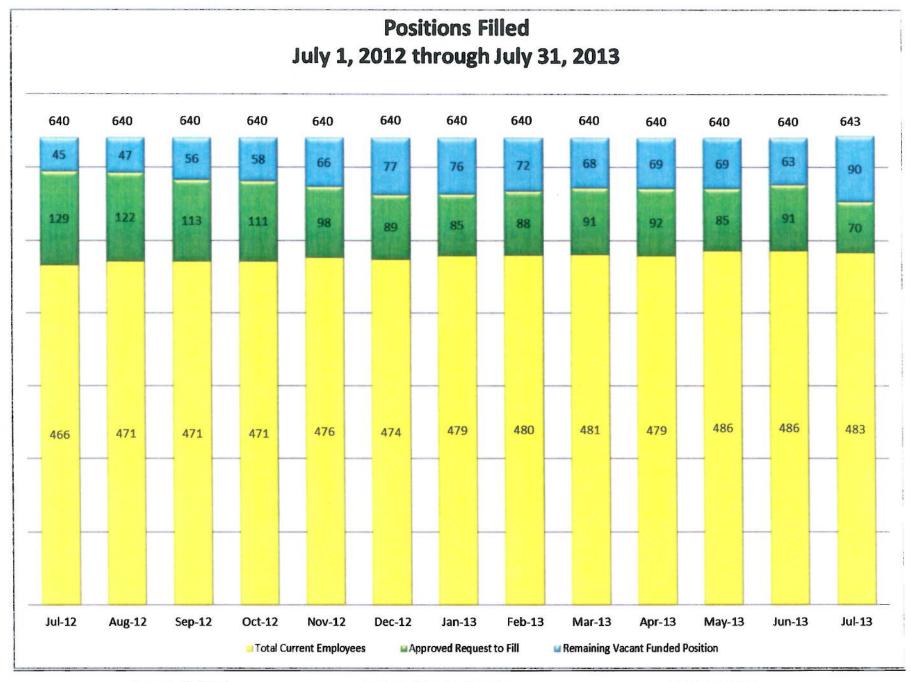
/s/

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

The foregoing was for information only.

DISCUSSION:

Capital Projects Program Administrator Jason Takaki briefed the Board on the Revision of the 2013-2014 Capital Improvement Program Budget – Amendment No. 1. There were no comments or discussion.



Cumulative Totals

July 1, 2012 through July 31, 2013



August 26, 2013

#### DISCUSSION:

In reference to the Cumulative Totals graph, Karen Tom from the Human Resources Office responded to Ms. McMurdo's inquiry stating that positions filled and positions approved to fill are regular Civil Service positions and not Personal Services Contracts.

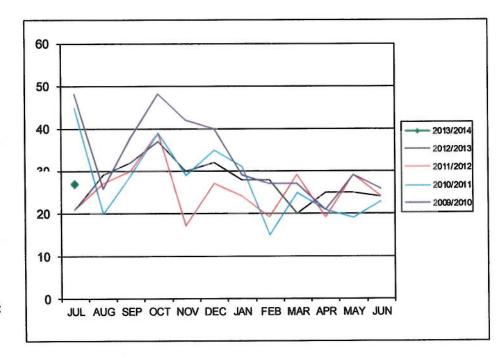
#### **ITEM FOR INFORMATION NO. 6**

### WATER MAIN REPAIR REPORT

### for July 2013

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2013/2014	27												27
2012/2013	21	29	32	37	30	32	28	28	20	25	25	24	331
2011/2012	21	27	30	39	17	27	24	19	29	19	29	24	305
2010/2011	45	20	29	39	29	35	31	15	25	21	19	23	331
2009/2010	48	26	38	48	42	40	29	27	27	21	29	26	401

