

MINUTES
REGULAR MEETING
OF THE
BOARD OF WATER SUPPLY

September 23, 2019

At 2:00 PM on September 23, 2019 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
Max J. Sword
Ross S. Sasamura

Also Present: Ernest Lau, Manager and Chief Engineer
Ellen Kitamura, Deputy Manager and
Chief Engineer
Barry Usagawa
Dymian Racoma
Erwin Kawata
Henderson Nuuhiwa
Jason Takaki
Jennifer Elflein
Joe Cooper
Kathleen Elliott-Pahinui
Kathryn Jean-Hoffman
Kathy Mitchell
Kevin Ihu
Michele Thomas
Mike Fuke
Mike Matsuo
Raelynn Nakabayashi

Others Present: Jessica Wong, Deputy Corporation Counsel
Jeff Lau, Deputy Corporation Counsel

Absent: Kapua Sproat, Vice Chair
Kay C. Matsui
Ray C. Soon
Jade T. Butay

ITEM FOR INFORMATION NO. 1

"September 23, 2019

BOARD OF
WATER SUPPLY
HAWAII
ELECTRONIC
PROCUREMENT
SYSTEM

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

Chair and Members:

Subject: Board of Water Supply Hawaii Electronic Procurement
System

Kathryn Hoffman, Procurement & Specification Specialist VI, Executive Support Office, will be providing a presentation on the Board of Water Supply's Hawaii Electronic Procurement System (HePS). Effective as of September 3, 2019, the Board of Water Supply began posting its requests for competitive sealed bids and proposals for goods, services and construction on HePS.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION: Chair Andaya recognized Kathryn-Jean Hoffman, Procurement Officer for the BWS to give the presentation.

Ms. Hoffman began her presentation by stating that this is a new step that the BWS has taken in its procurement endeavors. As of September 3, 2019, the BWS has launched a notification page on the Hawaii Electronic Procurement System, otherwise known as HePS. The BWS will be electronically posting all its solicitations for construction contracts and goods and services pursuant to 103D-302 Hawai'i Revised Statutes. The solicitations for professional services, sole source and exemptions will continue to be posted on the Board of Water Supply's Procurement website.

Ms. Hoffman stated that HePS is an online e-procurement system, which allows for electronically automating and managing government agency procurements. The system is hosted by a third-party vendor called SicommNet. SicommNet is a California-based company that has been in business since 1998. SicommNet also hosts e-procurement sites for the

city of Albuquerque, the State of Hawai'i, for the Department of Education and the University of Hawai'i.

Prior to the September 3rd launch date, the Board notified current vendors of this transition. Notices were sent to the General Contractors Association, the Building Industry Association of Hawaii, and the American Council of Engineering Companies of Hawaii, with the request that they distribute the notification to their members. BWS also notified the City Council members and the Mayor's Office of this transition.

Ms. Hoffman provided a live demonstration of the HePS website at <https://basec.sicomm.net/BWS/>. Ms. Hoffman also indicated that three training videos were created and posted on the BWS Procurement website to help vendors register on the HePS site; modify their profiles; and view, select, and submit bids and responses through the HePS system. There's also a 1-800 number to contact SicommNet if the vendors are having difficulties with the HePS website.

One of the unique features of HePS is that when a vendor creates their login, they also create a profile to indicate the types goods and services that they are interested in. When BWS posts a solicitation, addendums or bid results, automatic email notifications are sent based on the profiles set up by the vendors on the HePS site. Currently, BWS has about 2,000 vendors on the BWS Procurement website.

Ms. Hoffman stated that all the costs for SicommNet to maintain and provide customer service for HePS are obtained through awards made by the respective agencies. The vendor awarded the contract is subject to a 0.725% transaction fee, with a cap of \$5,000. In other words, all the services that SicommNet provides are paid for by vendors of the BWS, Department of Education and the University of Hawai'i.

Ms. Hoffman concluded her presentation by stating that overall, this is a giant step for the Board of Water Supply. HePS provides a much broader nationwide notification system to increase competitiveness and transparency for all our solicitations. Whenever a vendor opens or downloads a document, SicommNet date-stamps these transactions. If a protest should occur, SicommNet is able to easily generate the necessary information to investigate the protest. All bids are submitted electronically reducing utilization of paper and the need for physical file space.

Manager Lau also reiterated that HePS is really big step forward to creating greater visibility for our projects, giving the opportunity for greater competition and better pricing for our customers. Manager Lau commended the efforts of Ms. Hoffman, Mr. Duane Kashiwai, Jason Takaki and the BWS staff who participated in the successful roll-out of the HePS project for BWS. From project initiation to roll-out the process took approximately five weeks to implement. Manager Lau also express appreciation to the Superintendent of the Department of Education for approving the use of HePS by BWS. Manager Lau also indicated that HePS was procured correctly through the 103D process. It is the BWS

intent is to use HePS for all construction and all goods and services going forward.

Chair Andaya inquired if the increased visibility would improve the encumbrances, recovery of our CIP budgets and increase the number of bids overall. Manager Lau responded that HePS will help to make the procurement process more efficient. Hopefully with the greater visibility, more companies will be aware of BWS projects and submit bids. Ms. Hoffman added that it could increase competition because potentially subcontractors are also signing up. Vendors will become aware of a subcontractor with specialty service that is interested in partnering with a general contractor.

Manager Lau asked Ms. Hoffman how long the system been used by the Department of Education. Ms. Hoffman responded that the current contract was executed in 2015. However, they have been using HePS since the early 2000s.

