

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



December 8, 2020

KIRK CALDWELL, MAYOR

BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
RAY C. SOON
MAX J. SWORD

ROSS S. SASAMURA, Ex-Officio
JADE T. BUTAY, Ex-Officio

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

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

NOTICE

The Board of Water Supply, City and County of Honolulu, will hold a Regular Meeting on Monday, December 14, 2020, at 2:00 p.m. in the Boardroom, Public Service Building, 630 South Beretania Street, Honolulu, Hawaii.

Pursuant to the Fifteenth Supplementary Proclamation issued by Governor David Y. Ige on November 16, 2020, related to the COVID-19 emergency, in order to allow public participation in a manner consistent with social distancing practices, the following procedures are in effect for the meeting.

Some Board members may be participating in the meeting by interactive conference technology from remote locations.

TESTIMONY

Testimony can be submitted as follows:

- Written testimony may be emailed to board@hbws.org or faxed to (808) 748-5079. Testimony is due by Monday, December 14, 2020, at noon. Written testimonies should include the submitter's address, email address, and phone number. Written testimony will be posted to the BWS website atboardofwatersupply.com.
- Mail written testimony to Board of Water Supply, 630 S. Beretania St., Honolulu, HI 96843. Testimony is due by Monday, December 14, 2020, at noon.
- On-line testimony will be accepted at boardofwatersupply.com/testimony. Fill out the testimony form. Due by Monday, December 14, 2020, at noon.
- Telephone testimony will be accepted during the meeting at (808) 748-6040. Callers will be placed in a queue and brought up to testify one at a time.
- In-person testimony will not be accepted.

Testimony is limited to two (2) minutes and shall be presented by the registered speaker only.

MATERIALS AVAILABLE FOR INSPECTION

Meeting materials ("board packet" under HRS Section 92-7.5) are accessible at www.boardofwatersupply.com/boardmeetings.

VIEWING THE MEETING

The meeting will be viewable via live streaming on:

(1) Facebook Live: www.facebook.com/bwshonolulu/live the live stream will appear at the top of the page. You may have to click the arrow on video to start it;

(2) the BWS website: www.boardofwatersupply.com/live. Video will appear on screen. You may have to click the arrow on video to start it. On both you may have to unmute audio as muted audio tends to be the default setting.

SPECIAL REQUESTS AND ACCOMMODATIONS

If you require special assistance, an auxiliary aid or service, and/or an accommodation due to a disability to participate in this meeting (i.e., sign language interpreter; interpreter for language other than English, or wheelchair accessibility), please call 748-5172 or email your request to board@hbws.org at least three business days prior to the meeting date.

The agenda for the December 14, 2020, Regular Meeting of the Board of Water Supply is as follows:

ITEMS REQUIRING BOARD ACTION

1. Approval of the Minutes of the Regular Meeting Held on November 23, 2020
2. Adoption of Resolution 917, 2020, Acceptance of Gift to the Board of Water Supply from Hardware Hawaii (HH) Holdings, Inc. for Detect-A-Leak Week Program
3. Adoption of Resolution 918, 2020, Resolution of Appreciation for Board Member Ross Sasamura

ITEMS FOR INFORMATION

1. Board of Water Supply Financial Update
2. Status Update of Groundwater Levels at All Index Stations
3. Water Main Repair Report for November 2020

MINUTES

THE REGULAR MEETING OF THE BOARD OF WATER SUPPLY

December 14, 2020

At 1:58 PM on December 14, 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
Max J. Sword, Board Member via WebEx
Ray C. Soon, Board Member via WebEx
Ross S. Sasamura, Board Member, Ex-Officio via WebEx
Jade T. Butay, Board Member, Ex-Officio via WebEx

Also Present: Ernest Lau, Manager and Chief Engineer
Ellen Kitamura, Deputy Manager and Chief Engineer via WebEx
Jason Takaki, Program Administrator,
Capital Projects Division via Vimeo
Jennifer Elflein, Program Administrator,
Customer Care Division via Vimeo
Kathleen Elliott-Pahinui, Information Officer,
Communications Office via WebEx
Michael Fuke, Program Administrator,
Field Operations Division via WebEx
Jason Nikaido, Assistant Program Administrator,
Field Operations Division via WebEx
Joseph Cooper, Waterworks Controller,
Finance Division via WebEx
Kathryn-Jean Hoffman, Procurement & Specs
Specialist VI, Executive Support Office via Vimeo
Michele Thomas, Executive Assistant I,
Human Resources Office via Vimeo
Henderson Nuuhiwa, Program Administrator,
Information Technology Division via Facebook Live
Michael Matsuo, Program Administrator,
Land Division via Vimeo
Erwin Kawata, Program Administrator,
Water Quality Division via Vimeo
Barry Usagawa, Program Administrator,
Water Resources Division via WebEx

Kevin Ihu, Program Administrator,
Water System Operations Division
via Vimeo
Kathy Mitchell, Administrative Services Officer
via Facebook Live
Deanna Thyssen, Manager Secretary via WebEx
Joy Cruz-Achui, Board Secretary

Others Present: Jeff Lau, Deputy Corporation Counsel
via WebEx
Jessica Wong, Deputy Corporation Counsel
via Telephone Conference Call

REGULAR MEETING

Chair Bryan Andaya requested a roll call for the Regular Meeting. Chair Andaya asked each Board Member to respond verbally when their names were called. Vice Chair Kapua Sproat, aye; Board Member Ross Sasamura, aye; Board Member Ray Soon; and Board Member Jade Butay, present.

