

## MINUTES

### REGULAR MEETING OF THE BOARD OF WATER SUPPLY

April 28, 2014

At 2:00 PM on April 28, 2014 in the Board Room of the Public Service Building at 630 South Beretania Street, Honolulu, Hawaii, Board Chair Miyashiro called to order the Regular Meeting.

Present: Duane R. Miyashiro, Chair  
Theresa C. McMurdo  
David C. Hulihee  
Ross S. Sasamura  
Glenn M. Okimoto

Also Present: Ernest Lau, Manager and Chief Engineer  
Ellen Kitamura, Deputy Manager and Chief Engineer  
Alex Ubiadas  
Barry Usagawa  
Daryl Hiromoto  
Jason Takaki  
Paul Kikuchi  
Clayton Shimazu  
Ron Wada  
Joe Cooper  
Karen Tom  
Jill Kuramoto

Others Present: Krishna Jayaram, Deputy Corporation Counsel  
Marilyn Ushijima, Deputy Corporation Counsel  
Dave Jochim, Stepp Consulting, Incorporated  
Chris Cleveland, Brown and Caldwell  
Craig Von Barga, CDM Smith  
Eric Iwamoto, Bowers + Kubota

Absent: Mahealani Cypher, Vice Chair  
Adam C. Wong

APPROVAL  
OF MINUTES

Approval of the Minutes of the Regular Meeting held on March 24, 2014

MOTION  
TO APPROVE

Theresia McMurdo and David Hulihee motioned and seconded, respectively, to approve the Minutes of the Regular Session Meeting of March 24, 2014. The motion was unanimously carried, with the exception of Board Chair Miyashiro who abstained.

"April 28, 2014

AUTHORIZING  
A PUBLIC  
HEARING

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

Chair and Members:

Subject: Authorizing a Public Hearing to Consider the Proposed  
FY 2014 – 2015 Operating and Capital Improvement  
Program Budget

We recommend that the Board authorize a public hearing to be held at 2:00 p.m. on Tuesday, May 27, 2014 to consider the resolution to adopt the proposed Operating and Capital Improvement Program Budget for the fiscal year beginning July 1, 2014 and ending June 30, 2015.

Attached is the draft of the "Notice of Public Hearing" to be published prior to the hearing date.

Respectfully submitted,

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

Attachment"

## NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the BOARD OF WATER SUPPLY, CITY AND COUNTY OF HONOLULU, will hold a PUBLIC HEARING in the Board Room, Public Service Building, 630 South Beretania Street, on TUESDAY, MAY 27, 2014, at 2:00 p.m. or soon thereafter, where all interested persons shall be afforded the opportunity of being heard on the adoption of the Proposed FY 2014 – 2015 Operating and Capital Improvement Program Budget of the Board of Water Supply for the fiscal year July 1, 2014 to June 30, 2015.

Information to be discussed at this public hearing is available at Room 201 of the Public Service Building, Board of Water Supply, 630 South Beretania Street. All comments on or suggested changes to the proposed FY 2014 – 2015 Operating and Capital Improvement Program Budget of the Board of Water Supply should be filed in writing before the date of the public hearing or presented in person at the time of the hearing. Persons wishing to speak are requested to register by 1:00 p.m. with Alison Kawata, 748-5100, by providing your name, phone number, and subject matter of testimony. Testimony is limited to three minutes and shall be presented by the registered speaker only. Any questions, please call 748-5100. Any disabled person requiring special assistance who plans to attend the public hearing, may contact Ms. Alison Kawata at 748-5100, no later than May 20, 2014, so that appropriate accommodations can be provided.

BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU



DISCUSSION:           There were no comments or discussion.

MOTION TO               Chair Miyashiro called for a motion to hold a Public Hearing on the proposed  
APPROVE A               FY 2014-2015 operating and capital improvement program budget.  
PUBLIC                   Ross Sasamura and David Hulihee motioned and seconded, respectively,  
HEARING                 and the motion was unanimously carried.

AUTHORIZING A PUBLIC HEARING TO CONSIDER THE PROPOSED FY 2014-2015 OPERATING AND CAPITAL IMPROVEMENT PROGRAM BUDGET WAS APPROVED ON APRIL 28, 2014			
	AYE	NO	COMMENT
DUANE R. MIYASHIRO	X		
MAHEALANI CYPHER			ABSENT
THERESIA C. MCMURDO	X		
ADAM C. WONG			ABSENT
DAVID C. HULIHEE	X		
ROSS S. SASAMURA	X		
GLENN M. OKIMOTO	X		

"April 28, 2014

AMENDMENT  
NO. 1 TO  
RESOLUTION  
NO. 840, 2014

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

Chair and Members:

Subject: Amendment No. 1 to Resolution No. 840, 2014,  
Acceptance of Gifts to the Board of Water Supply from  
Various Donors in Support of the 2014 Water Conservation  
Week Program

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Attached is Resolution No. 840, 2014, Acceptance of Gifts to the Board of Water Supply from Various Donors in Support of the 2014 Water Conservation Week Program, which was approved on February 24, 2014.

We recommend the adoption of the attached Amendment No. 1 to Resolution No. 840, 2014, that accepts additional gifts to the Board of Water Supply (BWS), City and County of Honolulu, in support of the 2014 Water Conservation Week (WCW) Program. The additional donors, Sodexo, Times Supermarkets, Hard Rock Café Honolulu, Aloha Pacific Federal Credit Union, Board of Water Supply Federal Credit Union, and Pasha Hawaii, have contributed gifts totaling \$7,225.00:

<u>Donor Name</u>	<u>Amount</u>
Sodexo (Refreshments for awards ceremony reception)	\$2,725.00 (in-kind)
Times Supermarkets	\$2,000.00
Hard Rock Café Honolulu (Cookies for awards ceremony reception, and gift cards and merchandise items for award recipients and teachers' gift bags)	\$1,000.00 (in-kind)
Aloha Pacific Federal Credit Union	500.00
Board of Water Supply Federal Credit Union	500.00
Pasha Hawaii	<u>500.00</u>
TOTAL	\$7,225.00

This amount, together with the previous sponsorship donations of \$5,000.00, brings the total value of donations to \$12,225.00.

Respectfully submitted,

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

Attachments"

BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU

AMENDMENT NO. 1 TO RESOLUTION NO. 840, 2014

ACCEPTANCE OF GIFTS TO THE BOARD OF WATER SUPPLY  
FROM VARIOUS DONORS IN SUPPORT OF THE  
2014 WATER CONSERVATION WEEK PROGRAM

WHEREAS, Resolution No. 840, 2014, which recommended the acceptance of monetary gifts from various donors totaling \$5,000.00, in support of the Water Conservation Week Program, was approved on February 24, 2014; and

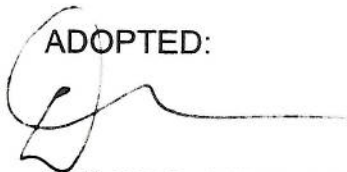
WHEREAS, additional donors Sodexo, Times Supermarkets, Hard Rock Café Honolulu, Aloha Pacific Federal Credit Union, Board of Water Supply Federal Credit Union, and Pasha Hawaii, are offering monetary and in-kind gifts totaling \$7,225.00, bringing the total value of donations in support of the Water Conservation Program to \$12,225.00; and

WHEREAS, gifts to the Board of Water Supply (BWS) are beneficial because it promotes and assists public programs such as the BWS's Water Conservation Week public education program and reduces the need for expenditure of ratepayer funds to support the program's key components; and

WHEREAS, the gifts will be used to offset reasonable and necessary costs of the printing and delivery of 20,000 Water Conservation Calendars featuring the contests' winning entries, as well as an awards ceremony to recognize the winning students and honorable mentions; now, therefore,

BE IT RESOLVED that the Board of Water Supply hereby accepts the additional gifts valued at \$7,225.00 and directs the Manager and Chief Engineer, or his delegate, to accept and thank the various donors for these gifts.

ADOPTED:



DUANE R. MIYASHIRO  
Chair

Honolulu, Hawaii  
April 28, 2014

DISCUSSION: Chair Miyashiro inquired if all of the donations are used. Information Officer Jill Kuramoto replied that they are and added that the total cost for printing and delivery is about \$22,000.

MOTION TO APPROVE AMENDMENT Ross Sasamura motioned to approve Amendment No. 1 to Resolution No. 840, 2014, Acceptance of Gifts to the Board of Water Supply from Various Donors in Support of the 2014 Water Conservation Week Program. The motion was seconded by Theresia McMurdo and unanimously carried.

AMENDMENT NO. 1 TO RESOLUTION NO. 840, 2014, ACCEPTANCE OF GIFTS TO THE BOARD OF WATER SUPPLY FROM VARIOUS DONORS IN SUPPORT OF THE 2014 WATER CONSERVATION WEEK PROGRAM WAS APPROVED AT THE APRIL 28, 2014 BOARD MEETING			
	AYE	NO	COMMENT
DUANE R. MIYASHIRO	X		
MAHEALANI CYPHER			ABSENT
THERESIA C. MCMURDO	X		
ADAM C. WONG			ABSENT
DAVID C. HULIHEE	X		
ROSS S. SASAMURA	X		
GLENN M. OKIMOTO	X		



## BOARD OF WATER SUPPLY

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



February 24, 2014

KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chairman  
MAHEALANI CYPHER, Vice Chair  
THERESIA C. McMURDO  
ADAM C. WONG  
DAVID C. HULIHEE

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

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

Chairman and Members:

Subject: Adoption of Resolution No.840, 2014, Acceptance of Gifts to the Board of Water Supply from Various Donors in Support of the 2014 Water Conservation Week Program

We recommend acceptance of the proposed gifts to the Board of Water Supply (BWS), City and County of Honolulu, from various donors in support of our 2014 Water Conservation Week (WCW) Program. The donors' total value of these gifts is \$5,000.00:

<u>Donor Name</u>	<u>Amount</u>
Hawaii Energy	\$ 2,000.00
Friends of Halawa Xeriscape Garden	\$ 2,000.00
Alexander and Baldwin Foundation	\$ 1,000.00

The BWS's WCW program is a successful and dynamic public education campaign that promotes the importance of water efficiency to Oahu's students in grades Kindergarten through 12. Studies show that when students are taught good water management and conservation practices at an early age, they are more likely to embrace a water-efficient lifestyle, help encourage their parents to do the same, and later pass on these practices to their own children. The BWS hopes to perpetuate this through our contests.

The donations from these private companies will help the BWS offset program costs that include the printing of 20,000 copies of the 2015 Water Conservation Calendars that feature the 2014 winning entries, as well as an awards ceremony for winners and honorable mentions of the 2014 WCW Poster and Poetry contests. The calendars are distributed to all Oahu schools, elected officials, and the general public. BWS staff will continue to seek additional sponsorships and support for the WCW program.

We deeply appreciate the continued support of this Board for this very valuable and worthwhile public education program. All participants in our WCW program are encouraged to always embrace their roles as responsible stewards of our precious water resource.

Respectfully submitted,

**APPROVED**

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

Attachment

BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 840, 2014

ACCEPTANCE OF GIFTS TO THE BOARD OF WATER SUPPLY  
FROM VARIOUS DONORS IN SUPPORT OF THE  
2014 WATER CONSERVATION WEEK PROGRAM

WHEREAS, the Board of Water Supply's (BWS) Water Conservation Week program is an annual activity that uses a poster and poetry contest to educate Oahu's youth about the importance of using water efficiently and features the winning and honorable mention entries in an annual Water Conservation Calendar; and

WHEREAS, the BWS may solicit gifts to the Department as long as it does not provide special consideration, treatment, advantage, privilege, or exemption for or coerces a potential donor; and

WHEREAS, the BWS will solicit for gifts on its agency website, which is available for access by any interested person or business; and

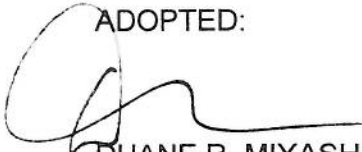
WHEREAS, Hawaii Energy, Friends of Halawa Xeriscape Garden, and Alexander and Baldwin Foundation are offering gifts totaling \$5,000.00 in support of the 2014 Water Conservation Week program; and

WHEREAS, a gift to the BWS is beneficial because it promotes and assists public programs such as the BWS's Water Conservation Week public education program and reduces the need for expenditure of ratepayer funds to support the program's key components; and

WHEREAS, the gifts will be used to offset reasonable and necessary costs of the printing and delivery of 20,000 Water Conservation Calendars featuring the contests' winning entries, as well as an awards ceremony to recognize the winning students and honorable mentions; now, therefore,

BE IT RESOLVED that the Board of Water Supply hereby accepts the various gifts valued at \$5,000.00 and directs the Manager and Chief Engineer, or his delegate, to accept and thank the various donors for these gifts.

ADOPTED:



DUANE R. MIYASHIRO  
Chairman

Honolulu, Hawaii  
February 24, 2014

"April 28, 2014

REQUEST  
BOARD  
POSITION ON  
RESOLUTION  
14-63

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

Chair and Members:

Subject: Chief Engineer to Report on Proposed City Council  
Resolution 14-63 and Request Board Position on the  
Same, if any

The department requests clarification of the Board's position on the proposed City Council Resolution 14-63 entitled "Initiating Amendments to the Revised Charter of the City and County of Honolulu 1973, As Amended, Relating to the Board of Water Supply." We anticipate that this resolution may be introduced for First Reading by the City Council in May. This resolution proposes a revision to the membership, voting authority, appointment process, and qualification requirement of the Board. A copy of the proposed resolution is included for the Board's information.

Membership, Voting Authority, and Appointment Process

Currently, the Board of the Honolulu Board of Water Supply consists of seven members, including two ex-officio members which are the Chief Engineer of the Department of Facility Maintenance, City and County of Honolulu, and the Director of the Department of Transportation, State of Hawaii. In addition, there are five community members that are appointed by the Mayor and confirmed by the Council. Appointed members serve five year staggered terms. All seven members have voting authority.

The resolution proposes to increase the Board to "eleven members, of which seven are appointed voting members and four are ex officio non-voting members." The ex officio members would be the "chief engineer of the department of facility maintenance of the city, two chairs of the council committees related to transportation and to city infrastructure, and the director of transportation of the State." The seven voting community members are appointed according to the following:

1. Three members are appointed by the Mayor without the need for Council confirmation;
2. Three members are appointed by the Council; and
3. One member is nominated by the Mayor and appointed by the Council.

Terms of the seven community members would, initially, be terms varying between two to five years. The four ex officio non-voting members would not be subject to any term or time limit.



### Qualification Requirement

All seven appointed community members shall have:

1. "Specific knowledge of water-related matters, with published submissions on water issues in Hawaii at the state or local level;"
2. "Knowledge in water management policies and practices;"
3. "Expertise in hydrology, geology, ground water modeling, global climate change, water distribution systems and infrastructures, and other related issues; or"
4. "Knowledge of island ecosystems, watershed protection, ground/surface water relationships, the impact of ground water taking on near shore marine ecosystems, with special reference to species and habitat and streams."

### Board Position

We recommend opposing this resolution based on, but not limited to the following points:

1. The audit by the City Auditor should be completed before consideration of any amendments to the Charter pertaining to the Board of Water Supply (BWS). Resolution 13-201 FD1 (Requesting the City Auditor to Perform a Comprehensive Management and Performance Audit of the Board of Water Supply), which was unanimously supported by all nine Councilmembers, specifically requested the City Auditor to address the following question, "Whether the status and powers of the BWS as a semi-autonomous agency should be maintained." The City Auditor should be allowed to complete his audit and determine if any change to the "status and powers of the BWS" is warranted before the Council considers any proposals to amend the Charter. The City Auditor should be allowed the opportunity to determine if any changes to the makeup and size of the Board adds value and is necessary.
2. Since water is essential to life itself (Ka Wai Ola – Water For Life), the BWS should operate as a water utility free of the influence of politics. This was one of the major reasons for the creation of the semi-autonomous Honolulu Board of Water Supply in 1929, to remove it from politics. This was reaffirmed again in 1958 by the Charter Commission, which found that politics and political expediency do not have a place in the operation of the water department. Effectively, the proposed charter amendment would allow the Council to have control over four of the seven voting members and Council representation of six of the eleven Board members (i.e., two ex officio Councilmembers and four voting

community members). This could allow the Council majority control over the Board.

3. The proposed qualification requirement is too restrictive and does not allow for appointment of community members that are representative of the broad types of customers that are served by the BWS and with varied expertise. This could detrimentally introduce a bias in policy setting, long term planning, and strategic planning by the Board. The BWS must solely depend on the revenue generated by water rates and fees to operate as a utility and a business. It must address the complexities related to this to accomplish its mission of providing "safe, dependable, and affordable water now and into the future." A diverse Board that allows for widely varied backgrounds brings a broad range of expertise to the Board and is an important advantage under the current appointment process. The current Board is an example of this and it includes members with both small and large business, legal, Native Hawaiian cultural, financial, public relations and engineering expertise. In addition, the department has a Water Resources Division with expertise in water resources, hydrology, geology, water system analysis, engineering, long range planning, water conservation and watershed planning and management.

In preparation for the City Council meeting in May, the department requests clarification of the Board's position on proposed Resolution 14-63 to amend the Revised Charter of Honolulu pertaining to the Board.

Respectfully submitted,

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

Attachment"

#### DISCUSSION:

Mr. Miyashiro inquired about the effect this resolution would have if it was approved by the voters. Manager Lau replied that a change to the makeup of the Board would happen almost immediately because the resolution would take effect on January 2, 2015. The current ex-officio members would remain, but two additional ex-officio councilmembers would be added to the Board. Some of the current Board members may not qualify to meet the qualification requirements of having water experience and expertise, so some terms may end on January 1, 2015. The Mayor and the Council would have to identify who, if any, of the existing Board members would remain on the Board. Mr. Lau feels that the requirements for water expertise will make it limiting and challenging to find people in the community to serve on the Board. Mr. Lau stated that the Department serves a broad cross section of the community with all different backgrounds; therefore, it benefits the community by having Board members that are representative of these broad types of customers.

Board Member McMurdo pointed out that some of the people who have these qualifications may be consultants of the BWS. This has potential for a conflict of interest. Mr. Lau agreed and added that it could also introduce biases toward long range planning, policy setting, and decisions on finance.

Mr. Miyashiro inquired about the background of the 1958 Charter. Mr. Lau stated that every 10 years a Charter Commission is convened to look at possible amendments to the Charter. Mr. Lau informed the Board that in the last two years since he's been the Manager, this is the fourth proposed revision to the Charter related to BWS. Mr. Lau questions if it's in the best interest of the customers and community that the Charter be so easily attempted to be amended and so frequently. The Charter is a governing document for the City and County of Honolulu; therefore, changes to the Charter shouldn't be taken lightly and should have a proper vetting and public discussion process.

Mr. Lau informed the Board that Chief Financial Officer Paul Kikuchi did some research on other Boards and Commissions in the City and State. Mr. Kikuchi reported that there are no qualification requirements for other Boards and Commissions and that the proposed appointment process stated in this resolution is completely different from any appointment process that the City has in place.

Mr. Miyashiro asked the Board members if any of them disagreed with Mr. Lau's position on opposing the resolution. None of the members disagreed. Mr. Miyashiro stated that he will be submitting written testimony and if possible, he will attend the City Council meeting to personally give his testimony. Mr. Miyashiro encouraged the rest of the Board members to consider doing the same.

**MOTION TO  
APPROVE TO  
SUPPORT  
BWS' POSITION**

Chair Miyashiro called for a motion to support the Department's position, with flexibility, on Resolution 14-63. David Hulihee and Ross Sasamura motioned and seconded, respectively, and the motion was unanimously carried.

RECOMMENDATION TO SUPPORT BWS' POSITION TO OPPOSE RESOLUTION NO. 14-63 WAS APPROVED AT THE APRIL 28, 2014 BOARD MEETING			
	AYE	NO	COMMENT
DUANE R. MIYASHIRO	X		
MAHEALANI CYPHER			ABSENT
THERESIA C. MCMURDO	X		
ADAM C. WONG			ABSENT
DAVID C. HULIHEE	X		
ROSS S. SASAMURA	X		
GLENN M. OKIMOTO	X		





## **RESOLUTION**

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**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, members of the Board are not elected by the people of the City and County of Honolulu ("City"), but are appointed by the Mayor, subject to confirmation by the Council; 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, 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 administrative 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; (6) modifying and approving the annual operating and capital budgets of the Board of Water Supply; and (7) prescribing and enforcing rules and regulations having the force and effect of law to carry out the provisions of Article 7 of the City Charter; and**



## **RESOLUTION**

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**WHEREAS, Section 7-105(j) of the Charter specifically authorizes the BWS Board to prescribe and enforce rules and regulations on the following subjects: (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 may 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 to the City; and**

**WHEREAS, in recent months the BWS Board and its policies and rules have received considerable public criticism whereupon the perception of the general public is that the BWS Board has not demonstrated a willingness to consider the needs of and the effects of its policies on the public or to be receptive to public input; and**

**WHEREAS, the Council finds that the composition of the BWS Board will be greatly benefited if the number of members were increased from seven to eleven and the appointed members were required to have specific knowledge and expertise relating to water; and**

**WHEREAS, the Mayor's 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 increase the number of members on the board of water supply to eleven and to require that the appointed members have specific technical knowledge relating to water and water systems to serve on this board?"**





## RESOLUTION

2. That Section 7-104 of the Revised Charter of the City and County of Honolulu 1973 ("Board of Department of Water --") be amended to read as follows:

**"Section 7-104. Board of Department of Water --**

1. The board shall consist of [seven] ~~eleven~~ members[.], of which seven are appointed voting members and four are ex officio non-voting members. The chief engineer of the department of facility maintenance of the city, two chairs of the council committees relating to transportation and to city infrastructure, and the director of transportation of the State shall be [members] ex officio non-voting members of the board. [Five other members shall be appointed as provided by Section 13-103 of this charter.] The board shall be governed by the provisions of Sections 13-103 of this charter[.], except that subsections (b) and (c) thereof shall not apply to the extent it is otherwise provided herein.

2. The seven voting members shall be appointed as follows:

(a) Three members shall be appointed by the mayor without necessity of council confirmation:

(b) Three members shall be appointed by the council; and

(c) One member shall be nominated by the mayor and appointed by the council.

3. The terms of the initial appointments of the seven voting members shall be as follows: Of the three members appointed by the mayor or the council, one member each shall serve a five-, four-, and three-year term respectively. The member nominated by the mayor and appointed by the council shall serve a two-year term. The terms of the ex officio non-voting members of the board shall not be subject to any time limit.