Chair Andaya inquired if BWS is licensing HePS with the Department of Education or with SicommNet and the term of the contract. Ms. Hoffman responded that contract with SicommNet is through a cooperative agreement with the Department of Education. When the Department of Education initially solicited a request for proposals, they indicated that the University of Hawai'i and the Board of Water Supply would be participating agencies in the contract. The initial term is a three-year contract from 2015 through 2018 with three 3-year extension. Currently, the contract is in the second 3-year extension. Manager Lau indicated that when the Department of Education resolicits for services, BWS will request to participate in a cooperative agreement with them. BWS will continue to participate in the Department of Education contract rather than solicit a separate contract.

ITEM FOR INFORMATION NO. 2

"September 23, 2019

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 month of August 2019. Kaimuki is under a Caution status. The monthly production average for August 2019 was 152.39 million gallons per day. The Board of Water Supply rainfall index for the month of August 2019 was 55 percent of normal; with a 5-month moving average of 84 percent. As of September 3, 2019, the Hawaii Drought Monitor shows abnormally dry to moderate drought conditions for all of Oahu. Most monitoring wells continue to exhibit decreasing trends, reflecting increased pumping through the summer months.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION: Chair Andaya recognized Barry Usagawa, Program Administrator, Water Resource Division. There were no comments or discussion.

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF AUGUST 2019**

POTABLE

STATION	MGD
HONOLULU (1)	
KULIOUOU	0.08
WAILUPE	0.15
AINA KOA	0.25
AINA KOA II	0.78
MANOA II	0.00
PALOLO	1.17
KAIMUKI HIGH	3.07
KAIMUKI LOW	3.61
WILDER	4.84
BERETANIA HIGH	3.46
BERETANIA LOW	10.24
KALIHU HIGH	3.18
KALIHU LOW	2.20
KAPALAMA	0.40
KALIHU SHAFT	8.68
MOANALUA	1.37
HALAWA SHAFT	6.08
KAAMILO	0.90
KALAUAO	5.92
PUNANANI	9.36
KAHUMANU	0.25
HECO WAIU	2.72
MANANA	0.23
WELLS SUBTOTAL:	68.92
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.23
GRAVITY SUBTOTAL:	0.40
HONO. SUBTOTAL:	69.32

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.62
WAIMANALO III	0.00
KUOU I	1.29
KUOU II	0.05
KUOU III	0.68
LULUKU	0.96
HAIKU	0.00
IOLEKAA	0.00
KAHALUU	0.76
KAHANA	1.02
PUNALUU I	0.00
PUNALUU II	2.43
PUNALUU III	1.05
KALUANUI	1.34
MAAKUA	0.28
HAUULA	0.27
WELLS SUBTOTAL:	10.74
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	1.00
WAIHEE TUNNEL	6.57
LULUKU TUNNEL	0.07
HAIKU TUNNEL	1.07
KAHALUU TUNNEL	0.99
GRAVITY SUBTOTAL:	9.89
WIND. SUBTOTAL:	20.63

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.81
OPANA	0.27
WAIALEE I	0.45
WAIALEE II	0.44
HALEIWA	0.00
WAIALUA	2.08
N.SHORE SUBTOTAL:	4.04

STATION	MGD
MILILANI (4)	
MILILANI I	2.28
MILILANI II	0.00
MILILANI III	0.82
MILILANI IV	1.80
MILILANI SUBTOTAL:	4.90

STATION	MGD
WAIHAWA (5)	
WAIHAWA	0.75
WAIHAWA II	2.52
WAIHAWA SUBTOTAL:	3.28

STATION	MGD
PEARL CITY-HALAWA (6)	
HALAWA 277	0.74
HALAWA 550	0.00
AIEA	1.24
AIEA GULCH 497	0.35
AIEA GULCH 550	0.22
KAONOHI I	1.21
WAIMALU I	0.00
NEWTOWN	1.10
WAIU	0.92
PEARL CITY I	0.56
PEARL CITY II	1.19
PEARL CITY III	0.32
PEARL CITY SHAFT	0.94
PEARL CITY-HALAWA SUBTOTAL:	8.79

STATION	MGD
WAIHAWA-EWA (7)	
WAIPIO HTS.	1.89
WAIPIO HTS. I	0.99
WAIPIO HTS. II	0.34
WAIPIO HTS. III	1.28
WAIPAHU	5.73
WAIPAHU II	2.14
WAIPAHU III	1.86
WAIPAHU IV	3.12
KUNIA I	4.21
KUNIA II	2.23
KUNIA III	1.40
HOAEAE	5.43
HONOULIULI I	0.00
HONOULIULI II	6.30
MAKAKILO	0.42
WAIHAWA-EWA SUBTOTAL:	37.35

STATION	MGD
WAIANAE (8)	
MAKAHA I	0.00
MAKAHA II	0.17
MAKAHA III	0.54
MAKAHA V	0.45
MAKAHA VI	0.00
MAKAHA SHAFT	0.00
KAMAILE	0.02
WAIANAE I	0.00
WAIANAE II	0.71
WAIANAE III	0.64
WELLS SUBTOTAL:	2.52
WAI. C&C TUNNEL	1.40
WAI. PLANT. TUNNELS	0.16
GRAVITY SUBTOTAL:	1.56
WAIANAE SUBTOTAL:	4.08

NONPOTABLE

NONPOTABLE	MGD
KALAUAO SPRINGS	0.62
BARBERS POINT WELL	1.45
GLOVER TUNNEL NP	0.41
NONPOTABLE TOTAL:	2.49

RECYCLED WATER (JULY 2019)

RECYCLED WATER	MGD
HONOULIULI WRF R-1	7.43
HONOULIULI WRF RO	1.63
RECYCLED WATER TOTAL:	9.06

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF AUGUST 2019**

PRODUCTION SUMMARIES

TOTAL WATER	MGD
PUMPAGE	140.54
GRAVITY	11.85
POTABLE TOTAL:	152.39
NONPOTABLE	2.49
RECYCLED WATER	9.06
TOTAL WATER:	163.94