<u>Date</u>	<u>Address</u>	Size	<u>Cause</u>
7/1	1670 Ala Aolani St.	12" C.I.	unknown
7/1	92-685 Anipeahi St.	8" C.I.	unknown
7/9	87-356 Hakimo Rd.	20" C.C.	corrosion
7/10	3907 Koko Dr.	6" C.I.	corrosion
7/11	Farrington Hy. & Waipahu Depot Ro	6" C.I.	corrosion
7/15	1604 Hoohiamoe St.	8" C.I.	corrosion.
7/15	943 Lemi St.	6" C.I.	corrosion
7/15	1038 Kikowaena Pl.	12" C.I.	damaged
7/15	84-369 Farrington Hy.	8" C.I.	damaged
7/16	94-955 Awaiki St.	8" C.I.	unknown
7/16	46-308 Hoauna Pl.	4" C.I.	corrosion
7/17	91-268 Ewa Beach Rd.	12" P.V.C.	clamp
7/18	1120 Neal Ave.	6" C.I.	corrosion.
7/20	2929 Kahawai St.	8" D.I.	corrosion
7/20	5256 Makalena St.	6" C.I.	corrosion
7/21	170A Makaweo Ave.	6" C.I.	settlement
7/22	47-605 Alawiki St.	4" D.I.	unknown
7/22	90 Makaweo Ave.	6" C.I.	corrosion
7/23	1428 Onioni St.	8" C.I.	unknown
7/24	84-600 Makaha Valley Rd.	12" C.I.	unknown
7/24	118 Hawaii Loa St.	8" C.I.	corrosion
7/25	945 Kahena St.	8" D.I.	corrosion



**Bold \* - Pro-active Leak Repair** 

7/26	872 Wanaao Rd.	8" A.C.	pressure	
7/27	185 Ulupa St.	8" AC.	pressure	12 miles of pipelines were surveyed by the Leak Detection Team
7/27	814 Coolidge St	8" C.I.	corrosion	in the month of July
7/29	91-026 Hailipo St.	6" C.I.	corrosion	
7/30	3502 Woodlawn Dr.	8" C.I.	corrosion	

#### DISCUSSION:

Field Operations Program Administrator Daryl Hiromoto explained that they added the cause of each break in the Main Repair Report. A number of the causes were unknown or corrosion because this is just an early, more visual assessment made by the crews, and not a detailed, forensic analysis. Although it's an early assessment, it's still useful. As an example, failures for clamps for PVC pipes identified the need to look for a more durable or well mastered clamp.

Mr. Miyashiro thanked Mr. Hiromoto for the additional information and asked if the staff had always been tracking this information. Mr. Hiromoto replied yes, they have.

Mr. Lau informed the Board that as part of the 30-year water master plan, a detailed, forensic analysis and condition assessment will be conducted.

#### ITEM FOR INFORMATION NO. 7

"August 26, 2013

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

Chairman and Members:

Subject: Status Update of Groundwater Levels at All Index

Stations

There are four aquifer index wells within low groundwater status for the production week that ended on August 10, 2013. Makaha and Kaluanui are in caution status, and Kaimuki and Punaluu are under an alert status. The weekly production average for the period was 144.66 million gallons per day.

The Board of Water Supply rainfall index for the month of July was 69 percent of normal, with a 5-month moving average of 99 percent. All of the following indicators support the seasonal decline in head levels. The United States Geological Survey (USGS) reported stream discharges of their monitored stream gages ranging from below normal to normal percentile classes for the month of July. That represents a downgrade from the month of June. As of August 6, 2013, the U. S. Drought Monitor site is reporting abnormally dry D0 drought conditions for the leeward side of the island of O'ahu. The National Weather Service is still forecasting below normal precipitation amounts through November 2013.

Respectfully submitted,

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

Attachments"

The foregoing was for information only.

DISCUSSION:

Marc Chun from the Water Resources Division briefed the Board on the status update of groundwater levels. Mr. Lau mentioned that less water is being pumped today at 144.66 million gallons per day (mgd), compared to 2012 at 150.91 mgd. There were no comments or discussion.