4. The appointed members of the board shall have:

(a) Specific knowledge of water-related matters, with published submissions on water issues in Hawaii at the state or local level;

(b) Knowledge in water management policies and practices;





## **RESOLUTION**

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(c) Expertise in hydrology, geology, ground water modeling, global climate change, water distribution systems and infrastructures, and other related issues; or

(d) Knowledge of island ecosystems, watershed protection, ground/surface water relationships, the impact of ground water taking on near shore marine ecosystems, with special reference to species and habitat and streams."

3. That in Section 2 of this resolution, 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.
4. 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.
5. 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.



## RESOLUTION

6. That upon approval of the Charter amendment question posed in this resolution by a majority of the electors voting thereon, as duly certified, the amendments proposed for the Revised Charter, as proposed in Section 2 of this resolution shall take effect on January 2, 2015.

INTRODUCED BY:

*[Signature]*

DATE OF INTRODUCTION:

**MAR 20 2014**

Honolulu, Hawaii

Councilmembers

APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
KIRK CALDWELL, Mayor  
City and County of Honolulu



"April 28, 2014

**BWS WATER  
MASTER PLAN  
UPDATE**

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

Chair and Members:

Subject: Board of Water Supply Water Master Plan  
Quarterly Update

The Board of Water Supply (BWS) Water Master Plan (WMP) is a comprehensive water system evaluation and long range plan for the systematic and cost effective rehabilitation, replacement and expansion of the municipal water systems through the Department's Capital Improvement Program (CIP). The results of our efforts will drive capital planning and investment for the next 30 years to ensure safe, dependable and affordable water for our customers.

As of April 2014, BWS staff and our consultant teams have initiated year two of a three year WMP effort and have made substantial progress in the following areas:

The main break causal factors analysis work plan is being finalized, which will document the occurrence and typical causes of main breaks and provide recommendations on proactive steps to reduce the amount of main breaks in the future.

The pipeline condition assessments work plan has been initiated using a risk-based pipeline prioritization software called CapPlan, which will utilize statistical analysis of numerous evaluation criteria such as pipe age, materials, main break density, soils, pressure, criticality and field evaluation of critical pipelines. Pipeline survey tools are being piloted and the preliminary findings are currently being evaluated.

The reservoir condition assessments have been initiated surveying 172 reservoirs for structural integrity and 30 reservoirs will be internally surveyed with remotely operated vehicles for reservoirs over 40 years old.

Condition assessments have been completed for the 94 source pump stations and 90 booster pump stations and a findings report is being prepared. The supervisory control and data acquisition system work plan is being prepared and will recommend improvements, including a "smart station" pilot test.

The hydraulic modeling team has built 4 of 13 hydraulic models of the potable, nonpotable and recycled water systems. The consultant

performed a sensitivity analysis of the Metro water system, using the hydraulic model, to determine critical locations for fire hydrant flow testing. A work plan is being prepared to perform hydrant flow tests and the recorded information will be used in the model calibration and validation phase. The hydraulic models will then be used to evaluate water system hydraulic capacity ensuring adequate flows and pressures in these systems.

The financial plan and rate study team has initiated financial data collection. The financial plan will ensure sufficient funding of the CIP.

The communications team is preparing a list of topics and key messaging that will become the basis of public outreach materials for the WMP. The April quarterly newsletter is attached for your information.

Respectfully submitted,

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

Attachment”

The foregoing was for information only.

DISCUSSION: Water Resources Program Administrator Barry Usagawa presented the Water Master Plan Quarterly Update.

There were no comments or discussion.



## Water Program Master Schedule

In volume one of the Water Master Plan (WMP) Quarterly Update, we provided an introduction to the WMP, including an overview of several of its major components. The WMP is not the only project underway at the Board of Water Supply (BWS). There are at least six to eight other major projects currently underway that will either identify significant capital project needs that must be incorporated into the WMP, or will identify changes needed to support efficient implementation of the WMP.

To better align all these activities, BWS developed a Water Program Master Schedule to help track progress of these projects and to better coordinate the timing of key deliverables with elements of the WMP. The Master Schedule is updated on a regular basis and provides a useful tool for triggering a programmatic warning of upcoming problem areas on both the WMP and parallel projects.

This edition of the WMP Quarterly Update features a few of the ongoing projects that will help streamline procedures to ensure that components of our water system are efficiently operated and maintained. The Capital Projects Division (CPD) Program Management Services project and the CPD Construction Management Services project will identify process and practices improvements, possibly combined with staff augmentation, to gear up for an increased volume of capital projects each year and to maintain a high level of construction quality. The Water System Operations (WSO) Operational Program Management, which will be highlighted in a future issue, will include a condition assessment of all well and booster pump facilities in the BWS system, and identify needed capital projects and operational changes to address existing and future operational needs of the water system.

The WMP continues to key on projects that will identify areas of improvement, develop solutions and implement actions for safe and dependable water supply, now and into the future. Stay tuned for the next edition of the WMP Quarterly Update for more information about this project.

## Echologics Pilot Test Assess Pipeline Condition

In February 2014, the Board of Water Supply (BWS) Water Master Plan team pilot tested a large diameter pipeline leak detection and e-Pulse condition assessment technology offered by Echologics, LLC. BWS tested the leak detection service to determine whether the technology would be able to reliably detect leaks on the largest pipes in the BWS system. Echologics e-Pulse is a non-invasive pipeline condition assessment service that uses acoustic listening equipment to detect leaks and provide an accurate measurement of the remaining average wall thickness of a water main. The current thickness of a water main, when compared with the main's original thickness, can be used to help estimate a water main's remaining life and allow utilities to efficiently prioritize necessary water system improvements.

e-Pulse was tested on a range of pipeline sizes including the 42-inch transmission main behind the Beretania complex to 8- and 12-inch mains in Hawaii Kai. The data from the pilot tests are being evaluated to determine the applicability, if any, of these technologies going forward. Field work to validate e-Pulse results by taking actual pipe samples are planned for early this summer. If e-Pulse works successfully on BWS pipelines, additional testing could help the BWS better formulate and prioritize pipeline replacement projects in its annual CIP program. Mahalo to all, particularly Field Operations staff, who provided support that enabled the testing to be performed in a safe and efficient manner.



*Echologics staff inserting a sensor onto a 42-inch water main.*



## CPD Program Management Services Project Begins Implementation

Over the past few months, the Board of Water Supply Capital Projects Division (CPD) prepared an organizational assessment report and finalized an Action Plan to help streamline project execution and align business processes to best support the increased number and scale of upcoming construction projects. The assessment report outlined the following

- Recommended three to five additional engineers to meet forecasted work demands from projects currently planned as well as those anticipated from the Water Master Plan;
- Recommended several organizational changes to better align CPD talents and resources towards meeting project execution goals; and
- Noted a growing need to plan proactively for staff succession.

Although the Action Plan will take several years to fully complete, the proposed early activities and commitment of resources assures that CPD will continue to meet project development and execution goals.



To lead the program implementation, a Core Team of eight individuals representing a cross-section of the functional aspects and experience within CPD has been established. This team will collaborate on developing proposed solutions, communicating proposed approaches among their peers, and assisting with implementation. Recently, the Core Team began developing a Project Management Information System (PMIS) to more consistently track and report project status, plus began preparing standard operating procedures for scoping new projects. CPD recognizes capital improvement plan execution is critically important to achieving the BWS's vision — Ka Wai Ola— Water for life.

**CPD Core Team.** (clockwise, l-r) Edward Yoshimura, Eileen Macabeo, Jason Takaki, Lester Fujikami, Michael Domion, Matthew Murayama, Jesse Colandrea, Ronald Borromeo, and Raymondo Remigio participate in a recent meeting for the CPD Program Management Services Project.

## Improvements to BWS Construction Management Processes

The primary objective of the Board of Water Supply Capital Projects Division (CPD) Construction Management Project is to improve the management of BWS construction projects. By implementing improved construction management processes, tools and techniques, the BWS can continue to provide exceptional value and services to BWS customers and the community we serve.

To achieve this goal, a GAP Analysis Process is being implemented in three phases: (1) to determine the current state of how the BWS is managing construction work; (2) recommend areas to improve management of BWS construction projects; and (3) develop action plans to implement the recommended improvements.

The first two phases have been completed and phase three is ongoing. Several "Quick Start" action plans have been recommended and expect to be implemented in 2015.



For questions, contact the BWS  
Communications Office at 748-5041.



**WATER FOR LIFE**

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



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

# **Water Master Plan**

## ***Board Quarterly Update***



***April 28, 2014***





## BWS Water Master Plan

**Provides an important and defensible road map for the prioritized replacement of over \$1 Billion in aging water system infrastructure**

**A comprehensive long range Capital Improvement Program and Financial Plan will ensure safe, reliable and affordable water now and into the future**

**Safe/Reliable**

**Affordable**





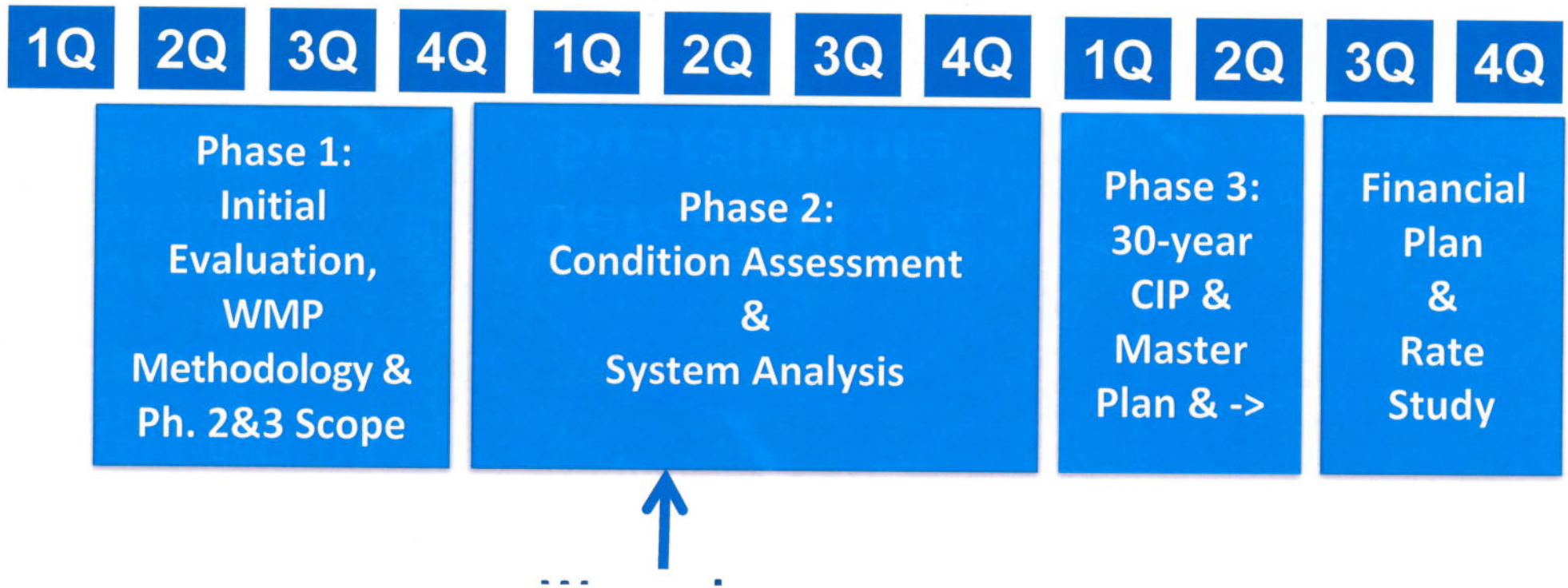
# Capital Improvement Planning - a Continuous Process







## Water Master Plan Schedule





## Main Break Causal Factors

- Main Breaks are highly disruptive to water service and traffic, damages property and are costly to fix
- Documents the occurrence & typical causes of main breaks
- The main causal factors are:
  - Corrosion
  - Ground Settlement
  - Pressure Surges
  - Construction Issues
  - Leaks become main breaks

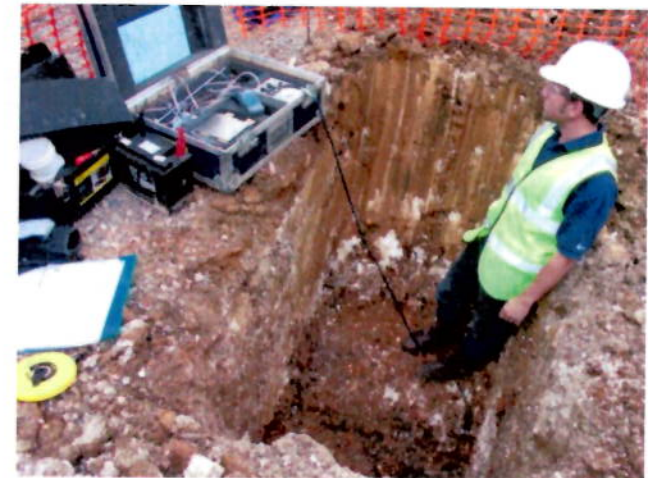




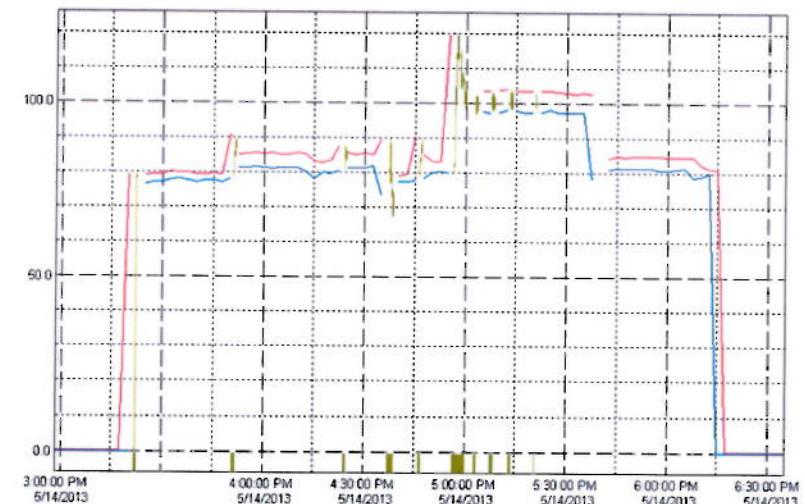


## Proactive Steps to Reduce Main Breaks

- Mapping Problem Areas:
  - Corrosive Soils and Ground Settlement
  - High Pressure Systems and Impressed Currents
  - BWS GIS and Main Break Data are Extensive
- Condition Assessment of Critical Pipelines:
  - Identify leaking pipes
  - Assess physical pipe condition
  - Identify areas of high risk, Criticality
- Prioritized Corrective Actions
  - Repair / Replacement
  - Corrosion protection
- Revised Design Standards
  - Pipe materials & construction methods
  - Corrosion protection standards



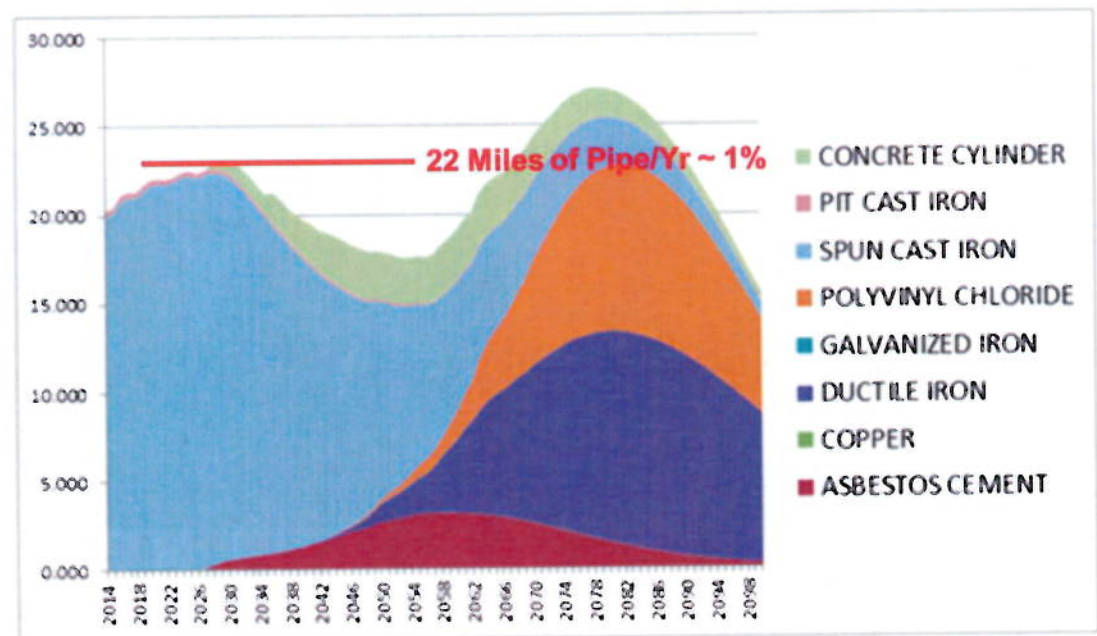
23572 Chnl 01 (PSI)





## Pipeline Condition Assessment

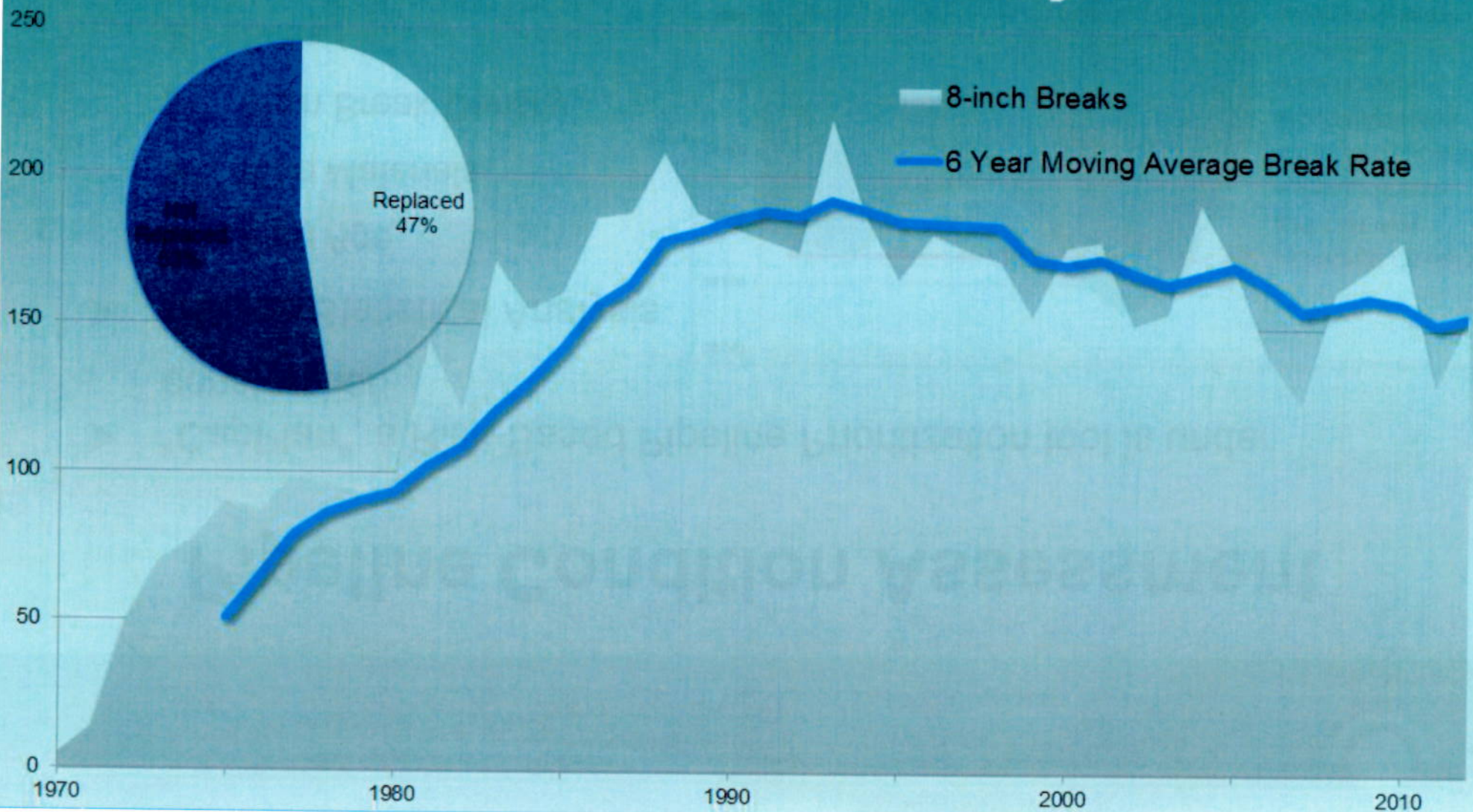
- “CapPlan”, a Risk-Based Pipeline Prioritization tool is under construction
- Utilizes Statistical Analysis
  - Pipe Age
  - Pipe Materials
  - Main Break Density
  - Soils
  - Groundwater
  - Pressure
  - Criticality
  - Field Surveys of Leaks and Remaining Pipe Wall Thickness





