

MINUTES  
REGULAR MEETING  
OF THE  
BOARD OF WATER SUPPLY

March 23, 2020

At 2:00 pm on March 23, 2020, 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 Sproat, Vice Chair *via* WebEx  
Kay C. Matsui *via* WebEx  
Ray C. Soon  
Max J. Sword  
Ross S. Sasamura  
Jade T. Butay *via* WebEx

Also Present: Ernest Lau, Manager and Chief Engineer  
Jason Nikaido  
Barry Usagawa

Others Present: Jeff Lau, Deputy Corporation Counsel-*via*  
*Conference call*  
Moana A. Yost, Deputy Corporation Counsel-*via*  
*Conference call*  
Frank X. Lauterbur-Bank of America-*via* WebEx  
Craig K. Dussinger-Bank of America-*via* WebEx

Absent:

**APPROVAL OF  
MINUTES**

Approval of the Minutes of the Regular Meeting held on February 24, 2020.

**MOTION  
TO APPROVE**

Ross Sasamura and Max Sword motioned and seconded, respectively, to approve the Minutes of the Regular Meeting of February 24, 2020. The motion was unanimously carried.

THE MINUTES OF THE REGULAR MEETING HELD ON FEBRUARY 24, 2020 WERE APPROVED AT THE MARCH 23, 2020 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		via WebEx
KAY C. MATSUI	X		via WebEx
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		via WebEx

ITEM FOR INFORMATION NO. 1

"March 23, 2020

BOARD  
DISCUSSION  
REGARDING  
COVID-19  
CONCERNS FOR A  
FUTURE PUBLIC  
MEETING TO  
RECEIVE  
TESTIMONY ON  
HAIKU STAIRS

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

Chair and Members:

Subject: Board Discussion Regarding COVID-19 Concerns for  
a Future Public Meeting to Receive Testimony on  
Haiku Stairs

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Ellen Kitamura, Deputy Manager and Chief Engineer will report on the COVID-19 concerns for a future public meeting to receive testimony on Haiku Stairs.

Respectfully submitted,

/s/ Ernest Y. W. Lau, P.E  
Manager and Chief Engineer

Attachments"

The foregoing was for information only.

DISCUSSION: Ernest Lau, Manager and Chief Engineer, reported on behalf of Ellen Kitamura, Deputy Manager, and Chief Engineer.

Boardmember Ray Soon asked Board attorney since we've done the EIS and have comments in draft form. Do we need to have this public meeting?

Board attorney Moana Yost responded the decision is up to the Board members. The choice is made by the Board to have the meeting later, virtually, or not to have a public meeting or postpone it.

Member Soon commented we would like to hear the public's comments. However, is this meeting required by law?

Ms. Yost responded that it is not required by law to have a public meeting.

Member Soon inquired if a decision will be made by the Board the same day as the public hearing or at another meeting.

Manager Ernest Lau replied the Board would decide on how to proceed with the meeting. Manager's suggestion would be to, first, hold the public hearing, then separately hold a public meeting for the community to share a testimony with the Board.

Member Soon commented that the public would have two opportunities to share their testimony.

Manager Lau replied that the Board would have the final decision on how they would like for the meetings to proceed. Haiku Stairs is a crucial issue for the public that they would want to testify.

Boardmember Max Sword expressed that the last discussion was to have a hearing then a Board meeting with Haiku Stairs on the agenda.

Member Soon expressed his concern that having two meetings will be duplicating the public testimonies.

Manager Lau commented that originally the public meeting was to be held in Kaneohe at Benjamin Parker Elementary from 6 pm to 9:30 pm. This time allows the community time to prepare before the meeting starts.

Member Soon shared his appreciation that the Board continues to have a Board meeting during this time. He would like this public meeting to be efficient.

Chair Andaya mentioned that with more technology available, there would be more opportunities for the public to testify. This public hearing is the time to come forth and bring your testimony. The Board will hear all public testimonies and take action on the item at the next meeting.

Ms. Yost confirmed that if the item is on the agenda for the Board meeting, you will have to hear public testimony.

Member Sword suggests that the public hearing is on the same day the members will take action.

Manager Lau suggested holding one Board meeting to hear public testimony and take action at 6 pm instead of 2 pm on a Monday.

Vice Chair Sproat agrees to Manager Lau to have one meeting in the evening. She also suggests that the public submit testimony, and at the end, the day a decision will be made on the item.

Chair Andaya confirmed what he hears is that there will be one board meeting with public testimony being accepted and take action on the subject the same day.

Vice Chair Sproat wanted to clarify should the public hearing and action be held on the same day as the Board meeting, It would be advisable to post a notice for the public to submit their testimony in advance to the Board meeting. Once members have received all testimonies, a decision will be made the same day as the public hearing.

Chair Andaya agreed with Vice Chair Sproat to allow the public to submit testimony before the April Board meeting, and the Board will vote the same day.

Member Sword asked when the public submits testimony would they have until the day before the meeting or on that day?

Vice Chair Sproat responded if we decide on the same day as the public meeting, we should allow the testimonies to be submitted up until the vote.

Ms. Yost confirmed that testimonies should be submitted and read by the members before the vote.

Member Sword expressed his concern about the testimonies submitted during the meeting. He suggested before the Board votes on the item, they are allowed time to read the testimonies.

Ms. Yost commented that the Board meeting doesn't end until all the written testimonies have submitted and read by all members.

Manager Lau asked Corporation Counsel, Ms. Yost, if late testimony comes in, can we make the decision the next day.

Ms. Yost replied, it all depends on what is in the notice and follow that.

Chair Andaya suggested before the vote, the Board takes a recess to read all the testimony and reconvene the meeting and make the decision.

ITEM FOR INFORMATION NO. 2

"March 23, 2020

RESULTS OF  
THE SALE OF  
BOARD OF WATER  
SUPPLY WATER  
SYSTEM REVENUE  
BONDS, SERIES  
2020A AND  
SERIES 2020B

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

Chair and Members:

Subject:

Results of the Sale of Board of Water Supply Water System  
Revenue Bonds, Series 2020A and Series 2020B

Pursuant to Board of Water Supply Resolution No. 908, 2020, authorizing the issuance of water system revenue bonds, the Board will issue a total of \$106,635,000 principal amount of Board of Water Supply Water System Revenue Bonds, Series 2020A and Series 2020B dated March 25, 2020. The proceeds of the Series 2020A and Series 2020B bonds will be used: (1) to pay the cost of improvements authorized in the capital budget of the Board; (2) to pay the costs of issuance of the Series 2020A and Series 2020B bonds; and (3) to fund a trust fund to provide for the refunding and redemption of all or a portion of the Board's Water System Revenue Bonds, Series 2012A, Series 2014A, and/or Series 2014B.

The bonds were assigned underlying ratings of AAA from S & P Global Ratings and AA+ from Fitch Ratings. The Series 2020A and Series 2020B bonds were sold on March 11, 2020 at a true interest cost of 2.65 percent. The bonds were issued at a total premium of \$6,573,408.

The combined net present value saving of \$5,200,000 will be realized with the refunding. The Board will realize approximately \$371,000 annually in debt service savings.

Net proceeds of \$65,293,752 will be deposited into the BWS Improvement Fund and \$47,231,940 will be deposited into escrow funds to decrease the refunded bonds. The refunding bond issue is structured so as to match the terms of the refunded bonds.

Bank of America Merrill Lynch served as lead underwriter, Stifel, Nicolaus & Company as co-manager, and Orrick, Herrington & Sutcliffe LLP served as bond counsel to the Board.

