

MINUTES

REGULAR MEETING OF THE BOARD OF WATER SUPPLY

December 21, 2015

At 2:02 PM on December 21, 2015 in the Board Room of the Public Service Building at 630 South Beretania Street, Honolulu, Hawaii, Board Chair Miyashiro called to order the Regular Meeting.

Present: Duane R. Miyashiro, Chair
Adam C. Wong, Vice Chair
David C. Huiihee
Ross S. Sasamura

Also Present: Ernest Lau, Manager and Chief Engineer
Ellen Kitamura, Deputy Manager and Chief Engineer
Alex Ubiadas
Erwin Kawata
Barry Usagawa
Karen Tom
Daryl Hiromoto
Jason Takaki
Robert Morita
Mike Matsuo
Kevin Ihu
Jennifer Elflein
Tracy Burgo
Thelma Kimura
Travis Sonomura
Leanne Matsumoto

Others Present: Barrett Francis, Deputy Corporation Counsel
Moana Yost, Deputy Corporation Counsel
Dana Viola, Corporation Counsel
Tom Myers, Brown and Caldwell

Absent: Kapua Sproat
Ford N. Fuchigami
Bryan P. Andaya

APPROVAL OF
MINUTES

Approval of the Minutes of the Public Hearing and the Regular
Meeting held on November 23, 2015

MOTION
TO APPROVE

Adam Wong and Ross Sasamura motioned and seconded, respectively,
to approve the Minutes of the Public Hearing and the Regular Session
Meeting of November 23, 2015. The motion was unanimously carried.

ITEM FOR INFORMATION NO. 1

"December 21, 2015

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

Chair and Members:

Subject: Board of Water Supply Performance Metrics Update

Ellen Kitamura, Deputy Manager, will present a brief update on the Board of Water Supply performance metrics to measure progress in meeting the three sustainability goals set in the strategic plan.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION Ellen Kitamura, Deputy Manager, gave the report.

Mr. Hulihee inquired about the hiring process being so fast since Board of Water Supply was having a hard time filling vacancies. Ms. Kitamura stated that this has been an ongoing Human Resources process of converting the personal services contract positions to permanent positions.

Ellen Kitamura recognized and thanked Jennifer Elflein, Program Administrator, Thelma Kimura and Travis Sonomura of Customer Care Division who helped her with the explanation and gathering of all the information.

WATER FOR LIFE

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



Board of Water Supply
City and County of Honolulu

BWS Performance Metrics Update

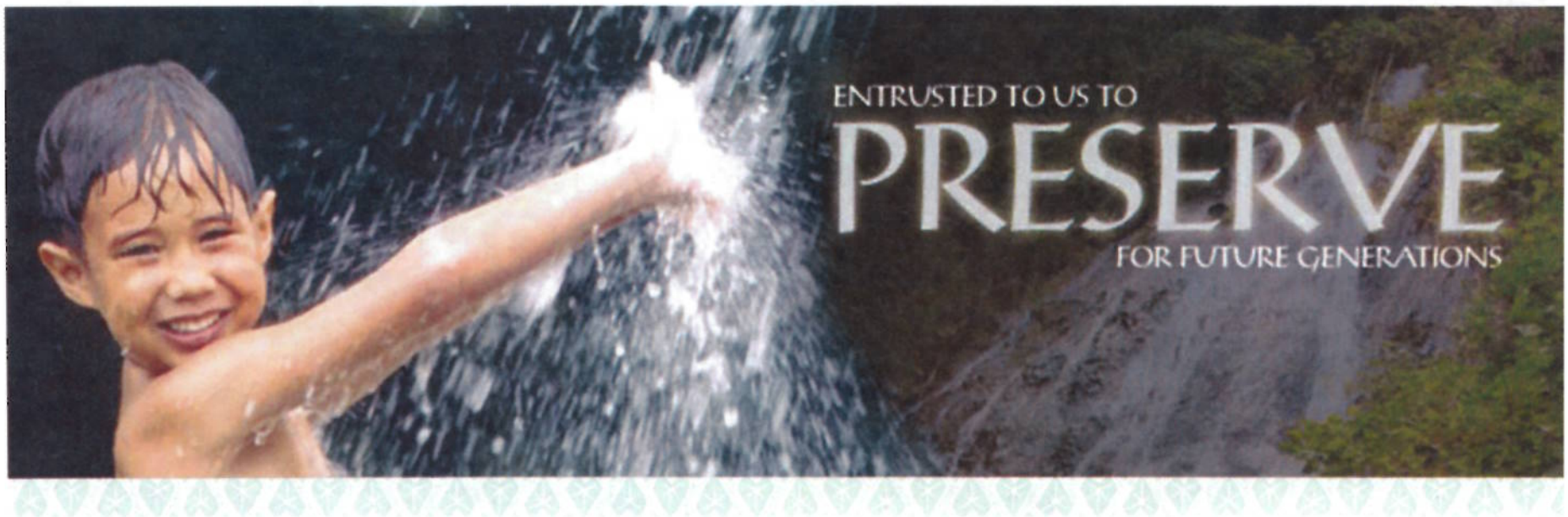
UWE KA LANI OLA KA HONUA

Board Meeting
December 21, 2015



BWS Vision and Mission

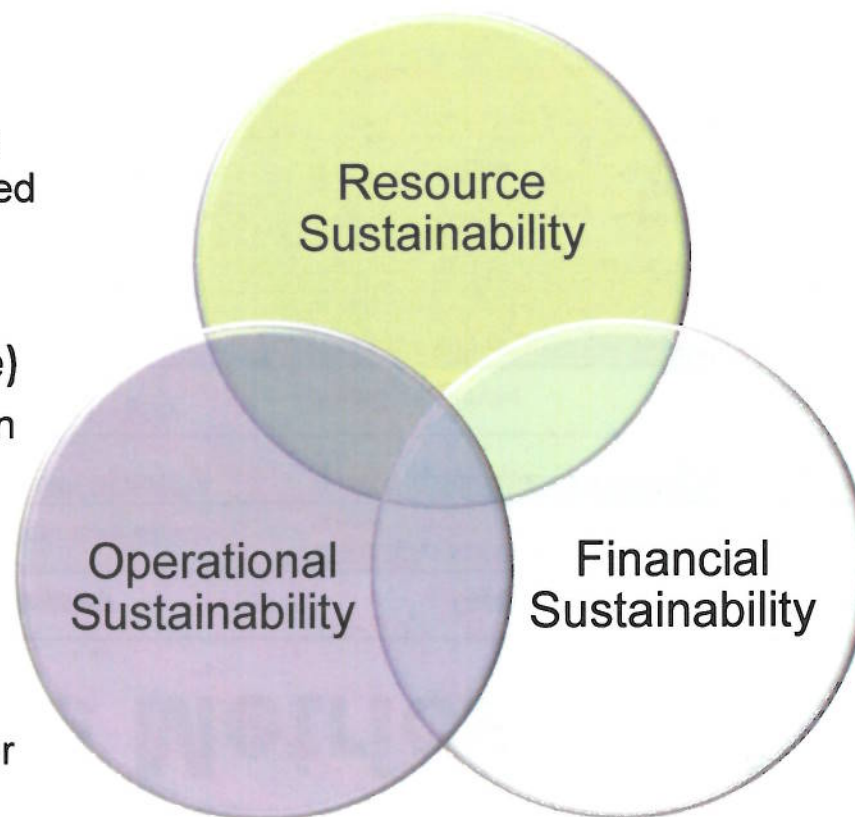
- 💧 Vision: 'Ka Wai Ola – Water for Life'
- 💧 Mission: To provide safe, dependable, and affordable water now and into the future





Sustainability Goals

- **Resource Sustainability (Safe)**
Protect and manage our groundwater supplies and watersheds through adaptive and integrated strategies.
- **Operational Sustainability (Dependable)**
Foster a resilient and collaborative organization utilizing effective and proactive operational practices consistent with current industry standards.
- **Financial Sustainability (Affordable)**
Implement sound fiscal strategies to finance our operating and capital needs to provide dependable and affordable water service.



