

MINUTES

REGULAR MEETING OF THE BOARD OF WATER SUPPLY

December 17, 2018

At 2:02 p.m. on December 17, 2018 in the Board Room of the Public Service Building at 630 South Beretania Street, Honolulu, Hawaii, Board Chair Andaya called to order the Regular Meeting.

Present: Bryan P. Andaya, Chair
Kapua Sprout, Vice Chair (arrived at 2:03 p.m.)
Kay C. Matsui
Ross S. Sasamura
Jade T. Butay
Max J. Sword

Also Present: Ernest Lau, Manager and Chief Engineer
Ellen Kitamura, Deputy Manager and Chief Engineer
Erwin Kawata
Mike Fuke
Henderson Nuuhiwa
Jason Takaki
Joe Cooper
Kathleen Pahinui
Robert Morita
Michele Thomas
Barry Usagawa

Others Present: Jeff Lau, Deputy Corporation Counsel
Jessica Wong, Deputy Corporation Counsel
David Brown, Morgan, Lewis and Bockius LLP

Absent: Ray C. Soon

**APPROVAL OF
MINUTES**

Approval of the Minutes of the Regular Meeting held on November 19, 2018.

**MOTION TO
APPROVE**

Ross Sasamura and Max Sword motioned and seconded, respectively, to approve the Minutes of the Regular Meeting of November 19, 2018. The motion was unanimously carried.

ITEM FOR INFORMATION NO. 2

"December 17, 2018

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

Chair and Members:

Subject: Status Update of Groundwater Levels at All Index Stations

There were no aquifer index wells within low groundwater status for the production month of November 2018. The monthly production average for November 2018 was 128.33 million gallons per day.

The Board of Water Supply rainfall index for the month of November 2018 was 78 percent of normal; with a 5-month moving average of 150 percent. As of December 4, 2018, the Hawaii Drought Monitor shows abnormally dry conditions for the leeward side of Oahu, from Ewa to Waianae.

Most monitoring wells are showing increasing trends, likely resulting from decreased pumping during the winter months.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

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

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF NOVEMBER 2018**

POTABLE

STATION	MGD
HONOLULU (1)	
KULIOUOU	0.06
WAILUPE	0.11
AINA KOA	0.12
AINA KOA II	0.79
MANOA II	1.00
PALOLO	1.19
KAIMUKI HIGH	1.07
KAIMUKI LOW	2.48
WILDER	7.09
BERETANIA HIGH	4.22
BERETANIA LOW	7.42
KALIHU HIGH	1.82
KALIHU LOW	0.45
KAPALAMA	0.64
KALIHU SHAFT	8.72
MOANALUA	1.25
HALAWA SHAFT	0.26
KAAMILO	0.90
KALAUAO	6.99
PUNANANI	10.74
KAAHUMANU	0.25
HECO WAIU	2.80
MANANA	0.25
WELLS SUBTOTAL:	60.62
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.23
GRAVITY SUBTOTAL:	0.40
HONO. SUBTOTAL:	61.02

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.27
WAIMANALO III	0.00
KUOU I	1.28
KUOU II	0.05
KUOU III	0.28
LULUKU	0.99
HAIKU	0.00
IOLEKAA	0.00
KAHALUU	0.71
KAHANA	0.00
PUNALUU I	0.00
PUNALUU II	0.24
PUNALUU III	1.08
KALUANUI	0.00
MAAKUA	0.16
HAUULA	0.27
WELLS SUBTOTAL:	5.33
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	1.26
WAIHEE TUNNEL	4.85
LULUKU TUNNEL	0.11
HAIKU TUNNEL	0.90
KAHALUU TUNNEL	1.84
GRAVITY SUBTOTAL:	9.15
WIND. SUBTOTAL:	14.48

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.29
OPANA	0.12
WAIALEE I	0.42
WAIALEE II	0.42
HALEIWA	0.00
WAIALUA	1.28
N. SHORE SUBTOTAL:	2.53

STATION	MGD
MILILANI (4)	
MILILANI I	1.69
MILILANI II	0.00
MILILANI III	0.65
MILILANI IV	1.53
MILILANI SUBTOTAL:	3.87

STATION	MGD
WAHIAWA (5)	
WAHIAWA	1.62
WAHIAWA II	1.27
WAHIAWA SUBTOTAL:	2.89

STATION	MGD
PEARL CITY-HALAWA (6)	
HALAWA 277	0.66
HALAWA 550	0.00
AIEA	1.10
AIEA GULCH 497	0.38
AIEA GULCH 550	0.20
KAONOHI I	0.98
WAIMALU I	0.00
NEWTOWN	0.74
WAIU	0.66
PEARL CITY I	0.51
PEARL CITY II	0.97
PEARL CITY III	0.38
PEARL CITY SHAFT	0.91
PEARL CITY-HALAWA SUBTOTAL:	7.50