Respectfully submitted,

/s/ Ernest Y. W. Lau, P.E  
Manager and Chief Engineer

Attachments”

The foregoing was for information only.

**DISCUSSION:** Joseph Cooper, Waterworks Controller, Finance Division, gave the report.

Manager Lau expressed his appreciation for the great work from Joseph Cooper, Water Works Controller, as well as the support from the BWS staff. Outstanding teamwork from Bank of America Securities, Frank X. Lauterbur, Craig K. Dussinger, Corporation Counsel, City Treasurer, and Nelson Koyanagi in achieving a Triple-A rating.

Chair Andaya thanked everyone for achieving the Triple-A rating.

# Honolulu Board of Water Supply

Water System Revenue Bonds  
\$106,635,000

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Final Pricing Information

Retail Order Period: March 10, 2020

Institutional Pricing: March 11, 2020



# Final Pricing Information

## Overview of Municipal Bonds

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### *The Honolulu Board of Water Supply Successfully Sold \$106,635,000 of Water System Revenue Bonds on March 11<sup>th</sup>*

- A municipal bond issued by a local government, territory or one of their agencies to finance public projects such as roads, schools, airports and seaports, and infrastructure-related repairs (such as water and sewer systems).
- The two primary types of municipal bonds are:
  - **General Obligation (G.O.) Bonds** are secured by unlimited ad valorem taxes (based on property or transaction value) and the full faith and credit of the issuer (such as the City and County of Honolulu's G.O. Bonds)
  - **Revenue Bonds** are secured only by pledged revenues (such as the Board's Water System Revenue Bonds)
- Bonds are similar to a mortgage and are repaid in principal and interest installments, typically over 30 years
- The annual "debt service" payment is contingent upon the all-in-true interest cost (also known as the weighted average interest rate) of the bonds
- Traditionally, municipal bonds have been exempt from federal and state income taxes
- However, there has been a more recent trend towards taxable bonds as a form of private activity relief and as a tool to refinance outstanding bonds for interest rate savings



# Final Pricing Information

## Transaction Overview

- The Bonds were rated “AAA” by Standard and Poor’s, the highest rating possible.
- The Bonds were also rated “AA+” by Fitch ratings, the second highest rating possible.
- Both rating agencies assigned “Stable” Outlooks
- The bonds will be used for new projects, repair and maintenance of the water system and to refinance outstanding debt.
- Despite a volatile market, BWS was able to lock-in an all-in true interest cost of only 2.65% for 30-year tax-exempt debt – its lowest cost of funding ever.
- In addition, BWS will realize \$5.2 million of present value savings through a taxable refunding that received more than \$420 million of orders.
- A portion of the bonds were placed with local investors, including Bank of Hawaii, First Hawaiian Bank and individual Hawaii residents.
- BofA Securities served as the senior manager and Stifel served as a co-manager.



# Final Pricing Information

Bond Buyer Article (3/19/2020): Worst Muni Rout Since 1984 Deepens Even With Treasury Gain