# BWS – Break History Over Time – 8" Pipe

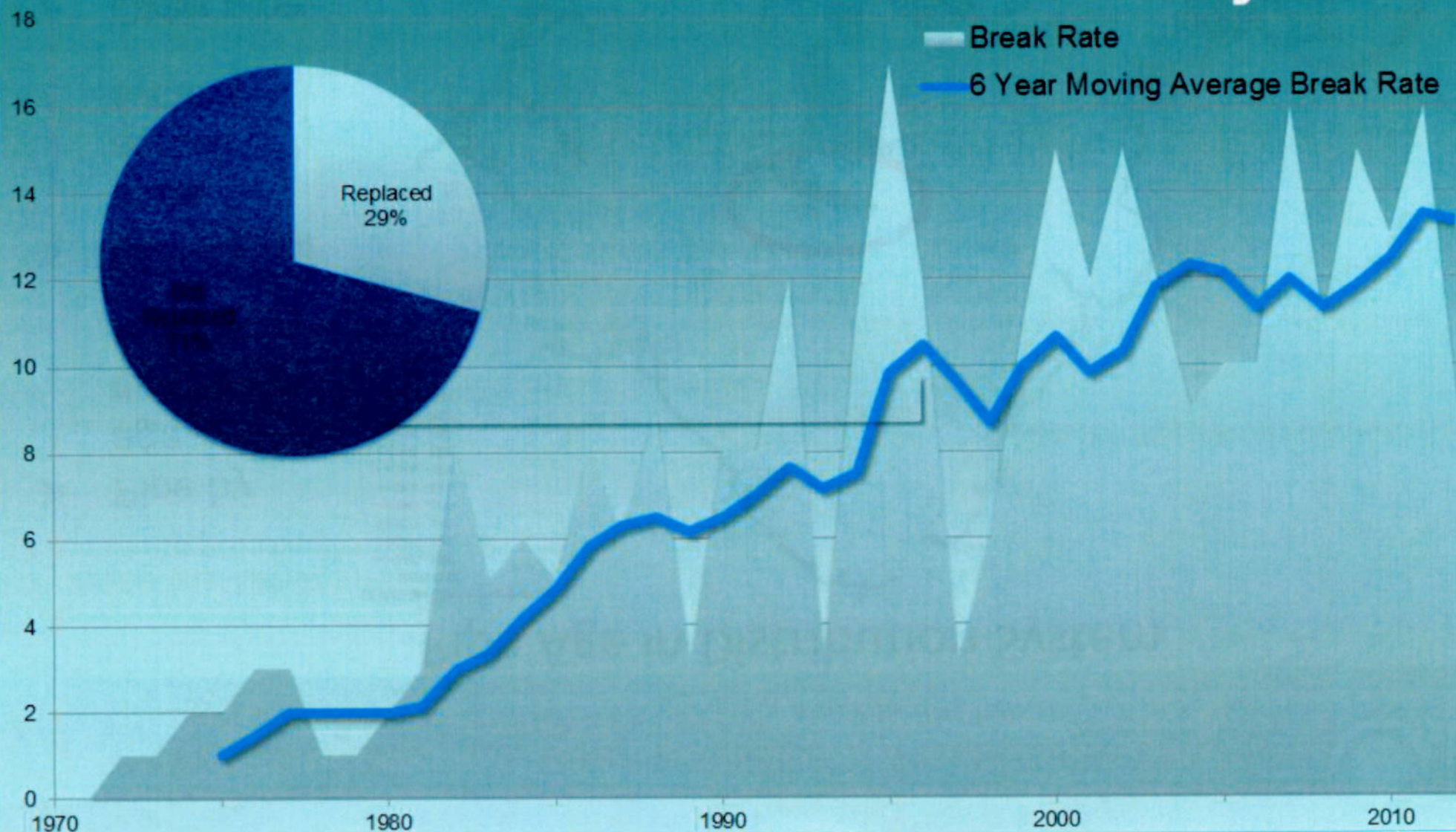
## 8-inch Break History





# BWS – Break History Over Time – 16" to 42"

## 16-inch to 42-inch Break History



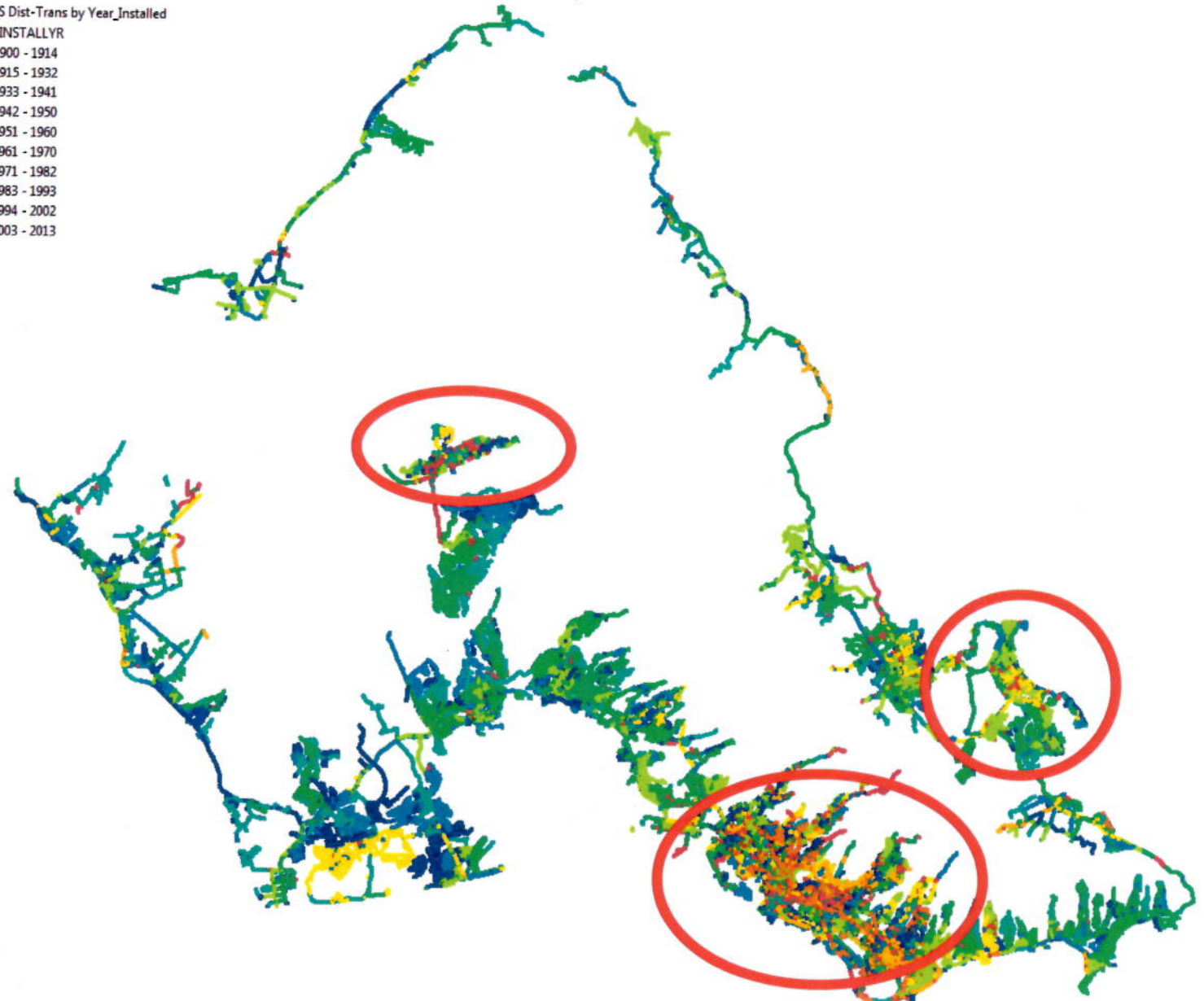


## Pipe Age in Distribution System

☒ BWS Dist-Trans by Year\_Installed

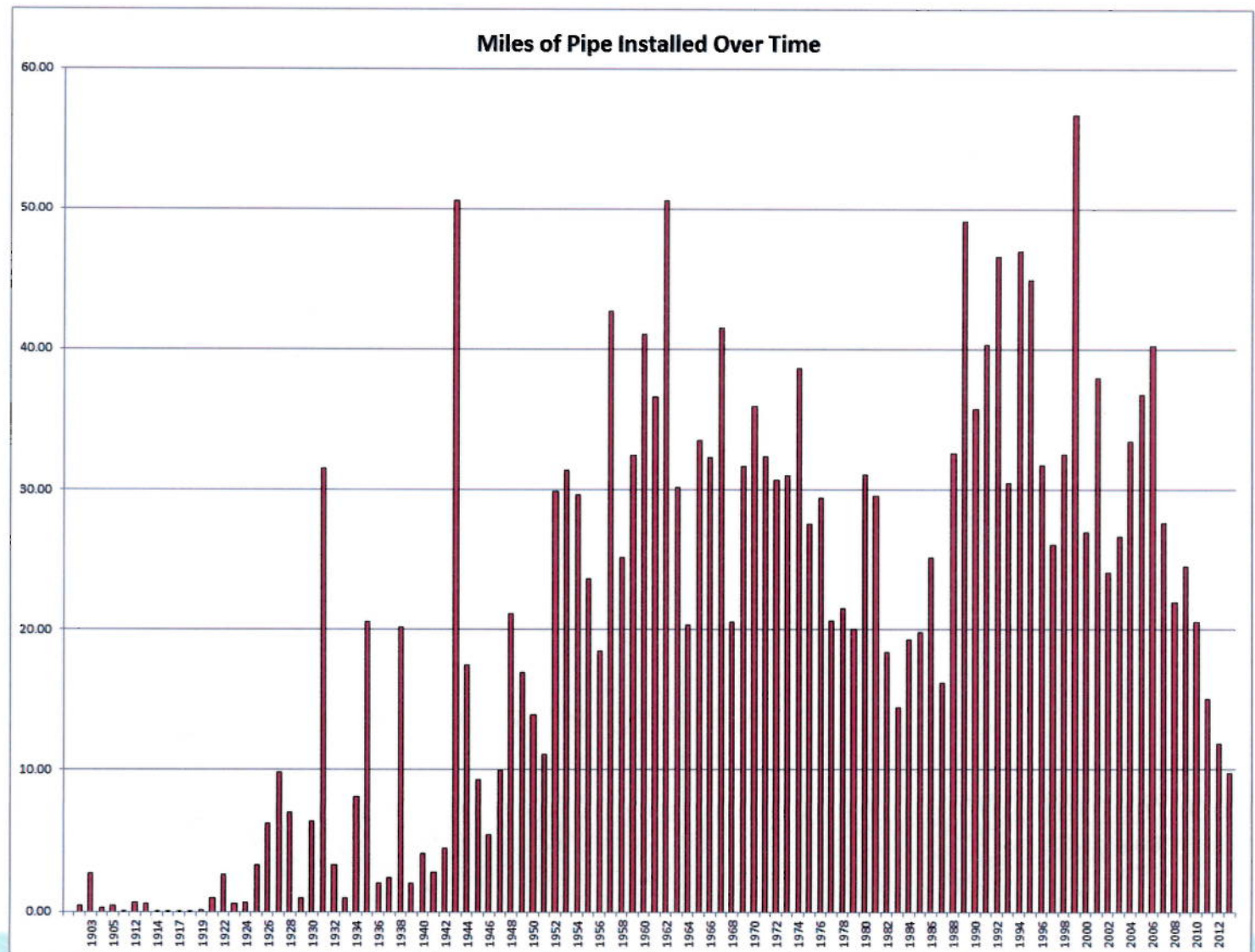
INSTALLYR  
1900 - 1914  
1915 - 1932  
1933 - 1941  
1942 - 1950  
1951 - 1960  
1961 - 1970  
1971 - 1982  
1983 - 1993  
1994 - 2002  
2003 - 2013

- Pipe by age across the system
- Mixtures of ages across system
- Older pipe in metro centers



## BWS System Build-Out History

- BWS installed pipe by date and miles
- Mixture of materials
- WWII cast pipe construction surges
- 1990's surge in ductile



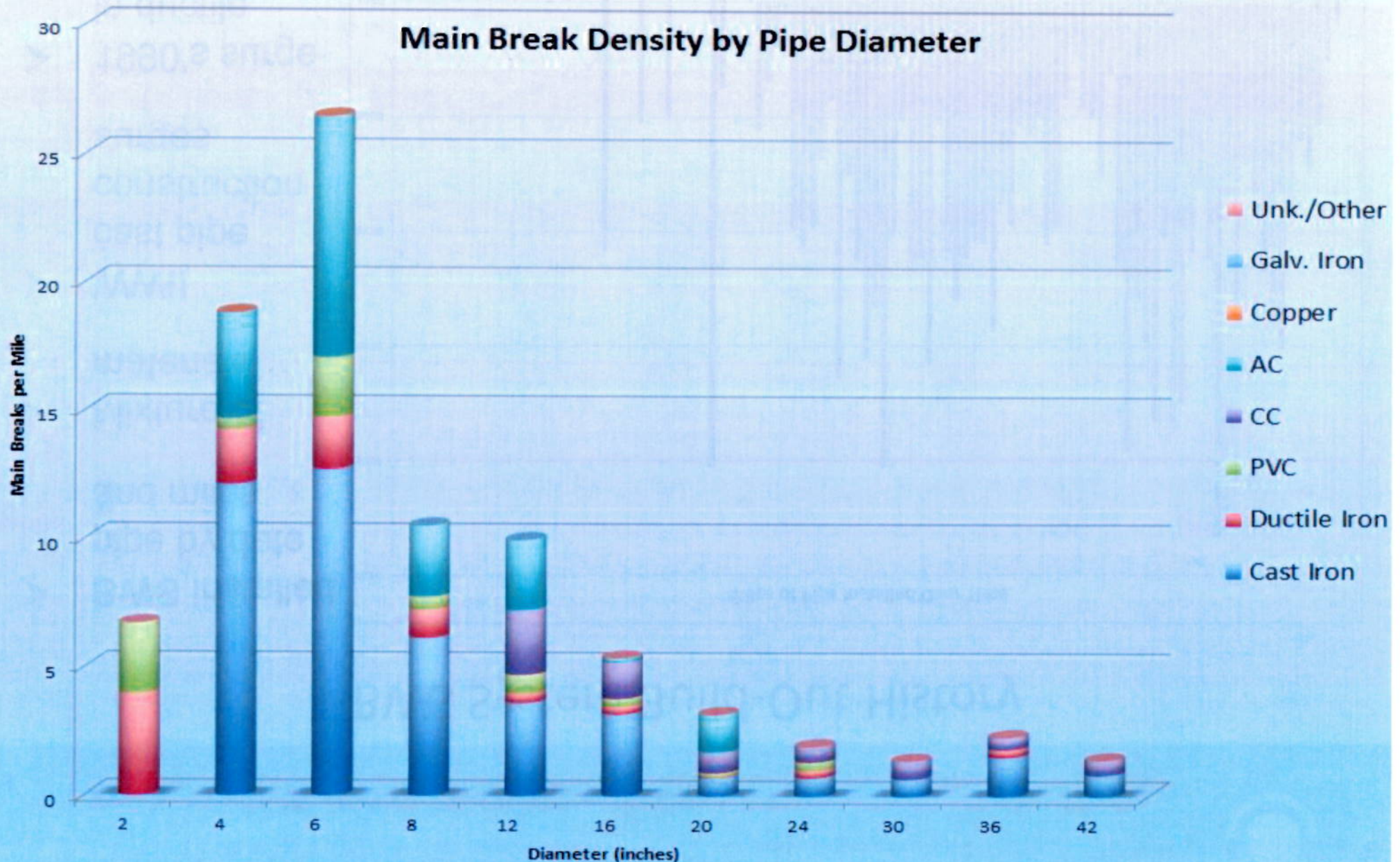


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Board of Water Supply  
City and County of Honolulu





# WATER FOR LIFE

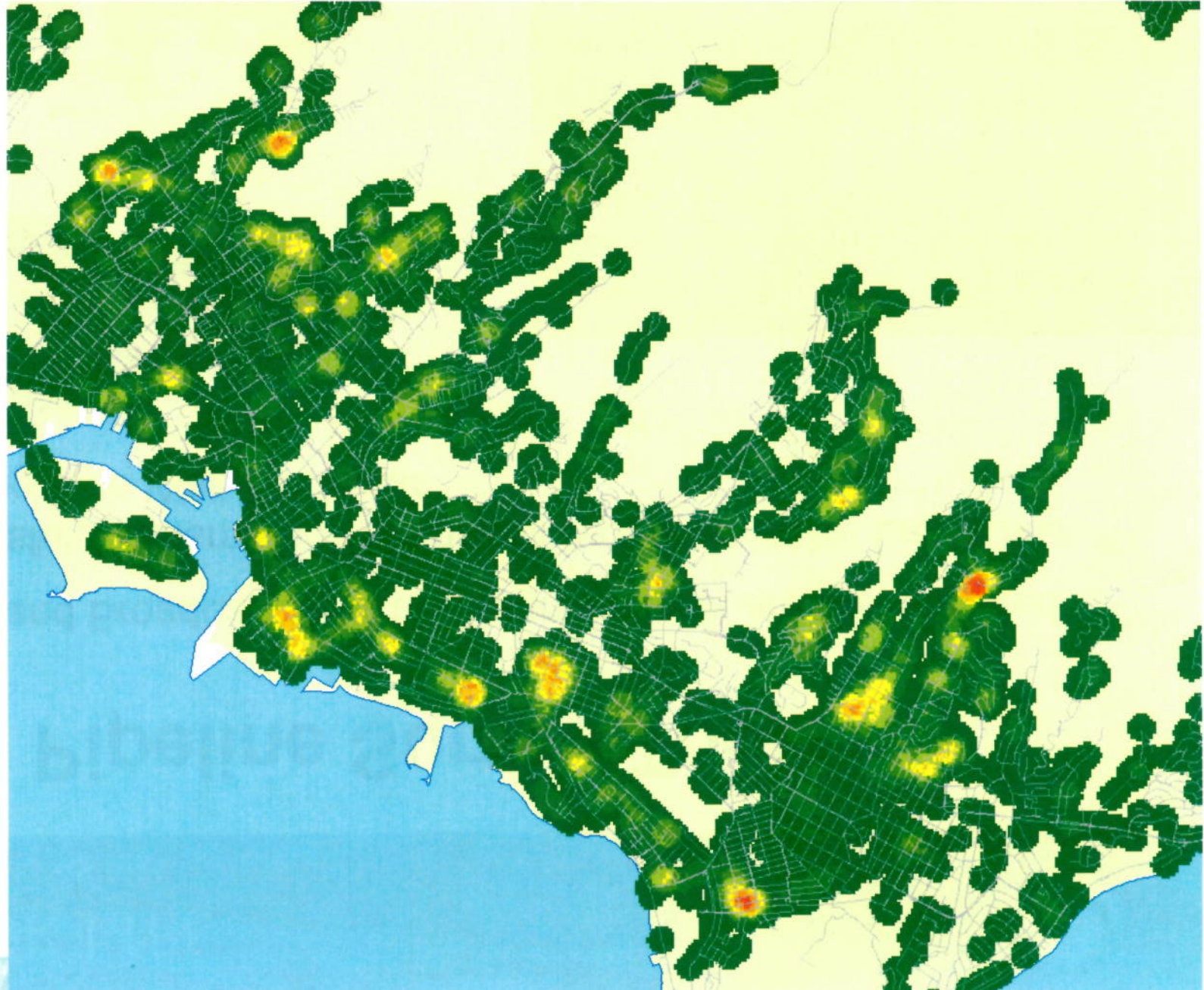
*Safe, dependable, and affordable water now and into the future*



Board of Water Supply  
City and County of Honolulu

**Main  
Break  
Density**

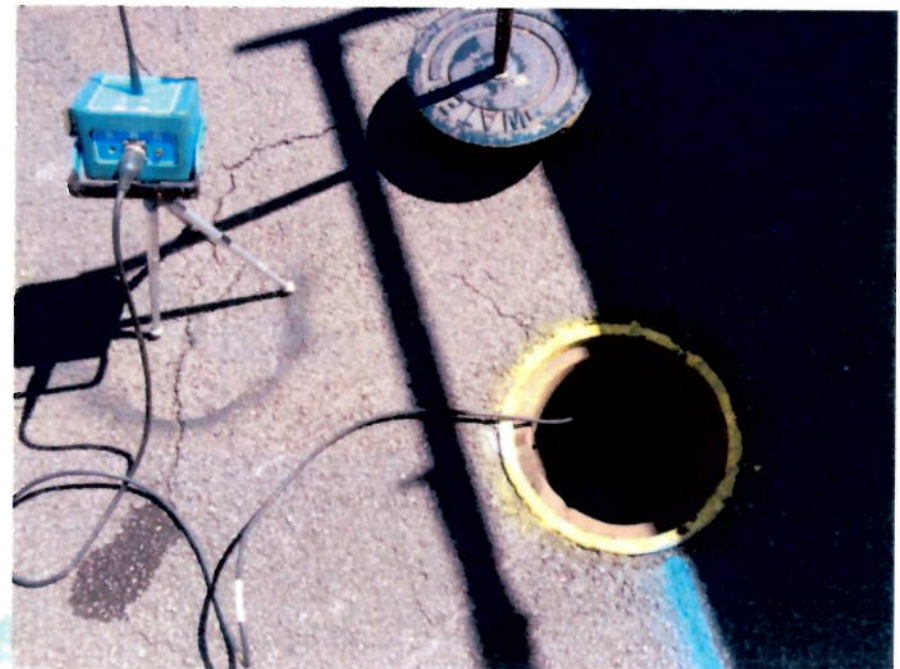
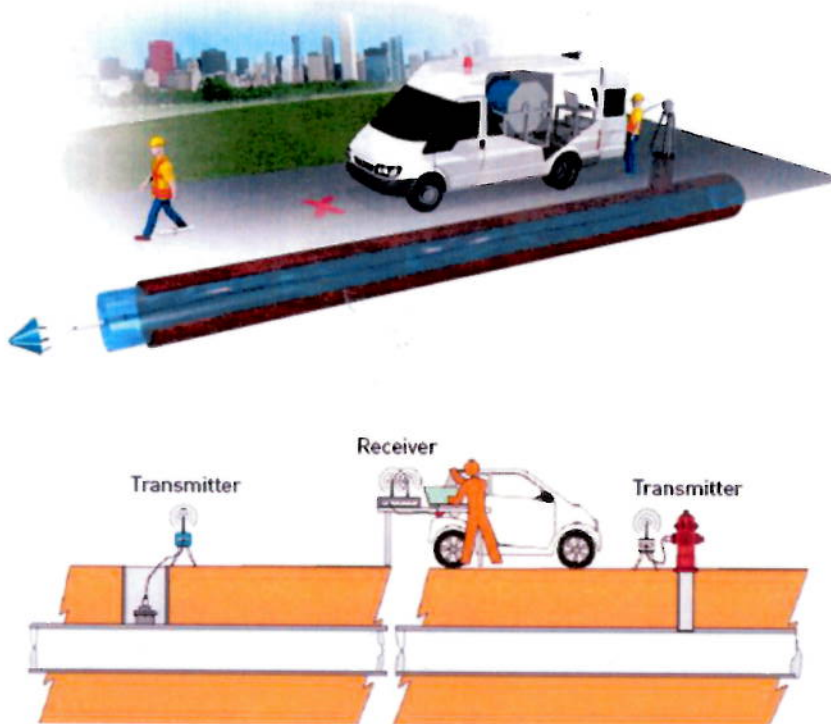
**Honolulu  
Water  
System**