STATION	MGD
WAIPAHU-EWA (7)	
WAIPIO HTS.	0.21
WAIPIO HTS. I	0.33
WAIPIO HTS. II	0.14
WAIPIO HTS. III	1.13
WAIPAHU	4.47
WAIPAHU II	1.91
WAIPAHU III	1.49
WAIPAHU IV	1.98
KUNIA I	4.47
KUNIA II	1.59
KUNIA III	1.16
HOAEAE	5.09
HONOULIULI I	1.30
HONOULIULI II	7.26
MAKAKILO	0.29
WAIPAHU-EWA SUBTOTAL:	32.83

STATION	MGD
WAIANAE (8)	
MAKAHA I	0.16
MAKAHA II	0.04
MAKAHA III	0.06
MAKAHA V	0.14
MAKAHA VI	0.00
MAKAHA SHAFT	0.00
KAMAILE	0.06
WAIANAE I	0.01
WAIANAE II	0.63
WAIANAE III	0.55
WELLS SUBTOTAL:	1.64
WAI. C&C TUNNEL	1.40
WAI. PLANT. TUNNELS	0.16
GRAVITY SUBTOTAL:	1.56
WAIANAE SUBTOTAL:	3.20

NONPOTABLE

NONPOTABLE	MGD
KALAUAO SPRINGS	0.70
BARBERS POINT WELL	1.21
GLOVER TUNNEL NP	0.40
NONPOTABLE TOTAL:	2.31

RECYCLED WATER (OCTOBER 2018)

RECYCLED WATER	MGD
HONOULIULI WRF R-1	6.77
HONOULIULI WRF RO	1.76
RECYCLED WATER TOTAL:	8.53

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF NOVEMBER 2018**

PRODUCTION SUMMARIES

TOTAL WATER	MGD
PUMPAGE	117.21
GRAVITY	11.11
POTABLE TOTAL:	128.33
NONPOTABLE	2.31
RECYCLED WATER	8.53
TOTAL WATER:	139.17

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS POTABLE SOURCES				
WATER USE DISTRICTS		A	B	C
		PERMITTED USE/ BWS YLDS	NOV 2018	DIFF. A-B
1	HONOLULU	82.93	60.62	22.31
2	WINDWARD	25.02	8.37	16.65
3	NORTH SHORE	4.74	2.53	2.21
4	MILILANI	7.53	3.87	3.66
5	WAHIAWA	4.27	2.89	1.38
6	PEARL CITY-HALAWA	12.25	7.50	4.75
7	WAIPAHU-EWA	50.63	32.83	17.80
8	WAIANAE	4.34	1.64	2.70
TOTAL:		191.71	120.26	71.45

CWRM PERMITTED USE FOR BWS NONPOTABLE SOURCES				
WATER USE DISTRICTS		A	B	C
		PERMITTED USE	NOV 2018	DIFF. A-B
7	WAIPAHU-EWA (BARBERS POINT WELL)	1.00	1.21	-0.21
TOTAL:		1.00	1.21	-0.21

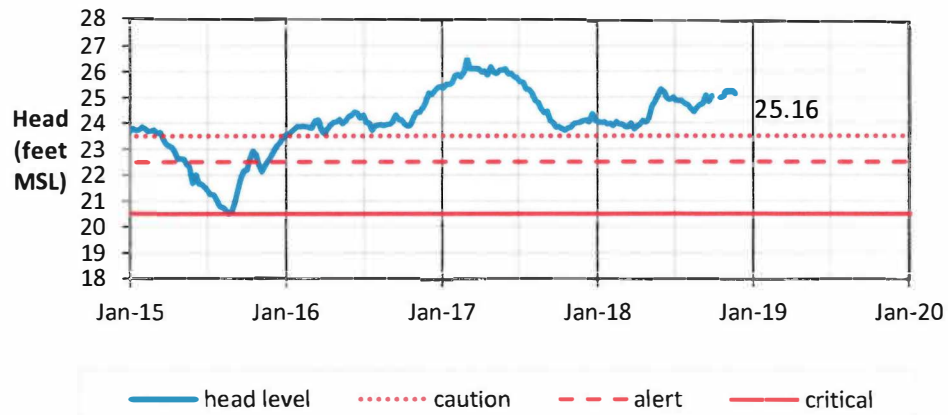
EFFECTIVE WATER DEMAND PER DISTRICT

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS			
FROM	TO		MGD
2	1	WINDWARD EXPORT	1.15
7	8	BARBERS PT LB	5.89