## Muni Yields Surge

Fear-driven sell-off creating liquidity strains

■ BVAL Muni AAA Yld Callable Crv - Last Price



Source: Bloomberg BVAL



# Final Pricing Information

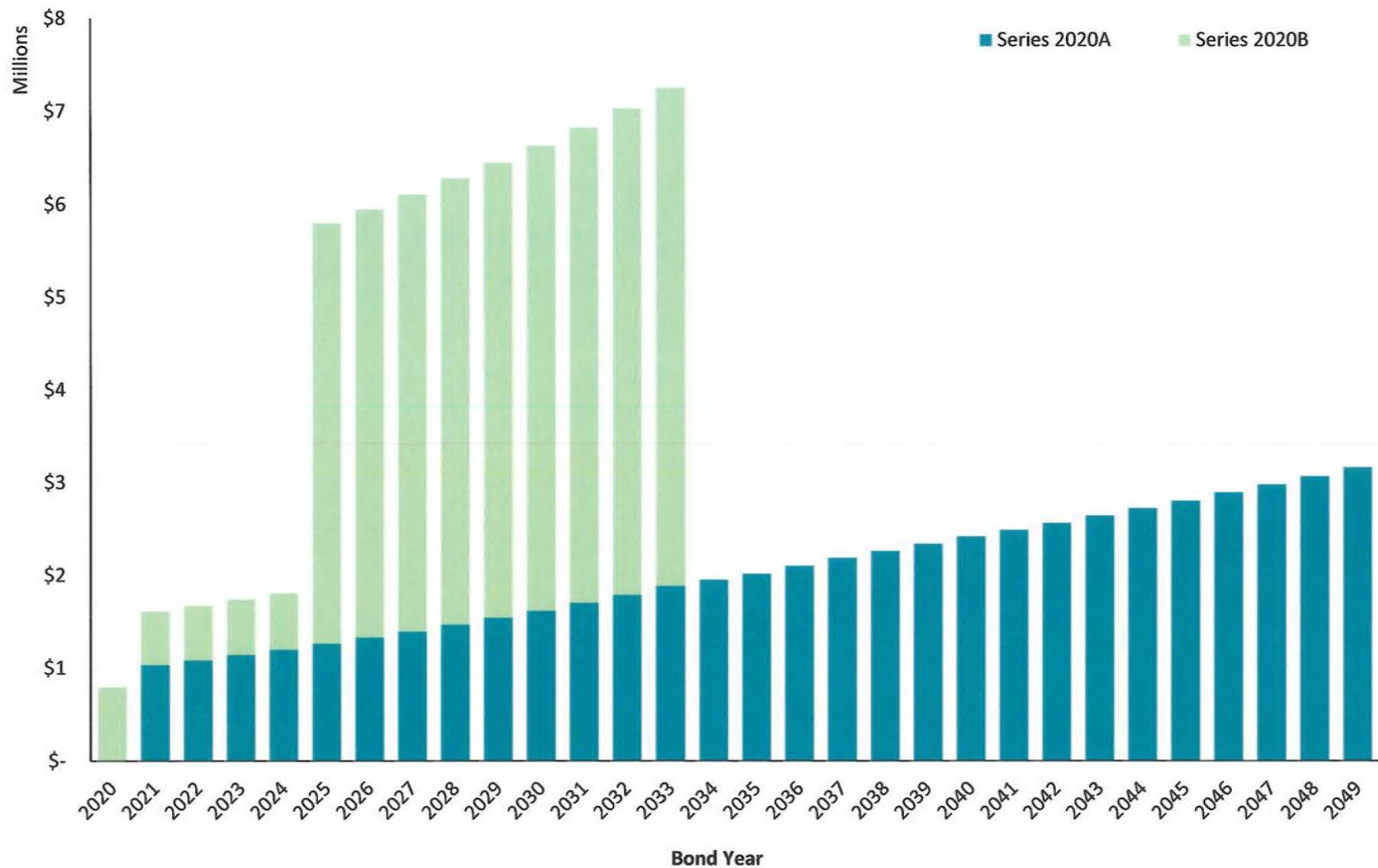
## Financing Statistics

	Series 2020A	Series 2020B	Aggregate
Delivery Date	March 25, 2020	March 25, 2020	March 25, 2020
Purpose	New Money	Refunding	Mixed
Tax Status	Tax-Exempt	Taxable	Mixed
Coupon Type	Fixed	Fixed	Fixed
Par Amount	\$59,105,000	\$47,530,000	\$106,635,000
Premium	\$6,573,408	-	\$6,573,408
Reserve Fund Release	-	\$1,079,884	\$1,079,884
Project Fund/Escrow	\$65,290,000	\$48,311,825	\$113,601,825
Maturity Range	2021 - 2049	2020 - 2033	2020 - 2049
Average Life	17.9 Years	8.9 Years	13.9 Years
All-in TIC	2.66%	2.22%	2.53%
Avg. Ann. Debt Service	\$3,241,490	\$4,268,301	\$5,176,323
Total Debt Service	\$94,867,604	\$56,626,127	\$151,493,732
Series Refunded	-	2012A	2012A
Par Refunded	-	\$43,615,000	\$43,615,000
Maturities Refunded	-	2025 - 2033	2025 - 2033
Gross Savings (\$)	-	\$7,535,785	\$7,535,785
<b>PV Savings (\$)</b>	-	<b>\$5,259,514</b>	<b>\$5,259,514</b>
<b>PV Savings (%)</b>	-	<b>12.06%</b>	<b>12.06%</b>
Negative Arbitrage	-	\$1,669,543	\$1,669,543
Escrow Efficiency	-	75.91%	75.91%



# Final Pricing Information

## Aggregate Par By Maturity



# Final Pricing Information

## Newspaper Advertisement

**Print and Digital Advertisements Appeared in the Honolulu Star Advertiser, Hilo Hawaii Tribune Herald, West Hawaii Today, Lihue Garden Island, Maui News and Pacific Business News**

Under no circumstances should this advertisement be relied upon as a solicitation of an offer to sell or a recommendation to purchase any security or financial product. This advertisement is for informational purposes only and does not constitute an offer to sell or a recommendation to purchase any security or financial product. The Board of Water Supply Revenue Bonds is not a security and does not constitute an offer to sell or a recommendation to purchase any security or financial product. The Board of Water Supply Revenue Bonds is not a security and does not constitute an offer to sell or a recommendation to purchase any security or financial product.

**PROPOSED NEWSUR**

**Board of Water Supply  
City and County of Honolulu  
Water System Revenue Bonds**

**\$134,250,000\***  
Series 2020A Bonds (Tax-Exempt)  
& 2020B Bonds (Taxable)

- Ratings:
  - Fitch: AA+
  - S&P: AAA
- Interest on the Series 2020A Bonds is Federally and Hawaii Tax-Exempt\*\*
- Interest on the Series 2020B Bonds is Federally Taxable and Hawaii Tax-Exempt
- Maturities range from 2020 - 2049\*
- Retail Order Period on March 10<sup>th</sup>\*
- Institutional pricing on March 11<sup>th</sup>\*
- Bonds will be available in book-entry form in \$5,000 denominations


Please contact BofA Securities or Stifel Nicolaus & Company for copies of the Preliminary Official Statement for these Bonds.

**BofA Securities**  
(808) 525-7300 / (800) 964-0765 (Honolulu)  
(808) 935-1136 / (800) 965-1136 (Hilo)  
(808) 322-6000 / (888) 223-0654 (Kona)

**Stifel, Nicolaus & Company**  
(808) 521-2601 (Honolulu)  
(808) 871-2040 (Maui)

\*Maturities, subject to change.  
\*\*The opinion of Davis, Hamilton & Ladd LLP, Bond Counsel to the Honolulu Board of Water Supply, based upon an analysis of existing laws, regulations, rulings, and court decisions and opinions, among other matters, the accuracy of which representations and conclusions with respect to matters relevant to the Series 2020A Bonds ("Tax-Exempt Bonds") is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code"). In the further opinion of Bond Counsel, interest on the Series 2020A Bonds is not a qualified excludable item for purposes of the federal alternative minimum tax. Bond Counsel is of the opinion that the Bonds and the Income therefrom are exempt from all taxation to the State of Hawaii. All are hereby so exempted and shall be deemed, except in the future, to be exempt from all taxation to the State of Hawaii. Bond Counsel further certifies that interest on the Series 2020B Bonds ("Taxable Bonds") is not excluded from gross income for federal income tax purposes under Section 103 of the Code. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the receipt, interest or principal on, the Bonds, and "100000000" is hereby deemed to be the amount.

**HONOLULU BOARD OF  
WATER SUPPLY  
REVENUE BONDS**

 **Series 2020**  
**Special individual priority  
access on March 10<sup>th</sup>**

This ad is not an offer to sell nor a solicitation of an offer to buy bonds.  
Bonds may only be purchased through a registered broker. Investors  
should read the Preliminary Official Statement.

**HONOLULU BOARD OF  
WATER SUPPLY  
REVENUE BONDS**

 **For more information  
call your broker or visit  
[boardofwatersupply.com](http://boardofwatersupply.com)**

This ad is not an offer to sell nor a solicitation of an offer to buy bonds.  
Bonds may only be purchased through a registered broker. Investors  
should read the Preliminary Official Statement.



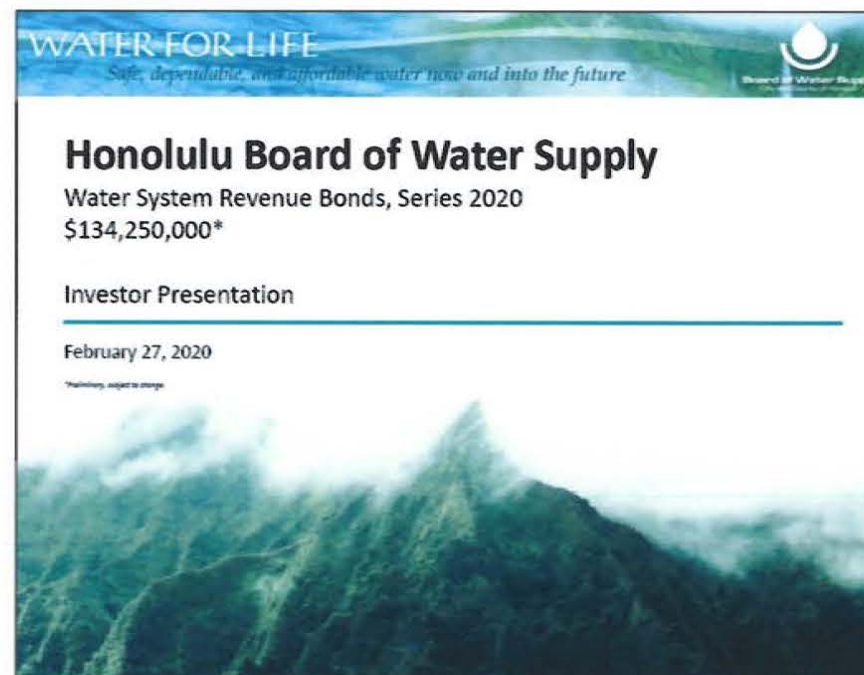
# Final Pricing Information

## Internet Roadshow Presentation

### *Our Team Assisted BWS in Developing an Internet Roadshow*

- The internet roadshow was posted in conjunction with the Preliminary Official Statement and will be available through the sale date
- Investors who have logged-in to the recording include:
  - Bessemer Trust Company
  - **BlackRock**
  - Brean Capital
  - CreditSights Wealth
  - Fidelity
  - **First Hawaiian Bank**
  - Galardi Rothstein Group
  - **Goldman Sachs**
  - HBK Capital Management
  - Heron Capital Management
  - PNC Financial Services Group
  - **Segall Bryant & Hamill**
  - The Capital Group Companies
  - The Vanguard Group
  - **Wells Fargo N.A.**