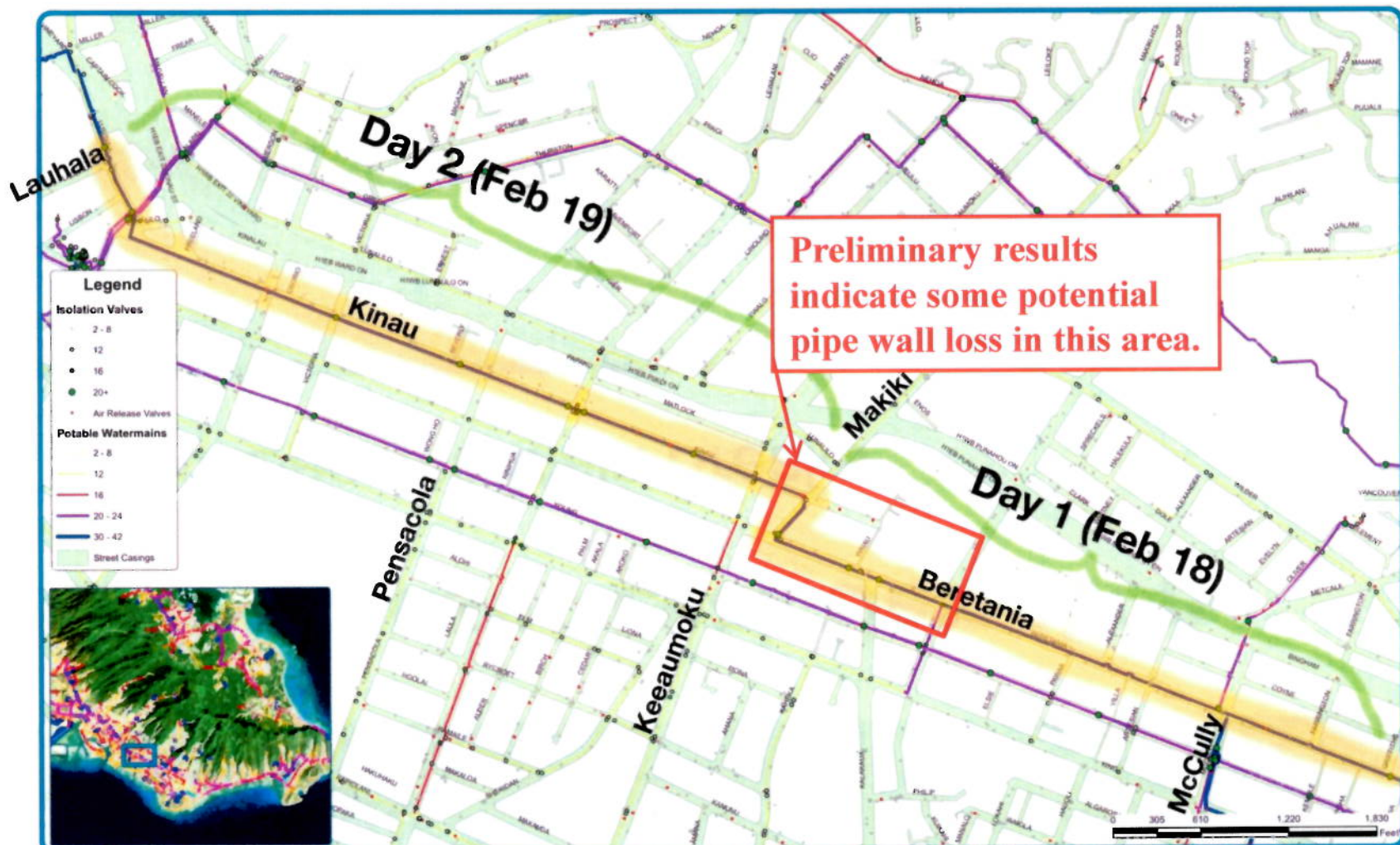
## Pipeline Survey Tools

- Acoustic and Broadband Electro-Magnetic tools are being piloted
- If Successful, Transmission Mains will be Surveyed for Leaks and Remaining Pipe Wall Thickness





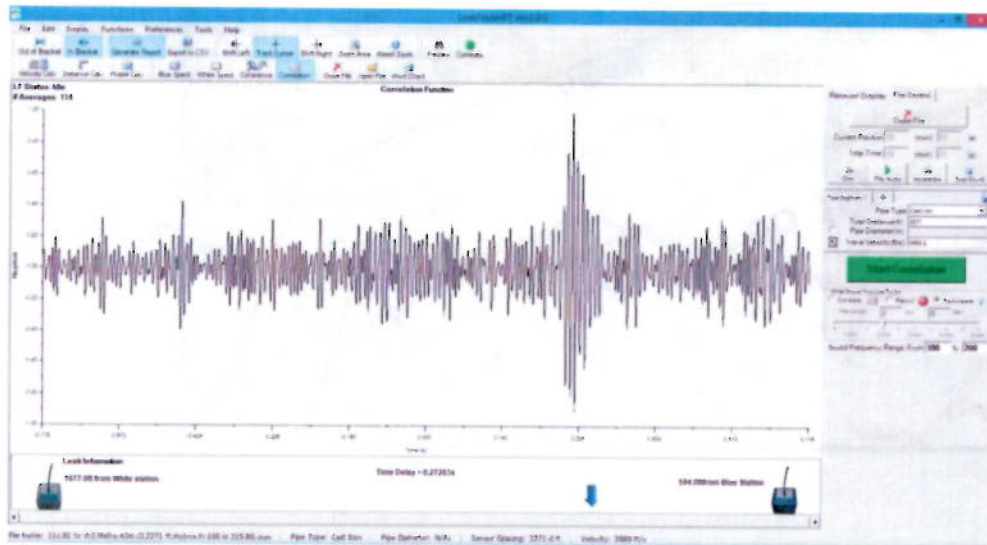
## 42" Transmission Main Surveyed





## Acoustic Leak Detection

### ➤ Leaks Become Main Breaks



Scoured, smooth edges indicate long-term leakage preceded failure





## Reservoir Condition Assessment

- 172 reservoirs to be externally surveyed. 24 reservoirs inspected, to date.
- 30 reservoirs over 40 years old will be internally inspected using Remote Operated Vehicles
- 5 Reservoir Design Types
  - Cast-in-place
  - Post-tension internal
  - Post-tension external
  - Wire wound
  - Steel
- Developing seismic upgrades





## Reservoir Inventory

Type	Number	When built	Volume (MG)
Conventionally reinforced concrete	137	1911 - 2008	0.1 – 4.0
Post-tension internal	14	1961 - 1999	1.0 - 6.0
Post-tension external	9	1957 - 1962	0.2 - 1.5
Wire-wound	7	1957 – 1969	1.0 – 4.0
Steel	2	1990 - 1997	0.02 – 0.5





## Pump Condition Assessment

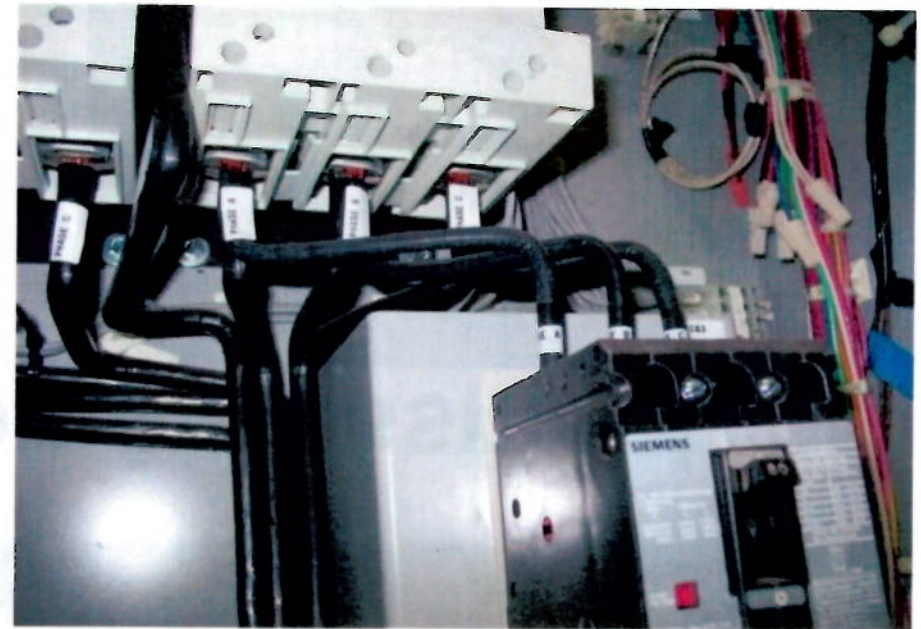
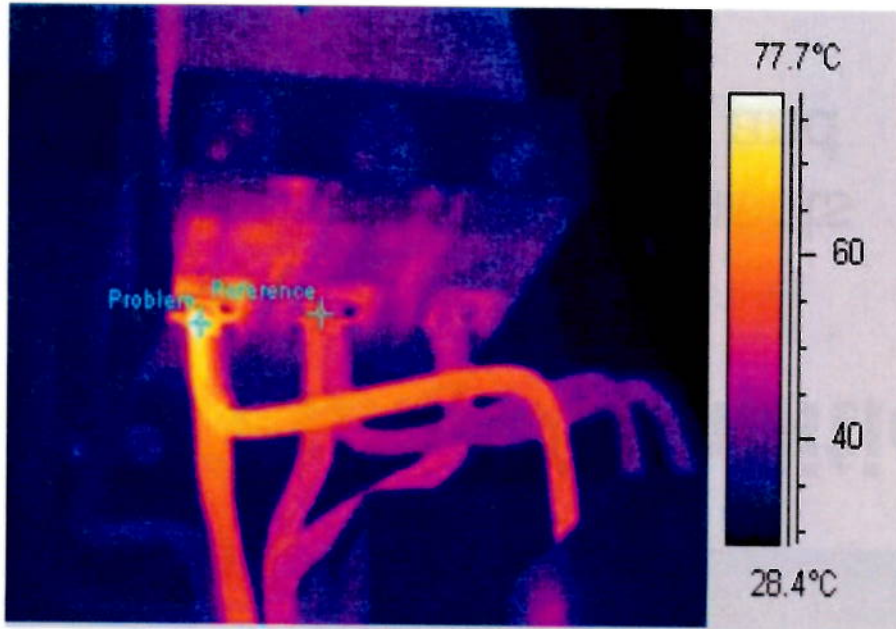
- Completed assessments of 94 source pumps and 90 booster pumps
- Currently developing a findings report, O&M guidance manual and prioritized CIP projects





## Pump Condition Assessment

- Thermal Imaging Detected a Hot Wire in the Kunia Wells I, Motor Control Center



## Hydraulic Modeling

- Hydraulic Models will evaluate water system capacity ensuring adequate flows and pressures
- 4 of 13 models constructed & validation is planned







## Financial Plan and Rate Study

- The Financial Plan and Rate Study will ensure sufficient funding of the CIP
- Currently collecting financial data
- Remaining Tasks:
  - Develop revenue requirements
  - Financial Plan development
  - Rate Study and Impact Fees
  - Public Outreach

### Billing Charge

There is a billing charge each time a bill is rendered effective as follows:

January 1, 2012	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
\$6.40	\$7.02	\$7.70	\$8.44	\$9.26

### Quantity Charge

In addition to the billing charge, there is a charge for all water drawn for each 1,000 gallons effective as follows:

Single Family Residential (Monthly Per Unit)	January 1, 2012	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
Block 1 (Gallons) First 13,000 or any part thereof	\$3.06	\$3.35	\$3.68	\$4.03	\$4.42
Block 2 (Gallons) 13,001 - 30,000 or any part thereof	\$3.68	\$4.04	\$4.43	\$4.86	\$5.33
Block 3 (Gallons) Over 30,000	\$5.49	\$6.02	\$6.61	\$7.24	\$7.94
Multi Family Residential (Monthly Per Unit)	January 1, 2012	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
Block 1 (Gallons) First 9,000 or any part thereof	\$3.06	\$3.35	\$3.68	\$4.03	\$4.42
Block 2 (Gallons) 9,001 - 22,000 or any part thereof	\$3.68	\$4.04	\$4.43	\$4.86	\$5.33
Block 3 (Gallons) Over 22,000	\$5.49	\$6.02	\$6.61	\$7.24	\$7.94
Non Residential	January 1, 2012	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
All Usage	\$3.43	\$3.76	\$4.13	\$4.53	\$4.96
Agricultural * (Monthly Per Account)	January 1, 2012	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
Block 1 (Gallons) First 13,000 or any part thereof	\$3.06	\$3.35	\$3.68	\$4.03	\$4.42
Block 2 (Gallons) Over 13,000	\$1.31	\$1.43	\$1.57	\$1.72	\$1.89
Non Potable **	January 1, 2012	July 1, 2012	July 1, 2013	July 1, 2014	July 1, 2015
All Usage	\$1.71	\$1.88	\$2.06	\$2.26	\$2.47





## WMP Communications Plan

- The Communications Plan will develop key messaging & outreach to inform our internal and external customers about the Water Master Plan and the supporting funding requirements.
- Ongoing Tasks:
  - Develop Stakeholder Involvement & Support
  - Proactive Messaging
  - Develop Communications Plan Metrics
  - Develop Informational Material
    - Quarterly Newsletters
    - Video and photo documentation of condition assessments
    - Staff interviews



### Water Program Master Schedule

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Echologics staff inserting a sensor onto a 42-inch water main.

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Board of Water Supply  
City and County of Honolulu



ENTRUSTED TO US TO

# PRESERVE

FOR FUTURE GENERATIONS

ITEM FOR INFORMATION NO. 2

"April 28, 2014

GROUNDWATER  
LEVELS

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

Chair and Members:

Subject: Status Update of Groundwater Levels at All Index  
Stations

There is one aquifer index well within low groundwater status for the production week that ended on April 12, 2014. Kaimuki is under a caution status. The weekly production average for the period was 131.96 million gallons per day.

The Board of Water Supply rainfall index for the month of March 2014 was 128 percent of normal, with a five-month moving average of 91 percent. The Hawaii Drought Monitor indicates no abnormally dry conditions for Oahu, as of April 15, 2014. The National Weather Service is forecasting above normal rainfall through October 2014. Index monitor wells are indicating a normal seasonal recovery in head levels.

Respectfully submitted,

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

Attachments"

The foregoing was for information only.

DISCUSSION: There were no comments or discussion.



# PUMPAGE, HEAD, AND RAINFALL REPORT

Week of 4/6/14 to 4/12/14

STATION	MGD	HEAD	STATION	MGD	HEAD	STATION	MGD	HEAD		MGD	HEAD
METRO			WINDWARD			EWA-WAIAANAE (CONT)			PH (CONT)		
KULIOUOU	0.00					MAKAHA IV	0.00		PEARL CITY II	1.45	
WAILUPE	0.00		WAIMANALO II	0.24		MAKAHA V	0.00		PEARL CITY III	0.00	
WAIALAE-IKI	0.00		WAIMANALO III	0.47		MAKAHA VI	0.90		WAIU	1.93	
AINA KOA	0.33		KUOU I	0.74		MAKAHA SHAFT	0.00	12.70	NEWTOWN	2.05	
AINA KOA II	0.18		KUOU II	0.01		KAMAILE	0.76		KAONOHI I	0.77	
WAIALAE SHAFT	0.00		KUOU III	0.48		WAIANAE I	0.11		WAIMALU I	0.00	
MANOA II	0.00		LULUKU	1.05		WAIANAE II	0.30		AIEA	0.00	
PALOLO	1.03		HAIKU	0.00		WAIANAE III	0.04		AIEA GULCH 497	0.42	
KAIMUKI HIGH	3.13	22.51	IOLEKAA	0.21		MAKAKILO	0.50		AIEA GULCH 550	0.24	
KAIMUKI LOW	0.31		KAHALUU	0.49		HONOULIULI I	2.72		HALAWA 277	0.00	
WILDER	7.81		WAIHEE	0.00		HONOULIULI II	6.84		HALAWA 550	0.00	
BERETANIA HIGH	3.57	22.64	KAHANA	0.81		SUBTOTAL:	13.64		KAAHUMANU MTR (-)	0.00	
BERETANIA LOW	3.68		PUNALUU I	0.00	17.94	IMPORT FROM PH			KAAMILO FLO MTR (-)	0.00	
KALIHI HIGH	1.68	22.30	PUNALUU II	0.13		KAPOLEI LINE BSTR	15.00		KUNIA I	5.03	18.91
KALIHI LOW	1.18		PUNALUU III	1.08		HONOULIULI LB FLOW	0.00		KUNIA II	1.88	
KAPALAMA	0.77		KALUANUI	0.88		EWA BEACH FLOW	0.00		KUNIA III	1.41	
KALIHI SHAFT	8.66		MAAKUA	0.18		HONOULIULI I (-)	-2.72		HOAEAE	6.08	
MOANALUA	0.77	19.18	HAUULA	0.00		HONOULIULI II (-)	-6.84		EWA SHAFT	0.00	
SUBTOTAL:	33.09					SUBTOTAL:	5.44		WAIPAHU INTCON. (-)	0.00	
			KAHUKU	0.30					EWA-WAIAANAE (-)	-5.44	
IMPORT FROM PH			OPANA	0.26		PEARL HARBOR			PH LOCAL USE:	33.50	
HALAWA SHAFT	6.45	16.84	WAIALEE I	0.29		WAIHAWA	1.82		TOTAL SUBURBAN:	62.64	
KAAMILO	0.00		WAIALEE II	0.46		WAIHAWA II	1.72				
KALAUAO	8.26	17.28	SUNSET BEACH	0.00		MILILANI I	2.22		KALAUAO SPRINGS	0.92	
PUNANANI	9.80		SUBTOTAL:	8.07		MILILANI II	0.00		BARBERS POINT (NP)	3.93	
KAONOHI II	0.00					MILILANI III	0.73		GLOVER TUNNEL (NP)	0.50	
WAIMALU II	0.00	15.27	WIND. EXPORT	0.14		MILILANI IV	1.93				
KAAHUMANU	0.89					WAIPIO HTS.	0.20		HEAD CONDITION		
HECO WAIU	2.87		HALEIWA-WAIALUA			WAIPIO HTS. I	0.12		CAUTION	ALERT	CRITICAL
MANANA	0.51		HALEIWA	0.00		WAIPIO HTS. II	0.24		Kaimuki		
KAAHUMANU FLOW MT	0.00		WAIALUA	2.12		WAIPIO HTS. III	1.06				
KAAMILO FLOW MTR	0.00		SUBTOTAL:	2.12		WAIPAHU	2.75	18.60			
TOTAL IMP/EXP WAI. INT:	0.00					WAIPAHU II	0.25				
IMPORT FRM WIND:	0.14		EWA-WAIAANAE			WAIPAHU III	1.24				
SUBTOTAL:	28.92		MAKAHA I	0.73		WAIPAHU IV	2.88				
			MAKAHA II	0.49		PEARL CITY SHAFT	0.00	14.98			
TOTAL METRO:	62.00		MAKAHA III	0.26		PEARL CITY I	0.53				

CWRM PERMITTED USE FOR BWS POTABLE SOURCES						PUMPAGE	2014	2013	GRAVITY	2014	2013
WATER DISTRICTS	A	B	C	D	E	SUBURB.	62.64	59.85	SUBURB.	6.89	6.15
	PERMITTED USE	2014	DIFF. B-A	YEAR/ DATE	DIFF. D-A	METRO	62.00	67.72	METRO	0.43	0.35
						TOTAL:	124.64	127.57	TOTAL:	7.32	6.50
HONOLULU	45.27	33.52	-11.75						Manoa	0.17	
WINDWARD	25.21	12.09	-13.12			NUUANU #5			Palolo	0.26	
NORTH SHORE	4.08	3.43	-0.65			(rainfall)	1.27"	0.31"	Waim. I&II	0.26	
WAIHAWA	4.27	3.54	-0.73						Waim. III&IV	0.19	
WAIANAE	4.34	4.90	0.56						Waihee incl.	0.95	
EWA-KUNIA	15.88	10.05	-5.83						Waihee tun.	1.86	
PEARL HARBOR	92.66	64.18	-28.49						Luluku	0.04	
TOTAL:	191.71	131.71	-60.00						Haiku	0.13	
									Kahaluu	1.90	
									Waia. C&C	1.40	
									Waia plant.	0.16	

DROUGHT STATUS REPORT  
DRAFT IN MGD

WATER USE DISTRICT	AUTHORIZED USE	2013	3/23-3/29 2014	2013	3/30-4/05 2014	2013	4/06-4/12 2014		
HONOLULU	45.27	33.94	34.79	34.66	33.01	36.45	33.66		
WINDWARD	25.21	15.48	12.14	12.70	11.49	12.61	11.95		
NORTH SHORE	4.08	4.45	3.27	4.96	3.27	5.15	3.43		
WAHIAWA	4.27	2.56	3.52	2.70	3.51	2.77	3.54		
EWA-WAIAANAE	20.22	20.49	19.02	22.46	20.28	22.43	20.65		
PEARL HARBOR	92.66	50.29	55.57	52.05	55.53	54.67	58.73		
TOTAL	191.71	127.22	128.26	129.53	127.11	134.08	131.96		

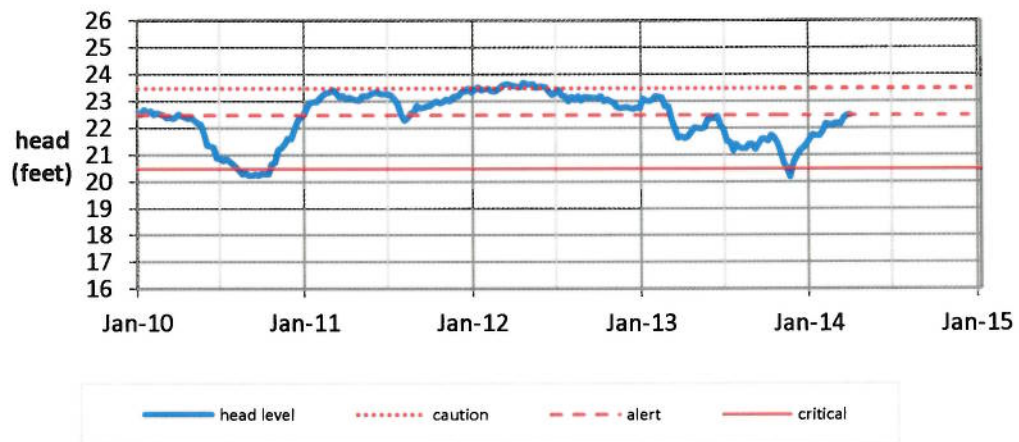
Accounts for in-district pumpage and transfers