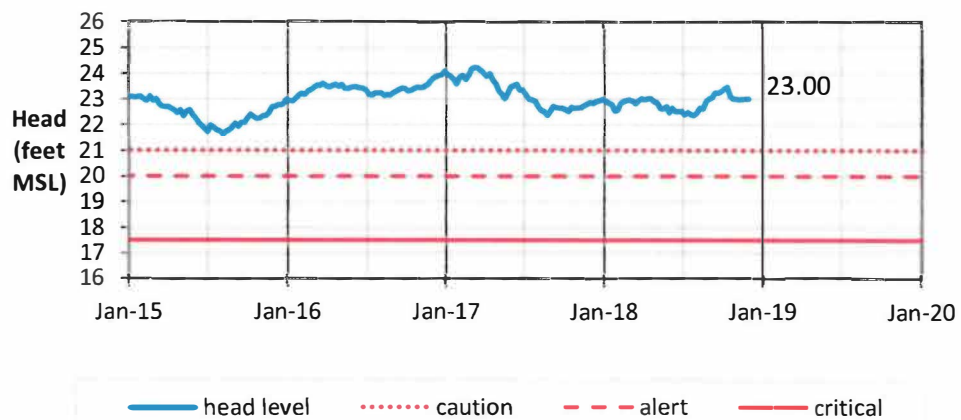
WATER USE DISTRICTS		SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	60.62	1.15	-	61.78
2	WINDWARD	8.37	-	1.15	7.22
3	NORTH SHORE	2.53	-	-	2.53
4	MILILANI	3.87	-	-	3.87
5	WAHIAWA	2.89	-	-	2.89
6	PEARL CITY-HALAWA	7.50	-	-	7.50
7	WAIPAHU-EWA	32.83	-	5.89	26.94
8	WAIANAE	1.64	5.89	-	7.54
TOTAL:		120.26	7.04	7.04	120.26