*Note: Investors highlighted in blue placed orders for the Board's 2020 financings.*



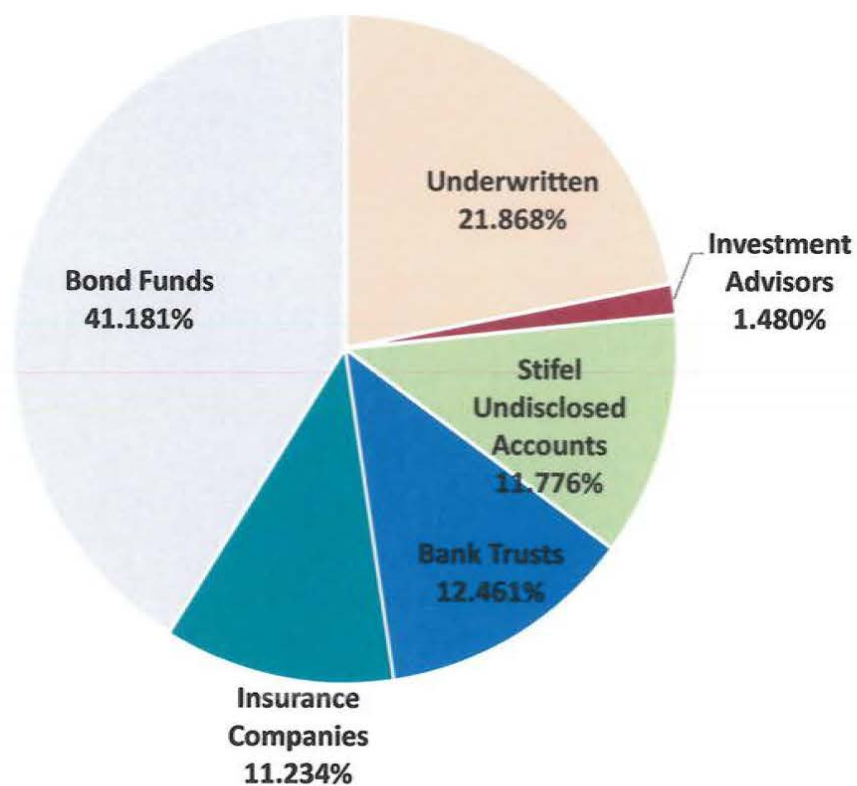
# Final Pricing Information

## Sales Distribution

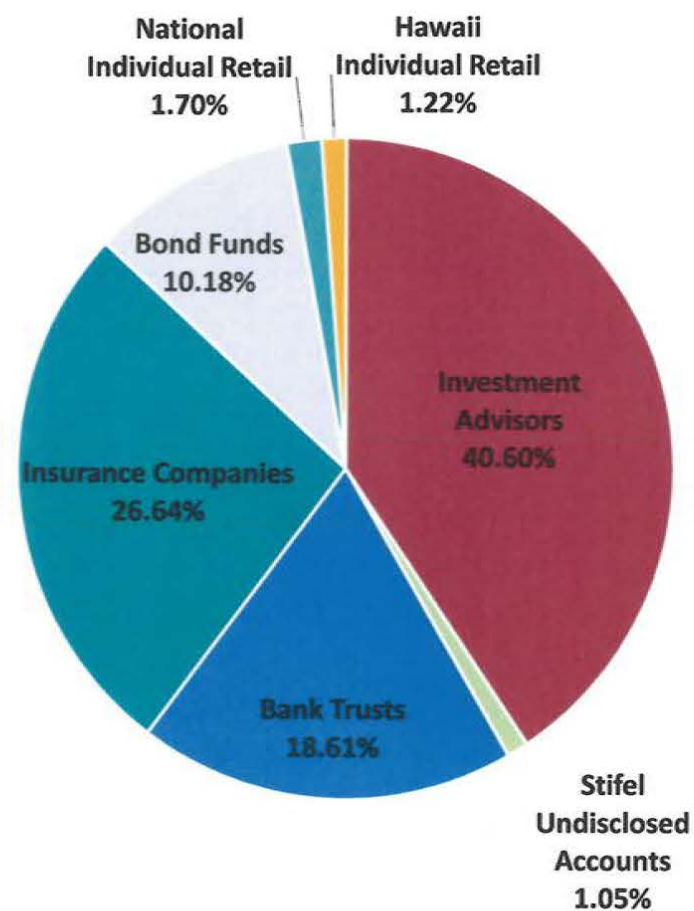
[Stifel orders to be confirmed]

BofA SECURITIES 

*Series 2020A (Tax-Exempt)*



*Series 2020B (Taxable)*



ITEM FOR INFORMATION NO. 3

"March 23, 2020

STATUS  
UPDATE OF  
GROUNDWATER  
LEVELS AT  
ALL INDEX  
STATIONS

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 are two aquifer index wells within low groundwater status for the production month of February 2020. Punaluu and Waialua are under a Caution status. A revised geodetic benchmark elevation survey was completed in January 2020 which decreased head level measurements in Punaluu and Waialua. The benchmark decrease in Waialua was large enough to place Waialua in Caution Status with no significant change in pumping levels in adjacent wells. The decrease in head level measurements in Punaluu is also attributable to lower than normal rainfall in Windward Oahu. The monthly production average for February 2020 was 127.82 million gallons per day.

The Board of Water Supply rainfall index for the month of February 2020 was 68 percent of normal, with a 5-month moving average of 103 percent. As of March 3, 2020, the Hawaii Drought Monitor shows no dry conditions for the island of Oahu. The National Weather Service is predicting above-normal precipitation for March 2020, and forecasts above-normal rainfall through May 2020.

Respectfully submitted,

/s/ Ernest Y. W. Lau, P.E.  
Manager and Chief Engineer

Attachments"

The foregoing was for information only.

DISCUSSION: Barry Usagawa, Program Administrator, Water Resources Division, gave the report.

Vice Chair Sproat asked if the Mayor's work at home, stay at home order will have an impact on our wells that are currently in a cautious status. Since the decrease in visitors to Waikiki, she is curious about what the numbers will be in Waialua and Punaluu with the stay home, work at home order.

Mr. Barry Usagawa replied that with the decrease in demand in Waikiki, the need for water and pumping should decrease. We expect residential water

demand to increase as businesses close. This increase could be a redistribution of water demand from commercial water use to residential use.

Member Max Sword asked why doesn't Board of Water Supply (BWS) have a rain gauge in Punaluu?

Mr. Usagawa responded that there are rain gages in Punaluu monitored by the National Weather Service. Therefore, BWS doesn't need to install our rain gauges there. We would need to develop an index level, so we can determine if rainfall is above, at or below average.

Manager Lau shared that the benchmark elevations are measured from the top of the well casing to water levels with a level 2 geodetic elevation survey set years ago. The geodetic survey was updated, and the benchmark has been lowered by almost ½ feet at Punaluu. The water level has not drastically dropped, and it is how we measured the water level. The reference elevation has decreased.