WATER FOR LIFE

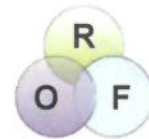
Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu



Performance Metrics



Goals	Performance Metric	Description	Calculation	Report
Resource	Stable Head Levels at Index Wells	No net decline in water level heads	# wells no net decline/total # of wells	M
Resource	Regulatory Compliance	Days in compliance with DOH/EPA drinking water standards	# days in compliance/total days in FY	A
Resource	Resident Satisfaction (% Strong Sat)	Percentage of residents strongly satisfied with BWS	Resident Survey	BA
Operational	Training hours/FTE	Average training hours received	Total training hours/Average # FTEs	A
Operational	Employee Turn-Over Rate	Employee departure rate	# Employee departures/Average # regular FTE	A
Operational	CIP Encumbrance Rate	Percentage of CIP funds encumbered	\$ CIP awarded/\$ CIP budgeted	A
Operational	Mainbreaks per 100 Miles of Pipe	# mainbreaks per 100 miles of pipe	Total mainbreaks/100 miles of pipe	A
Operational	Call Center Average Wait Time (min)	Average time caller waits on hold	Average time caller waits on hold before they speak to a CSR	Q
Operational	Call Center Abandon Rate	Percentage of calls terminated by calling party	Total terminated calls/Total calls received	Q
Financial	Estimated Bills Rate	Percentage of estimated bills	# Estimated bills/Total number of bills	Q
Financial	Operating Ratio	Ratio of operating expenses to Operating revenues	\$ Operating expenses/ \$ Operating revenues	A
Financial	Bond Coverage Ratio	Ratio of net operating income to total bond service	\$ Net Operating Income/\$ Total bond service	A

M – Monthly

Q – Quarterly

A – Annually

BA - Biennially



Performance Metrics

As of September 2015



Goals	Performance Metric	Base	Current	Target	AWWA	Status	Report	Lead
Operational	Call Center Average Wait Time (min)	6.9	2.30	<2.00	1.9	■	Q	CC
Operational	Call Center Abandon Rate	22%	17.1%	5%	8%	■	Q	CC
Financial	Estimated Bills Rate	7%	0.20%	<2%	NA	▲	Q	FN

▲ Excellent

■ Good

■ Fair

▼ Poor

M – Monthly Q – Quarterly A – Annually BA – Biennially



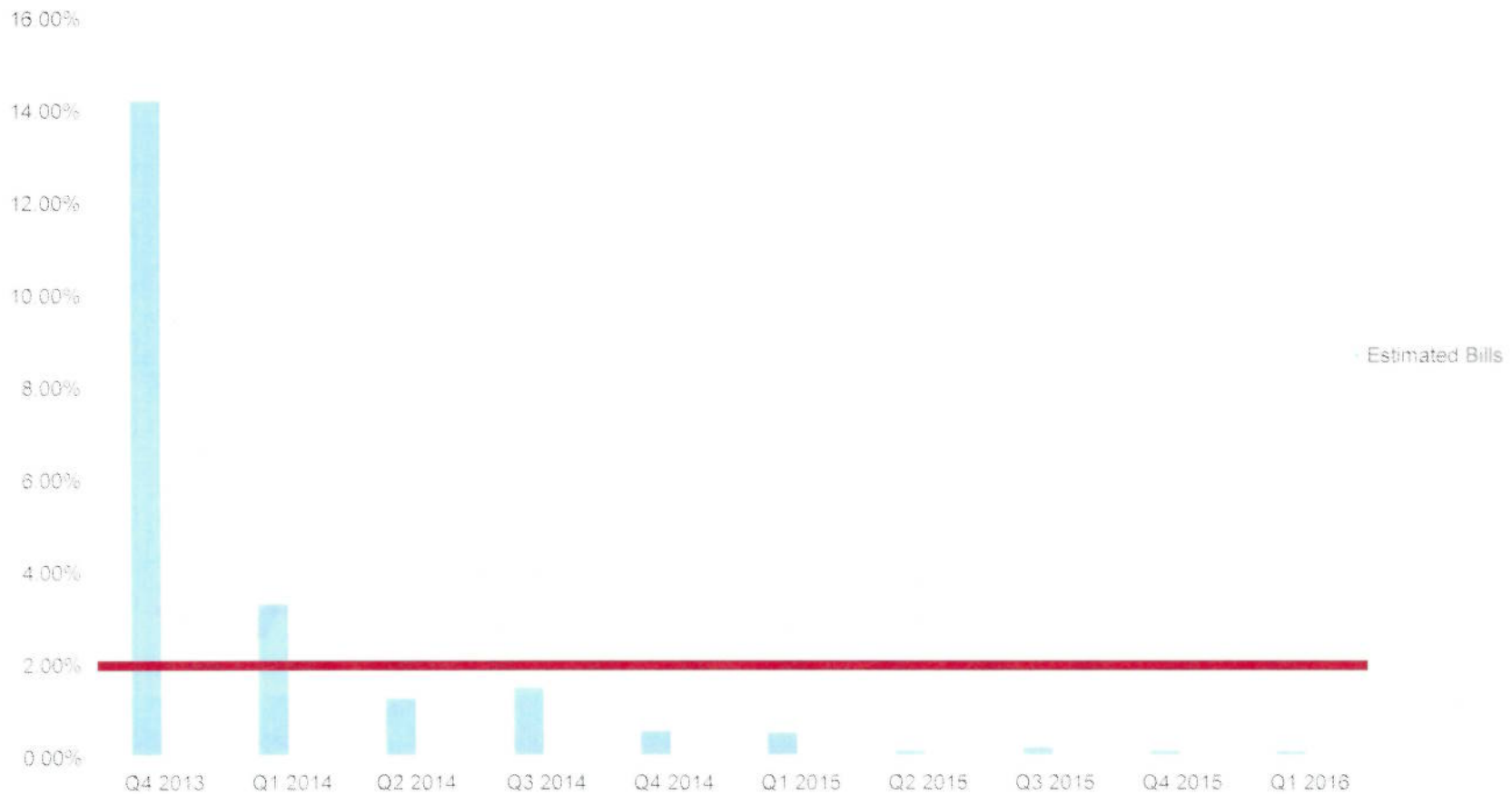
WATER FOR LIFE

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



Board of Water Supply
City and County of Honolulu

Estimated Bills (%)



Call Center Abandon Rate

💧 Increase in Call Volume

- 💧 32% increase in calls from last quarter (34,473 (574) to 45,702 (760)) ~185 more/day
 - 💧 Rate increase
 - 💧 More start/stop during summer, typical since summertime is when people move
- 💧 Increased outreach to delinquent customer resulting in increased calls and walk-ins

💧 Staff Shortage

- 💧 21 to 18 from last quarter
 - 💧 Personal Services Contract leaving for permanent positions
 - 💧 Termination of some contracts due to performance
 - 💧 Permanent workers stayed the same at 10