Chair Andaya requested all attendees calling-in or video conferencing to please mute their microphone when not speaking to the audience, and when intending to speak, unmute their microphone and identify themselves before speaking.

Chair Andaya also introduced those present in the Boardroom. Manager Ernest Lau, Board Secretary Joy Cruz-Achui, and Information Specialist Steven Norstrom. Joining from the City and County Corporation Counsel was Deputy Jeff Lau via WebEx and Deputy Jessica Wong via telephone.

Chair Andaya stated that the Board of Water Supply (BWS) is dedicated to providing safe, dependable, and affordable water now and into the future.

Chair Andaya stated under the Fifteenth Supplementary Proclamation issued by Governor David Ige on November 16, 2020, to follow public participation in a matter consistent with social distancing practices. The following procedures are in effect for the meeting. Board Members are participating from remote locations via WebEx.

Chair Andaya shared the various ways submit testimony: Written testimony may be submitted by email to board@hbws.org, by fax to (808) 748-5079; mailed to Board of Water Supply, 630 S. Beretania St., Honolulu, HI 96843; or online at the boardofwatersupply.com/testimony, which were all due at noon today. If you have not had the chance to send in your testimony by email, fax, or mail, telephone testimony, you may still do so. Telephone testimony is accepted by calling (808)748-6040, where you will be put in the queue and allowed to testify one at a time. Unfortunately, due to the pandemic, in-person testimony is suspended. Pursuant to HRS Section 92-7.5, Board Meeting materials available to view on our website at www.boardofwatersupply.com/boardmeeting.

Chair Andaya also announced the Board Meeting is broadcasted live on facebook.com/bwshonolulu/live and the BWS website at www.boardofwatersupply.com/live.

APPROVAL OF MEETING	Approval of the Minutes of the Regular Meeting Held on November 23, 2020.
MOTION TO APPROVE	<p>Max Sword and Ross Sasamura motioned and seconded, respectively, to approve the Minutes of the Regular Meeting of November 23, 2020.</p> <p>Chair Andaya asked if there was any discussion on the minutes from the Board Members. Since there was no discussion, Chair Andaya asked Mr. Norstrom, is there anyone to testify by telephone. Mr. Norstrom responded there were no telephone testifiers.</p> <p>At 2:00 PM, Board Member Max Sword joined the Regular Board Meeting via WebEx.</p>

In lieu of a roll call vote, Chair Andaya requested a voice vote on the motion and requested that Board Members in favor of the motion say "Aye." The Board members present responded with a verbal "Aye." Chair Andaya then inquired if any Board Members would like to object or vote "Nay" on the motion. There were no objections or "Nay" votes. Chair Andaya announced that the motion was unanimously carried.

THE MINUTES OF THE REGULAR MEETING HELD ON NOVEMBER 23, 2020, WERE APPROVED AT THE DECEMBER 14, 2020 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

"December 14, 2020

ADOPTION OF
RESOLUTION
NO. 917, 2020,
ACCEPTANCE
OF GIFT TO
THE BOARD OF
WATER
SUPPLY FROM
HARDWARE
HAWAII (HH)
HOLDINGS, INC.
FOR DETECT-
A-LEAK WEEK
PROGRAM

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

Chair and Members:

Subject: Adoption of Resolution No. 917, 2020, Acceptance of Gift to
the Board of Water Supply from Hardware Hawaii (HH)
Holdings, Inc. Detect-A-Leak Week Program

We recommend acceptance of the proposed gift to the Board of Water Supply (BWS), City and County of Honolulu, from HH HOLDINGS INC. of 5,000 toilet leak detection dye tablets valued at \$515.50, in support of our annual Detect-A-Leak Week program, which helps educate the public about the importance of regular leak detection as an effective means to prevent unnecessary water loss.

According to the United States Environmental Protection Agency, the average American home can waste more than 10,000 gallons of water every year from running toilets, dripping faucets, and other household leaks. The most common household leaks are in toilets, so during Detect-A-Leak Week, the public can pick up toilet leak detection dye tablets at any Hardware Hawaii store, Satellite City Hall location, or in the lobby of the BWS Public Service Building at 630 South Beretania Street.

Detect-A-Leak Week will be observed statewide from March 15-21, 2021, with each county water department coordinating its own public outreach program.

We greatly appreciate the continued participation and commitment of our community partners and our customers who support this very worthwhile program, which encourages all customers to embrace their role as responsible stewards of our precious water resource.