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS				
POTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE/ BWS YLDS	B AUG 2019	C DIFF. A-B
1	HONOLULU	82.93	68.92	14.01
2	WINDWARD	25.02	13.06	11.96
3	NORTH SHORE	4.70	4.04	0.65
4	MILILANI	7.53	4.90	2.63
5	WAIHAWA	4.27	3.28	0.99
6	PEARL CITY-HALAWA	12.25	8.79	3.46
7	WAIPAHU-EWA	50.63	37.35	13.28
8	WAIANAE	4.34	2.52	1.82
TOTAL:		191.67	142.86	48.81

CWRM PERMITTED USE FOR BWS				
NONPOTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE	B AUG 2019	C DIFF. A-B
7	WAIPAHU-EWA (BARBERS POINT WELL)	1.00	1.45	-0.45
TOTAL:		1.00	1.45	-0.45

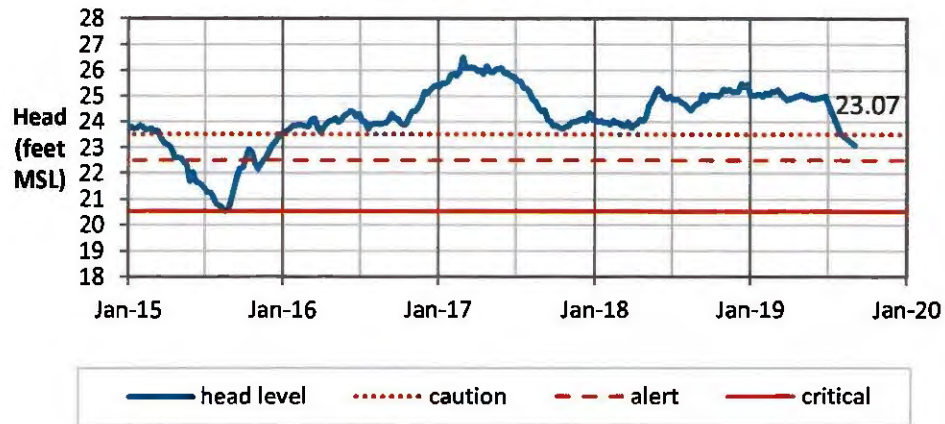
EFFECTIVE WATER DEMAND PER DISTRICT

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS			
FROM	TO		MGD
2	1	WINDWARD EXPORT	1.15
7	8	BARBERS PT LB	7.05

WATER USE DISTRICTS		SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	68.92	1.15	-	70.07
2	WINDWARD	13.06	-	1.15	11.90
3	NORTH SHORE	4.04	-	-	4.04
4	MILILANI	4.90	-	-	4.90
5	WAIHAWA	3.28	-	-	3.28
6	PEARL CITY-HALAWA	8.79	-	-	8.79
7	WAIPAHU-EWA	37.35	-	7.05	30.30
8	WAIANAE	2.52	7.05	-	9.58
TOTAL:		142.86	8.21	8.21	142.86