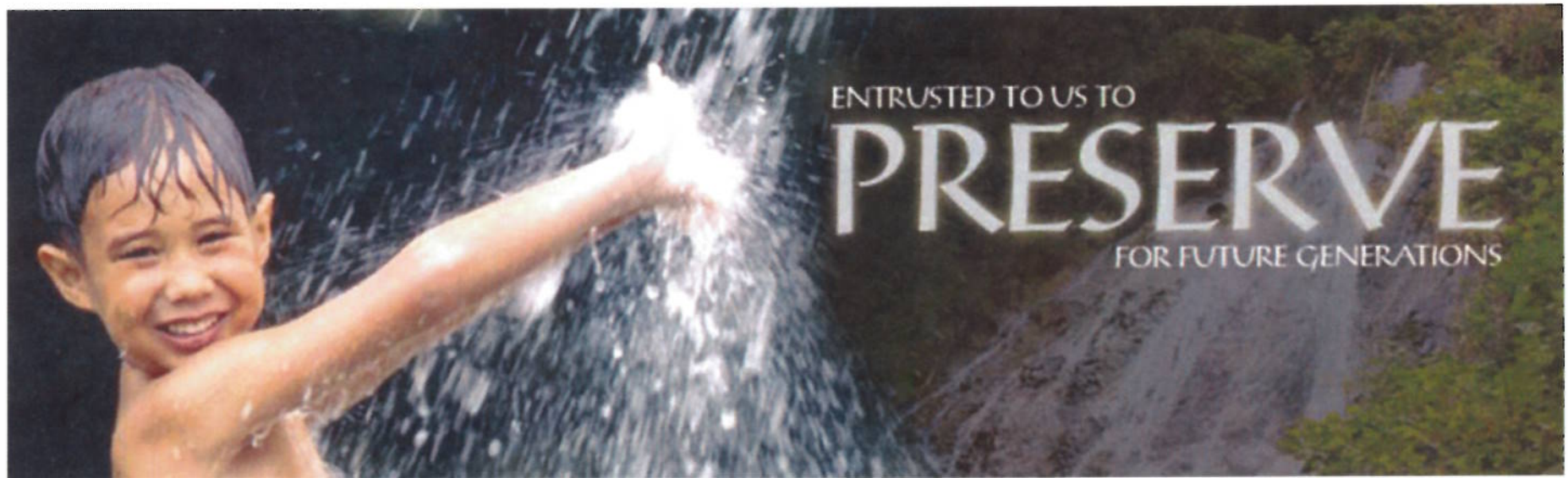
💧 Current

- 💧 14 (10) permanent, 6 (8) PCS; 20 (18) total
- 💧 Abandoned rate at 3.3%





Questions?



POSTER AND
POETRY
CONTEST

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

Chair and Members:

Subject: 2016 Water Conservation Week Poster and Poetry Contest

We are pleased to announce the upcoming 38th Annual Water Conservation Week Poster Contest and 8th Annual Water Conservation Week Poetry Contest. Students in grades K-6 are eligible to enter the poster contest, and students in grades 7-12 are eligible to enter the poetry contest.

The 2016 Water Conservation Week theme, "Pure Water – There is No Substitute," is intended to educate students of the incomparable value of Oahu's drinking water supply and the importance of protecting and preserving it.

There are four poster contest categories – kindergarten, grades 1 and 2, grades 3 and 4, and grades 5 and 6. There are three poetry contest categories – grades 7 and 8, grades 9 and 10, and grades 11 and 12.

This year's contest deadline is February 24, 2016. Posters and poems may be submitted to our Communications Office or any Satellite City Hall on Oahu. The winners of both contests will be announced in April 2016, at an Awards Ceremony at Mission Memorial Auditorium. Winning and honorable mention entries will be featured in our 2017 Water Conservation Calendar, which will be available to the public at the end of 2016.

Contest information and entry forms are posted on the Board of Water Supply (BWS) website and included in the 2016 Water Conservation Calendars, which are being delivered to teachers at Oahu's public, private, and charter schools. The 2016 Water Conservation Calendar you will receive features the winning poster and poetry entries from last year's contest.

As in years past, we are seeking sponsors to help offset costs to produce the annual Water Conservation Calendar and Poetry Contests. Sponsorships allow for a win-win marketing opportunity with tax-deductible benefits for our sponsors, while providing the BWS with financial support for this key effort to protect Oahu's precious and finite water supply.

We look forward to seeing how Oahu students creatively express their thoughts on the true value of water in the 2016 contests entries. The thousands of entries submitted each year continue to demonstrate that the

Department's work to educate our island youth is effectively promoting our message of resource sustainability – *Ka Wai Ola* – Water for Life.

Respectfully submitted,

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

The foregoing was for information only.

DISCUSSION: Tracy Burgo, Acting Information Officer, gave the report. Manager Lau commented that this was an appropriate theme for next year.

ITEM FOR INFORMATION NO. 3

"December 21, 2015

2016 MONTHLY
BOARD MEETING
SCHEDULE

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

Chair and Members:

Subject: Schedule of Monthly Board Meetings for Calendar
Year 2016

Attached for your information is the schedule of Board Meetings for the
calendar year 2016.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION

Mr. Lau commented that it is appreciated when Board Members come to
the Board meetings.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

2016 BOARD MEETING SCHEDULE

Board Meetings are scheduled for the fourth Monday of each month at 2:00 p.m., in the Public Service Building (PSB) Board Room, unless otherwise noted.

January 25

February 22

March 28

April 25

May 23

June 27

July 25

August 22

September 26

October 24

November 28

December 19 (3rd Monday in December)

"December 21, 2015

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 December 5, 2015. Kaimuki is under caution status. The weekly production average for the period was 127.05 million gallons per day.

The Board of Water Supply rainfall index for the month of November 2015 was 163 percent of normal, with a 5-month moving average of 172 percent. As of December 8, 2015, the Hawaii Drought Monitor shows no abnormally dry conditions for Oahu.

The National Weather Service is forecasting below normal rainfall for December 2015, driven mainly by strong El Niño conditions. Climate models indicate El Niño conditions may continue through the winter season, yielding possible below-normal rainfall from December 2015 through April 2016.

Most index monitor wells exhibit slightly increasing or static trends due to the increased rainfall from the months of August through November 2015.

Respectfully submitted,

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

Attachments"

The foregoing was for information only.

DISCUSSION:

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

PUMPAGE, HEAD, AND RAINFALL REPORT
Week of 11/29/15 to 12/05/15

STATION		HEAD	STATION	MGD	HEAD	STATION	MGD	HEAD		MGD	HEAD
METRO			WINDWARD			EWA-WAIAANAE (CONT)			PH (CONT)		
KULIQUOU	0.00					MAKAHA IV	0.00		PEARL CITY II	0.88	
WAILUPE	0.00		WAIMANALO II	0.30		MAKAHA V	0.00		PEARL CITY III	0.46	
WAIALAE-IKI	0.00		WAIMANALO III	0.05		MAKAHA VI	0.00		WAI'AU	0.61	
AINA KOA	0.47		KUOU I	0.00		MAKAHA SHAFT	0.00	nodata	NEWTOWN	2.18	
AINA KOA II	0.99		KUOU II	0.10		KAMAILE	0.36		KAONOHI I	0.77	
WAIALAE SHAFT	0.00		KUOU III	0.15		WAIAANAE I	0.33		WAIMALU I	0.00	
MANOA II	0.00		LULUKU	0.99		WAIAANAE II	0.53		AIEA	0.23	
PALOLO	0.98		HAIKU	0.36		WAIAANAE III	0.41		AIEA GULCH 497	0.48	
KAIMUKI HIGH	2.34	22.71	IOLEKAA	0.00		MAKAKILO	0.23		AIEA GULCH 550	0.21	
KAIMUKI LOW	0.80		KAHALUU	0.89		HONOULULI I	0.42		HALAWA 277	1.85	
WILDER	6.67		WAIHEE	0.00		HONOULULI II	5.81		HALAWA 550	0.00	
BERETANIA HIGH	3.32	22.71	KAHANA	0.19		SUBTOTAL:	9.75		KAAHUMANU MTR (-)	0.00	
BERETANIA LOW	1.65		PUNALUU I	0.00	18.92	IMPORT FROM PH			KAAMILO FLO MTR (-)	0.00	
KALIHI HIGH	2.76	22.09	PUNALUU II	0.88		KAPOLEI LINE BSTR	13.10		KUNIA I	4.34	18.67
KALIHI LOW	2.29		PUNALUU III	1.41		HONOULULI LB FLOW	0.00		KUNIA II	1.53	
KAPALAMA	0.26		KALUANUI	0.06		EWA BEACH FLOW	0.00		KUNIA III	1.33	
KALIHI SHAFT	8.47		MAAKUA	0.00		HONOULULI I (-)	-0.42		HOAEAE	4.96	
MOANALUA	1.28	19.15	HAUULA	0.00		HONOULULI II (-)	-5.81		EWA SHAFT	0.00	
SUBTOTAL:	32.28					SUBTOTAL:	6.87		WAIPAHU INTCON. (-)	-2.82	
			KAHUKU	0.28					EWA-WAIAANAE (-)	-6.87	
IMPORT FROM PH			OPANA	1.00		PEARL HARBOR			PH LOCAL USE:	28.25	
HALAWA SHAFT	6.45	16.69	WAI'ALEE I	0.00		WAI'IAWA	2.31		TOTAL SUBURBAN:	53.31	
KAAMILO	1.14		WAI'ALEE II	0.00		WAI'IAWA II	1.04				
KALAUAO	8.95	16.98	SUNSET BEACH	0.00		MILILANI I	2.22		KALAUAO SPRINGS	0.51	
PUNANANI	11.19		SUBTOTAL:	5.66		MILILANI II	0.00		BARBERS POINT (NP)	1.11	
KAONOHI II	0.00					MILILANI III	0.60		GLOVER TUNNEL (NP)	0.46	
WAIMALU II	0.00	15.13	WIND. EXPORT	0.14		MILILANI IV	1.44				
KAHUMANU	0.87					WAIPIO HTS.	0.20		HEAD CONDITION		
HECO WAI'AU	0.00		HALEIWA-WAI'ALUA			WAIPIO HTS. I	0.44		CAUTION	ALERT	CRITICAL
MANANA	0.49		HALEIWA	0.00		WAIPIO HTS. II	0.00		KAIMUKI		
KAHUMANU FLOW MT	0.00		WAI'ALUA	1.92		WAIPIO HTS. III	1.08				
KAAMILO FLOW MTR	0.00		SUBTOTAL:	1.92		WAIPAHU	2.82	18.33			
TOTAL IMP/EXP WAI. INT:	0.00					WAIPAHU II	1.09				
IMPORT FRM WIND:	0.14		EWA-WAIAANAE			WAIPAHU III	0.89				
SUBTOTAL:	28.23		MAKAHA I	0.89		WAIPAHU IV	2.27				
			MAKAHA II	0.37		PEARL CITY SHAFT	1.21	14.81			
TOTAL METRO:	61.51		MAKAHA III	0.40		PEARL CITY I	0.50				

CWRM PERMITTED USE FOR BWS POTABLE SOURCES						PUMPAGE	2015	2014	GRAVITY	2015	2014
WATER DISTRICTS	A	B	C	D	E	SUBURB.	53.31	62.84	SUBURB.	11.83	7.12
	PERMITTED USE	2015	DIFF. B-A	YEAR/ DATE	DIFF. D-A	METRO	61.51	61.98	METRO	0.40	0.45
						TOTAL:	114.82	124.82	TOTAL:	12.23	7.57
HONOLULU	45.27	32.68	-12.59						Manoa	0.17	
WINDWARD	25.21	15.65	-9.56			NULUANU #5			Palolo	0.23	
NORTH SHORE	4.08	3.20	-0.88			(rainfall)	4.85"	0.72"	Waim. I&II	0.08	
WAI'IAWA	4.27	3.35	-0.92						Waim. III&IV	0.19	
WAIAANAE	4.34	4.45	0.11						Waihee incl	0.95	
EWA-KUNIA	15.88	6.46	-9.42						Waihee tun.	7.04	
PEARL HARBOR	92.66	63.68	-28.98						Luluku	0.11	
TOTAL:	191.71	129.47	-62.24						Haiku	0.00	
									Kahaluu	1.90	
									Waia. C&C	1.40	
									Waia plant.	0.16	

DROUGHT STATUS REPORT
DRAFT IN MGD

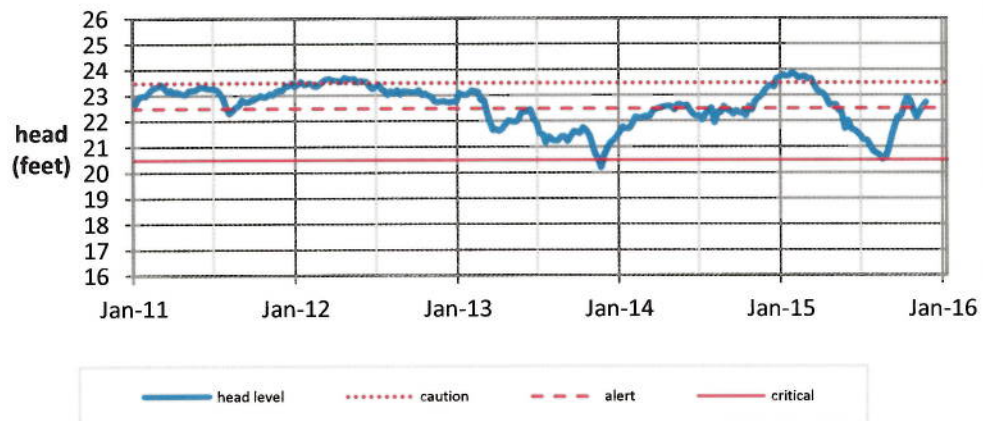
WATER USE DISTRICT	AUTHORIZED USE		11/29-12/05 2015						
HONOLULU	45.27		32.82						
WINDWARD	25.21		15.51						
NORTH SHORE	4.08		3.20						
WAHIAWA	4.27		3.35						
EWA-WAIAANAE	20.22		18.18						
PEARL HARBOR	92.66		53.99						
TOTAL	191.71		127.05						