Respectfully Submitted,

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

Attachment"

DISCUSSION:

Kathleen Elliott-Pahinui, Information Officer, Communications Office, gave the report. There were no comments or discussion.

MOTION TO
ADOPT

Ray Soon and Kapua Sproat motioned and seconded respectively, the Adoption Resolution No. 917, 2020, Acceptance of Gift to the Board of Water Supply from HH Holding, Inc. for Detect-A-Leak Week Program.

Chair Andaya asked if there was any discussion on Resolution No. 917, 2020, Acceptance of Gift to the Board of Water Supply from HH Holding, Inc. for Detect-A-Leak Week Program from the Board Members. Since there was no discussion, Chair Andaya asked Mr. Norstrom, is there anyone to testify by telephone. Mr. Norstrom responded there were no telephone testifiers.

In lieu of a roll call vote, Chair Andaya requested a voice vote on the motion and requested that Board Members in favor of the motion say "Aye." The Board members present responded with a verbal "Aye." Chair Andaya then inquired if any Board Members would like to object or vote "Nay" on the motion. There were no objections or "Nay" votes. Chair Andaya announced that the motion to accept the generous gift from Hardware Hawaii was unanimously carried.

ADOPTION OF RESOLUTION NO. 917, 2020, ACCEPTANCE OF GIFT TO THE BOARD OF WATER SUPPLY FROM HARDWARE HAWAII (HH) HOLDINGS, INC. FOR DETECT-A-LEAK WEEK PROGRAM, ADOPTED ON DECEMBER 14, 2020			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY	X		

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 917, 2020

ACCEPTANCE OF GIFT FROM HARDWARE HAWAII (HH) HOLDINGS, INC., IN
SUPPORT OF ANNUAL DETECT-A-LEAK WEEK PROGRAM

WHEREAS, the Board of Water Supply's (BWS) Detect-A-Leak Week program will be observed from March 15-21, 2021, and focuses consumer attention on property leak detection and timely repair as an effective means to prevent unnecessary water loss; and


WHEREAS, the BWS may accept 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, HH Holdings, Inc., is offering a gift of 5,000 toilet leak detection dye tablets valued at \$515.50 in support of the BWS's 2021 Detect-A-Leak Week conservation program; and

WHEREAS, the gift to the BWS is beneficial because providing Oahu residents with a free method to check for toilet leaks encourages regular leak detection and their personal responsibility as stewards of our precious water resources; now, therefore,

BE IT RESOLVED that the BWS hereby accept the gift valued at and directs the Manager and Chief Engineer, or his delegate, to accept and thank HH Holdings, Inc., for this gift.

ADOPTED:


BRYAN P. ANDAYA
Chair of the Board

Honolulu, HI
December 14, 2020

ADOPTION OF RESOLUTION NO. 917, 2020,
ACCEPTANCE OF GIFT TO THE BOARD OF WATER
SUPPLY FROM HARDWARE HAWAII (HH) HOLDINGS,
INC. FOR DETECT-A-LEAK WEEK PROGRAM,
ADOPTED ON DECEMBER 14, 2020

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

"December 14, 2020

ADOPTION OF
RESOLUTION
NO. 918, 2020,
RESOLUTION
OF
APPRECIATION
FOR
BOARD MEMBER
ROSS
SASAMURA

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

Chair and Members:

Subject: Adoption of Resolution No. 918, 2020,
Resolution of Appreciation for Board Member Ross
Sasamura

Ex-officio Board Member Ross Sasamura has notified this Board of Directors that he has resigned from his position as a director.

We recommend the adoption of Resolution No.918, 2020, to recognize and thank Mr. Sasamura for his service, contributions, and dedication to the Board of Water Supply.

Respectfully Submitted,

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

Attachment"

DISCUSSION:

Bryan Andaya, Board Chair, Board of Water Supply, read Adoption Resolution No. 918, 2020, Resolution of Appreciation for Board Member Ross Sasamura.

Vice Chair Kapua Sproat stated it was an honor and privilege to have been able to serve on the BWS Board with Board Member Ross Sasamura. She stated that the BWS will miss his presence at the Board Meetings and wished him the best for a well-deserved retirement.

Board Member Jade Butay expressed his sincerest appreciation for all that Board Member Sasamura has done for the City and for being good to him over the years. He stated Board Member Sasamura will be sorely missed by everyone at the BWS, City, and State Departments, for he took his responsibility seriously. Board Member Butay hopes that Board Member Sasamura will continue to share his wisdom and experience.

Manager Ernest Lau stated he echoed Vice Chair Sproat's statement. Manager Lau recalled numerous times throughout the last seven years that he observed Board Member Sasamura's the professionalism and patience in working with the community. Manager Lau mentioned witnessing the politeness and poise displayed by Board Member Sasamura at strenuous neighborhood board meetings and addressing homelessness, stating he learned from Board Member Sasamura' professionalism. He wished Board Member Sasamura and his family the best, Ke Akua (God) Bless You, and enjoy life!