#### PUMPAGE, HEAD, AND RAINFALL REPORT Week of 8/04/13 to 8/10/13

STATION		MGD	HEAD	STA	TION	MGD	HEAD	STAT	ION	MGD	HEAD			MGD	HEAD
METE	20	MOD	110.0	WINDWA	Owner St. Office			EWA-WAIAN				PH (C	ONT)		
KULIOUOU		0.00						MAKAHA IV		0.00		PEARL CITY		1.06	
WAILUPE		0.00	-	WAIMANALO	) II	0.42		MAKAHA V		0.00		PEARL CITY		0.44	
WAIALAE-IKI		0.00				0.00		WAIAU		1.55					
AINA KOA		0.48		KUOU I	<u> </u>	0.00		MAKAHA SHA	FT	0.50	6.10	NEWTOWN		1.19	
AINA KOA II		0.85	/	KUOU II		0.09		KAMAILE		0.00		KAONOHI I		0.88	
WAIALAE SHAFT		0.00		KUOU III		0.71		WAIANAE I		0.00		WAIMALU I		0.00	
MANOA II		0.00		LULUKU		1.06		WAIANAE II		0.81		AIEA		0.00	
PALOLO	-	1.11		HAIKU		0.32		WAIANAE III		0.00		AIEA GULCH	1 497	0.29	
KAIMUKI HIGH		2.74		IOLEKAA		0.02		MAKAKILO		0.24		AIEA GULCH		0.24	
KAIMUKI LOW		1.56	21.28	KAHALUU		0.49		HONOULIULI		0.59		HALAWA 27		0.00	
WILDER		9.89	-	WAIHEE		0.00		HONOULIULI		7.03		HALAWA 55		0.00	
BERETANIA HIGH		4.12	155000000000	KAHANA		0.74			SUBTOTAL:	11.10			ANU MTR(-)	0.00	
BERETANIA LOW		2.03	21.90	PUNALUU I		0.00	15.66	IMPORT F	Cardinal Co. Hard Street Co.					0.00	
KALIHI HIGH		0.92	200000000	DUNAL HILL		2.57	10.00	KAPOLEI LINE		16.41		KAAMILO FLO MTR (-) KUNIA I		5.37	18.3
KALIHI HIGH		1.46	21.00	PUNALUU II		1.74		HONOULIULI I		0.00		KUNIA II		2.06	
KAPALAMA		1.55		KALUANUI		1.30		EWA BEACH F	44.5VANAS	0.00		KUNIA III		1.39	
KALIHI SHAFT		8.31		MAAKUA		0.70			OULIULI I (-)	-0.59	-	HOAEAE	A.S. 1	6.24	
MOANALUA	-	1.55	18.66	HAUULA		0.16			OULIULI II (-)	-7.03		EWA SHAFT		0.00	
MOANALOA	SUBTOTAL:	36.57	10.00	11110001					SUBTOTAL:	8.79			INTCON. (-)	-2.94	
	OOD TO TAL.	30.07		KAHUKU		0.44			000101110			CONTRACTOR	VAIANAE (-)	-8.79	
IMPORT F	OM PH			OPANA		0.92		PEARL H	ARBOR				OCAL USE:	31.15	
HALAWA SHAFT	COWIFF	7.83	16 33	WAIALEE I		0.37	_	WAHIAWA	AIRBOIL	1.85			SUBURBAN:	65.72	
KAAMILO		0.00		WAIALEE II		0.37		WAHIAWA II		1.54		1017.23	30501157111.	00.72	
CALAUAO		8.86		SUNSET BE	ACH	0.00		MILILANI I		3.17		KALAUAO S	PRINGS	2.26	_
PUNANANI		11.28		0011021	SUBTOTAL:	12.93		MILILANI II		0.00		BARBERS POINT (NP)		1.77	
KAONOHIII		0.00	_					MILILANI III		0.00		GLOVER TUNNEL (NP)		0.53	
WAIMALU II		0.00	Carriel 2290	WIND. E	EXPORT	0.50		MILILANI IV		2.36		, ,			
KAAHUMANU		0.98				-		WAIPIO HTS.		0.13		Н	EAD CONDIT	ION	
HECO WAIAU		2.70		HALEIWA-W	/AIALUA			WAIPIO HTS. I		0.08		CAUTION	ALERT	CRIT	ICAL
MANANA		0.49		HALEIWA		0.00		WAIPIO HTS. I		0.42		Kaluanui	Kaimuki		
	ANU FLOW MT	0.00		WAIALUA		2.27	-	WAIPIO HTS.		1.18		Makaha	Punaluu		
	LO FLOW MTR	0.00			SUBTOTAL:	2.27		WAIPAHU		2.94	18.05				
	EXP WAIP. INT:	2.94			1			WAIPAHU II		0.65					
	RT FRM WIND:	0.50		FWA-W	AIANAE			WAIPAHU III		3.20				-	
1147	SUBTOTAL:	35.56	_	MAKAHA I		0.74		WAIPAHU IV		3.21					
	OOD TO TAL.	00.00		MAKAHA II		0.10	_	PEARL CITY S	SHAFT	0.97	14.52				
	TOTAL METRO:	72 13		MAKAHA III		1.09		PEARL CITY I		0.46					
	TOTAL WILLTRO:	12.10		10000000000		1.00									
CV	VRM PERMITTE	DUSE	FOR BV	VS POTABLE			1224	PUMPAGE	2013		)12	GRAVITY	2013		12
	A		В	С	D		<u> </u>	SUBURB.	65.72		.67	SUBURB.	6.36		.38
WATER	PERMITTED			DIFF.	YEAR/		FF.	METRO	72.13		.96	METRO	0.44		37
DISTRICTS	USE		)13	B-A	DATE	D	-A	TOTAL:	137.85	14	0.63	TOTAL:	6.80	10.	.75
HONOLULU	45.27		.01	-8.26								Manoa	0.17		
WINDWARD	25.21		.55	-9.66				NUUANU #5				Palolo	0.27		
NORTH SHORE	4.08	4.	36	0.28				(rainfall)	1.83"	0.	17"	Waim. I&II	0.11		
WAHIAWA	4.27		39	-0.88								Waim. III&IV	0.19		
VVAIANAE	4.34	3.	63	-0.71								Waihee incl.	0.97		
EWA-KUNIA	15.88	7.	86	-8.02								Waihee tun.	1.59		
PEARL HARBOR	92.66	71	.61	-21.06								Luluku	0.11		
TOTAL	191.71	143	3.40	-48,30								Haiku	0.00		
												Kahaluu	1.93		
												Waia. C&C	1.37		
												Waia plant.	0.11		