Accounts for in-district pumpage and transfers

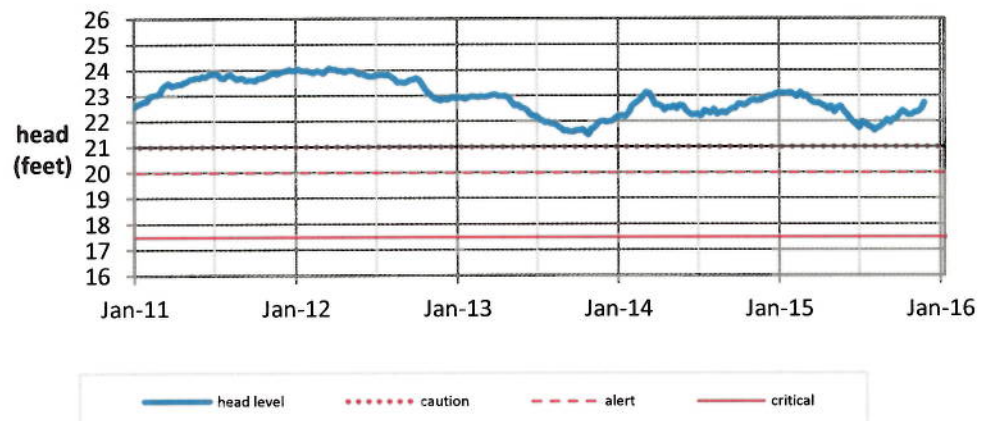
HEAD IN FEET

			11/29-12/05 2015						
		2014							
HONOLULU									
KAIMUKI		23.16	22.71						
BERETANIA		22.88	22.71						
KALIHI		22.28	22.09						
MOANALUA		18.71	19.15						
PEARL HARBOR									
HALAWA		16.83	16.69						
KALAUAO		17.36	16.98						
PEARL CITY		14.98	14.81						
WAIPAHU		18.70	18.33						
KUNIA		18.98	18.67						
EWA-WAIAANAE									
MAKAHA		12.48	NO DATA						
WINDWARD									
PUNALUU		18.05	18.92						
KALUANUI		18.18	18.97						
NORTH SHORE									
WAIALUA		11.09	11.15						