Weekly Head Report

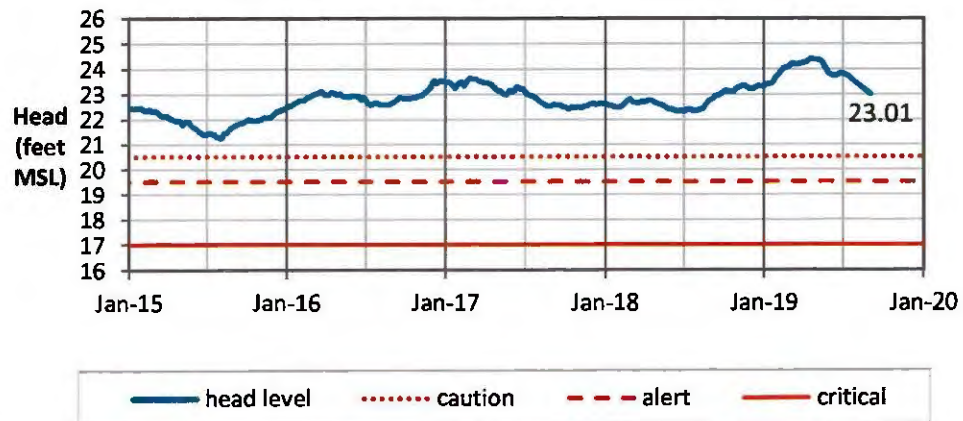
Kaimuki 09/07/19



Beretania 09/07/19

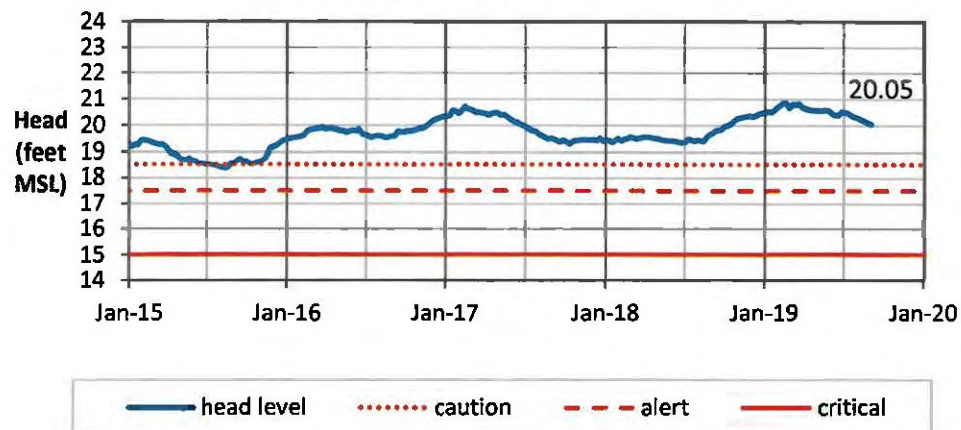


Kalihi 09/07/19

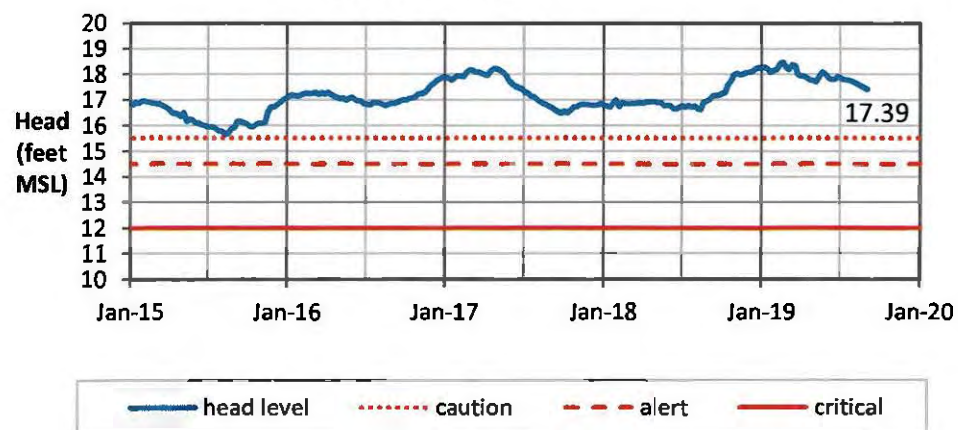


Weekly Head Report

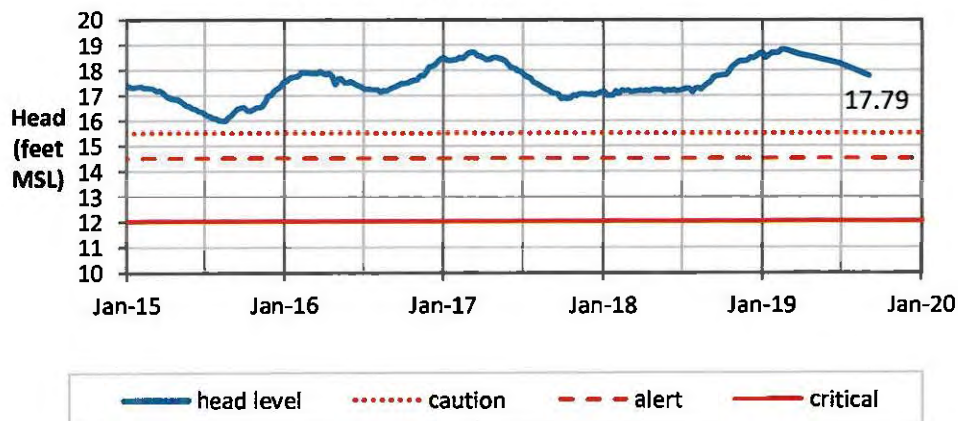