Weekly Head Report

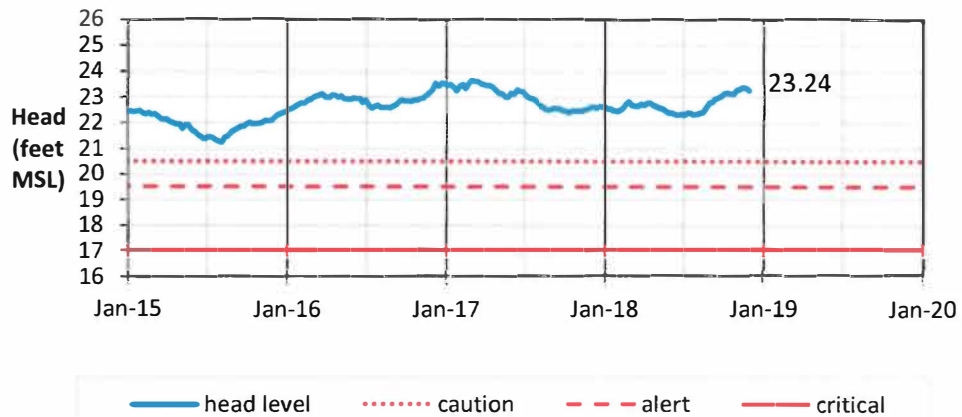
Kaimuki 11/26/18



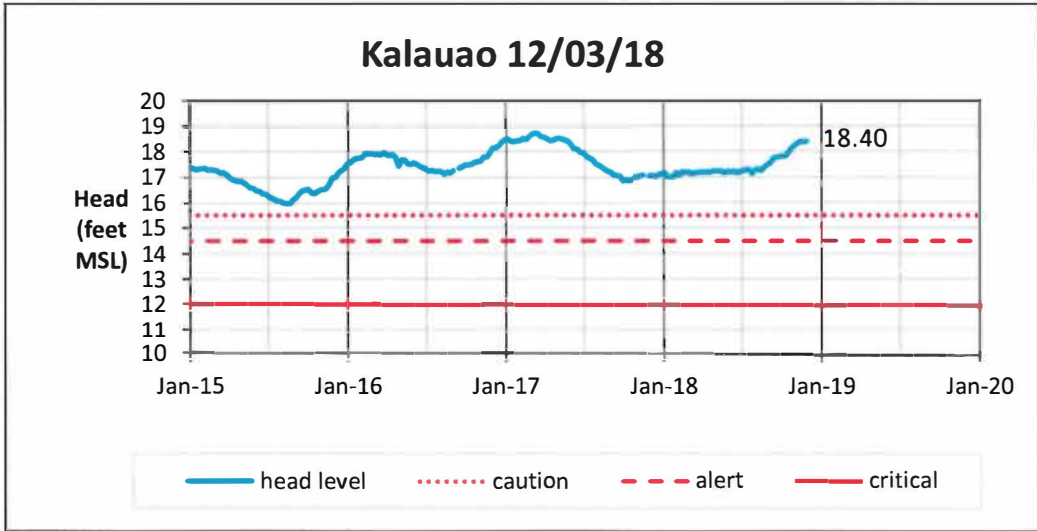
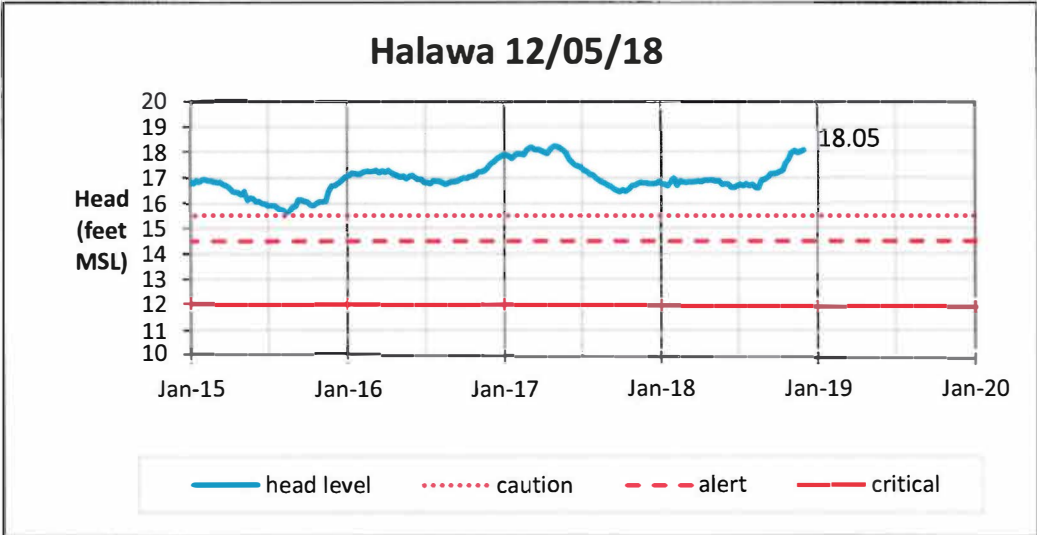
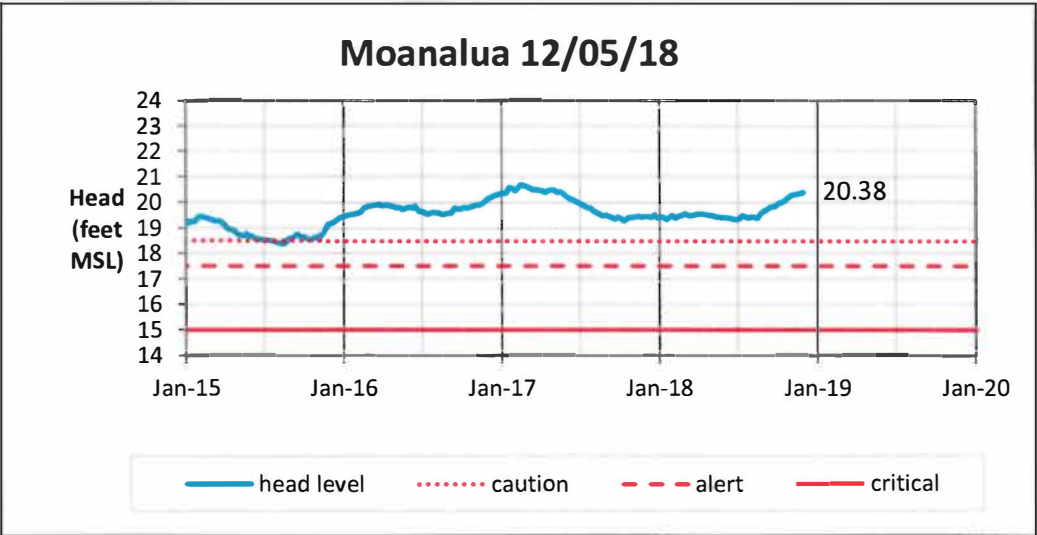
Beretania 12/05/18