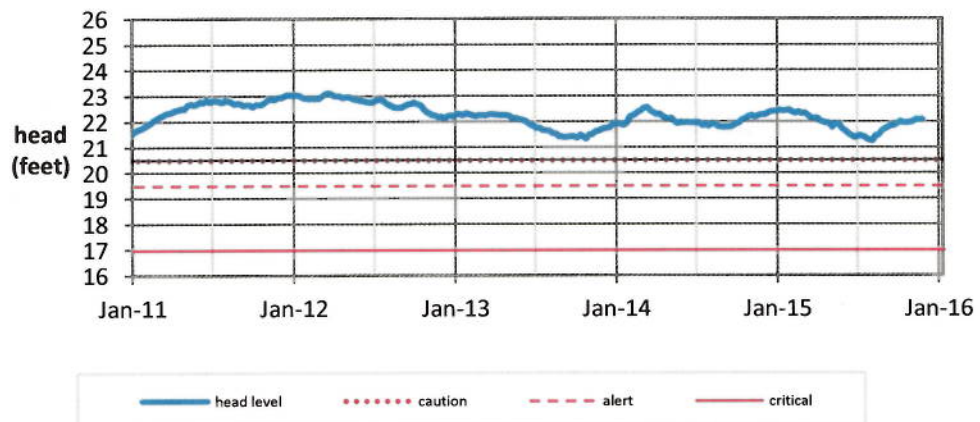
Kaimuki



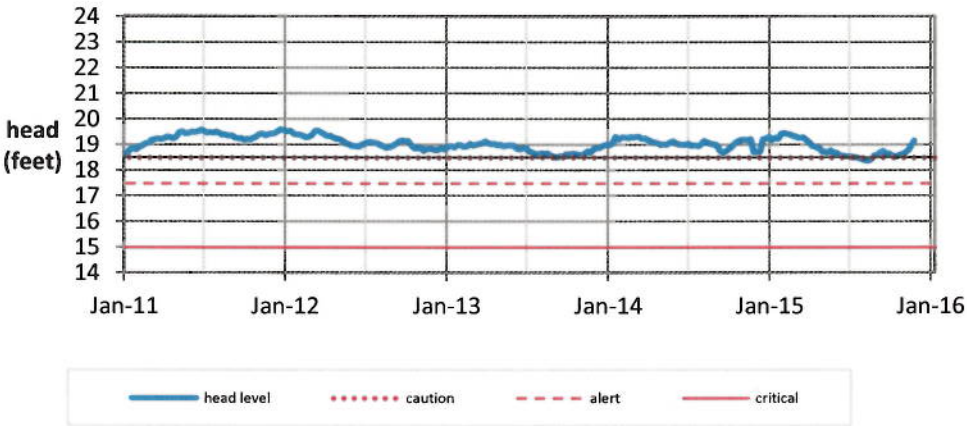
Beretania



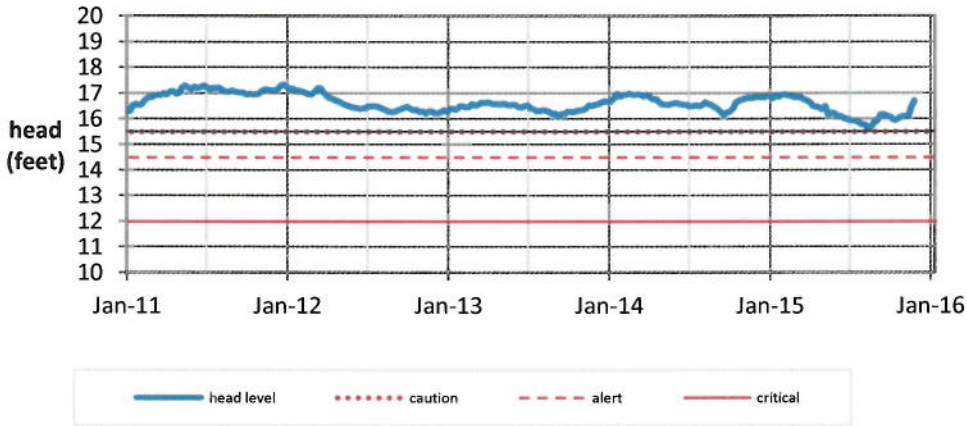
Kalihi



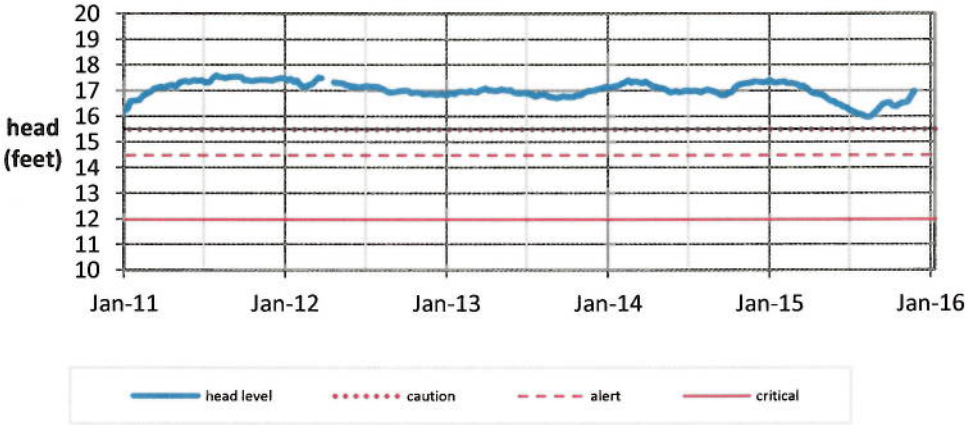
Moanalua



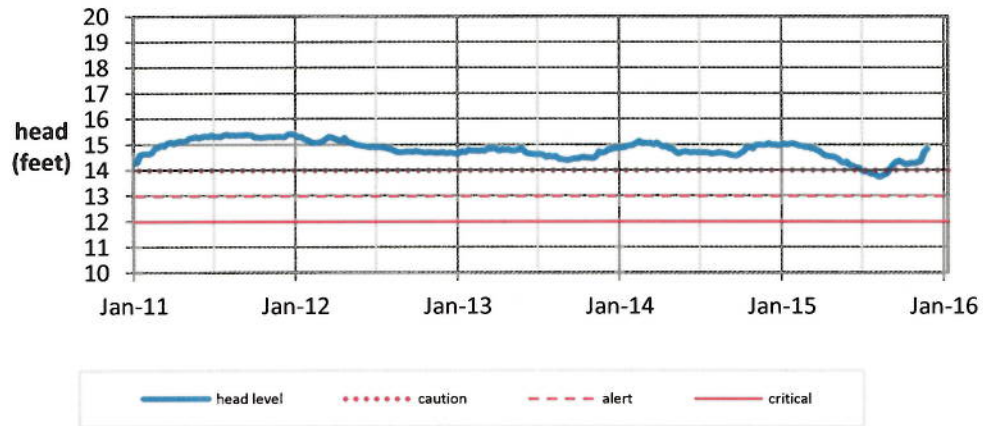
Halawa



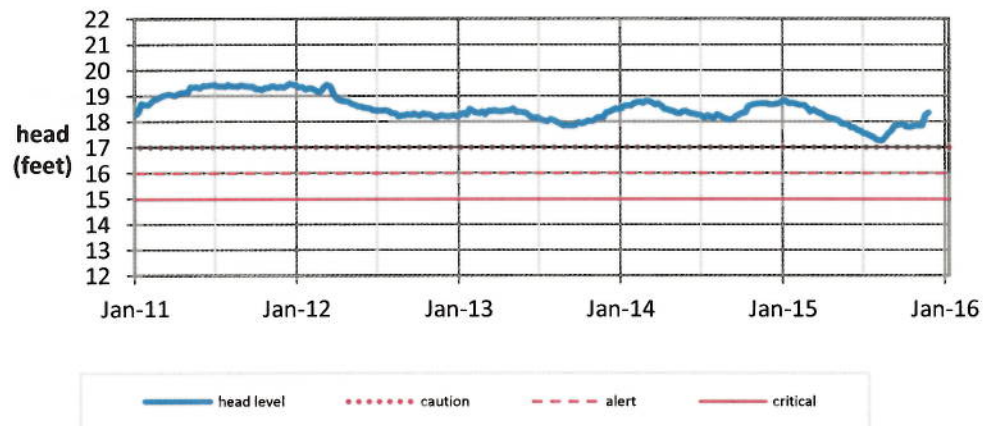
Kalauao



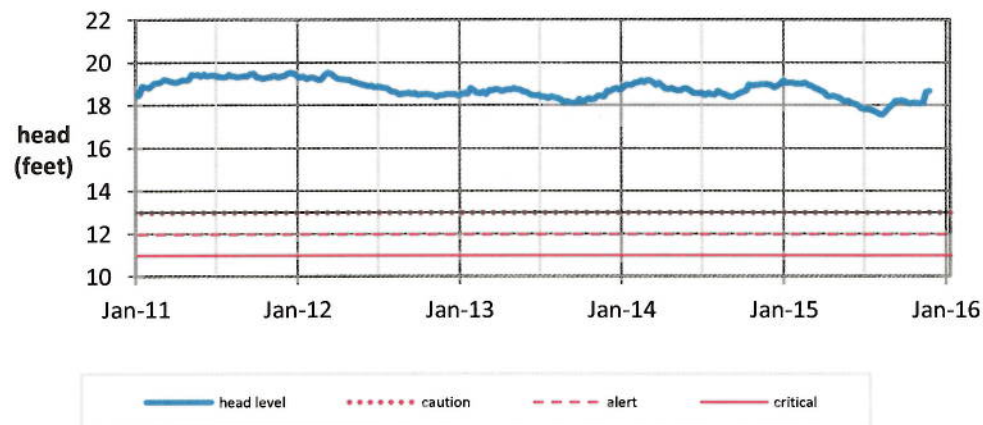
Pearl City