Moanalua 09/07/19



Halawa 09/07/19

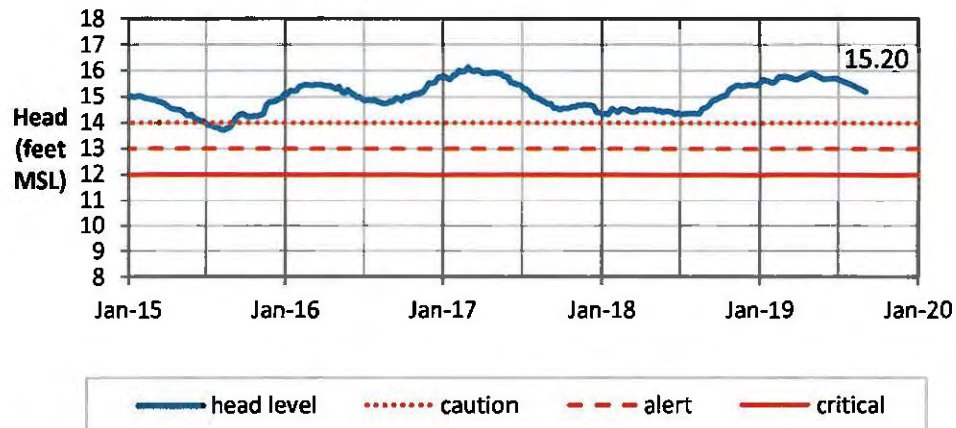


Kalauao 09/07/19

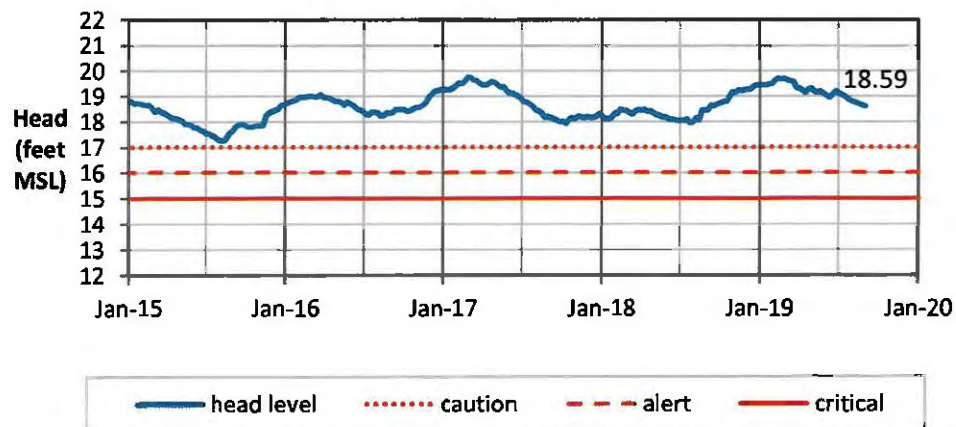


Weekly Head Report

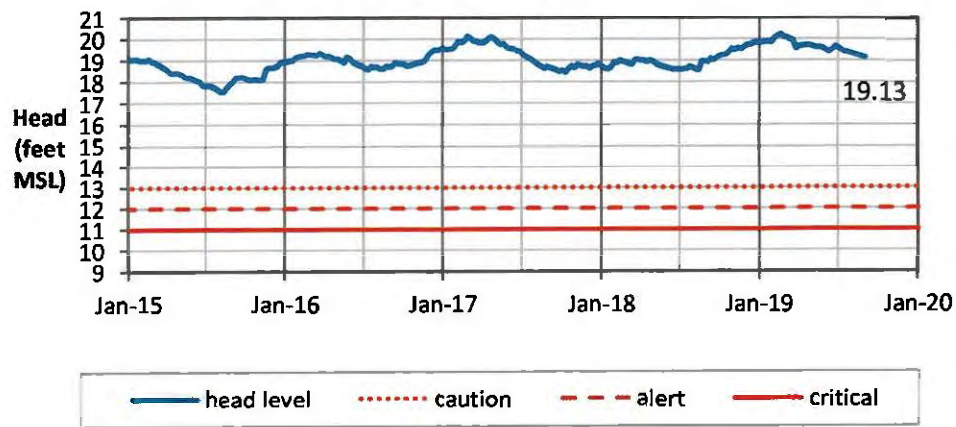
Pearl City 09/07/19



Waipahu 09/07/19