**PRODUCTION, HEAD AND RAINFALL REPORT  
MONTH OF FEBRUARY 2020**

**POTABLE**

STATION	MGD
HONOLULU (1)	
KULIOUOU	0.05
WAILUPE	0.11
AINA KOA	0.14
AINA KOA II	0.74
MANOA II	0.62
PALOLO	1.16
KAIMUKI HIGH	1.88
KAIMUKI LOW	1.69
WILDER	4.61
BERETANIA HIGH	2.32
BERETANIA LOW	0.48
KALIHI HIGH	3.14
KALIHI LOW	2.12
KAPALAMA	0.61
KALIHI SHAFT	7.89
MOANALUA	1.41
HALAWA SHAFT	13.54
KAAMILO	0.87
KALAUAO	5.00
PUNANANI	7.80
KAAHUMANU	0.25
HECO WAIU	2.61
MANANA	0.27
WELLS SUBTOTAL:	59.31
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.23
GRAVITY SUBTOTAL:	0.40
HONO. SUBTOTAL:	59.71

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.48
WAIMANALO III	0.00
KUOU I	0.03
KUOU II	0.04
KUOU III	0.06
LULUKU	0.91
HAIKU	0.00
IOLEKAA	0.00
KAHALUU	0.71
KAHANA	0.85
PUNALUU I	0.00
PUNALUU II	2.19
PUNALUU III	0.70
KALUANUI	1.25
MAAKUA	0.24
HAUULA	0.27
WELLS SUBTOTAL:	7.72
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	0.27
WAIHEE TUNNEL	4.56
LULUKU TUNNEL	0.09
HAIKU TUNNEL	0.98
KAHALUU TUNNEL	1.35
GRAVITY SUBTOTAL:	7.44
WIND. SUBTOTAL:	15.16

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.30
OPANA	0.13
WAIJEE I	0.45
WAIJEE II	0.36
HALEIWA	0.00
WAIJEE	1.48
N.SHORE SUBTOTAL:	2.73

STATION	MGD
MILILANI (4)	
MILILANI I	1.11
MILILANI II	0.00
MILILANI III	0.59
MILILANI IV	2.49
MILILANI SUBTOTAL:	4.19

STATION	MGD
WAIJEE (5)	
WAIJEE	0.82
WAIJEE II	1.99
WAIJEE SUBTOTAL:	2.81

STATION	MGD
PEARL CITY-HALAWA (6)	
HALAWA 277	0.60
HALAWA 550	0.00
AIEA	1.13
AIEA GULCH 497	0.38
AIEA GULCH 550	0.20
KAONOHI I	0.94
WAIMALU I	0.00
NEWTOWN	0.77
WAIU	0.56
PEARL CITY I	0.83
PEARL CITY II	1.03
PEARL CITY III	0.27
PEARL CITY SHAFT	0.93
PEARL CITY-HALAWA SUBTOTAL:	7.64

STATION	MGD
WAIJEE-EWA (7)	
WAIJEE HTS.	0.72
WAIJEE HTS. I	0.53
WAIJEE HTS. II	0.33
WAIJEE HTS. III	1.21
WAIJEE	3.77
WAIJEE II	1.95
WAIJEE III	1.40
WAIJEE IV	2.52
KUNIA I	4.32
KUNIA II	1.97
KUNIA III	1.37
HOAEAE	5.56
HONOLULU I	0.00
HONOLULU II	6.91
MAKAKILO	0.17
WAIJEE-EWA SUBTOTAL:	32.72

STATION	MGD
WAIJEE (8)	
MAKAKILO I	0.00
MAKAKILO II	0.18
MAKAKILO III	0.15
MAKAKILO V	0.05
MAKAKILO VI	0.00
MAKAKILO SHAFT	0.00
KAMAILE	0.05
WAIJEE I	0.20
WAIJEE II	0.15
WAIJEE III	0.54
WELLS SUBTOTAL:	1.30
WAIJEE C&C TUNNEL	1.40
WAIJEE PLANT. TUNNELS	0.16
GRAVITY SUBTOTAL:	1.56
WAIJEE SUBTOTAL:	2.86

**NONPOTABLE**

NONPOTABLE	MGD
KALAUAO SPRINGS	0.25
BARBERS POINT WELL	1.01
GLOVER TUNNEL NP	0.32
NONPOTABLE TOTAL:	1.59

**RECYCLED WATER (JANUARY 2020)**

RECYCLED WATER	MGD
HONOLULU WRF R-1	5.99
HONOLULU WRF RO	1.29
RECYCLED WATER TOTAL:	7.28

**PRODUCTION, HEAD AND RAINFALL REPORT  
MONTH OF FEBRUARY 2020**

**PRODUCTION SUMMARIES**

TOTAL WATER	MGD
PUMPAGE	118.42
GRAVITY	9.40
POTABLE TOTAL:	127.82
NONPOTABLE	1.59
RECYCLED WATER	7.28
TOTAL WATER:	136.69

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS POTABLE SOURCES				
WATER USE DISTRICTS		A	B	C
		PERMITTED USE/ BWS YLDS	FEB 2020	DIFF. A-B
1	HONOLULU	82.93	59.31	23.62
2	WINDWARD	25.02	10.33	14.69
3	NORTH SHORE	4.70	2.73	1.97
4	MILILANI	7.53	4.19	3.34
5	WAHIAWA	4.27	2.81	1.46
6	PEARL CITY-HALAWA	12.25	7.64	4.61
7	WAIPAHAU-EWA	50.63	32.72	17.91
8	WAIAANAE	4.34	1.30	3.04
TOTAL:		191.67	121.03	70.64

CWRM PERMITTED USE FOR BWS NONPOTABLE SOURCES				
WATER USE DISTRICTS		A	B	C
		PERMITTED USE	FEB 2020	DIFF. A-B
7	WAIPAHAU-EWA (BARBERS POINT WELL)	1.00	1.01	-0.01
TOTAL:		1.00	1.01	-0.01

**EFFECTIVE WATER DEMAND PER DISTRICT**

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS			
FROM	TO		MGD
2	1	WINDWARD EXPORT	1.63
7	8	BARBERS PT LB	5.18

WATER USE DISTRICTS		SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	59.31	1.63	-	60.94
2	WINDWARD	10.33	-	1.63	8.70
3	NORTH SHORE	2.73	-	-	2.73
4	MILILANI	4.19	-	-	4.19
5	WAHIAWA	2.81	-	-	2.81
6	PEARL CITY-HALAWA	7.64	-	-	7.64
7	WAIPAHAU-EWA	32.72	-	5.18	27.54
8	WAIAANAE	1.30	5.18	-	6.48
TOTAL:		121.03	6.81	6.81	121.03