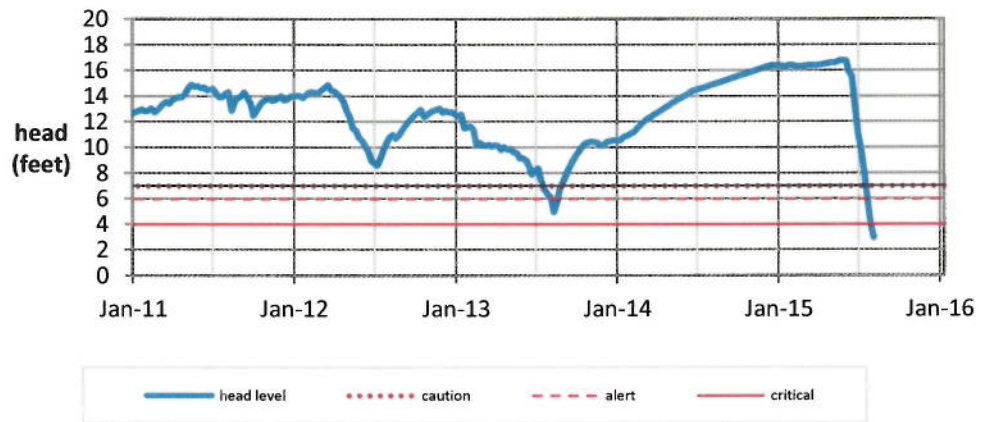
Waipahu



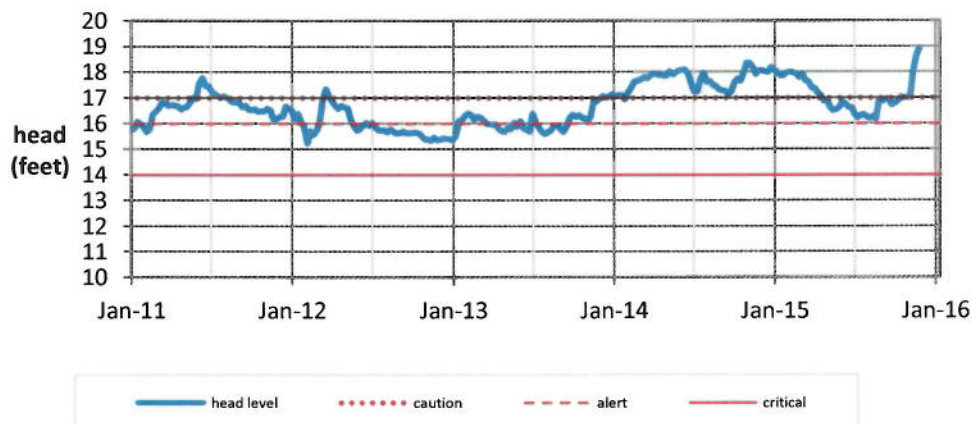
Hoeae-Kunia



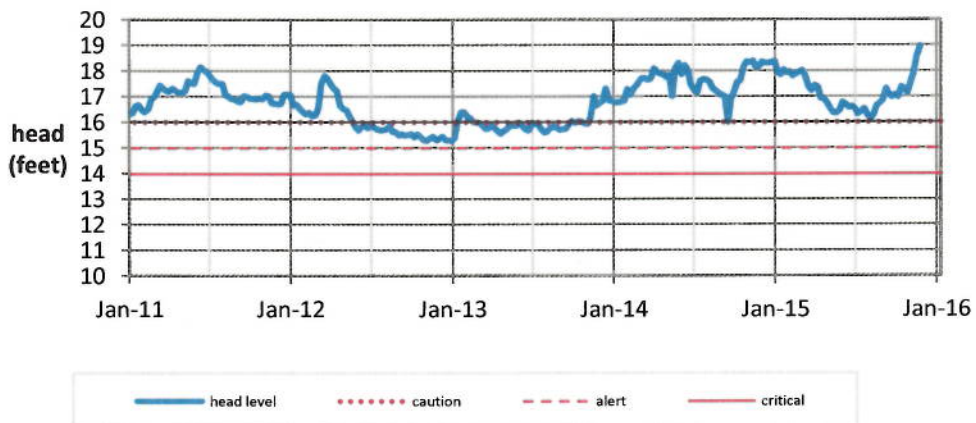
Makaha Out of Service since 8/17/15



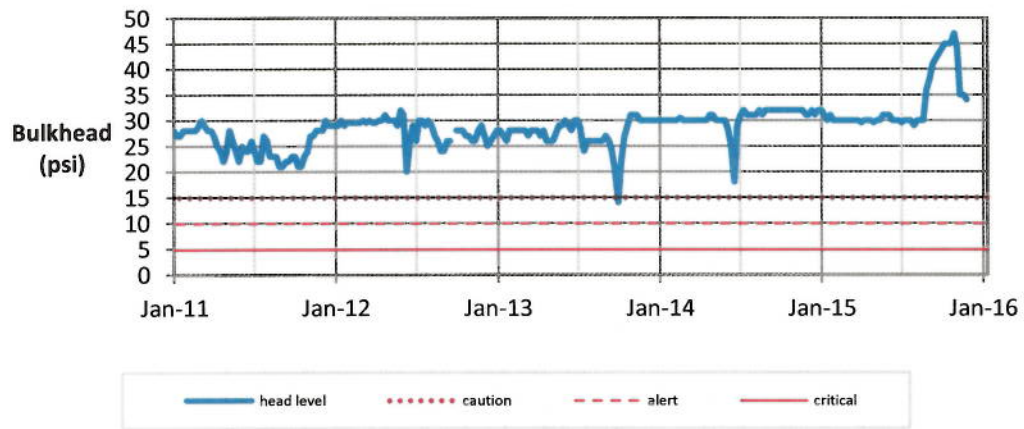
Punaluu



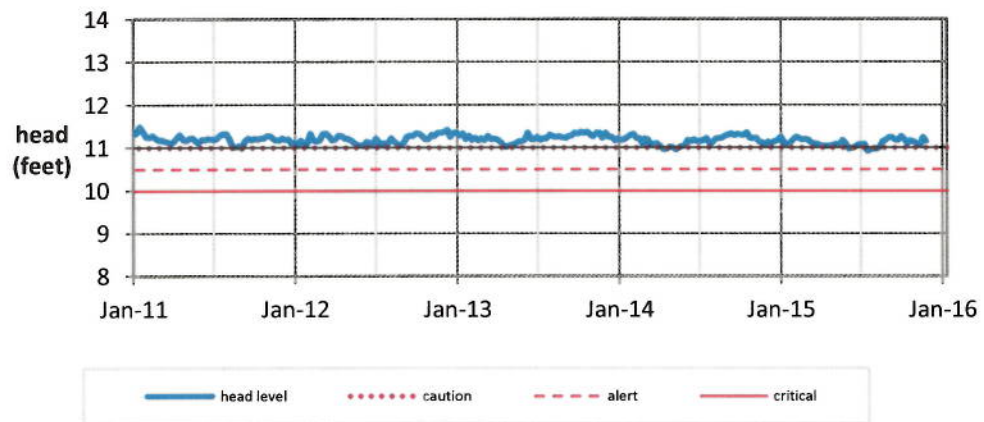
Kaluauui

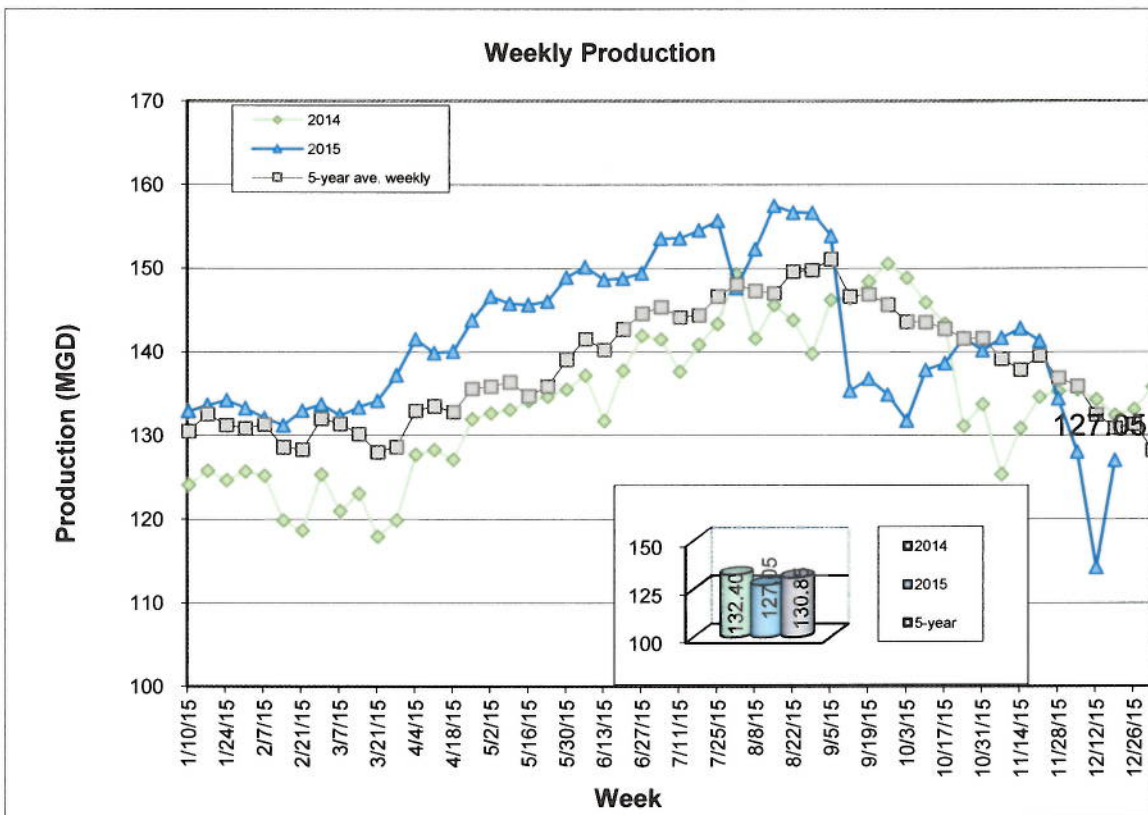
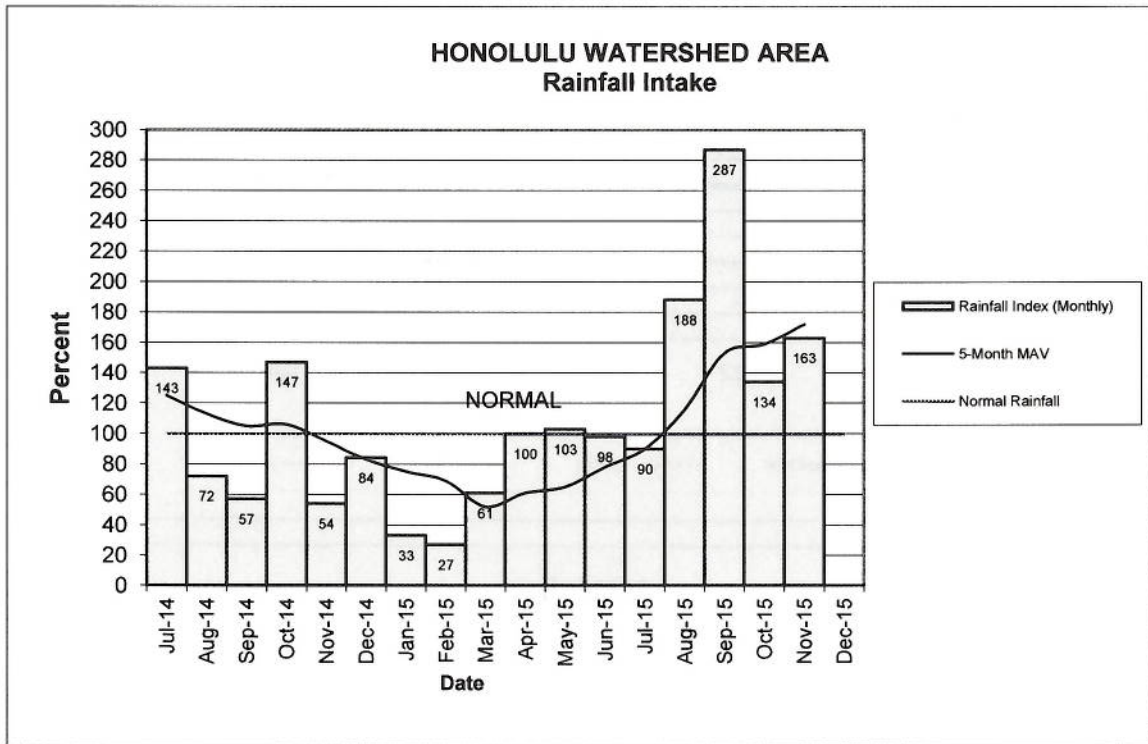