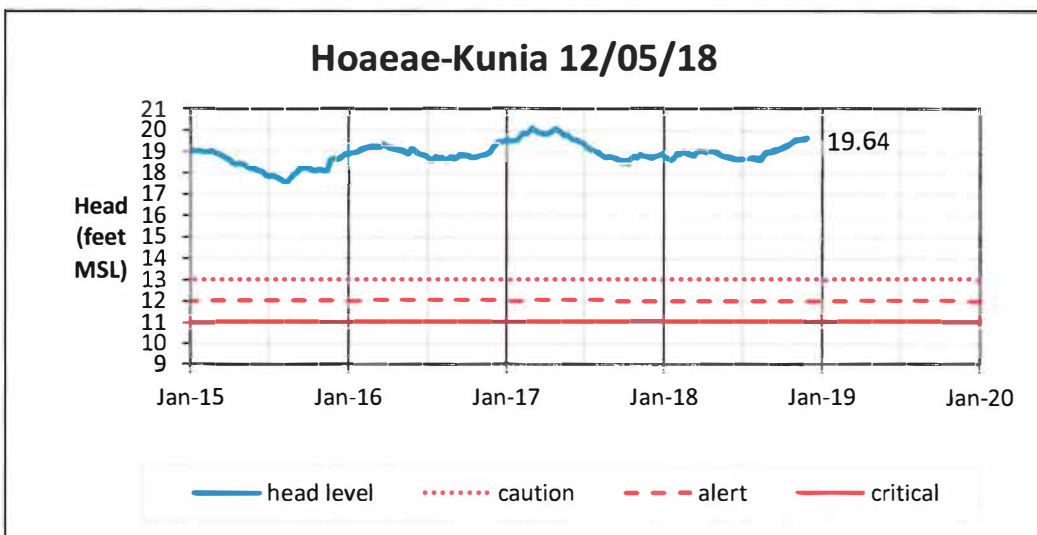
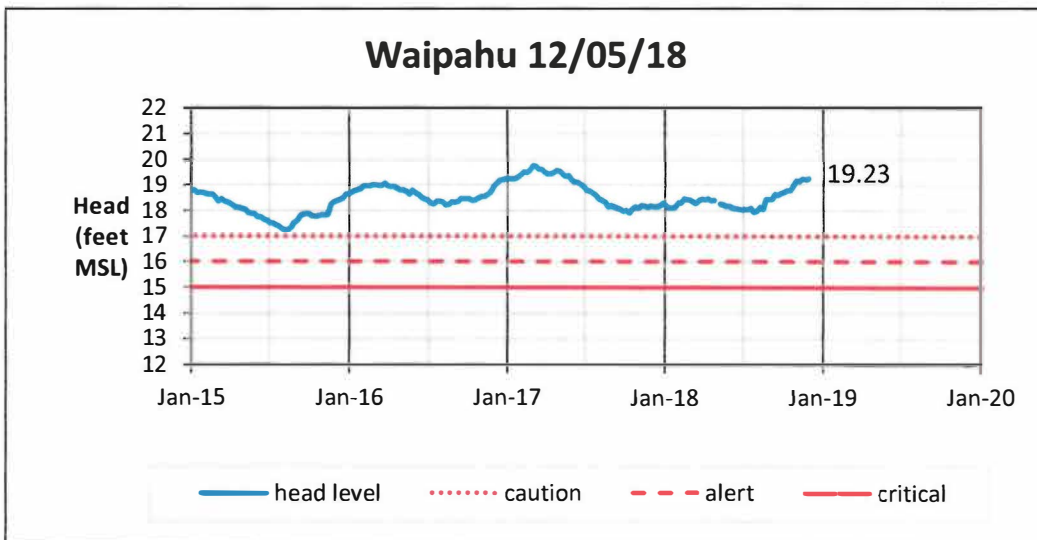
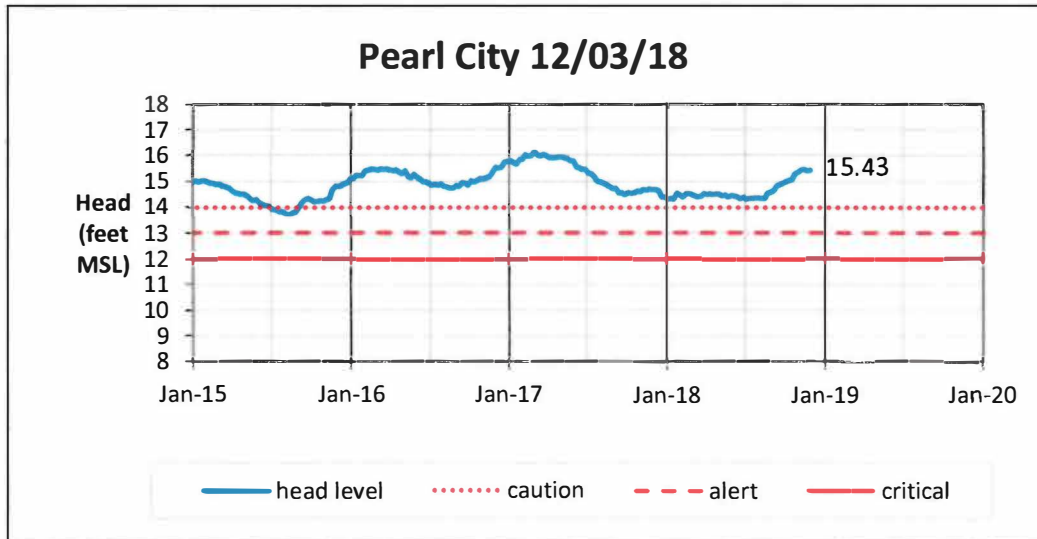
Kalihi 12/05/18