HEAD IN FEET

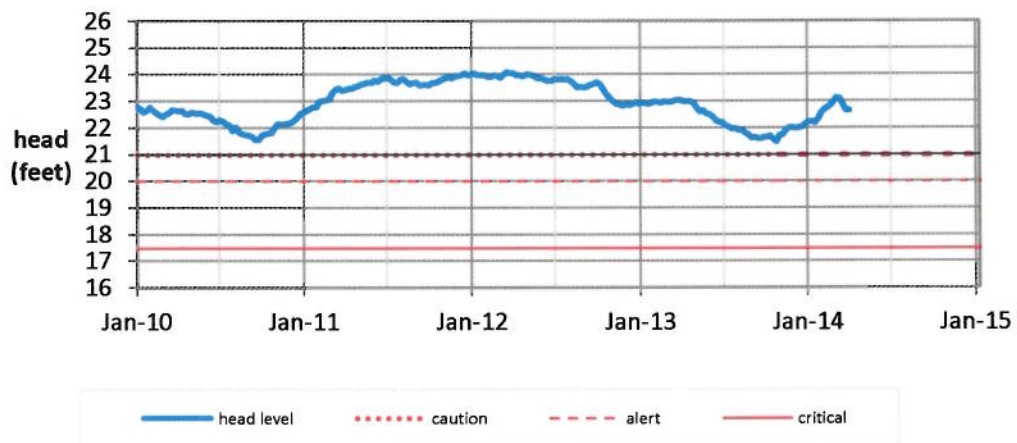
		2013	3/23-3/29 2014	2013	3/30-4/05 2014	2013	4/06-4/12 2014		
HONOLULU									
KAIMUKI		21.65	22.38	21.68	22.47	21.62	22.51		
BERETANIA		23.03	22.88	23.03	22.64	22.97	22.64		
KALIHI		22.30	22.43	22.29	22.37	22.28	22.30		
MOANALUA		19.05	19.23	19.13	19.25	19.06	19.18		
PEARL HARBOR									
HALAWA		16.61	16.87	16.64	16.93	16.61	16.84		
KALAUAO		17.04	17.29	17.09	17.36	17.02	17.28		
PEARL CITY		14.87	15.00	14.81	15.07	14.76	14.98		
WAIPAHI		18.43	18.65	18.40	18.70	18.38	18.60		
KUNIA		18.76	18.95	18.74	19.04	18.67	18.91		
EWA-WAIAANAE									
MAKAHA		10.06	12.39	10.15	12.55	10.11	12.70		
WINDWARD									
PUNALUU		15.96	17.76	15.95	17.88	15.96	17.94		
KALUANUI		15.76	17.66	15.85	17.68				
NORTH SHORE									
WAIALUA		11.21	11.09	11.46	11.10				



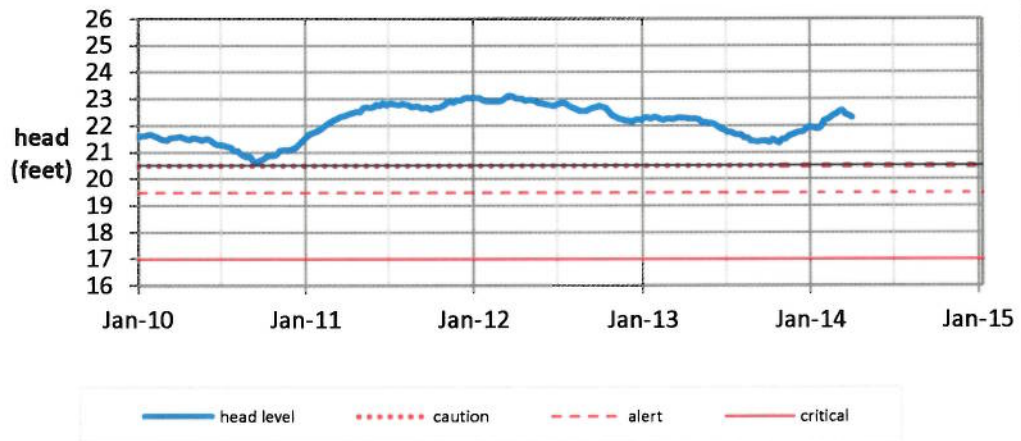
### Kaimuki



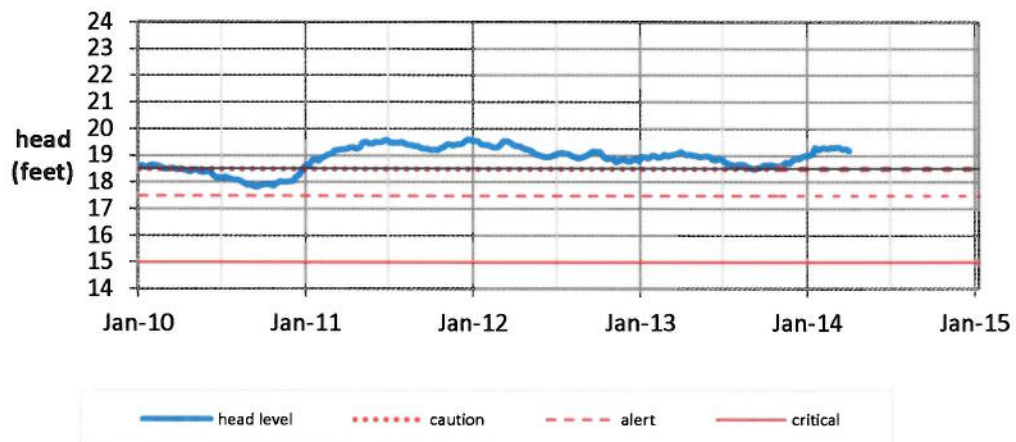
### Beretania



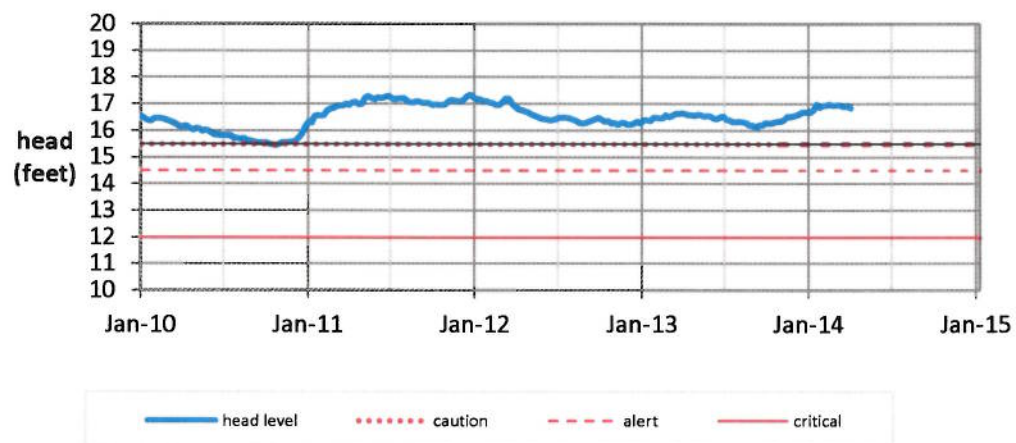
### Kalihi



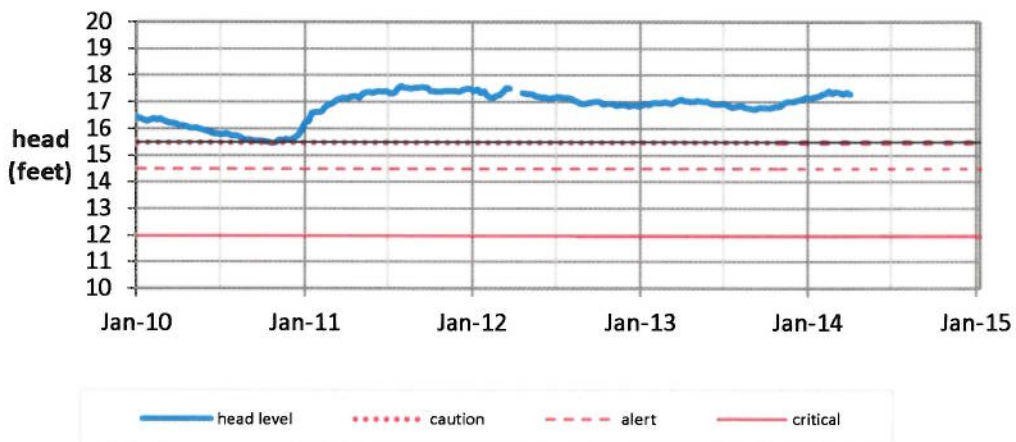
## Moanalua



## Halawa

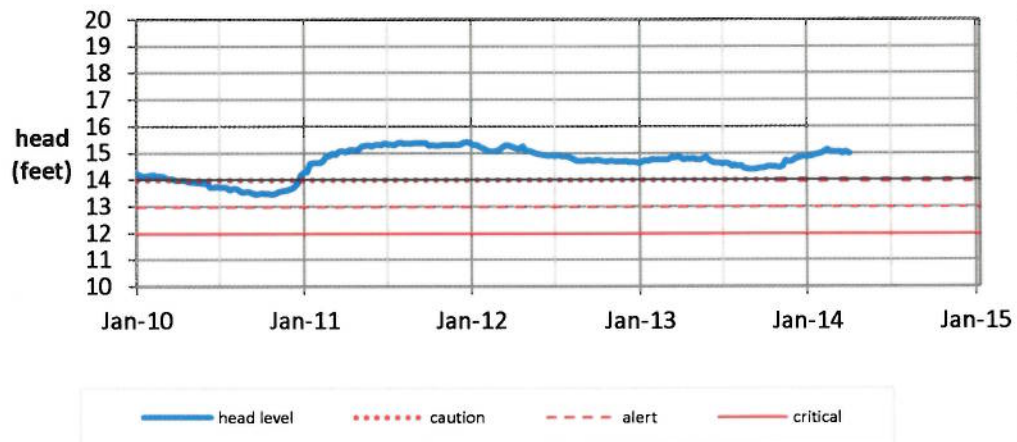


## Kalauao

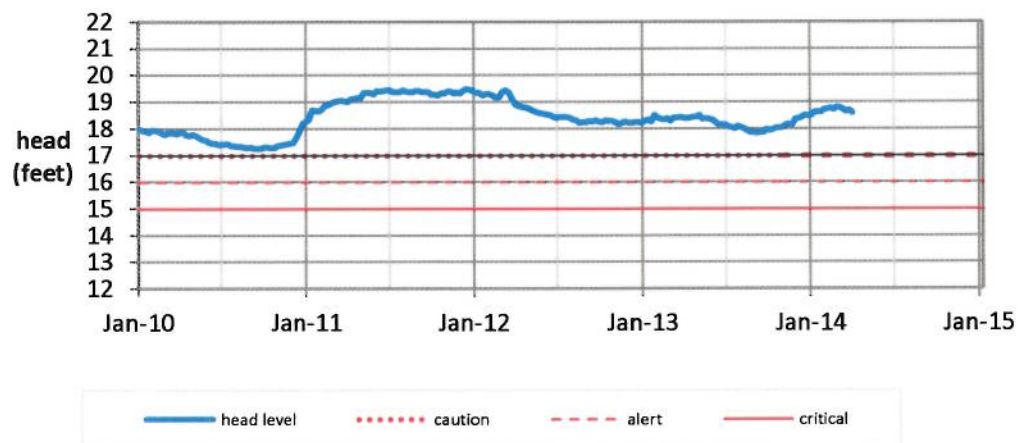




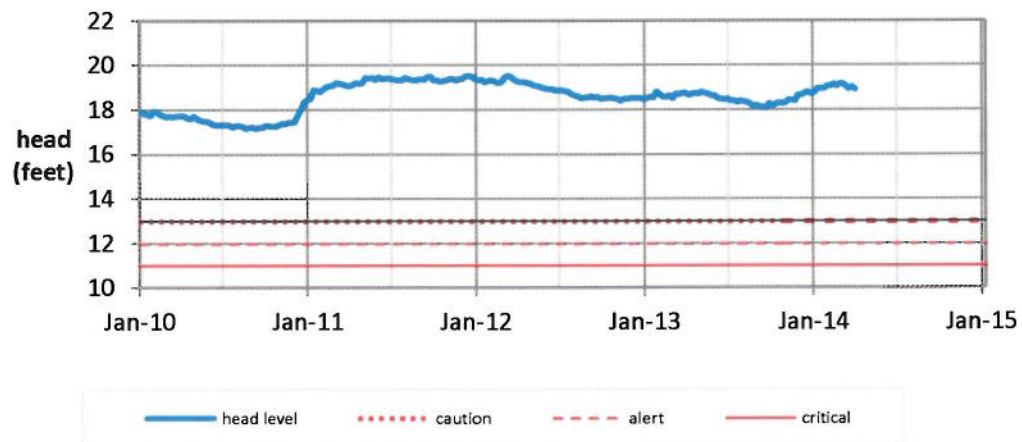
### Pearl City



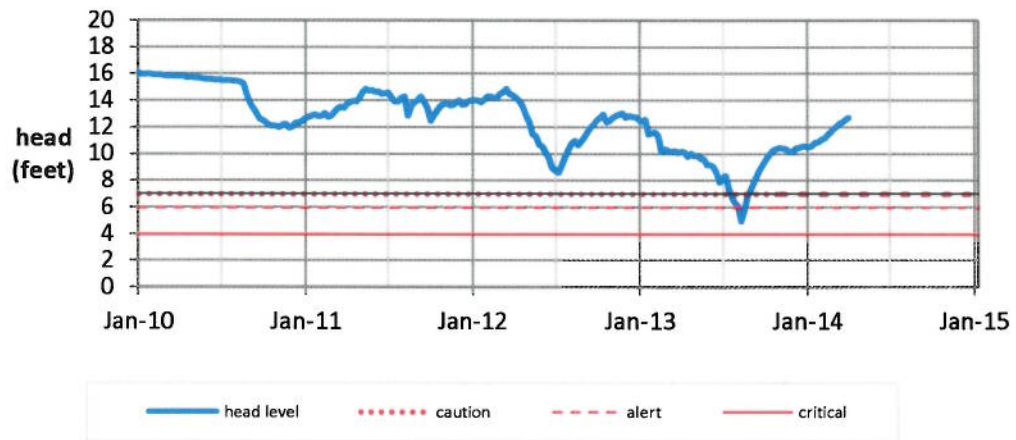
### Waipahu



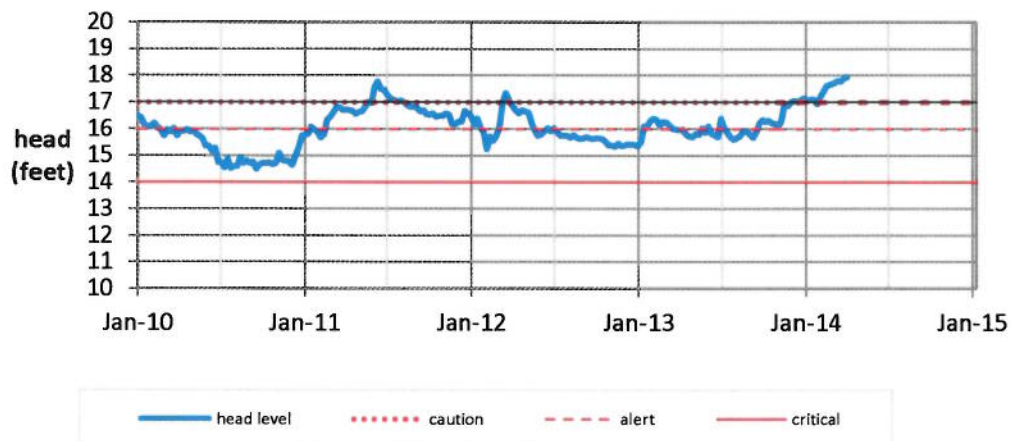
### Hoaeae-Kunia



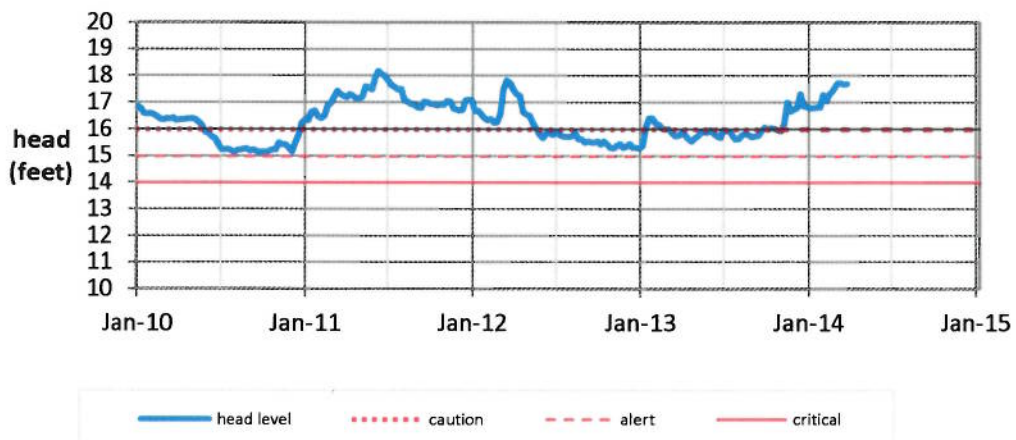
## Makaha



## Punaluu

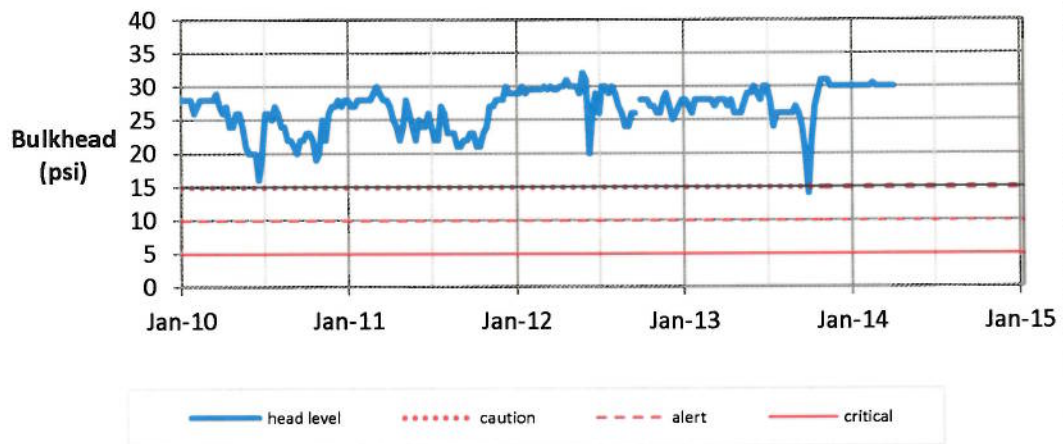


## Kaluanui

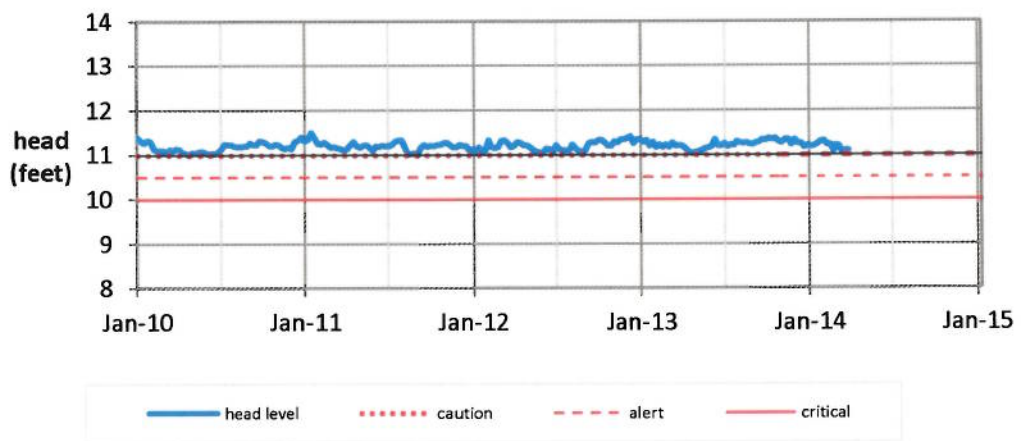


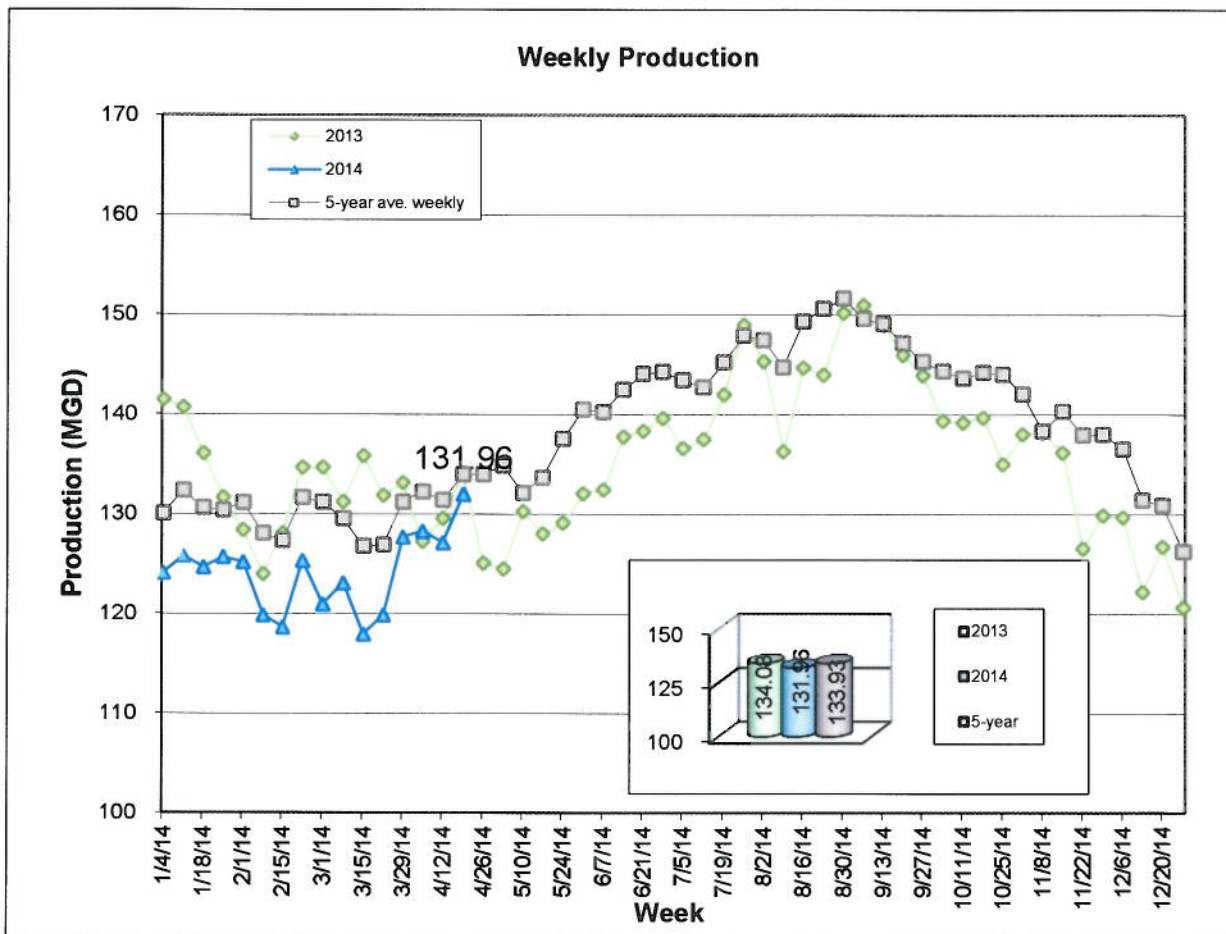
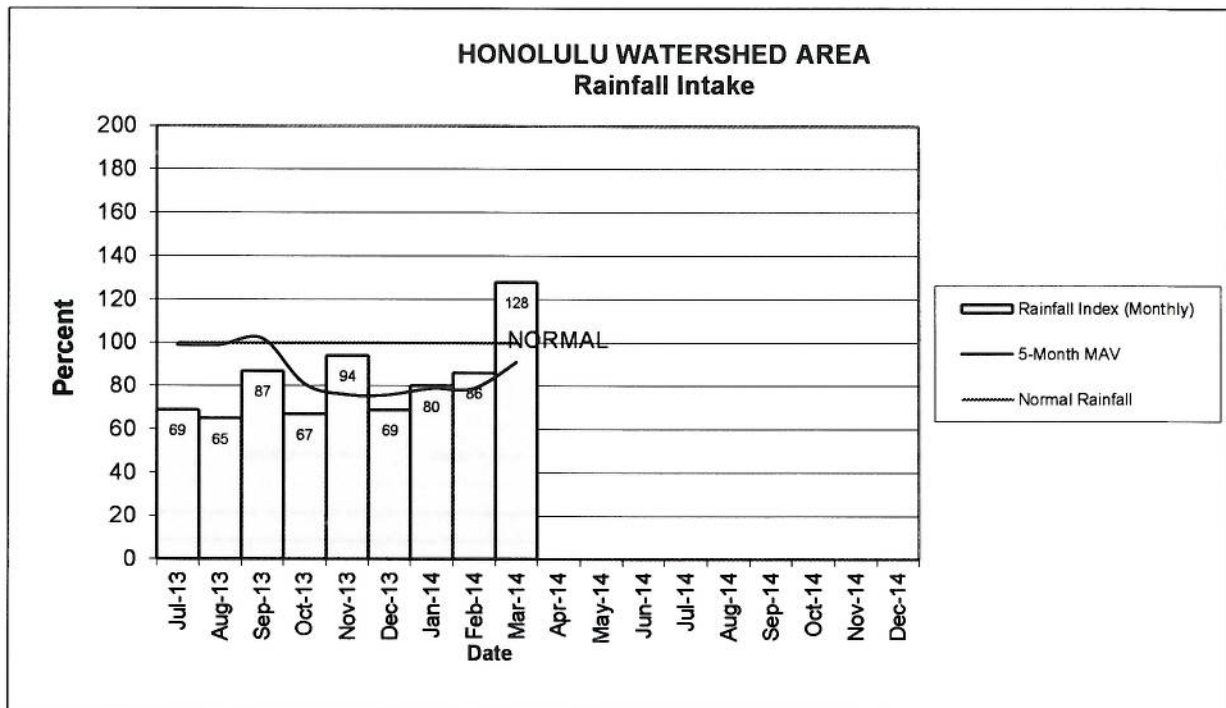