Board Member Ray stated for those who believe in public service, Board Member Sasamura is the epitome of a public servant. Being part of public service is honorable and is something to be proud of. He expressed his appreciation for Board Member Sasamura's service.

Board Member Max Sword echoed Board Member Soon's comments. He stated it was an honor to serve with Board Member Sasamura at the BWS and other projects they worked on together. Board Member Sword added he hopes to continue seeing Board Member Sasamura around.

Board Member Sasamura thanked Chair Andaya, Vice Chair Sproat, Manager Lau, Deputy Manager Ellen Kitamura, the BWS staff, and the Board Members for all the hard work done for the people and City and County of Honolulu. He stated it was an honor to have worked alongside everyone at the BWS. The last eight years will be times he will look back upon and cherish.

Chair Andaya thanked Board Member Sasamura for his service on behalf of the entire BWS and Department. Chair Andaya stated that Board Member Sasamura had made many contributions to better Honolulu; he is a role model and inspiration in public service. Chair Andaya commented that it's an inspiration to him that there are people like Board Member Sasamura who care so much about our city and our community that inspires Chair Andaya to want to do more.


**MOTION TO
ADOPT**

Max Sword and Kapua Sproat motioned and seconded, respectively, the Adoption of Resolution No. 918, 2020, Resolution of Appreciation for Board Member Ross Sasamura.

In lieu of a roll call vote, Chair Andaya requested a voice vote on the motion and requested that Board Members in favor of the motion say "Aye." The Board members present responded with a verbal "Aye." Chair Andaya then inquired if any Board Members would like to object or vote "Nay" on the motion. There were no objections or "Nay" votes. Board Member Sasamura abstained. Chair Andaya announced that the motion was unanimously carried with one abstention.

ADOPTION OF RESOLUTION NO. 918, 2020, RESOLUTION OF APPRECIATION FOR BOARD MEMBER ROSS SASAMURA, ADOPTED ON DECEMBER 14, 2020			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA			ABSTAINED
JADE T. BUTAY	X		

Adopted this 14th day of December 2020
Board of Water Supply, Honolulu, Hawaii



BRYAN P. ANDAYA
Chair of the Board



BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 918, 2020

ROSS S. SASAMURA
IN APPRECIATION FOR SERVING AS AN EX-OFFICIO
MEMBER OF THE BOARD OF WATER SUPPLY

WHEREAS, ROSS S. SASAMURA, P.E., has ably served as an ex-officio member of the Board of Water Supply, City and County of Honolulu, since January 2013 and he has recently notified the Board of his resignation; and

WHEREAS, as the Director and Chief Engineer of the City Department of Facility Maintenance, MR. SASAMURA's reputation in government and the community and the esteem of his colleagues has brought additional recognition and respect for the Board; and

WHEREAS, ROSS SASAMURA's extensive knowledge and experience as a mechanical engineer and his insight into operational and administrative matters in managing a city department have made him a valuable asset to the Board and a helpful resource in its deliberations, as he provided useful insights and counsel to its members; and

WHEREAS, his accomplishments as Director of Operations at Heide & Cook Ltd.; co-founder of Commercial Training Consultants, and senior associate trainer at Pacific Training and Development, strengthened his credibility in discussions on engineering, construction, and budgetary matters; and

WHEREAS, as a Board member, ROSS SASAMURA has supported and encouraged initiatives that improve day-to-day operations and has volunteered his time and expertise to help effect business and policy decisions for the Board that will impact the public trust of the Board of Water Supply for many years to come; and

WHEREAS, MR. SASAMURA's service is a testament to his commitment to maintaining a municipal water system deserving of trust from the public it serves; now therefore,

BE IT RESOLVED by the Members of the Board of Water Supply, City and County of Honolulu, that we do hereby express to ROSS SASAMURA our deep appreciation and gratitude for his committed service to this Board and Department; and

BE IT FURTHER RESOLVED that the Members of this Board extend to ROSS SASAMURA our sincere aloha and best wishes for continued success in all his future endeavors; and

BE IT FINALLY RESOLVED that this Resolution be presented to ROSS SASAMURA.



Resolution No. 918, 2020

Adopted this 14th day of December 2020
Board of Water Supply, Honolulu, Hawaii

BRYAN P. ANDAYA
Chair of the Board

ITEM FOR INFORMATION NO. 1

"December 14, 2020

BOARD OF
WATER SUPPLY
FINANCIAL
UPDATE

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

Chair and Members:

Subject: Board of Water Supply Financial Update

Joseph Cooper, Waterworks Controller, Finance Division, will present the Board of Water Supply's Financial Update.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION:

Joseph Cooper, Waterworks Controller, Finance Division, gave the report. Chair Andaya and Board Member Soon Thanked Mr. Cooper for the presentation.