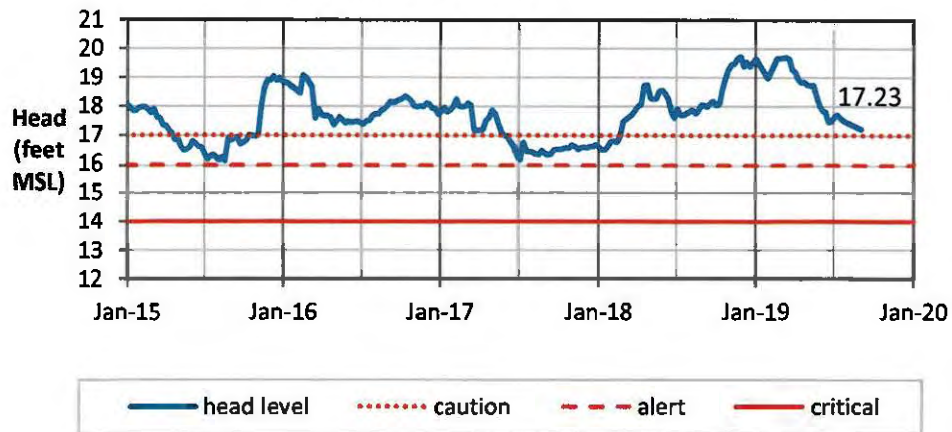


Hoeaee-Kunia 09/07/19

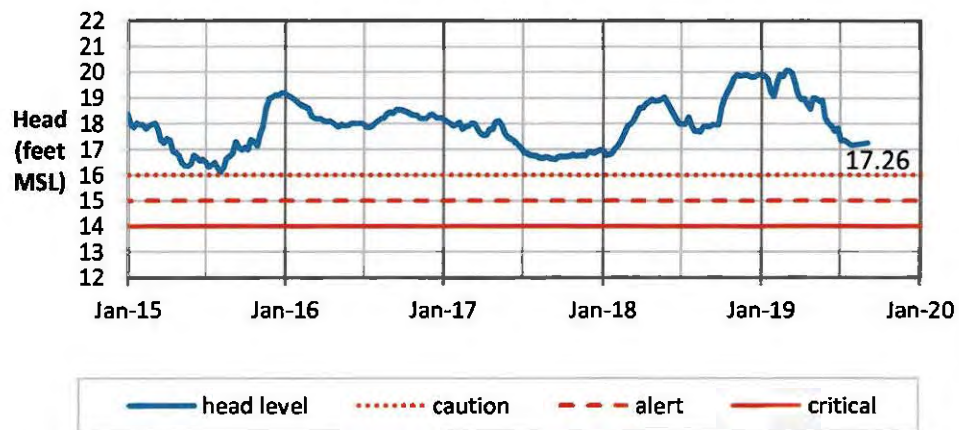


Weekly Head Report

Punaluu 09/07/19



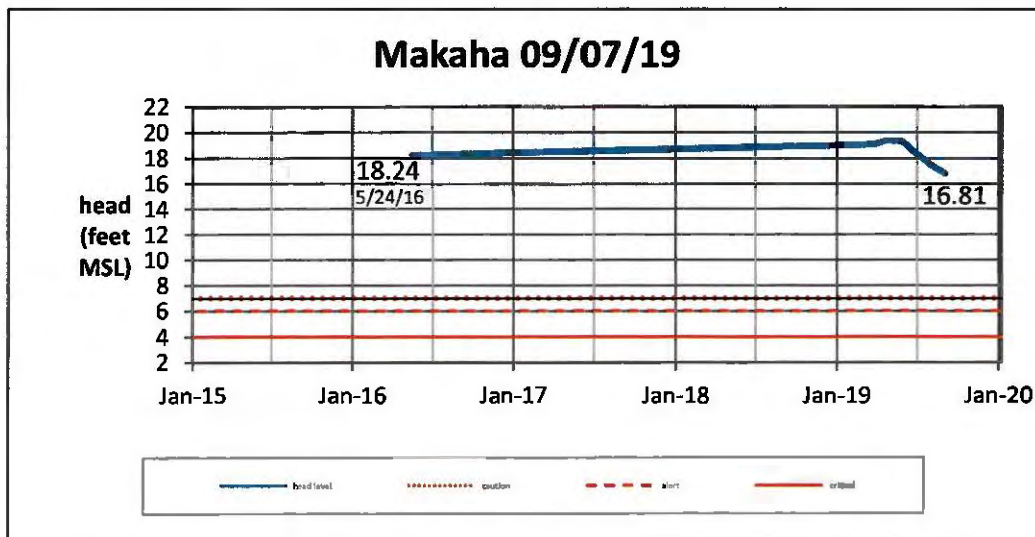
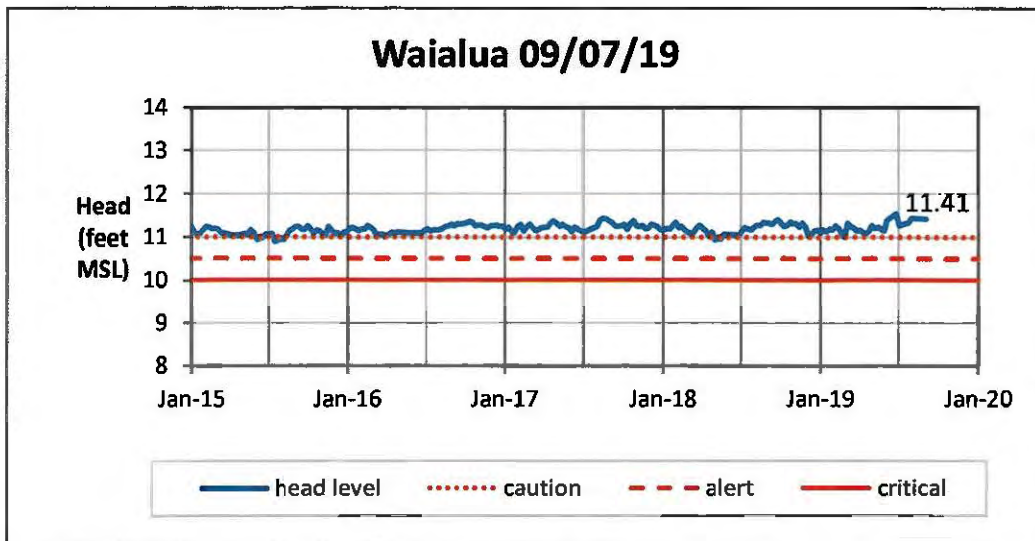
Kaluanui 09/07/19