## Waihee Tunnel



## Waialua

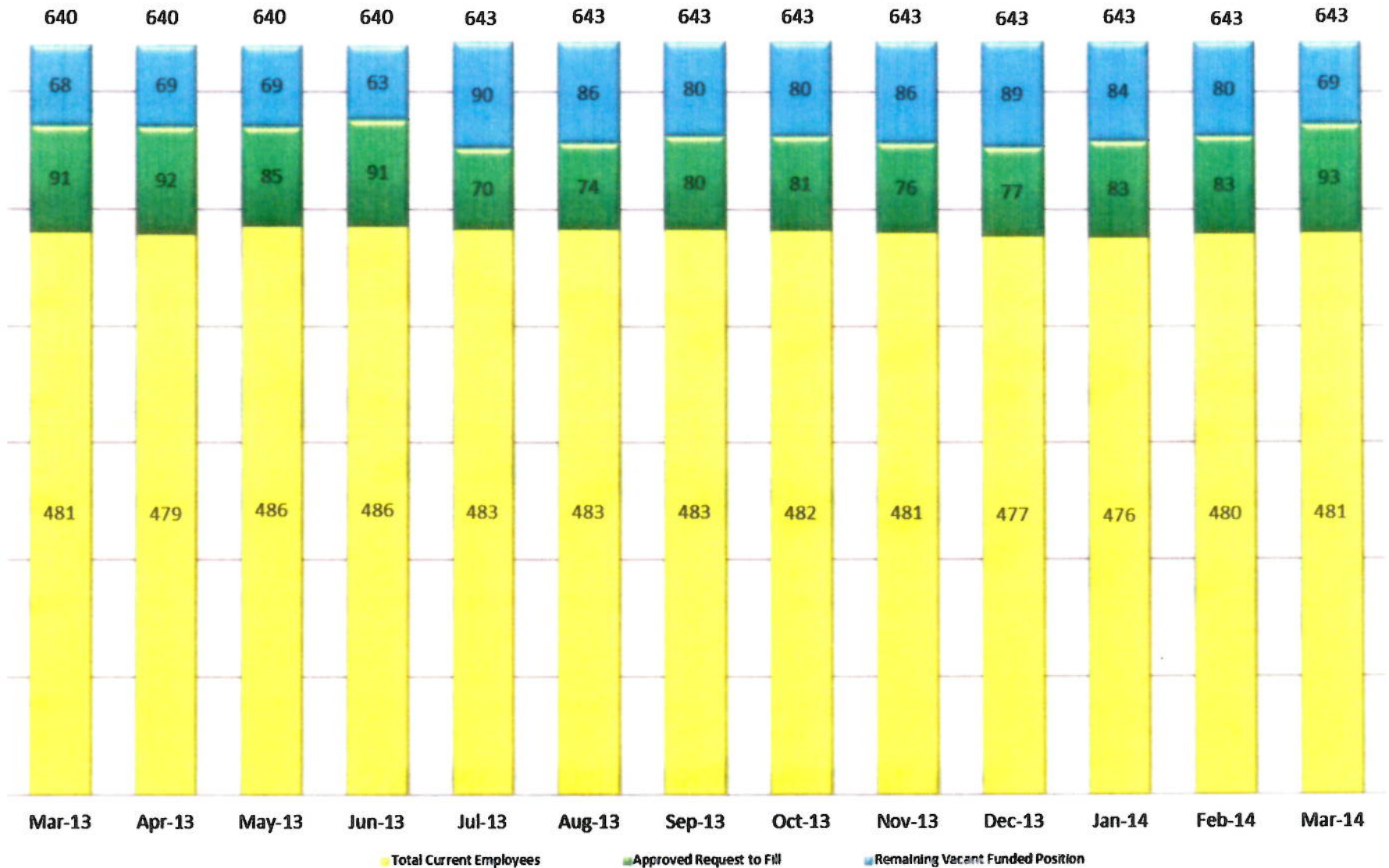






## Positions Filled

### March 1, 2013 through March 31, 2014



## Cumulative Totals March 1, 2013 through March 31, 2014





**DISCUSSION:**

Karen Tom of the Human Resources Office explained that during March, divisions developed interview questions for 22 classes or 36 positions and interviewed for 10 positions. Three internal promotional recruitments for three jobs were conducted, approval for four trades apprentices is pending with the Department of Human Resources (DHR), and they are waiting for eligibility lists from DHR for three positions. The Department is working on two reorganizations and DHR is working on 30 position description class allocations for BWS.

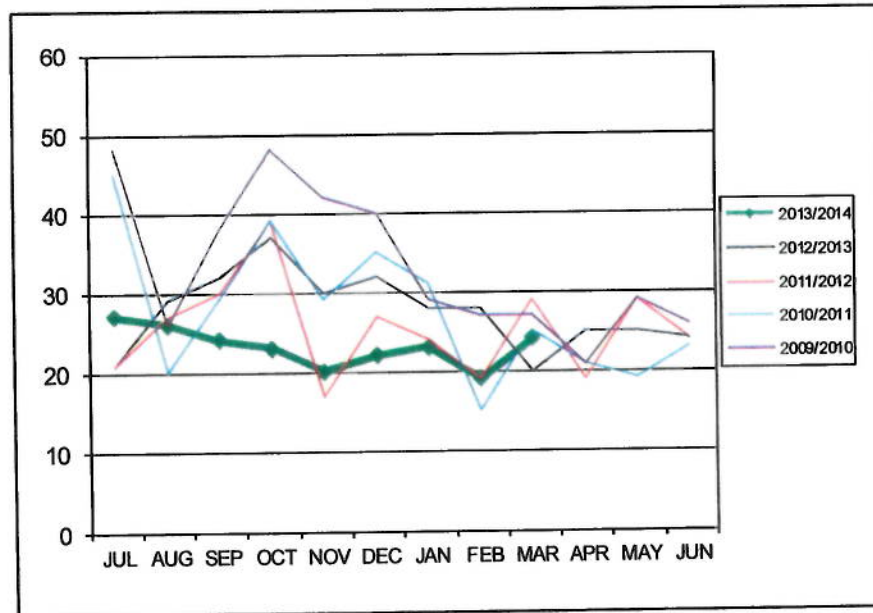
There were no comments or discussion.

## WATER MAIN REPAIR REPORT

### for March 2014

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2013/2014	27	26	24	23	20	22	23	19	24				208
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

Date	Address	Size	Cause
3/1	1000 Mapunapuna St.	12" C.I.	Corrosion
3/3	1629 Ala Makani Pl.	4" C.I.	Corrosion
3/5	225 Kihapai St.	8" C.I.	Settlement
3/5	1249 Auwai Dr.	8" C.I.	Corrosion
3/6	98-135 Kamehameha Hwy.	12" C.I.	Corrosion
3/6	197 Kailua Rd.	10" C.I.	Corrosion
3/12	1433 Mamalu St.	6" C.I.	Corrosion
3/13	Paaloha St. & Aikanaka Rd.	8" A.C.	Unknown
3/14	1035 Ala Moana Bl.	6" C.I.	Unknown
3/15	2428 Waolani Ave.	8" P.V.C.	Clamp
3/15	92-1043 Kanehoa Lp.	8" C.I.	Corrosion
3/16	4151A Nuuanu Pali Dr.	4" A.C.	Joint
3/17	2442 Halenoho Pl.	4" C.I.	Settlement
3/18	98-1051 Alania St.	6" C.I.	Unknown
3/20	91-694 Aikanaka Rd.	8" C.I.	Unknown
3/21	396 Auwinala Rd.	6" C.I.	Corrosion
3/23	1350 Ala Moana Blvd.	6" C.I.	Corrosion
3/24	1350 Ala Moana Blvd.	6" C.I.	Corrosion
3/24	723 Hahaione St.	8" D.I.	Corrosion
3/24	2224 Aloha Dr.	8" P.V.C.	Clamp
3/25	3510 Nuuanu Pali Dr.	6" G.I.	Corroison
3/26	350 Hema Pl.	6" C.I.	Unknown
3/29	99-667 Ulune Pl.	8" C.I.	Corrosion
3/31	86-249 Kawili St.	8" P.V.C.	Unknown



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

28.8 miles of pipelines were surveyed by the Leak Detection Team in the month of March



DISCUSSION:

Field Operations Program Administrator Daryl Hiromoto gave the water main repair report. He stated that there were 24 main breaks, but embedded in this is Ala Moana Boulevard's three hydrant lateral damages caused by vibration from construction work on Ala Moana Boulevard. It's a 1939 line and is scheduled for replacement. Majority of the breaks are cast iron breaks, which are the older pipes. Three are PVC pipes, which are relatively new, and this is where the Water Master Plan's water system assessment will help determine what type of material to use where.

Mr. Miyashiro inquired if the new material that replaces the cast iron will withstand construction vibration in the future. Mr. Hiromoto replied that when it's brand new, the material is very durable.

Board Member Hulihee inquired if clamps mean fittings. Mr. Hiromoto replied yes and explained that when a connection is made to the PVC pipe, they place service saddles, which are metal, in order to tap through the main to make a service connection. Material specifications have been revised over time to require different clamp material to avoid corrosion problems.

ITEM FOR INFORMATION NO. 5

"April 28, 2014

FINANCIAL  
UPDATE

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

Chair and Members:

Subject: Financial Update for the Quarter Ended March 31, 2014

The following Board of Water Supply's financial reports and graphs are attached:

- Budget vs Actual Revenue and Expense Totals
- Statement of Revenues, Expenses and Change in Net Assets
- Balance Sheet
- Budget vs Actual Appropriation Budget – Total BWS Summary
- Graph Representing Operating Expenditures by Category
- Graphs of Total Budgeted Operating Expenditures and Total Budgeted Operating Revenues

Respectfully submitted,

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

Attachments"

The foregoing was for information only.

DISCUSSION: There were no comments or discussion.



Budget vs. Actual  
Revenue and Expense Totals  
As of March 31, 2014

	YTD Actuals	YTD Budget	Favorable/ (Unfavorable) Variance
Revenues	148,565,000	152,638,000	(4,073,000)
Operating Expenses	(95,177,000)	(126,789,000)	31,612,000
Net Revenues (expenditures)	<u>53,388,000</u>	<u>25,849,000</u>	<u>27,539,000</u>

Board Of Water Supply  
Statement of Revenues, Expenses And Change In Net Assets  
As of March 31, 2014

Current Month	%	Last Year	%	Description	Year to Date	%	Last Year to Date	%	%
Actual	Revenue	Actual	Revenue		Actual	Revenue	Actual	Revenue	Change
				REVENUE					
14,434,498.16	100.00	12,616,082.93	100.00	OPERATING REVENUE	147,597,980.05	100.00	137,631,570.62	100.00	7.24
14,434,498.16	100.00	12,616,082.93	100.00	REVENUE	147,597,980.05	100.00	137,631,570.62	100.00	7.24
				OPERATING EXPENSES					
2,351,937.26-	16.29	2,094,266.81-	16.60	LABOR COSTS	22,922,041.03-	15.53	19,892,077.71-	14.45	15.23
908,434.78-	6.29	902,674.57-	7.15	SERVICES	9,542,111.33-	6.46	6,931,633.59-	5.04	37.66
268,230.44-	1.86	474,558.43-	3.76	SUPPLIES	3,923,963.21-	2.66	2,279,484.20-	1.66	72.14
10,116.97-	.07	11,942.75-	.09	EDUCATION & TRAINING	34,004.63-	.02	60,896.05-	.04	44.16-
3,308,480.94-	22.92	3,611,770.91-	28.63	UTILITIES	20,125,247.16-	13.64	21,431,152.44-	15.57	6.09-
212,592.38-	1.47	370,929.64-	2.94	REPAIR AND MAINTENANCE	1,765,857.96-	1.20	3,071,078.58-	2.23	42.50-
1,518,461.58-	10.52	909,278.85-	7.21	MISC	13,081,685.27-	8.86	12,221,141.21-	8.88	7.04
5,290,777.66-	36.65	1,171,741.73-	9.29	RETIREMENT SYSTEM CONTRIBUTIO	14,867,769.91-	10.07	12,453,083.70-	9.05	19.39
6,164.68-	.04	150,928.31-	1.20	MISC EMPLOYEES' BENEFITS	112,050.50	.08	73,073.37-	.05	253.34-
13,875,196.69-	96.13	9,698,092.00-	76.87	OPERATING EXPENSES	86,150,630.00-	58.37	78,413,620.85-	56.97	9.87
2,166,191.28-	15.01	1,158,702.53-	9.18	NON OPERATING REVENUE AND EXPE	5,243,321.83-	3.55	6,638,003.99-	4.82	21.01-
2,764,805.95	19.15	843,879.77	6.69	CONTRIBUTION IN AID	8,162,616.57	5.53	11,405,671.87	8.29	28.43-
5,024,270.47-	34.81	7,240,684.65-	57.39	OTHER EXPENSES	36,654,211.53-	24.83	43,791,396.74-	31.82	16.30-
3,866,354.33-	26.79	4,637,516.48-	36.76	Change In Net Assets	27,712,433.26	18.78	20,194,220.91	14.67	37.23



Board Of Water Supply  
Balance Sheet  
As of March 31, 2014

Description	***** Amounts *****			***** Change *****	
	Current	Last Month End	Last Year End	This Month	This Year
ASSETS					
CURRENT ASSETS	37,943,919.66	38,265,890.07	39,231,152.60	-321,970.41	-1,287,232.94
RESTRICTED ASSETS	1,418,253.05	313,483.39	15,820,173.22	1,104,769.66	-14,401,920.17
INVESTMENTS	228,546,256.50	227,160,779.52	194,327,978.98	1,385,476.98	34,218,277.52
OTHER ASSETS	6,817,567.15	4,726,075.45	8,861,200.80	2,091,491.70	-2,043,633.65
PROPERTY / PLANT	1,131,400,441.01	1,131,923,611.14	1,138,464,175.73	-523,170.13	-7,063,734.72
TOTAL ASSETS	<u>1,406,126,437.37</u>	<u>1,402,389,839.57</u>	<u>1,396,704,681.33</u>	<u>3,736,597.80</u>	<u>9,421,756.04</u>
LIABILITIES					
CURRENT LIABILITIES	18,241,222.43	13,290,236.28	29,685,255.92	4,950,986.15	-11,444,033.49
OTHER LIABILITIES	27,173,712.35	23,801,316.26	28,874,707.12	3,372,396.09	-1,700,994.77
BONDS PAYABLE, NONCURRENT	284,205,371.71	284,925,801.82	289,351,020.25	-720,430.11	-5,145,648.54
LIABILITIES	<u>329,620,306.49</u>	<u>322,017,354.36</u>	<u>347,910,983.29</u>	<u>7,602,952.13</u>	<u>-18,290,676.80</u>
NET ASSETS					
RETAINED EARNINGS	382,433,731.35	346,401,046.97	331,998,095.37	36,032,684.38	50,435,635.98
FUND BALANCE	594,633,831.66	594,633,831.66	594,633,831.66		0.00
RESERVE FOR ENCUMBRANCES	71,726,134.61	107,758,818.99	121,553,434.12	-36,032,684.38	-49,827,299.51
CURRENT YEAR CHANGES TO FU	27,712,433.26	31,578,787.59	608,336.47	-3,866,354.33	27,104,096.79
NET ASSETS	<u>1,076,506,130.88</u>	<u>1,080,372,485.21</u>	<u>1,048,793,697.62</u>	<u>-3,866,354.33</u>	<u>27,712,433.26</u>
TOTAL LIABILITIES AND NET ASSETS	<u>1,406,126,437.37</u>	<u>1,402,389,839.57</u>	<u>1,396,704,680.91</u>	<u>3,736,597.80</u>	<u>9,421,756.46</u>

## Budget vs Actual Appropriation Budget - Total BWS Summary

Page -

1

(\$000's)

CIFIS 14820-3021

AS OF 3/31/2014

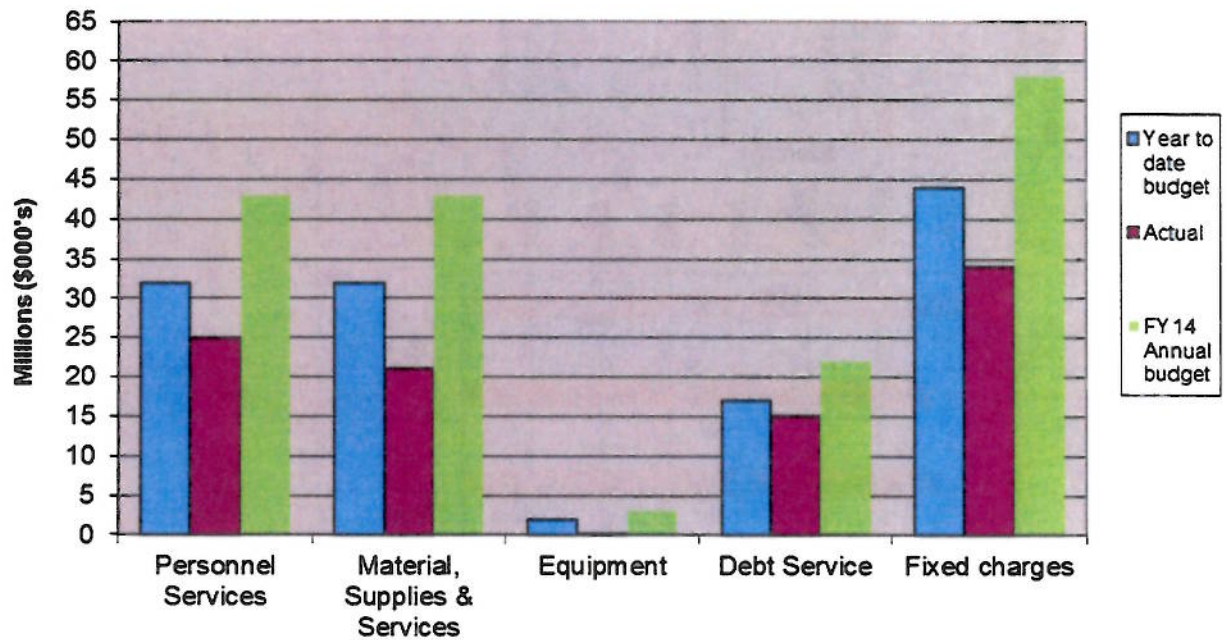
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BUSINESS UNIT ALL