Weekly Head Report

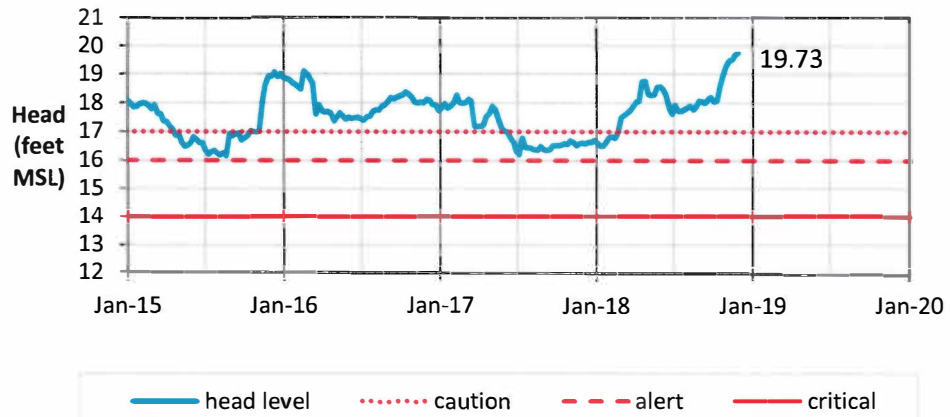


Weekly Head Report

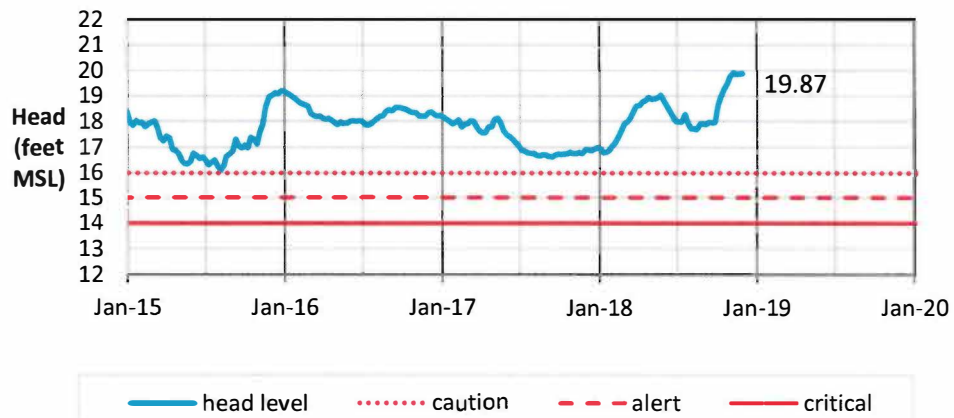


Weekly Head Report

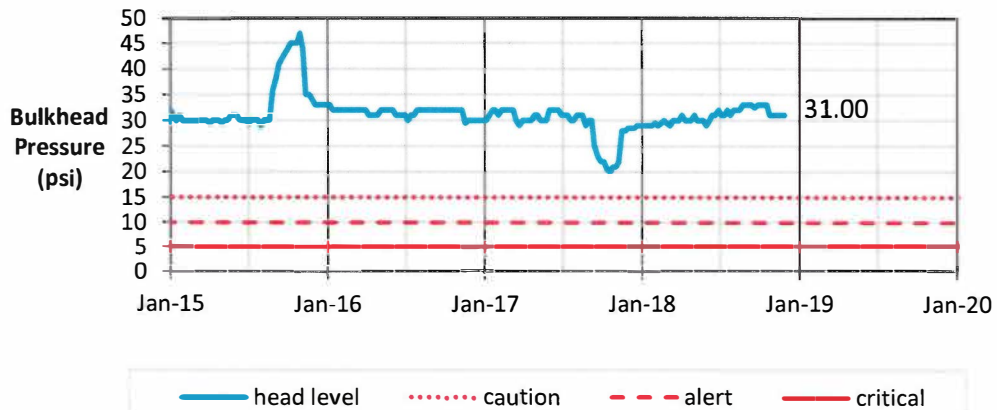