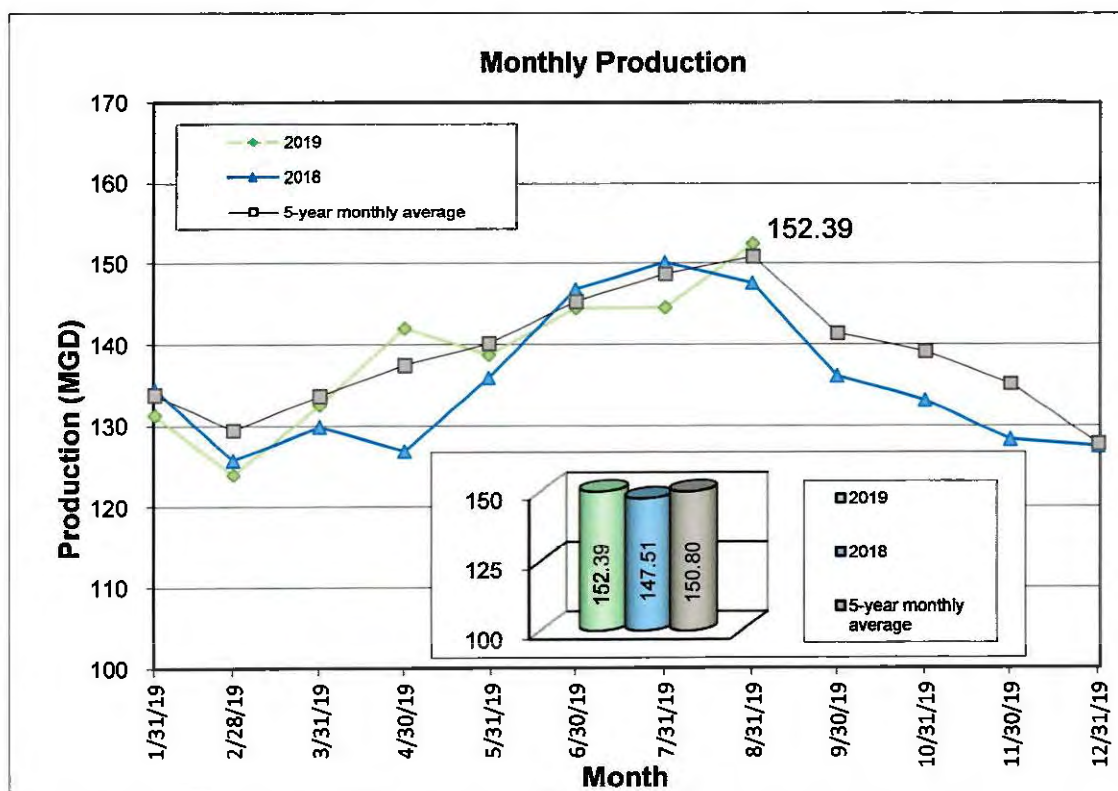
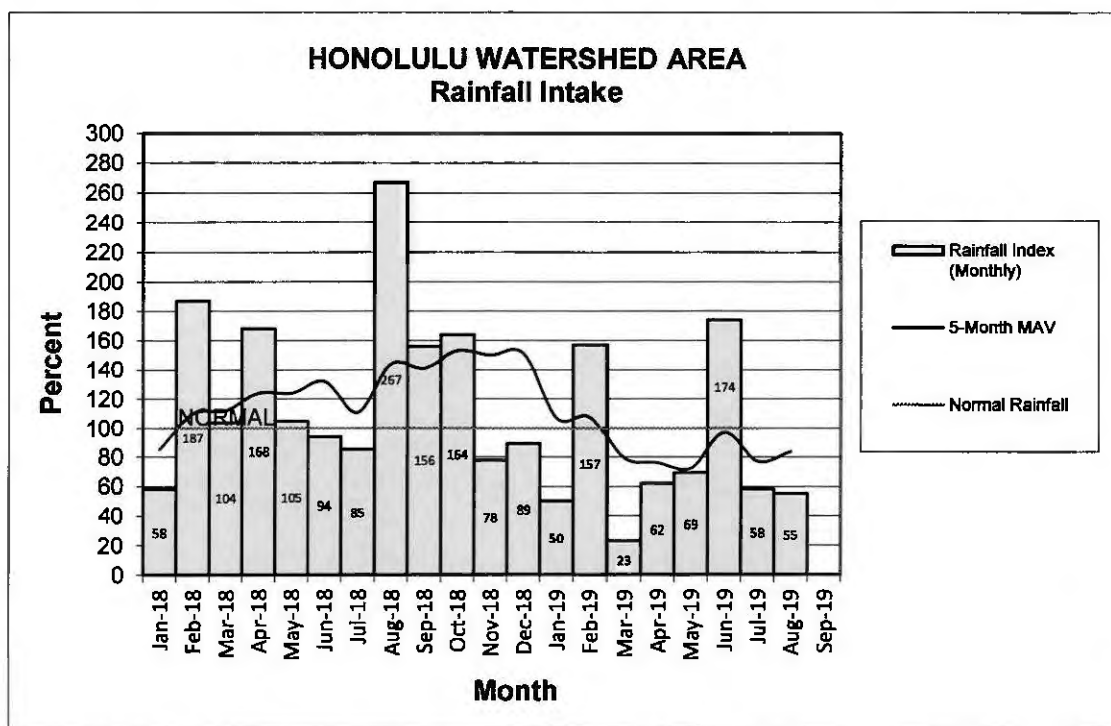


Waihee Tunnel 09/07/19



Weekly Head Report





ITEM FOR INFORMATION NO. 3

"September 23, 2019

**WATER MAIN
REPAIR REPORT**

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

Chair and Members:

Subject: Water Main Repair Report for August 2019

Michael Fuke, Program Administrator, Field Operations Division, will report on water main repair work for the month of August 2019.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION: Chair recognized Michael Fuke, Program Administrator, Field Operations Division.

Mr. Fuke reported that there were 57 main breaks. The average time it took to repair the pipes were: 4-inch, 6-inch, and 8-inch took 15 hours; the 12-inch took 28 hours; and the 16-inch took 35 hours. Mr. Fuke referred to Mr. Usagawa's report of pumping 152 million gallons per day. The high number of breaks may be attributed to the high pumping rate. The high pumping rate adds stress to the mains that caused mains to break.

In addition. Mr. Fuke reported that during August 1-5, BWS was preparing for Hurricane Flossie by pumping a little bit more to keep the reservoir levels on the high end. There were also 13 main breaks during that time.

Mr. Fuke added that 27 of the main breaks revealed signs of corrosion degradation of the pipe. Sixteen of the main breaks were either in design, programmed for construction, or in a future project for replacement.

Chair Andaya asked if Mr. Fuke had a forecast for September. Mr. Fuke replied that he doesn't expect it to be as high as in the 50s. He commended the field crews who worked very hard on the 57 main breaks. It was like having two breaks per day.

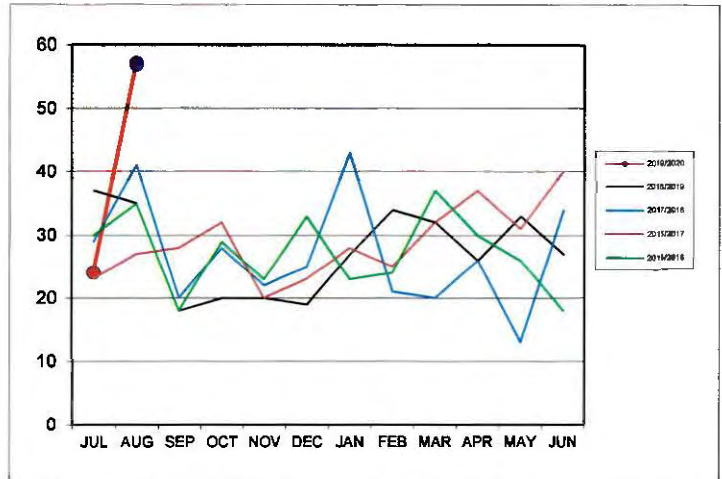
Chair Andaya asked for clarification about the relationship between the increased pumpage and how it naturally causes breaks. Mr. Lau

WATER MAIN REPAIR REPORT

for August 2019

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2019/2020	24	57											81
2018/2019	37	35	18	20	20	19	27	34	32	26	33	27	328
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