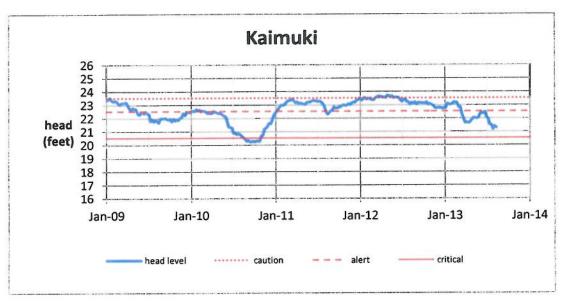
### DROUGHT STATUS REPORT DRAFT IN MGD

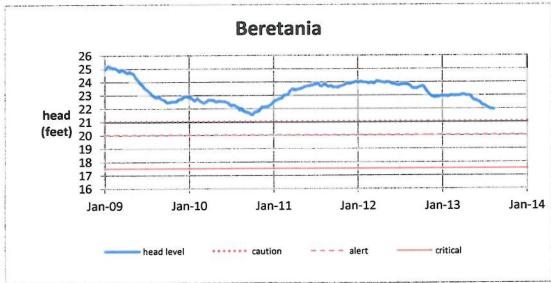
WATER USE DISTRICT	AUTHORIZED USE	2012	7/14- 7/20 2013	2012	7/21- 7/27 2013	2012	7/28- 8/03 2013	2012	8/04- 8/10 2013
HONOLULU	45.27	32.73	39.87	33.69	38.46	33.45	36.54	34.65	37.51
WINDWARD	25.21	17.21	15.47	16.49	14.78	18.01	14.00	18.58	15.22
NORTH SHORE	4.08	3.69	4.59	4.10	4.47	3.71	4.06	4.23	4.36
WAHIAWA	4.27	3.10	3.41	3.11	3.31	3.11	3.16	3.08	3.39
EWA-WAIANAE	20.22	25.38	21.33	23.16	21.19	24.50	20.01	24.66	21.36
PEARL HARBOR	92.66	65.02	64.26	66.99	63.10	66.50	58.49	65.72	62.82
TOTAL	191.71	147.12	148.94	147.54	145.30	149.29	136.26	150.91	144.66