Punaluu 12/05/18



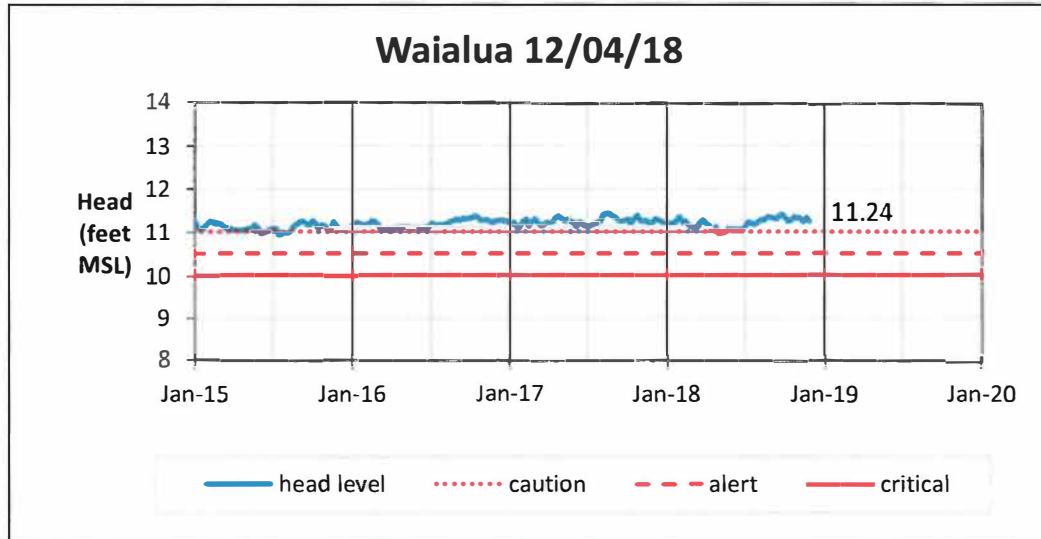
Kaluauui 12/05/18

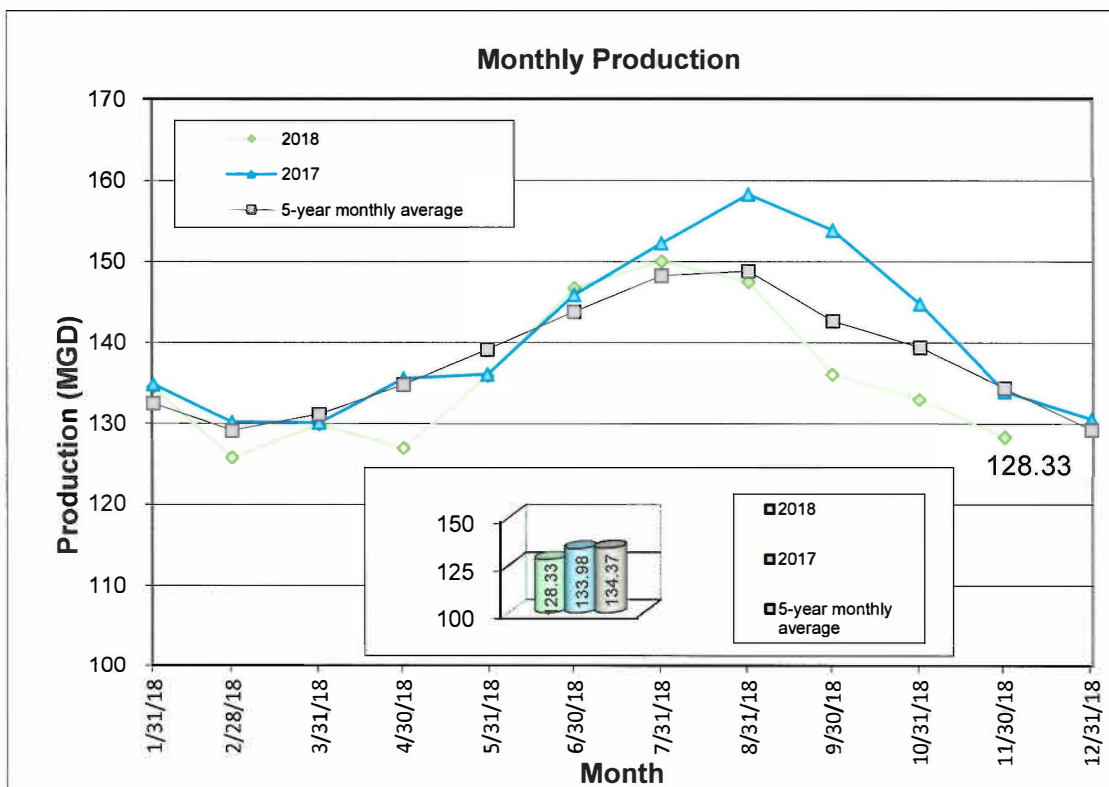
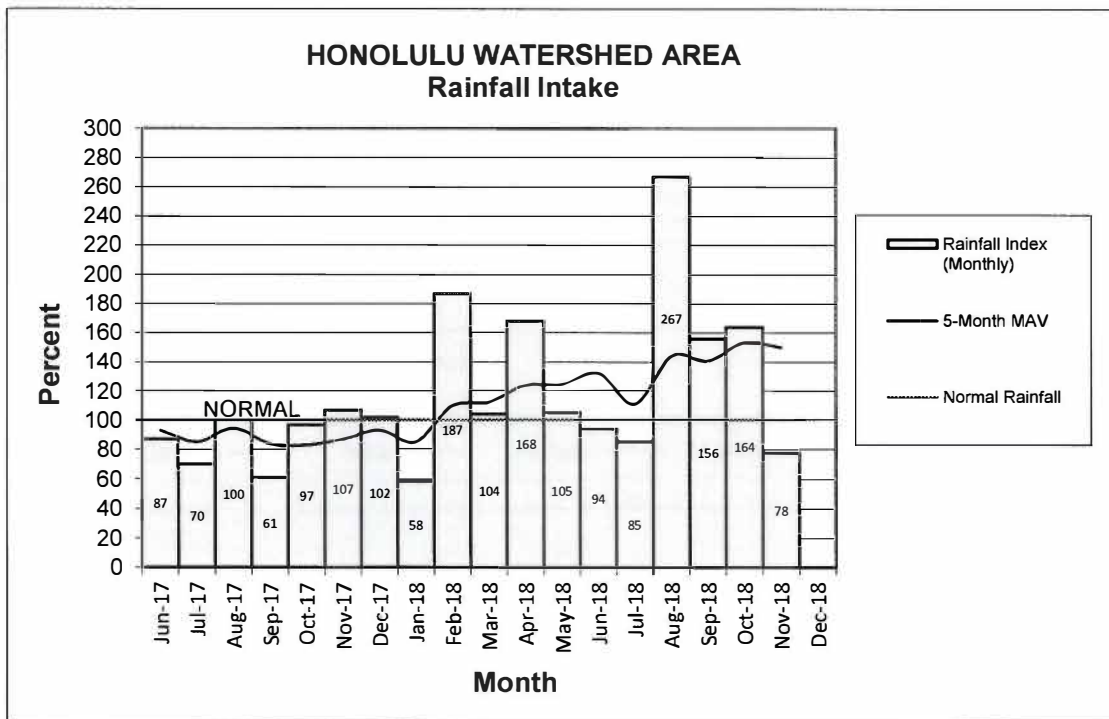