Date	Address	Size (in)	Pipe Type
8/1/2019	1994 California Ave, Wahiawa	6	CI
8/2/2019	94-490 Apowale St, Waipahu	8	CI
8/2/2019	47-678 Hui Ulili St, Kaneohe	8	CI
8/3/2019	94-438 Ponohana Lp, Aiea	8	CI
8/3/2019	2122 Puna St, Honolulu	6	CI
8/3/2019	46-303 Hoaua St, Kaneohe	8	CI
8/3/2019	1 Keahole St, Honolulu	12	CI
8/3/2019	1 Keahole St, Honolulu	12	CI
8/4/2019	1 Keahole St, Honolulu	12	CI
8/3/2019	74 Lihiwai Rd, Kailua	6	CI
8/4/2019	6106 Kawekiu Pl, Honolulu	6	CI
8/4/2019	385 Portlock Rd, Honolulu	8	CI
8/5/2019	98-1328 Akaaka St, Aiea	8	PVC
8/6/2019	3633 Waiialae Ave, Honolulu	4	CI
8/6/2019	2158 Kanealii Ave, Honolulu	8	CI
8/6/2019	94-95 Leokane St, Waipahu	12	CI
8/8/2019	1526 10th Ave, Honolulu	16	CI
8/8/2019	526 Iliaina St, Kailua	8	AC
8/8/2019	86-909 Moelima St, Waianae	6	DI
8/8/2019	1332 Komo Mai Dr, Pearl City	8	CI
8/8/2019	2460 Waiomao Rd, Honolulu	8	CI
8/9/2019	91-464 Pupū St, Ewa Beach	8	CI
8/9/2019	62-202 Kamehameha Hwy, Haleiwa	6	AC
8/10/2019	144 Hanohano Pl, Honolulu	4	DI
8/11/2019	94-1036 Upai Pl, Waipahu	8	AC
8/11/2019	3064 Wailani Rd, Honolulu	6	CI
8/11/2019	1526 10th Ave, Honolulu	16	CI
8/11/2019	48-86 Kamehameha Hwy, Kaneohe	8	CI
8/12/2019	3267 Pinao St, Honolulu	8	CI
8/14/2019	45-546 Keole St, Kaneohe	8	CI
8/15/2019	2319 Kaha Pl, Honolulu	4	CI
8/17/2019	1106 8th Ave, Honolulu	6	CI
8/19/2019	99-1266B Aiea Heights Dr, Aiea	8	CI
8/19/2019	99-345 Aiea Heights Dr, Aiea	6	CI
8/19/2019	1150 8th Ave, Honolulu	6	CI
8/19/2019	3591 Waakaua Pl, Honolulu	6	CI
8/20/2019	1074 21st Ave, Honolulu	6	CI
8/20/2019	94-556 Pilimai St, Waipahu	8	CI
8/20/2019	67-374 Kukea Circle, Waialua	8	CI
8/21/2019	717 15th Ave, Honolulu	6	CI
8/23/2019	1661 Piikea St, Honolulu	8	PVC
8/23/2019	2294 Halekoa Dr, Honolulu	12	CI
8/24/2019	99-1266 Aiea Heights Dr, Aiea	8	CI
8/26/2019	91-145 Waimapuna Pl, Ewa Beach	8	DI
8/26/2019	91-1018 Hamoula St, Ewa Beach	8	DI
8/26/2019	270 Pali Momi St, Aiea	12	CI
8/27/2019	Inclined shaft line, Waimanalo Wells I	6	CI
8/27/2019	91-69 Fort Weaver Rd, Ewa Beach	6	CI
8/28/2019	1935 Mott Smith Dr, Honolulu	6	CI
8/28/2019	84-228 Holt St, Waianae	6	PVC
8/29/2019	239 Koalele St, Honolulu	6	CI
8/30/2019	94-121 Mokukaua St, Waipahu	8	CI
8/30/2019	2106 Puna St, Honolulu	6	CI
8/30/2019	54-232 Honomu St, Hauula	8	CI
8/30/2019	44-737 Hoonani Pl, Kaneohe	4	CI
8/31/2019	86-281 Kawili St, Waianae	8	PVC
8/31/2019	1214 N. School St, Honolulu	8	CI



21 miles of pipeline were surveyed by the Leak Detection Team in the month of August.

explained that friction is created when pumping water into a particular size of pipe, and with the added pumpage, more force and pressure were used to move large amounts of water. Increased pressure from pumping could be the factor in this case.

In addition to BWS, other City agencies, State agencies, and private contractors operate fire hydrants. Mr. Lau noted that the staff was evaluating if there is a correlation between main breaks and the operation of fire hydrants. Currently, no clear linkage has been found.

Mr. Lau noted that a lot of the pipes were cast iron which were the older pipes in the system; and combined with the age and condition of the pipe, there were corrosion issues. If this trend continues, they will re-evaluate the CIP program to see if they need to implement pipeline replacement aggressively.

**MOTION TO
ADJOURN**

There being no further business Chair Andaya at 2:30 PM called for a motion to adjourn the Open Session. Max Sword so moved; seconded by Ross Sasamura and unanimously carried.

Respectfully submitted,


DEANNA L. THYSSEN

APPROVED:

BRYAN P. ANDAYA
Chair of the Board


Date

OCT 28 2019

THE MINUTES OF THE REGULAR SESSION BOARD MEETING ON SEPTEMBER 23, 2019 WERE APPROVED AT THE OCTOBER 28, 2019 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
KAY C. MATSUI	X		
RAY C. SOON			ABSENT
MAX J. SWORD			ABSENT
ROSS S. SASAMURA	X		
JADE T. BUTAY			ABSENT