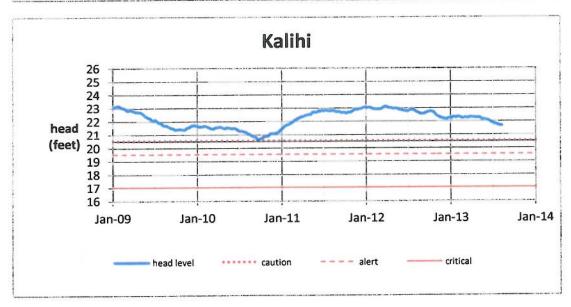
Accounts for in-district pumpage and transfers

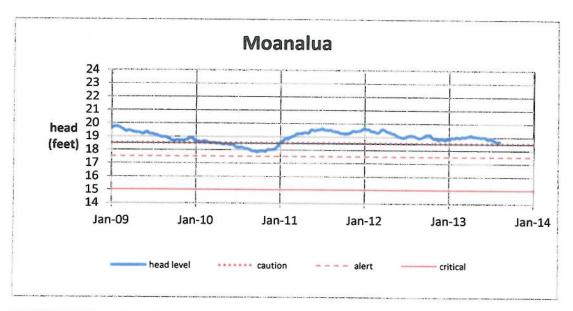
#### HEAD IN FEET

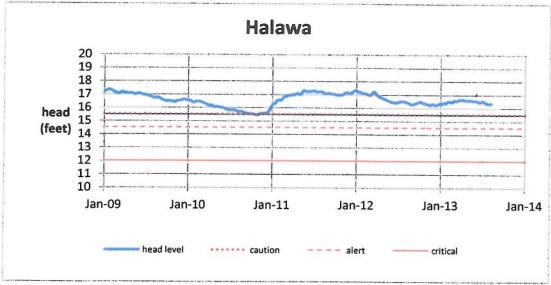
							50 Sept. 10 Sept. 1955	
	2012	7/14- 7/20 2013	2012	7/21- 7/27 2013	2012	7/28- 8/03 2013	2012	8/04- 8/10 2013
HONOLULU								
KAIMUKI	23.22	21.48	23.18	21.16	23.01	21.39	23.16	21.28
BERETANIA	23.82	22.02	23.80	21.94	23.82	21.96	23.74	21.90
KALIHI	22.85	21.75	22.81	21.68	22.72	21.67	22.66	21.65
MOANALUA	19.10	18.70	19.07	18.65	19.05	18.64	18.99	18.66
PEARL HARBOR								
HALAWA	16.48	16.37	16.48	16.30	16.44	16.30	16.39	16.33
KALAUAO	17.16	16.84	17.15	16.78	17.15	16.82	17.11	16.82
PEARL CITY	14.89	14.60	14.87	14.50	14.86	14.56	14.82	14.52
WAIPAHU	18.42	18.04	18.43	18.00	18.40	18.08	18.32	18.05
KUNIA	18.82	18.39	18.79	18.33	18.69	18.41	18.64	18.37
EWA-WAIANAE								
MAKAHA	9.17	7.34	9.80	6.71	10.33	6.32	10.78	6.10
WINDWARD								
PUNALUU	15.73	15.84	15.73	15.68	15.72	15.58	15.67	15.66
KALUANUI	15.73	15.93	15.70	15.73	15.70	15.60	15.72	15.64
NORTH SHORE								
WAIALUA	11.10	11.22	11.10	11.21	11.09	11.30	11.09	11.27