Waihee Tunnel 12/05/18



Weekly Head Report





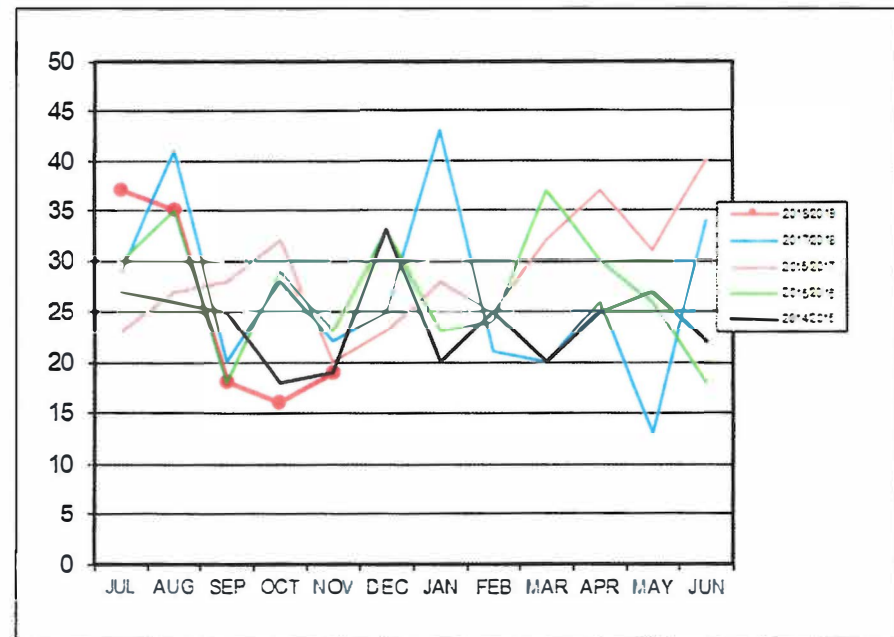
ITEM FOR INFORMATION NO. 3

WATER MAIN REPAIR REPORT

for November 2018

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2018/2019	37	35	18	16	19								125
2017/2018	29	41	20	28	22	25	43	21	20	26	13	34	322
2016/2017	23	27	28	32	20	23	28	25	32	37	31	40	346
2015/2016	30	35	18	29	23	33	23	24	37	30	26	18	326
2014/2015	27	26	25	18	19	33	20	25	20	25	27	22	287

Date	Address	Size (In)	Pipe Type
11/1/2018	99-657 Iwaiwa St. Aiea	8	CI
11/2/2018	94-156 Hulahe St. Waipahu	8	CI
11/7/2018	979 Kahena St. Honolulu	8	DI
11/8/2018	98-615 Kaamilo Pl. Aiea	4	CI
11/9/2018	539 Kailua Rd. Kailua	8	AC
11/11/2018	950 Kealaolu Ave. Honolulu	6	CI
11/11/2018	91-490 Ewa Beach Rd. Ewa Beach	12	PVC
11/12/2018	98-1466 Hoohiki St. Pearl City	12	CI
11/12/2018	47-499 Hui Iwa St. Kaneohe	12	CI
11/13/2018	92-690 Nohona St. Kapolei	8	CI
11/14/2018	2306 Kuahea St	8	CI
11/18/2018	99-80 Kaamilo St. Aiea	8	PVC
11/18/2018	104 S Cane St. Wahiawa	8	CI
11/19/2018	2134 Palolo Ave. Honolulu	12	CI
11/21/2018	98-1457 Hoomahie Loop. Pearl City	12	CI
11/27/2018	1166 Olowalu Way. Honolulu	8	DI
11/27/2018	85-716 Piliuka Pl. Waianae	8	CI
11/30/2018	1098 Kumu Kumu St. Honolulu	8	CI
11/30/2018	1519 Queen Emma St. Honolulu	6	CI



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

DISCUSSION: Michael Fuke, Field Operations Division Program Administrator, gave the report. There were no comments or discussions.

**MOTION TO RECESS
INTO EXECUTIVE
SESSION**

Upon unanimously approved motion, the Board recessed into Executive Session at 2:08 p.m. to Consider Issues Pertaining to Matters Posted for Discussion at an Executive Session.

**OPEN
SESSION**

The Board reconvened in Open Session at 4:32 p.m.

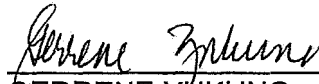
**MOTION TO
ADJOURN**

There being no further business Vice Chair Sproat at 4:35 p.m. called for a motion to adjourn the Open Session. Jade Butay so moved; seconded by Ross Sasamura, and unanimously carried.

Respectfully submitted,

THE MINUTES OF THE REGULAR SESSION BOARD
MEETING ON DECEMBER 17, 2018 WERE APPROVED
AT THE JANUARY 28, 2019 BOARD MEETING

	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
KAY C. MATSUI	X		
RAY C. SOON	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		
MAX J. SWORD	X		


GERRENE YUKUNO

APPROVED:


BRYAN P. ANDAYA
Chair of the Board
JAN 28 2019

Date