Financial Update for the Board of Water Supply



UWE KA LANI OLA KA HONUA

Board of Directors Meeting
December 14, 2020

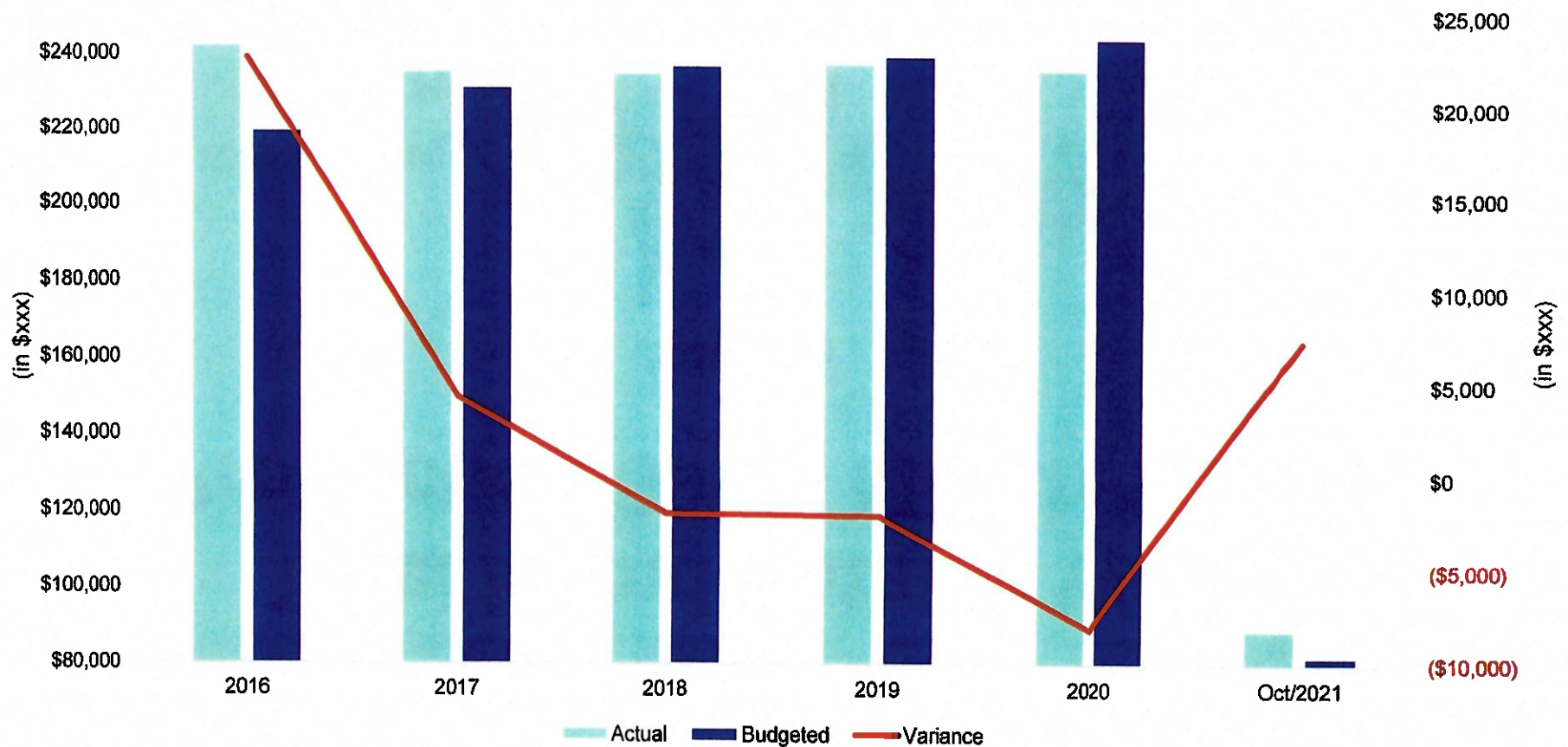
WATER FOR LIFE

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



Board of Water Supply
City and County of Honolulu