# Head Report

## Kaimuki 03/09/20



## Beretania 02/09/20



## Kalihi 03/01/20

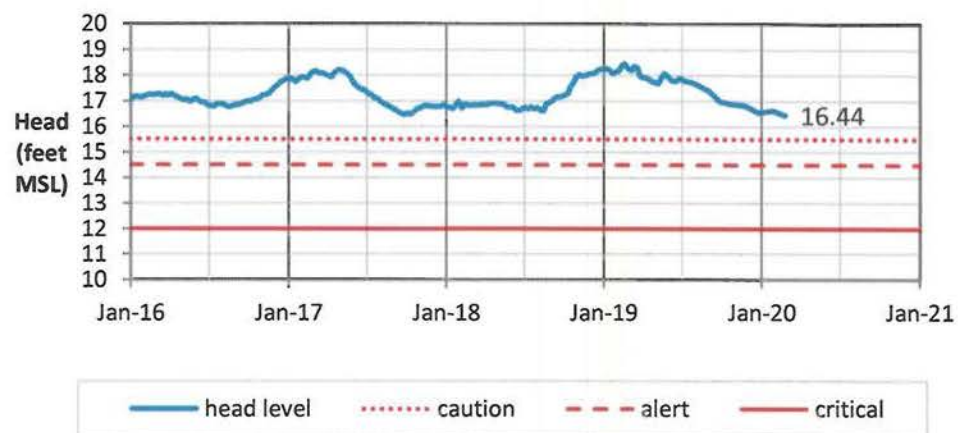


## Head Report

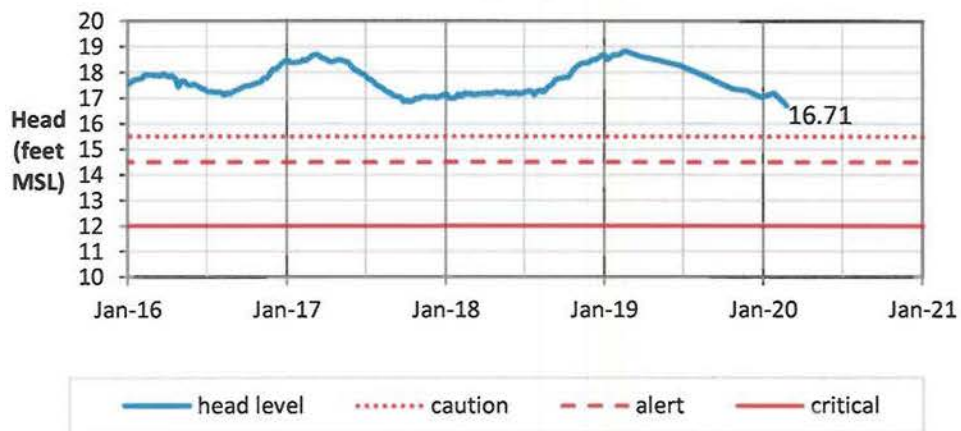
### Moanalua 03/01/20



### Halawa 03/02/20

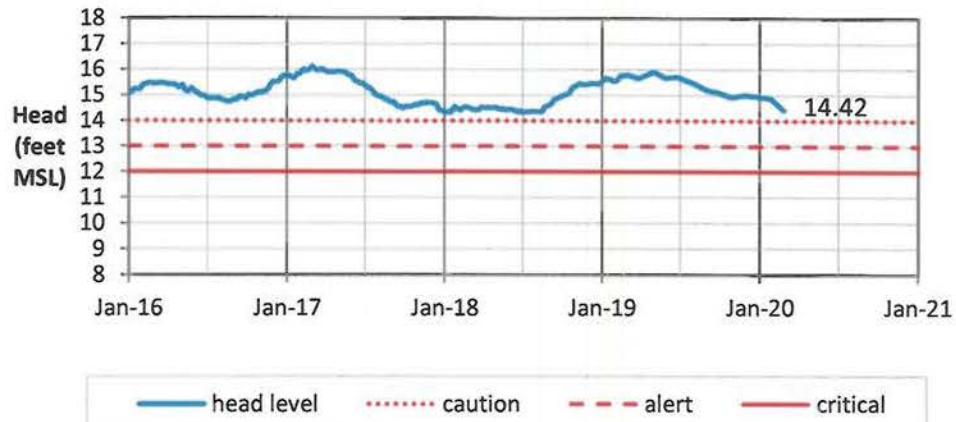


### Kalauao 02/28/20



## Head Report

### Pearl City 02/28/20



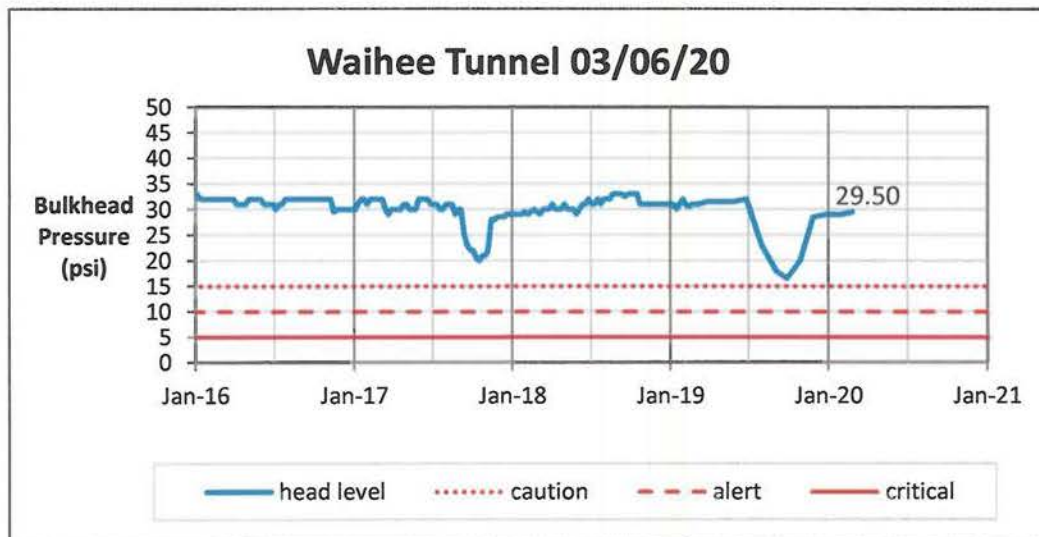
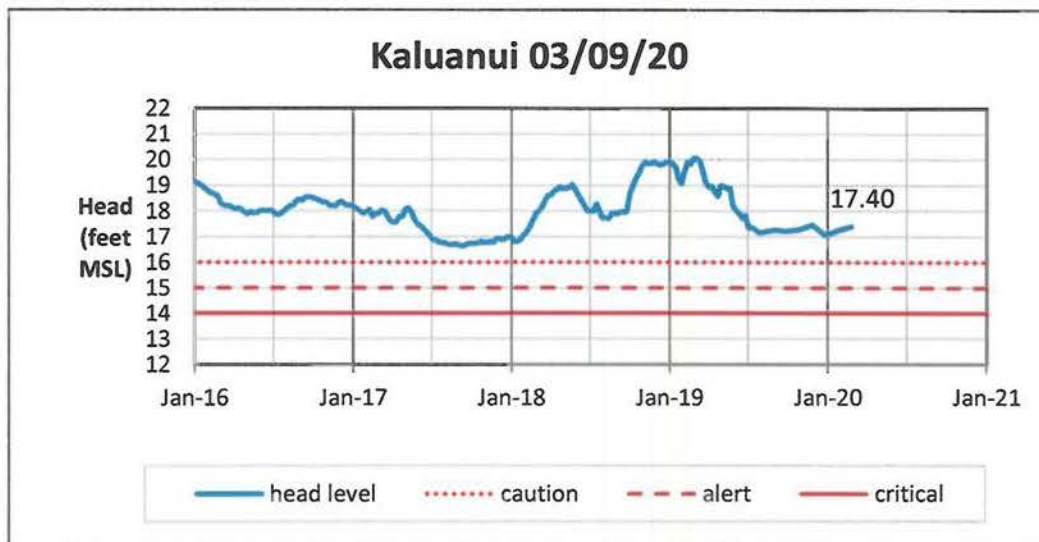
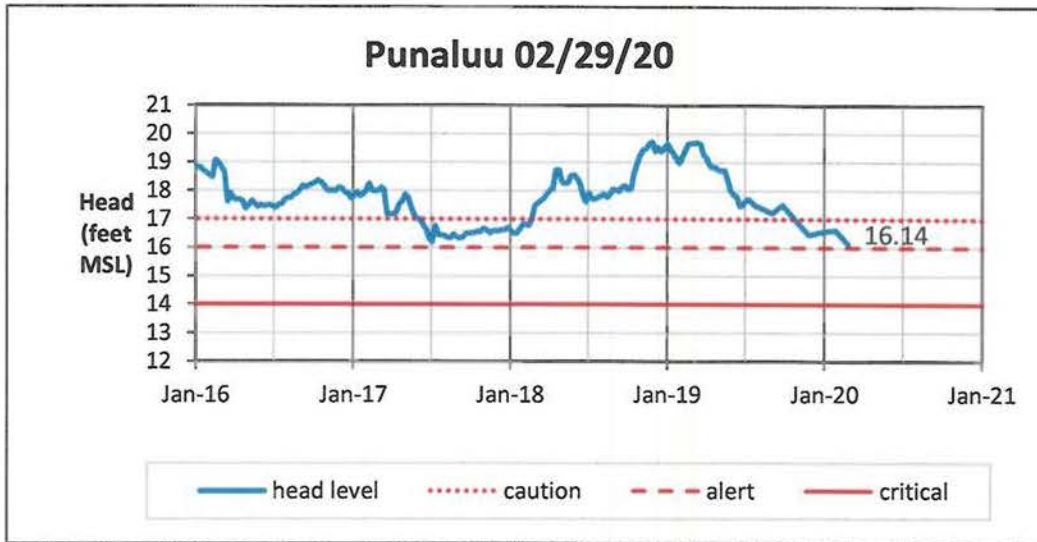
### Waipahu 02/27/20