Waihee Tunnel



Waialua



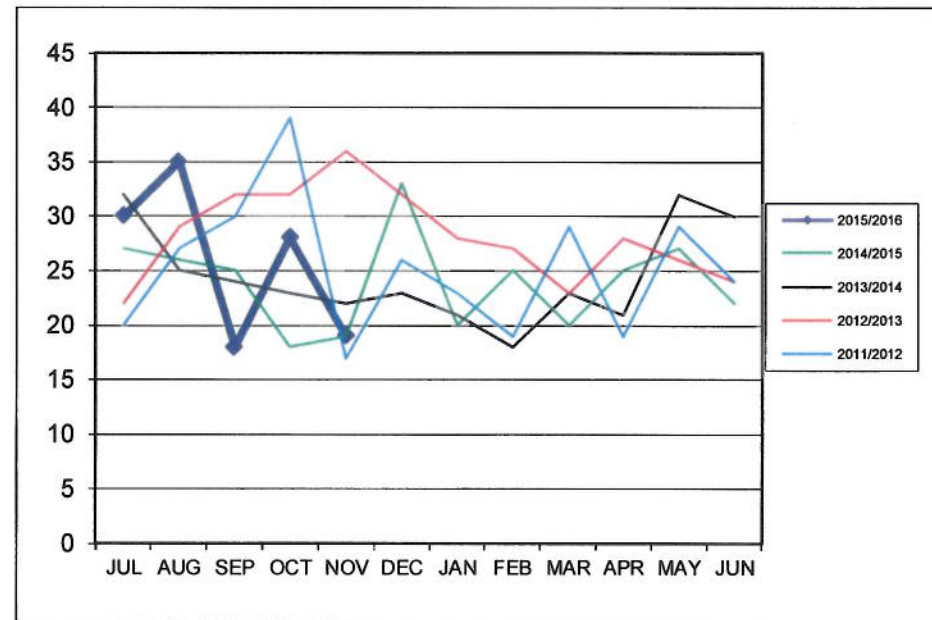


ITEM FOR INFORMATION NO. 5

WATER MAIN REPAIR REPORT for November 2015

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2015/2016	30	35	18	28	19								130
2014/2015	27	26	25	18	19	33	20	25	20	25	27	22	287
2013/2014	32	25	24	23	22	23	21	18	23	21	32	30	294
2012/2013	22	29	32	32	36	32	28	27	23	28	26	24	339
2011/2012	20	27	30	39	17	26	23	19	29	19	29	24	302

<u>Date</u>	<u>Address</u>	<u>Size</u>
11/3	2507 Gardenia St.	8" C.I.
11/5	91-503 Pupu St.	8" C.I.
11/5	4 S. Kalaheo Ave.	8" P.V.C.
11/6	3025 Seaview Rise	8" C.I.
11/6	1416 Keolu Dr.	12" C.I.
11/7	85-171 McArthur St.	8" P.V.C.
11/10	1754 Kuahaka St.	8" C.I.
11/12	958 Holoholo St.	8" A.C.
11/13	1749 Royal Palm Dr.	6" C.I.
11/13	85-1652 Haleahi Rd.	12" C.I.
11/17	87-117 Manununu St.	8" C.I.
11/17	87-505 Kulaaupuni St.	8" C.I.
11/17	47-189 Waihee Rd.	12" C.I.
11/18	322 Auwaiolimu St.	4" C.I.
11/20	2312 Kanealii Ave.	8" D.I.
11/23	7153 Niumalu Lp.	8" D.I.
11/25	Keolu Dr & Hamakua Dr.	12" A.C.
11/25	2056 Mohala Wy.	4" C.I.
11/26	84-072 Makau St.	8" P.V.C.



Bold * - Pro-active Leak Repair

19.91 miles of pipelines were surveyed by the Leak Detection Team in the month of November.

DISCUSSION

Daryl Hiromoto, Field Operations Division Program Administrator, gave the report. There were no comments or discussion.

MOTION TO
RECESS INTO
EXECUTIVE
SESSION

Upon unanimously approved motion, the Board recessed into Executive Session Pursuant to [HRS §92-5(a)(4)] at 2:21 PM to Consult with the Board's Attorney on Questions and Issues Pertaining to Matters Posted for Discussion at an Executive Session

OPEN
SESSION

The Board reconvened in Open Session at 3:17 PM

MOTION TO
ADJOURN

There being no further business Chair Miyashiro at 3:18 PM called for a motion to adjourn the Open Session. Adam Wong so moved; seconded by David Hulihee and unanimously carried.

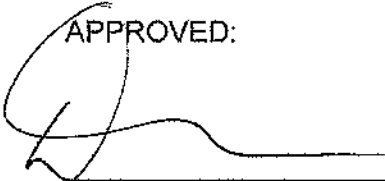
THE MINUTES OF THE REGULAR SESSION BOARD
MEETING ON DECEMBER 21, 2015 WERE APPROVED
AT THE JANUARY 25, 2016 BOARD MEETING

	AYE	NO	COMMENT
DUANE R. MIYASHIRO	X		
ADAM C. WONG			ABSENT
DAVID C. HULIHEE	X		
KAPUA SPROAT			ABSENT
BRYAN P. ANDAYA	X		
ROSS S. SASAMURA	X		
FORD N. FUCHIGAMI			ABSENT

Respectfully submitted,


LORRAINE H. LEE

APPROVED:


DUANE R. MIYASHIRO
Chair of the Board

JAN 25 2016

Date