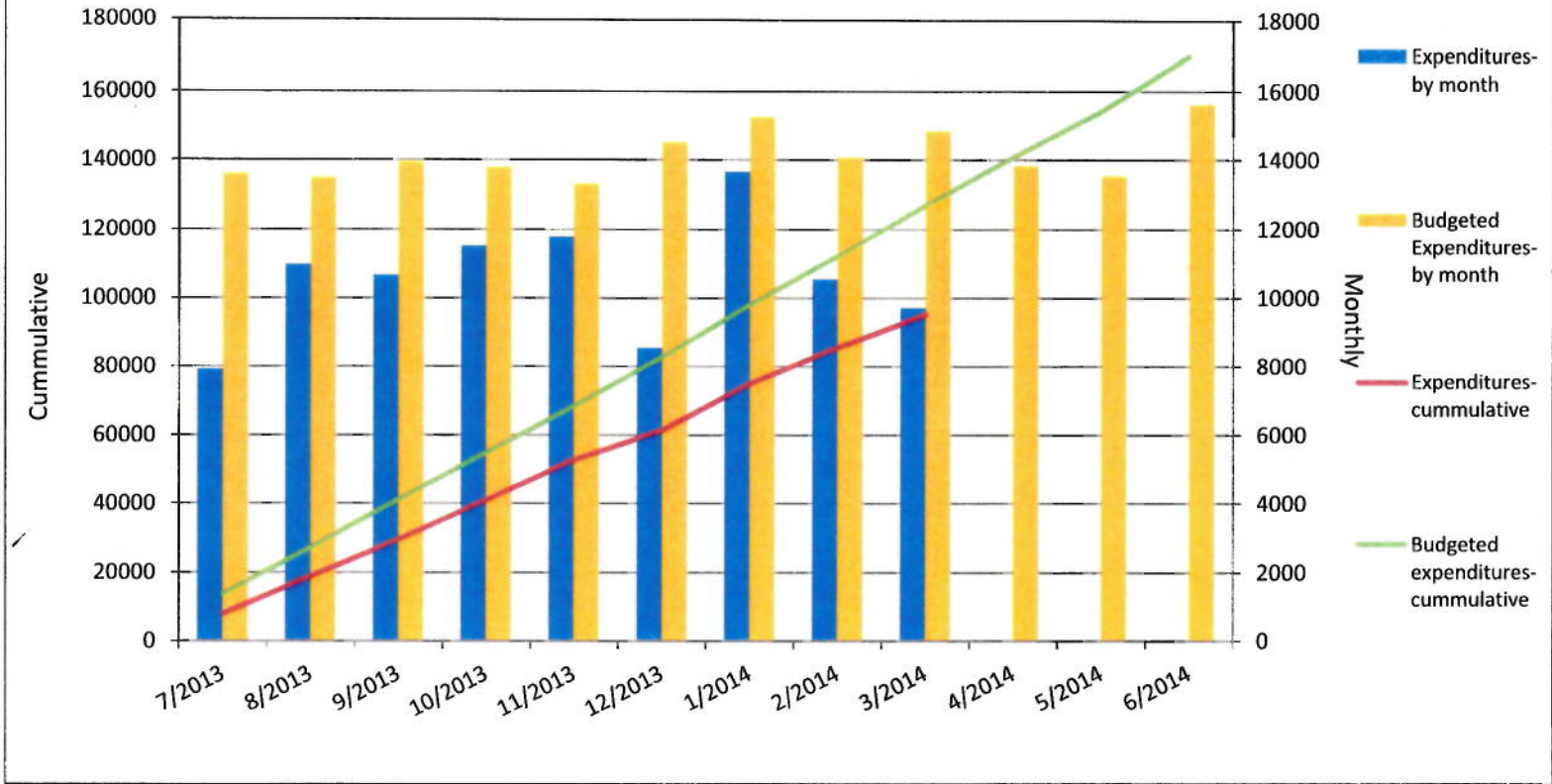
YTD-TO-DATE				FOR THE FISCAL YEAR					
YTD Actuals	YTD Budget	Avail/ (Over)	%	Object Description	Revenues/ Expend	Open Encumb	Annual Budget	Avail/ (Over)	%
148,565	152,638	4,073	2.67	REVENUE	148,565		203,518	54,953	27.00
OPERATING EXPENSES:									
24,675	32,272	7,597	23.54	Personnel Services	24,675		43,021	18,346	42.64
MATERIALS AND SUPPLIES									
8,092	13,618	5,526	40.58	Services	5,959	2,133	18,213	10,121	55.57
5,536	7,391	1,855	25.10	Supplies	4,754	782	10,057	4,521	44.95
93	346	253	73.12	Education & Training	64	29	478	385	80.54
	10	10	100.00	Utilities			14	14	100.00
1,395	3,316	1,921	57.93	Repairs & Maint	941	454	4,207	2,812	66.84
6,086	6,975	889	12.75	Misc	5,947	139	10,095	4,009	39.71
161	2,298	2,137	92.99	Equipment	61	100	2,950	2,789	94.54
15,382	16,860	1,478	8.77	Debt Service	15,382		22,479	7,097	31.57
FIXED CHARGES:									
19,689	23,860	4,171	17.48	Utilities	19,689		31,813	12,124	38.11
2,475	2,475			Case Fees	2,475		3,300	825	25.00
5,660	5,670	10	18	Retirement System Contribution	5,660		7,560	1,900	25.13
5,933	11,698	5,765	49.28	Misc Employees' Benefits	5,933		15,598	9,665	61.96
95,177	126,789	31,612	24.93	TOTAL OPERATING EXPENDITURES	91,540	3,637	169,785	74,608	43.94
53,388	25,849	(27,539)		NET REVENUES (EXPENDITURES)	57,025	(3,637)	33,733	(19,655)	



**Operating Expenditures by Category (Budget vs. Actual  
Expenditures and Encumbrances)  
as of March 31, 2014 (millions of dollars)**

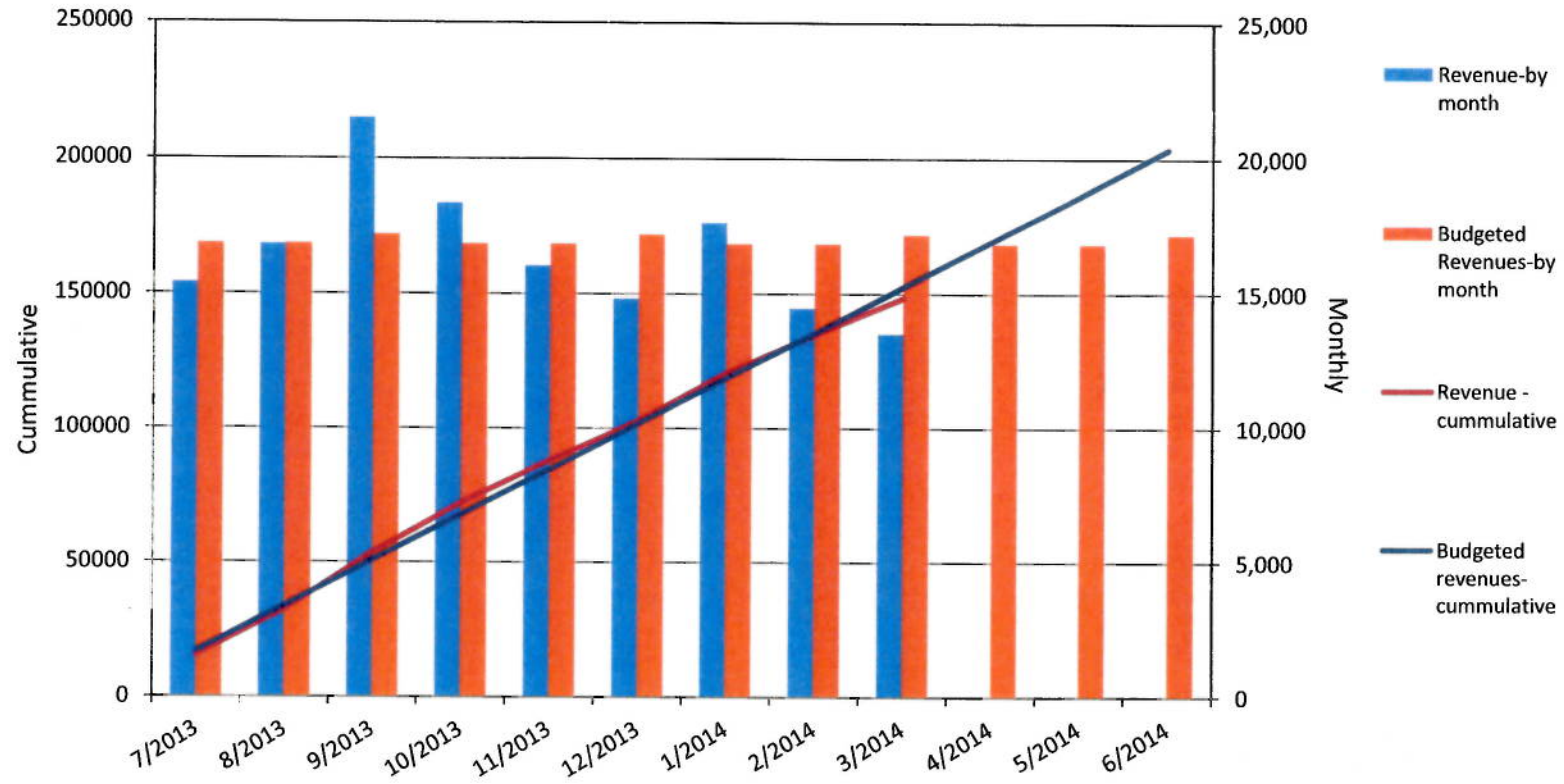


BUDGETED OPERATING EXPENDITURES FY 2014

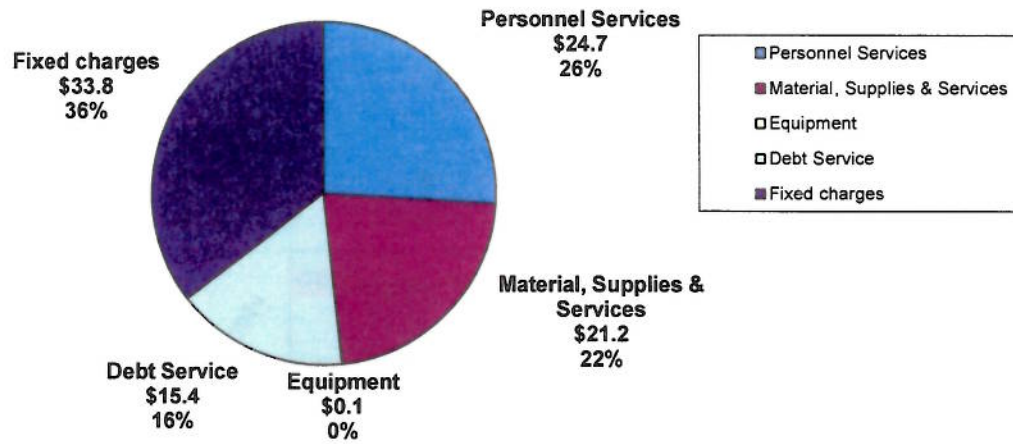




# BUDGETED OPERATING REVENUES FY 2014



**Total Operating Expenditures -\$95.2**  
**As of March 31, 2014**  
(millions of dollars)





**WATER FOR LIFE**

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



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

# Financial Performance

**July 2013 – March 2014**

**April 28, 2014**





## Budget to Actual July 2013 – March 2014

- Actual Revenue \$149 million vs. Budgeted Revenue \$153 million
- Operating costs are \$95 million
- Actual Net Revenue \$53 million vs. Budgeted Net Revenue \$26 million





## Cost Drivers

Year to Date March 2014

	Actual (millions)	Budget (millions)
• Personnel	\$25	\$32
• Services	\$ 8	\$14
• Repairs & Maint.	\$ 1	\$ 3
• Equipment	\$ 0.2	\$ 2
• Utilities	\$20	\$24



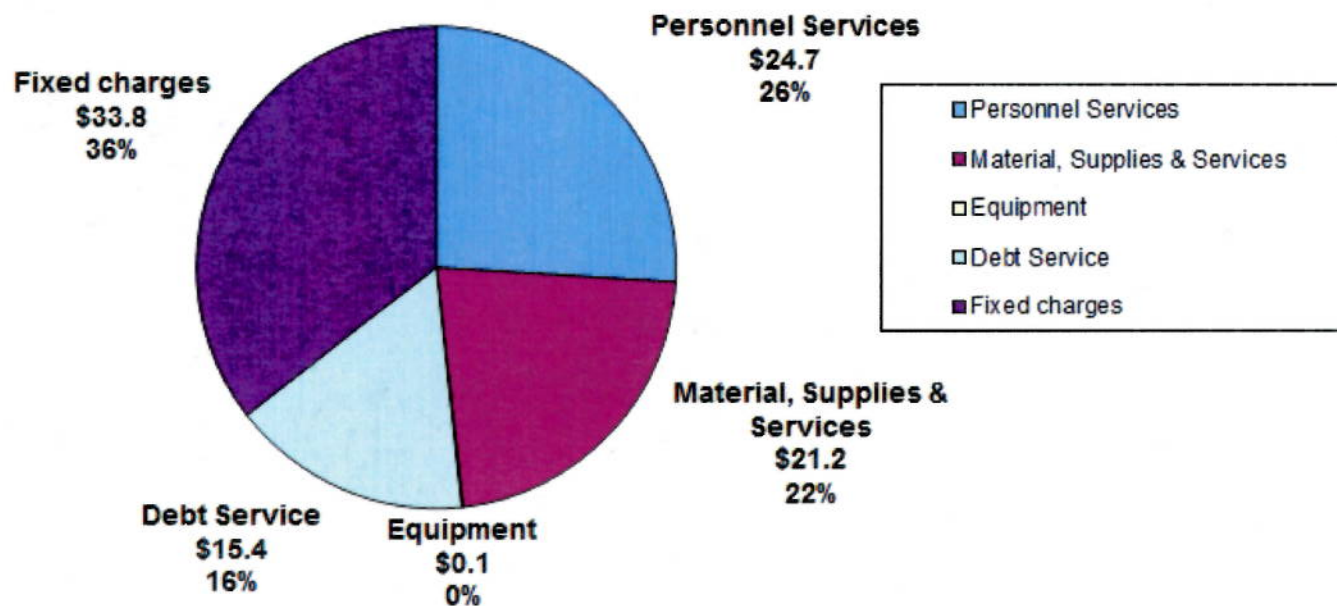
# WATER FOR LIFE

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



Board of Water Supply  
City and County of Honolulu

## Total Operating Expenditures - \$95.2 As of March 31, 2014 (millions of dollars)





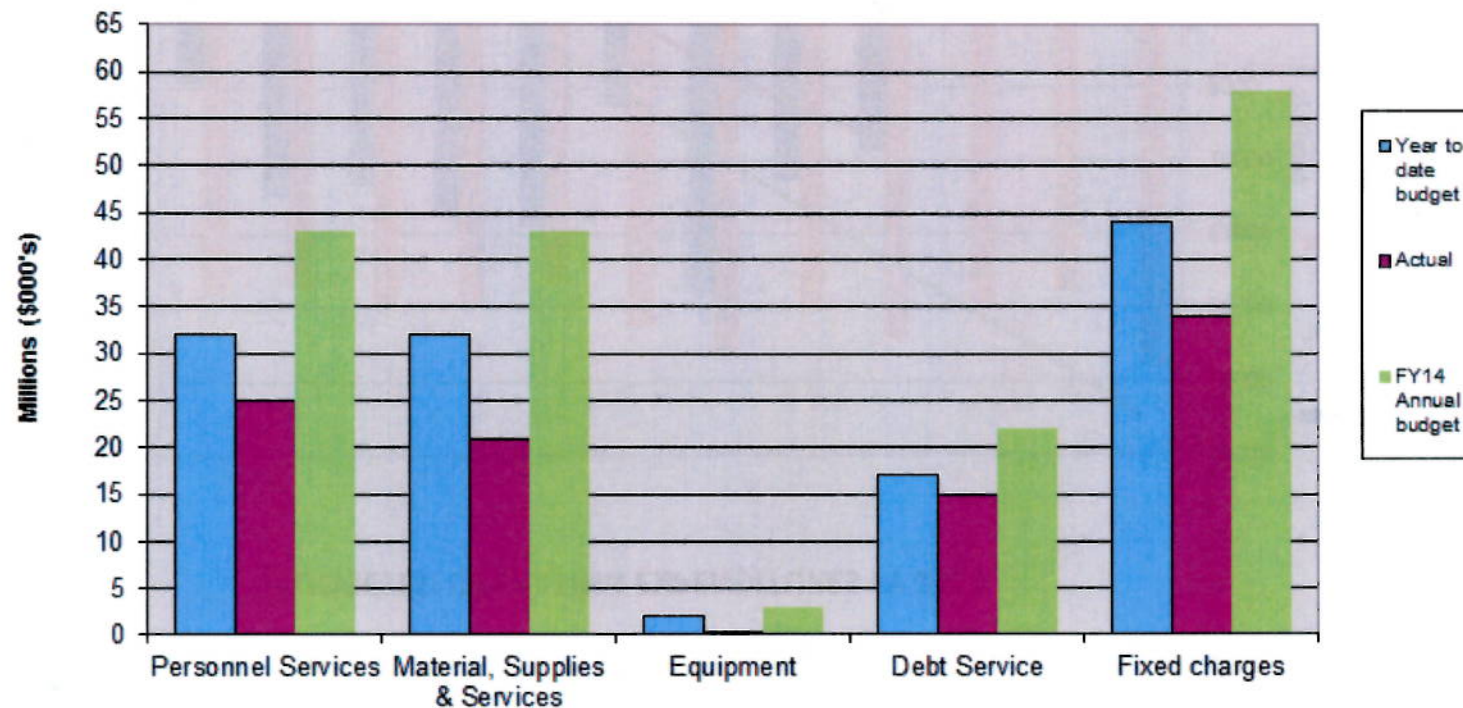
# WATER FOR LIFE

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



Board of Water Supply  
City and County of Honolulu

**Operating Expenditures by Category (Budget vs. Actual Expenditures and Encumbrances)**  
**as of March 31, 2014** (millions of dollars)



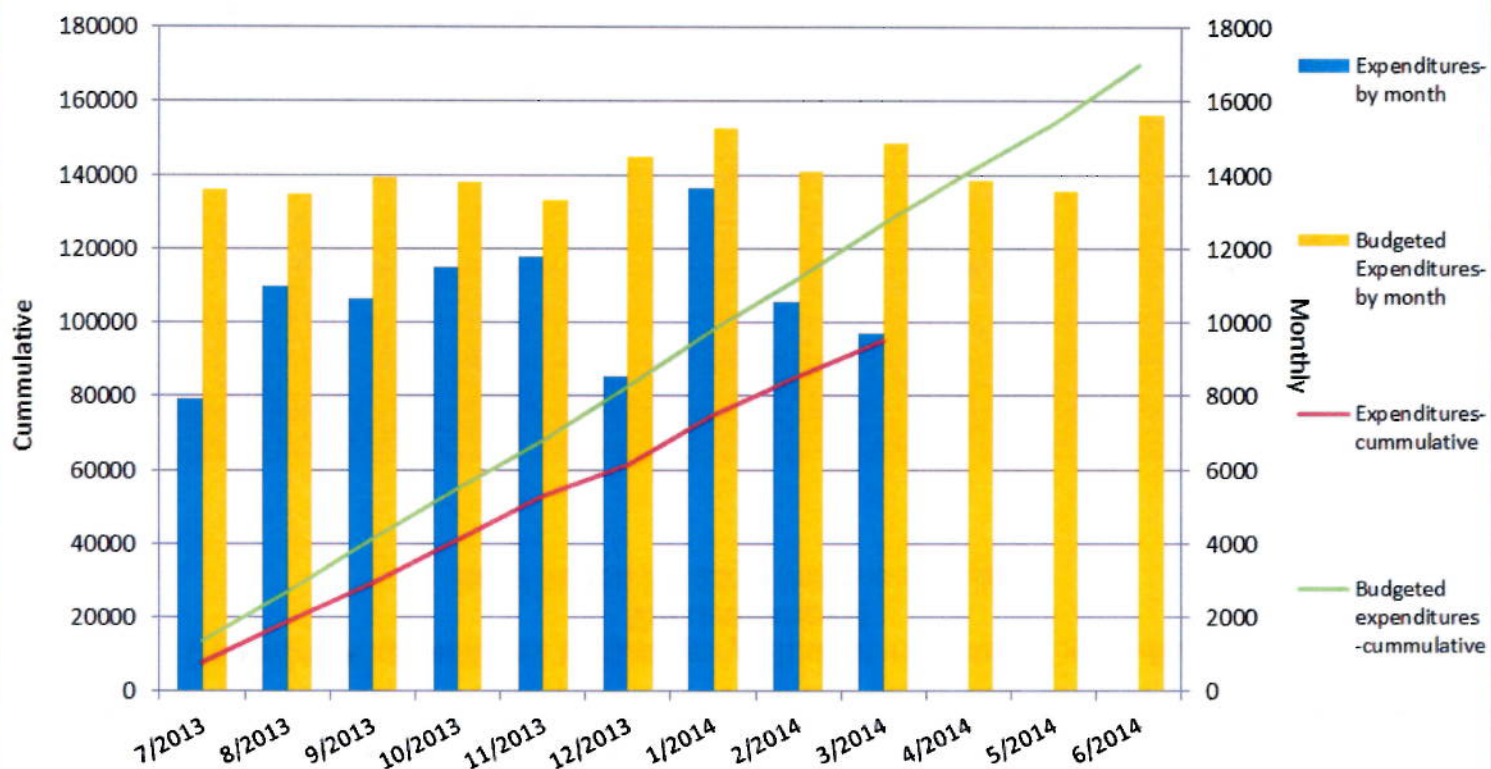
# WATER FOR LIFE

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



Board of Water Supply  
City and County of Honolulu

## BUDGETED OPERATING EXPENDITURES FY 2014





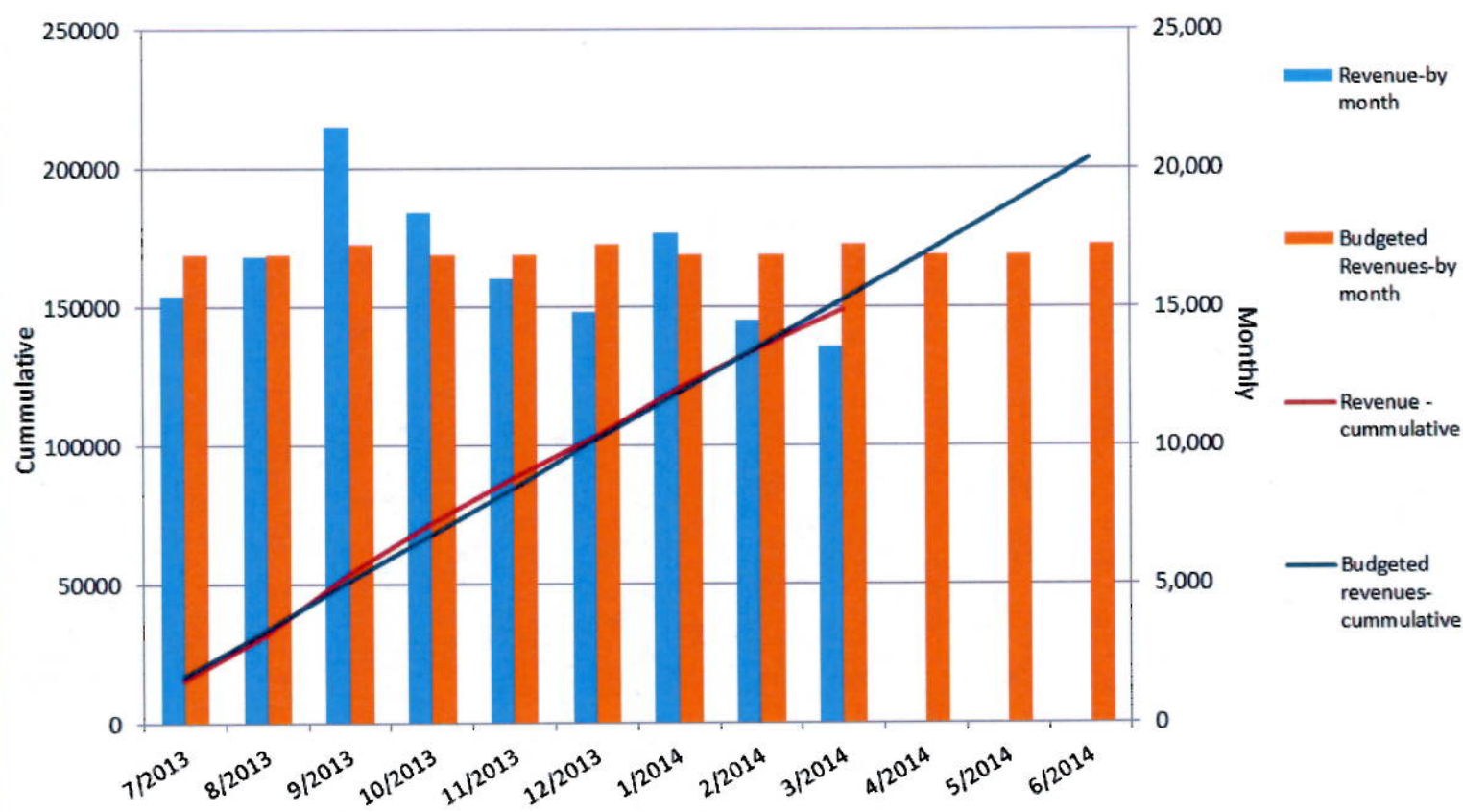
# WATER FOR LIFE

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



Board of Water Supply  
City and County of Honolulu

## BUDGETED OPERATING REVENUES FY 2014



# WATER FOR LIFE

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



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

## Questions or Comments

FORWARDED TO: BUREAU OF WATER RESOURCES





ITEM FOR INFORMATION NO. 6

QUARTERLY CAPITAL IMPROVEMENT PROGRAM STATUS REPORT  
ALL DIVISIONS

Quarter	JUL-SEPT	OCT-DEC	JAN-MAR	APR-JUN	warded to Date	Total Budgeted
Design Contracts Awarded (\$)	\$17,544.00	\$1,321,785.00	\$2,147,076.23	\$0.00	\$3,486,405.23	\$23,294,000.00
Construction Contracts Awarded (\$)	\$2,189,909.00	\$3,541,818.45	\$740,192.00	\$0.00	\$6,471,919.45	\$47,968,000.00
Project Totals	\$2,207,453.00	\$4,863,603.45	\$2,887,268.23	\$0.00	\$9,958,324.68	\$71,262,000.00