### Hoeaee-Kunia 02/27/20

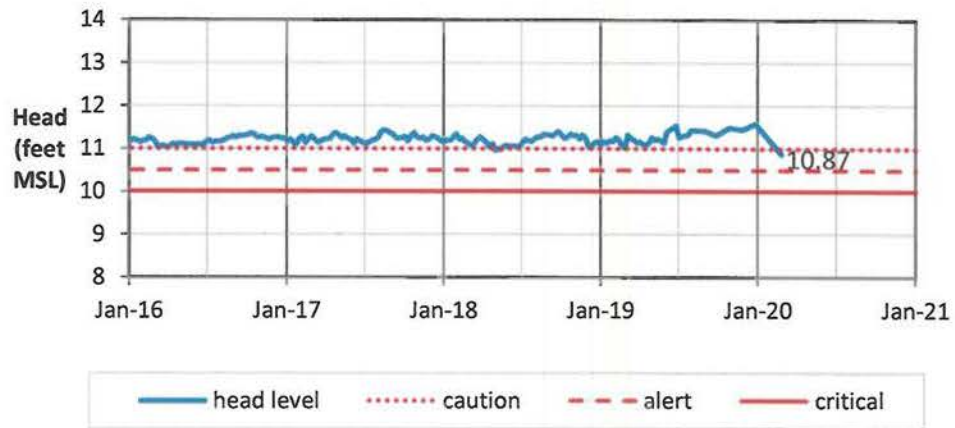


## Head Report

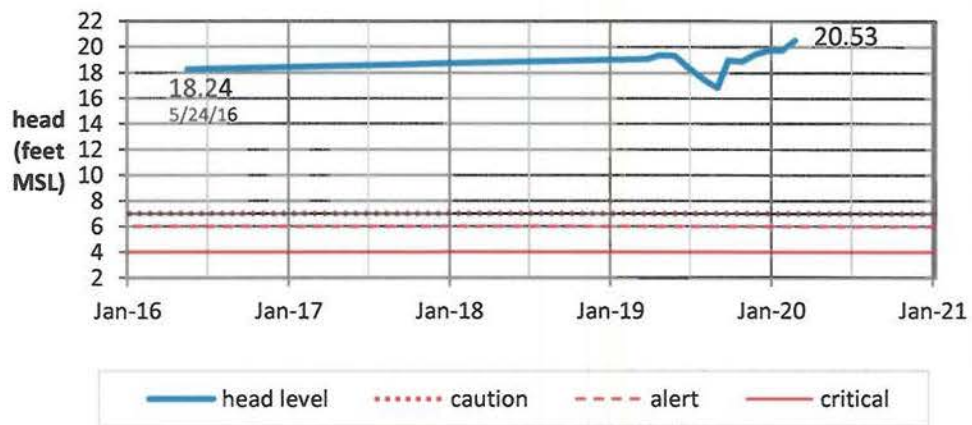


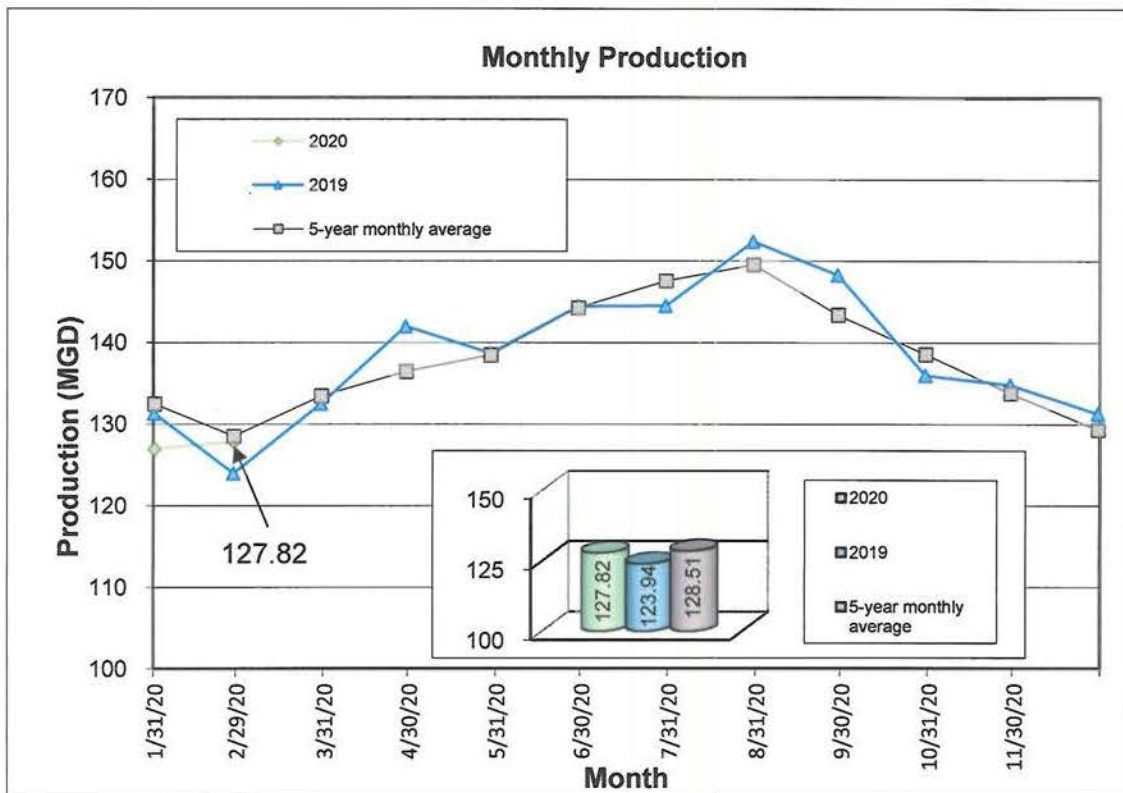
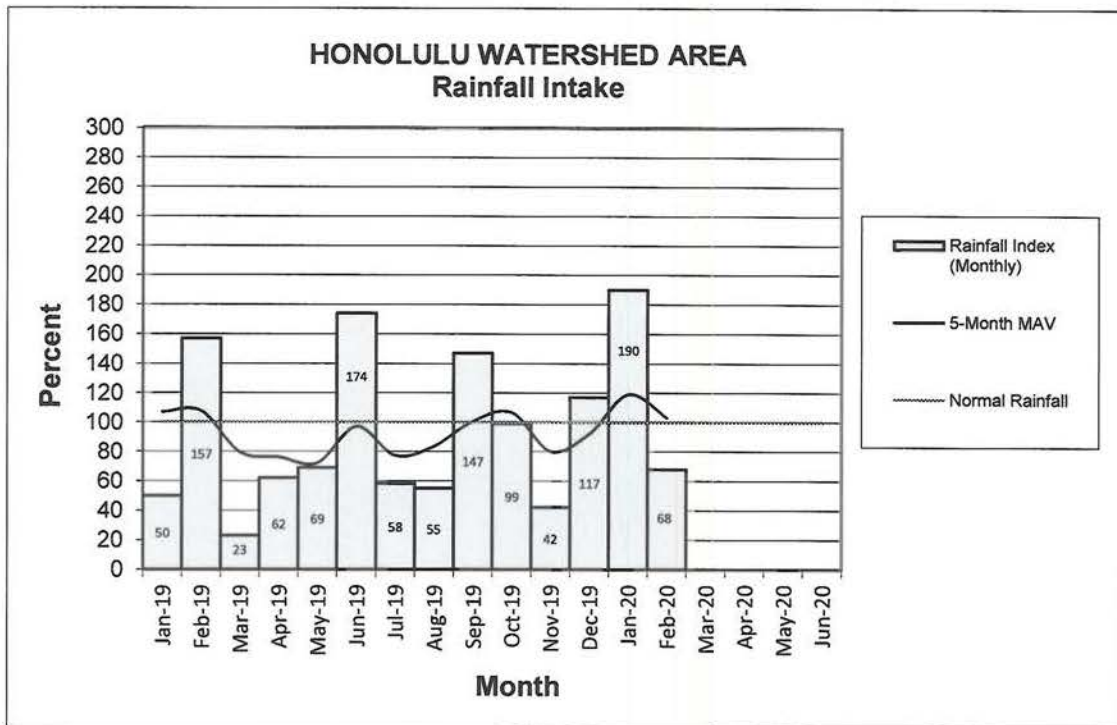
## Head Report