Revenues – Budget vs Actual FY 2016 – FY 2021



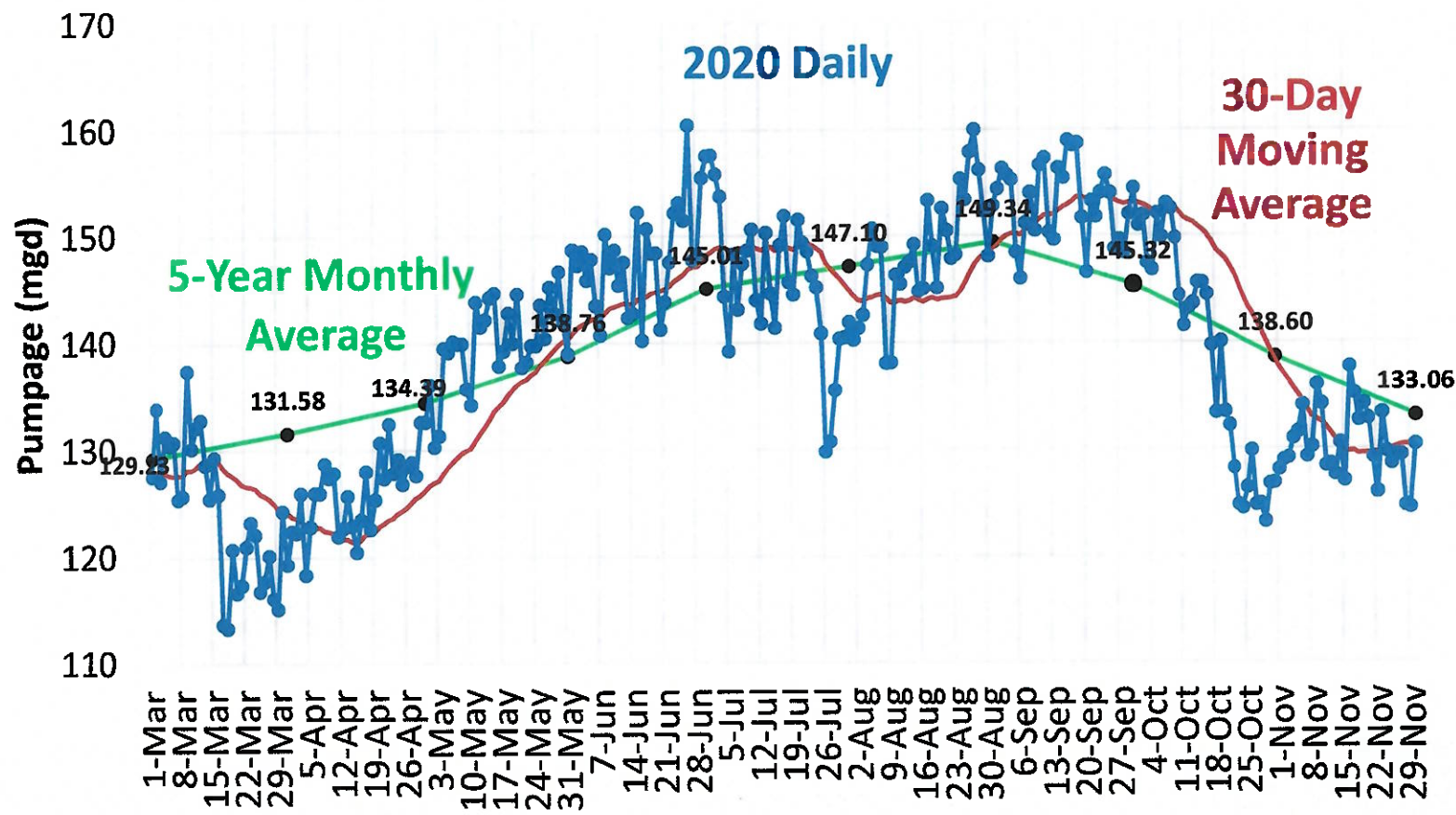
WATER FOR LIFE

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



Board of Water Supply
City and County of Honolulu

Total Island Potable Water Production Since March 1, 2020