Quarter	JUL-SEPT	OCT-DEC	JAN-MAR	APR-JUN	Totals
Design Contracts Completed (\$)	\$0.00	\$1,546,498.00	\$1,332,520.00	\$0.00	\$2,879,018.00
Construction Contracts Completed (\$)	\$4,142,532.66	\$211,192.00	\$320,140.00	\$0.00	\$4,673,864.66
Totals	\$4,142,532.66	\$1,757,690.00	\$1,652,660.00	\$0.00	\$9,205,542.66

On Going Design Projects (#)	157
On Going Design Projects (\$)	\$61,507,931.65
On Going Construction Projects (#)	64
On Going Construction Projects (\$)	\$178,211,457.64

CAPITAL IMPROVEMENT PROGRAM QUARTERLY UPDATE  
ALL DIVISIONS

**DESIGN AND CONSTRUCTION PROJECTS AWARDED - THIRD QUARTER FY 2014**

Item #	Project Title	Expend Type	Budget Amount	Awarded
004E	Pump Renewal and Replacement - Newtown Wells, Replacement of Pump No.	Const	86,000.00	86,000.00
004G	Pump Renewal and Replacement - Halawa Wells, Replacement of Pump No. 2.	Const	104,000.00	104,000.00
004H	Pump Renewal and Replacement - Wilder Wells, Replacement of Pump No. 2.	Const	102,000.00	102,000.00
003A2	Construction Management for Various BWS Construction Projects - Woodlawn Drive 8-Inch Main, Job 13-015	Const	354,192.00	354,192.00
004D	Pump Renewal and Replacement - Wailupe Well I, Replacement of Pumping	Const	94,000.00	94,000.00
034	Wilhelmina Rise Water System Improvements, Part V	P&E	280,000.00	387,600.00
035	Pacific Heights Water System Improvements, Part II	P&E	250,000.00	598,600.00
033	Wahiawa Water System Improvements - Part I	P&E	500,000.00	1,052,387.27
058	Aina Haina 170 0.5 MG Reservoir No. 2	P&E	150,000.00	108,488.96
<b>3rd Quarter totals</b>			<b>1,920,192.00</b>	<b>2,887,268.23</b>

**DESIGN AND CONSTRUCTION PROJECTS COMPLETED - THIRD QUARTER FY 2014**

Job #	Project Title	Completion Date	Contract Amount
2006-031	Kaluanui Wells Renovation	1/9/2014	\$146,682.00
12-014V	Repair of Halawa Xeriscape Booster Pump Station	1/10/2014	\$48,940.00
2010-032C	Forensic Investigation of Failing Reservoir Roofs	1/10/2014	\$25,747.00
1998-150	Ewa Shaft Renovation - Phase II	1/28/2014	\$425,000.00
M13-464899	Maiilili Road Repair	1/30/2014	\$271,200.00
2004-033AG	Kaimakani Street 8-Inch Main	1/30/2014	\$87,260.00
2008-034C	Palolo Tunnel Line Drainage Mitigation	2/12/2014	\$50,000.00
2003-110	Ewa Shaft Granular Activated Carbon Treatment Facility	3/3/2014	\$597,831.00
<b>3rd Quarter totals</b>			<b>1,652,660.00</b>



DISCUSSION:           There were no comments or discussion.

"April 28, 2014

CAPITAL  
PROJECTS  
PROGRAM AND  
CONSTRUCTION  
MANAGEMENT  
UPDATE

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

Chair and Members:

Subject: Capital Projects Program and Construction Management  
Quarterly Update

Jason Takaki, Program Administrator of our Capital Projects Division, will provide an update on Program Management projects in the Capital Projects Division.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION: Capital Projects Program Administrator Jason Takaki gave the presentation on the Capital Projects Program and Construction Management quarterly update.

Deputy Manager Kitamura referred to the target execution rate slide and asked Mr. Takaki to explain how the target execution line was created. Mr. Takaki explained that this line represented the proposed target execution rate for the Capital Projects Division's projects for the upcoming fiscal year. They plan to complete 15 percent in the first quarter, 15 percent in the second quarter, 30 percent in the third quarter, and 40 percent or the rest of the projects in the fourth quarter. Mr. Takaki noted that the line shown is only an example. Targets will be established by the Core Team, with an ultimate goal of increasing the execution rate for the earlier months in the coming years.

Ms. McMurdo inquired about the slides that state Communicating Performance "Safe", "Dependable" and "Affordable", and asked for clarification on what safe, dependable and affordable means. Mr. Takaki replied that "safe" projects refer to those that protect the safety of the water system and water quality such as reservoir care and treatment facilities. Mr. Takaki explained that "dependable" means the projects that ensure the delivery of water to the customers, and "affordable" means how BWS can improve performance so water rates can remain affordable



to the customers. Ms. McMurdo requested that clarity be provided to the general public. Mr. Lau agreed and thanked Ms. McMurdo for her suggestion.

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

# Capital Projects Program and Construction Management



Board of Water Supply

April 28, 2014







## CPD Program Management



- Streamline project execution
- Align business processes to best support the increased number and scale of projects
- Support the implementation of the Water Master Plan



- Optimized organizational changes
- Staff succession plans for organizational sustainability







## CPD Program Management



- Established core teams for Engineering and Construction



- Creating action plans to develop collaborative solutions to improve operations
- Communicating proposed approaches among peers and stakeholders



- Implementation of improvements





## CPD Optimization Overview

Assess

- Internal gap analysis
- Summarize findings
- Develop initial **Action Plan**

We are  
here

Implement

- Execute **Action Plan**
- External outreach to  
contractors/consultants

Optimize

- Continued optimization
- On-call staff support
- Facilitate internal knowledge transfer

*Begin  
2015*







## Current Focus

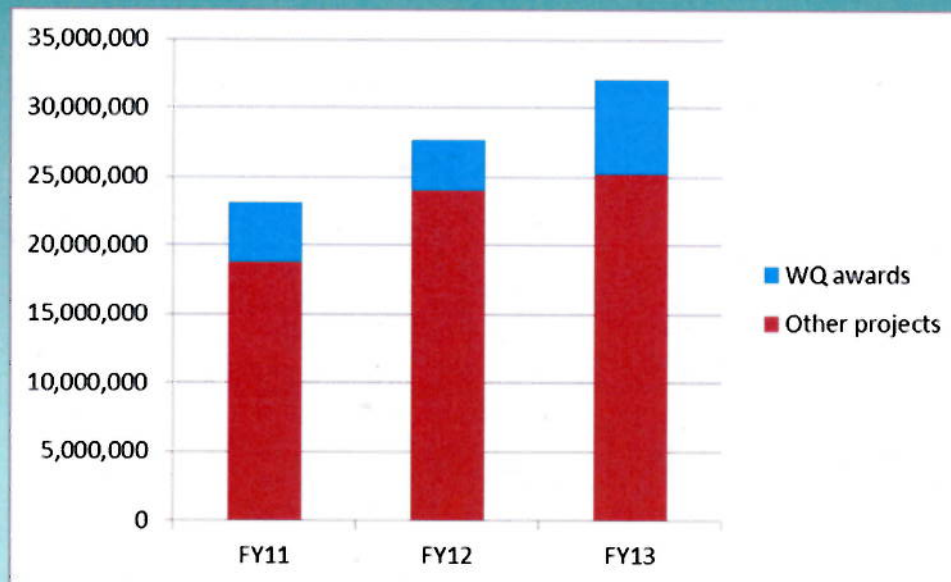
- Project Scoping Workflow
  - Define current processes and requirements
  - Identify areas for improvements in process and collaboration
  - Integrate best practices
  - Establish Standard Operating Procedures and staff training
- Project Management Information System
  - Leverage technology for efficiency gains
  - Facilitate documentation and record-keeping
  - Improve internal and external communications







## Communicating Performance Safe

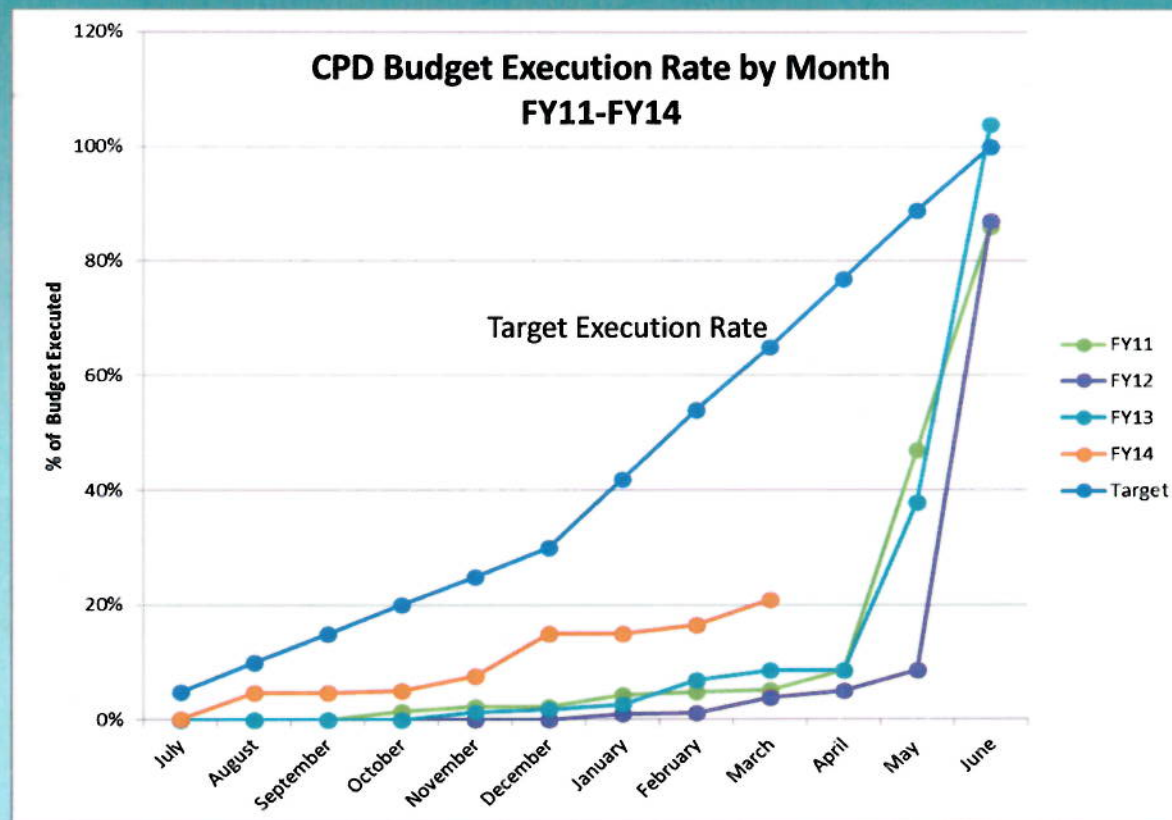


**CPD Contract Awards to Safeguard Water Quality  
FY11-FY13 (dollars)**





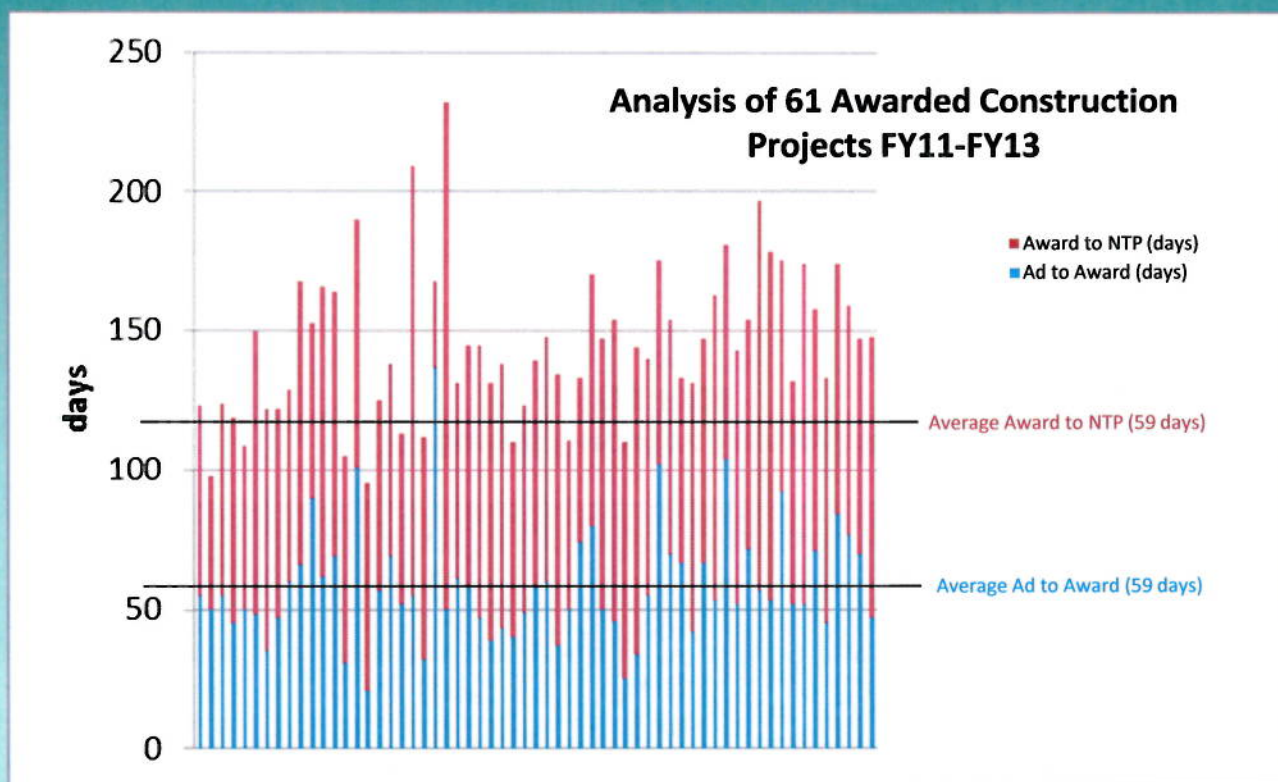
## Communicating Performance Dependable







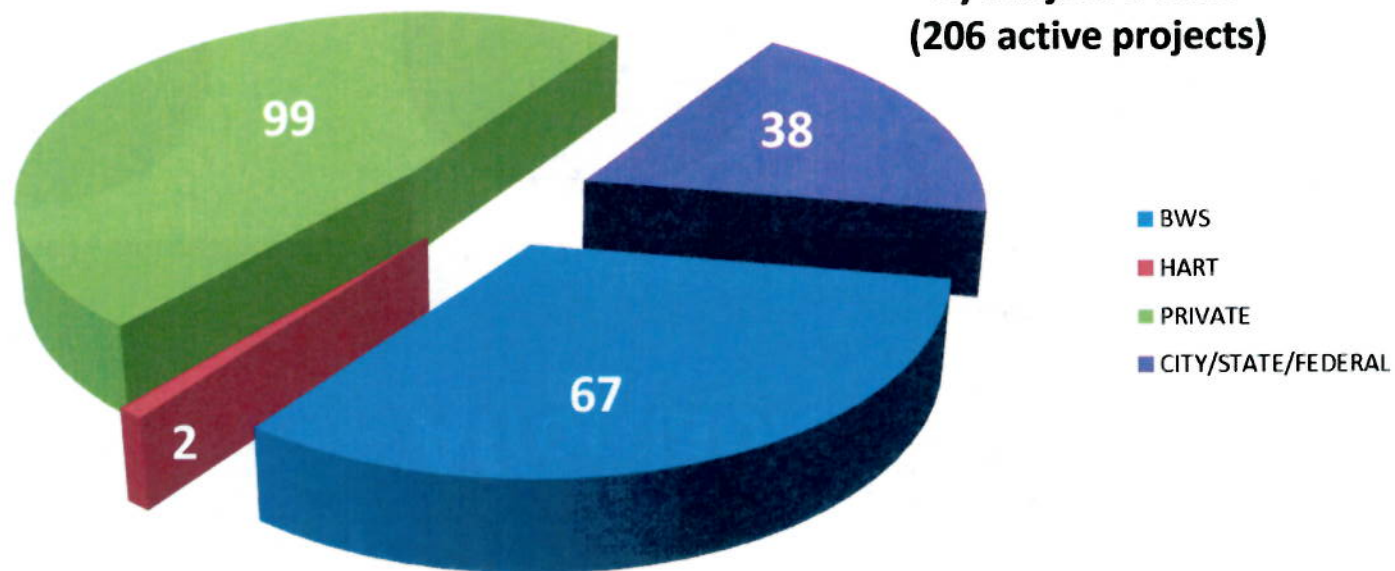
## Communicating Performance Dependable





## Communicating Performance Affordable

**Project Count for BWS Inspection  
by Project Owner  
(206 active projects)**

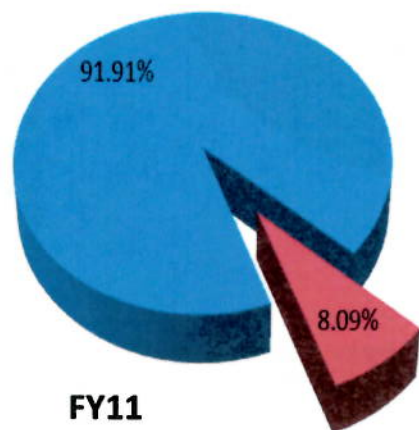




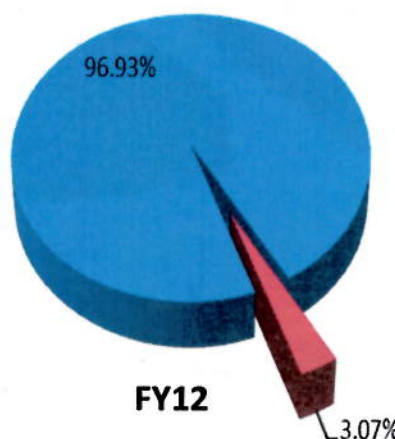


## Communicating Performance Affordable

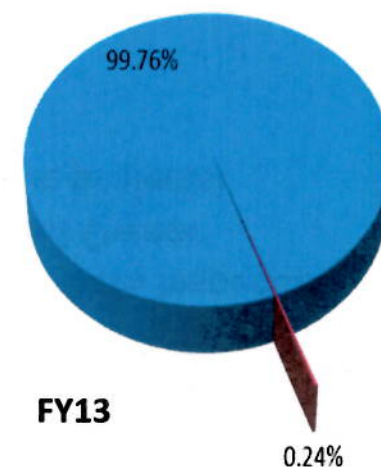
### Change Orders as % of Total Project Costs



**FY11**



**FY12**



**FY13**

■ Total Contract Price  
■ Total Change Order





## Next Steps

- Project Scoping – *Spring 2014*
- Engage external partners – *Spring 2014*
- Delivery method analysis – *Summer 2014*
- PMIS Pilot – *Summer 2014*
- Document Management – *Summer 2014*
- Formal Standard Operating Procedures (SOPs) and Training Programs – *Fall 2014*





MOTION TO  
RECESS INTO  
EXECUTIVE  
SESSION

Upon unanimously approved motion, the Board Recessed into Executive Session Pursuant to [HRS § 92-5(a)(2)] at 3:08 PM to Consider Issues Pertaining to Matters Posted for Discussion at an Executive Session.

OPEN  
SESSION

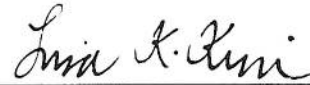
The Board reconvened in open session at 3:16 PM

MOTION TO  
ADJOURN

There being no further business Chair Miyashiro at 3:16 PM called for a motion to adjourn the Open Session. Ross Sasamura so moved; seconded by Theresia McMurdo and unanimously carried.

Respectfully submitted,

THE MINUTES OF THE REGULAR SESSION BOARD MEETING ON APRIL 28, 2014 WERE APPROVED AT THE MAY 27, 2014 BOARD MEETING			
	AYE	NO	COMMENT
DUANE R. MIYASHIRO	X		
MAHEALANI CYPHER	X		
THERESIA C. MCMURDO	X		
ADAM C. WONG	X		
DAVID C. HULIHEE	X		
ROSS S. SASAMURA			ABSENT
FORD N. FUCHIGAMI			ABSENT



LISA K. KIM

APPROVED:



DUANE R. MIYASHIRO  
Chair of the Board

MAY 27 2014

Date