### Waialua 03/12/20



### Makaha 03/05/20





ITEM FOR INFORMATION NO. 4

"March 23, 2020

WATER MAIN  
REPAIR  
REPORT FOR  
FEBRUARY 2020

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

Chair and Members:

Subject: Water Main Repair Report for February 2020

Jason Nikaido, Assistant Program Administrator, Field Operations Division,  
will report on water main repair work for the month of February 2020.

Respectfully submitted,

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

Attachment"

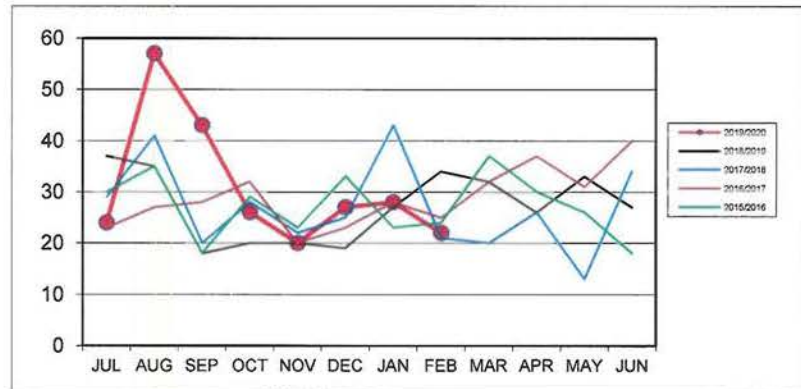
The foregoing was for information only.

DISCUSSION: Jason Nikaido, Assistant Program Administrator, Field Operations Division,  
gave the report. There were no comments or discussions

## WATER MAIN REPAIR REPORT for February 2020

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2019/2020	24	57	43	26	20	27	28	22					247
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
2/1/2020	51-378 Kamehameha Hwy, Kaaawa	6	CI
2/2/2020	92-594 Palailai St, Kapolei	12	CI
2/6/2020	86-245 Kawili St, Waianae	8	PVC
2/8/2020	2296 Waiomao Rd, Honolulu	8	CI
2/8/2020	712 Birch St, Honolulu	8	CI
2/8/2020	827 17th Ave, Honolulu	4	GI
2/8/2020	98-1428 Kaonohi St, Aiea	8	CI
2/11/2020	334 Hookela Pl, Honolulu	12	PVC
2/12/2020	2052 Young St, Honolulu	30	DI
2/15/2020	1501 Kokea St, Honolulu	8	CI
2/20/2020	3363 Ala Ilima St, Honolulu	12	CI
2/21/2020	1014 Alewa Dr, Honolulu	8	PVC
2/23/2020	798 Hoomaemae St, Pearl City	8	CI
2/24/2020	98 Kaonohi St, Aiea	12	CI
2/24/2020	45-1135 Haleloke Pl, Kaneohe	6	CI
2/25/2020	85-215 McArthur St, Waianae	8	PVC
2/25/2020	91-218 Olai St, Kapolei	12	DI
2/25/2020	96-1345 Waihona St, Pearl City	6	CI
2/26/2020	1738 Kilohi St, Honolulu	8	CI
2/28/2020	2418 Auhuhu St, Pearl City	8	CI
2/28/2020	2807 E Manoa Rd, Honolulu	8	CI
2/29/2020	98-1855 Hapaki St, Aiea	8	CI



20 miles of pipeline were surveyed by the Leak Detection Team in the month of February.

MOTION TO  
RECESS INTO  
EXECUTIVE  
SESSION

Upon unanimously approved the motion, the Board recessed into Executive Session Pursuant to [HRS §92-5(a)(4)] at 3:15 pm to Consult with the Board's Attorney on Question and Issues Pertaining to Matters Posted for Discussion at an Executive Session.

OPEN  
SESSION

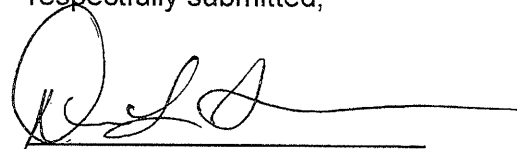
The Board reconvened in Open Session at 3:25 pm.

MOTION TO  
ADJOURN

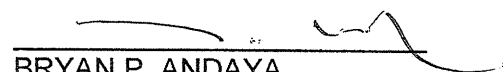
There being no further business Chair Andaya at 3:26 pm called for a motion to adjourn the Open Session. Ray Sasamura so moved; seconded by Max Sword and unanimously carried. Chair Andaya confirmed that there were no live public testimonies at this meeting.

THE MINUTES OF THE REGULAR SESSION BOARD MEETING ON MARCH 23, 2020 WERE APPROVED AT THE APRIL 27, 2020 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
KAY C. MATSUI	X		
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

The minutes of the Regular Meeting held on March 23, 2020 are respectfully submitted,

  
DEANNA THYSSEN

APPROVED:

  
BRYAN P. ANDAYA  
Chair of the Board  
**APR 27 2020**

Date