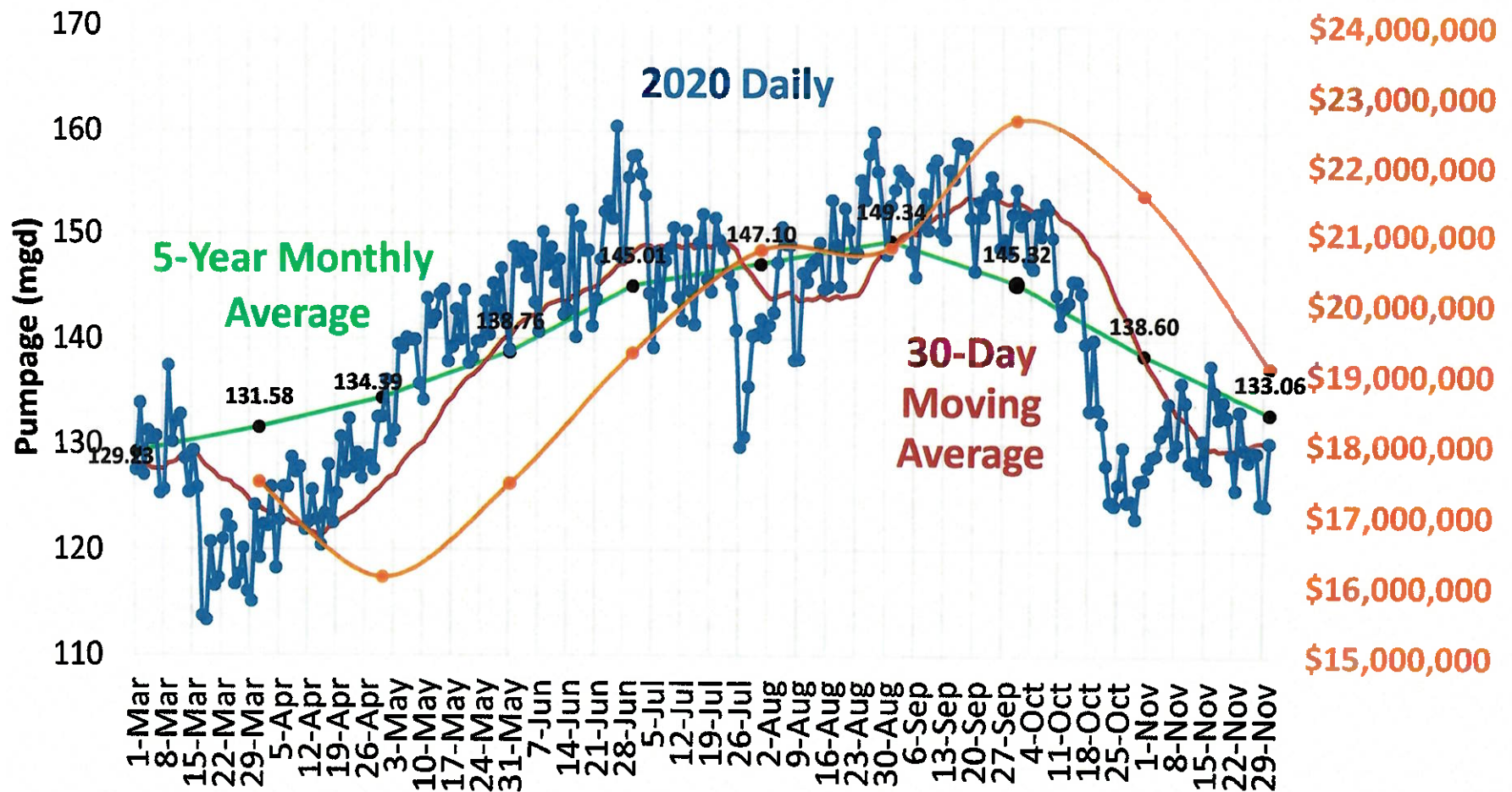
WATER FOR LIFE

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



Board of Water Supply
City and County of Honolulu

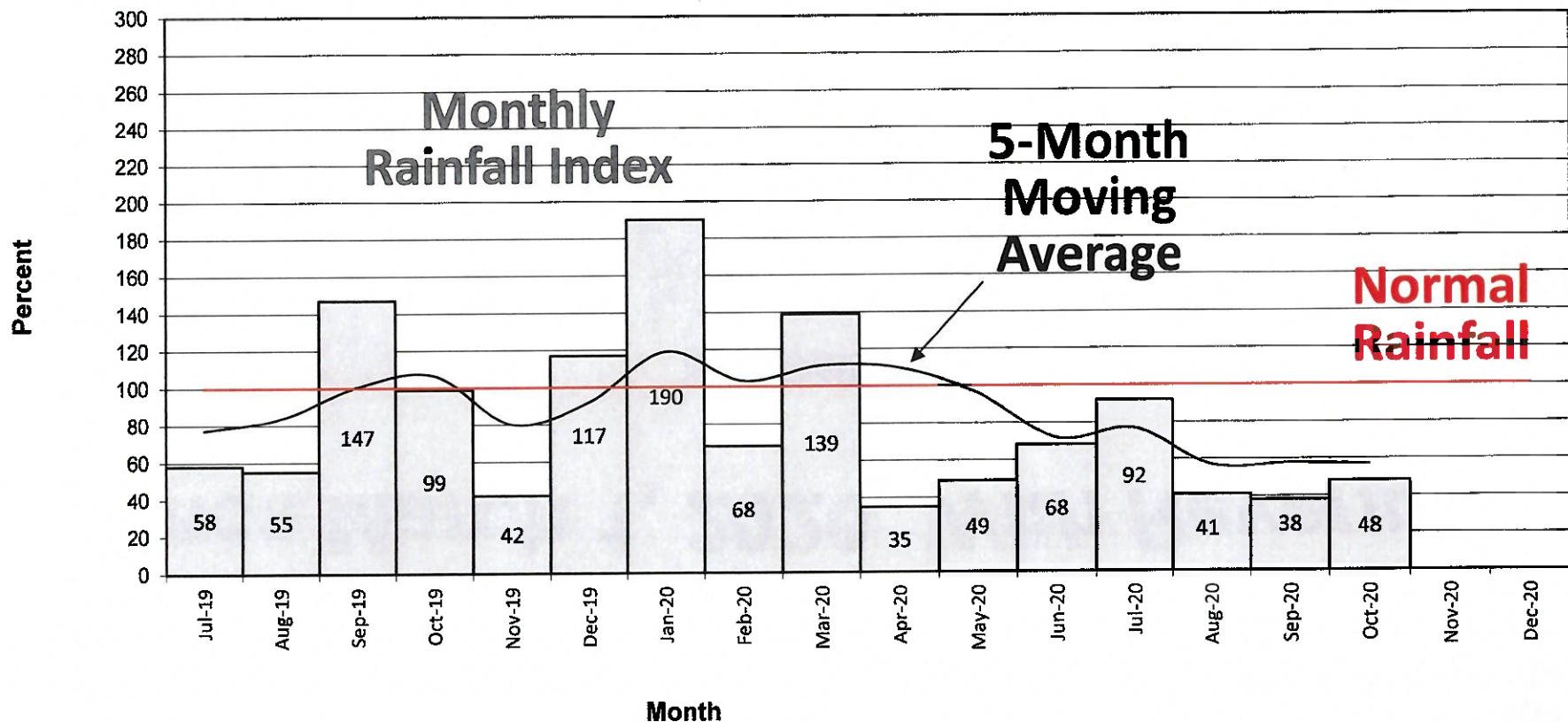
Total Island Potable Water Production Since March 1, 2020, *With Revenue*