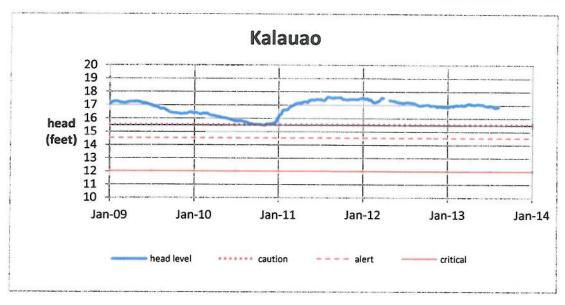


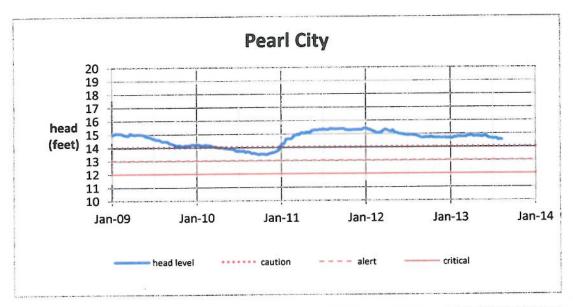


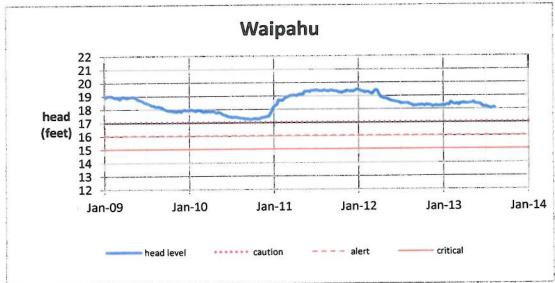


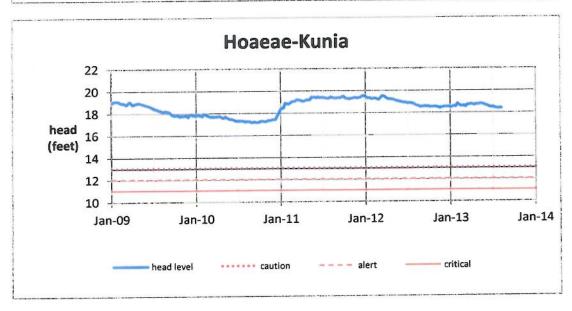


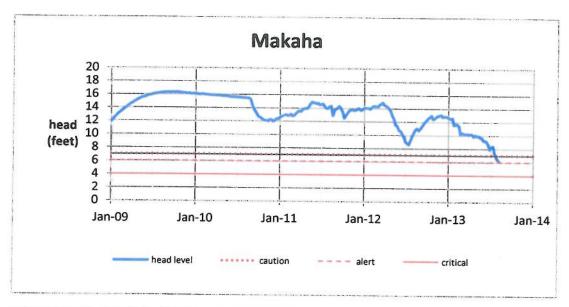


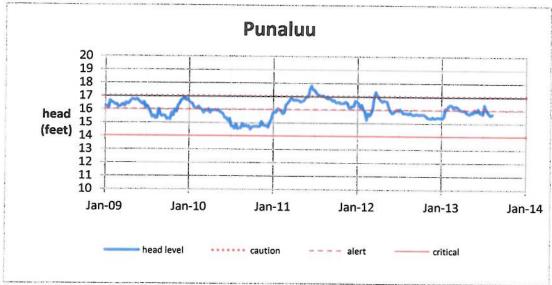


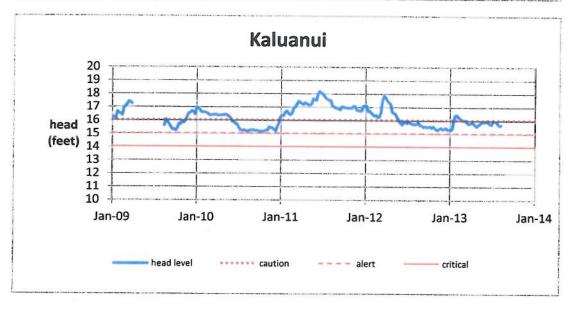


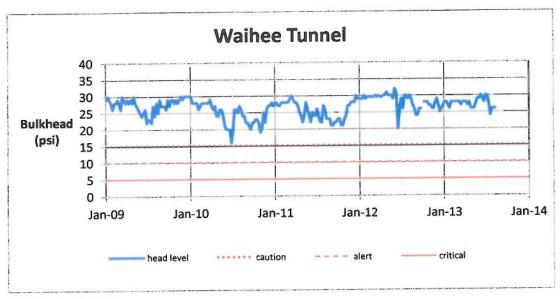


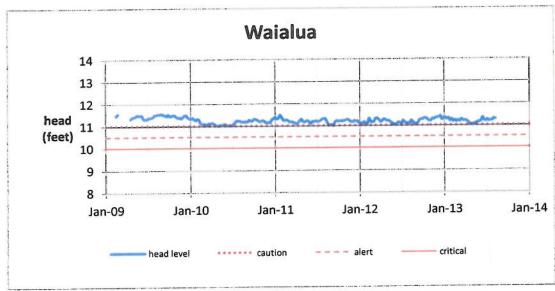


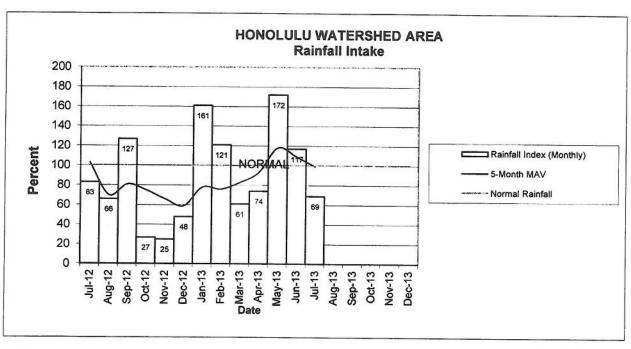


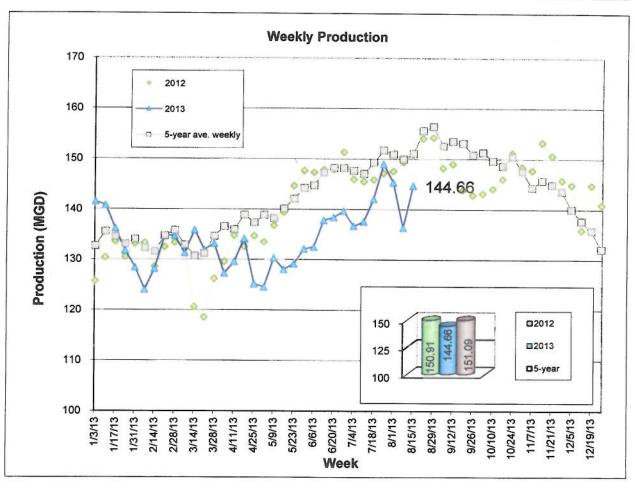












#### MOTION TO ADJOURN

There being no further business Chair Miyashiro at 4:21 PM called for a motion to adjourn the Open Session. Adam Wong so moved; seconded by Mahealani Cypher and unanimously carried.

THE MINUTES OF THE REC MEETING ON AUGUST 26, 1 THE SEPTEMBER 23, 2013	2013 WE	RE AF	PROVED AT
	AYE	NO	COMMENT
DUANE R. MIYASHIRO	Х		
MAHEALANI CYPHER	Х		
THERESIA C. MCMURDO			ABSENT
ADAM C. WONG	Х		
DAVID C. HULIHEE	Х		
ROSS S. SASAMURA	Х		
GLENN M. OKIMOTO			ABSENT

Respectfully submitted,

LISA K. KIN

APPROVED:

UANE R. MIYASHIRO Chairman of the Board

SEP 2 3 2013

Date