Water Demands are Very Dependent Upon Weather

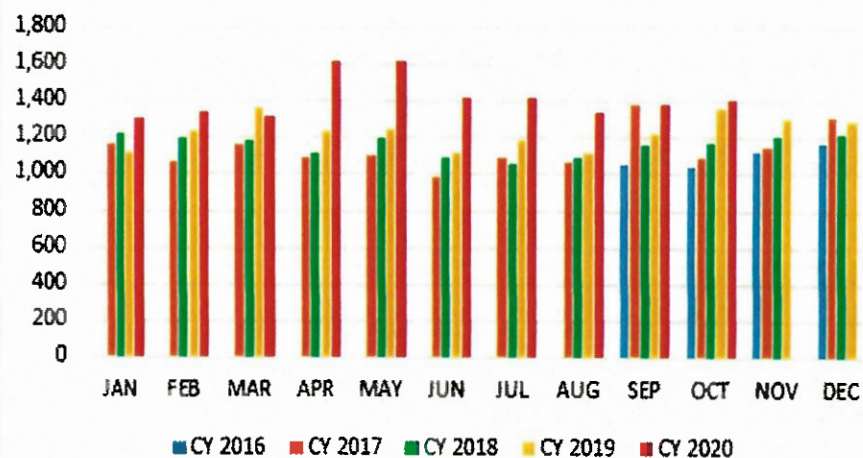
HONOLULU WATERSHED AREA
Rainfall Intake



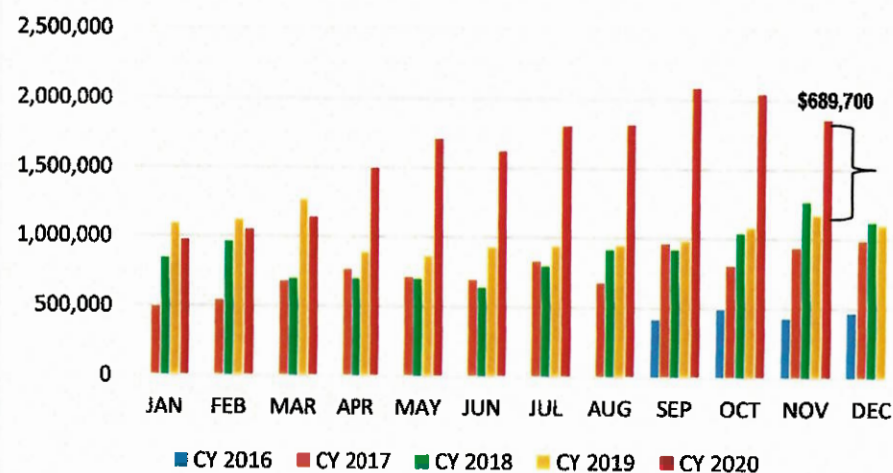


Delinquent Accounts Commercial

Commercial Delinquency - Number of Accounts
CY 2016 - Present



Commercial Delinquency - Amount in \$
CY 2016 - Present



WATER FOR LIFE

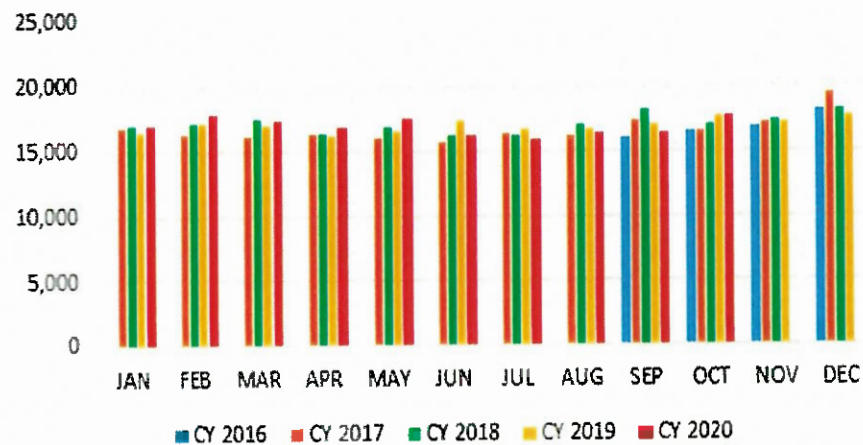
Safe, dependable, and affordable water now and into the future



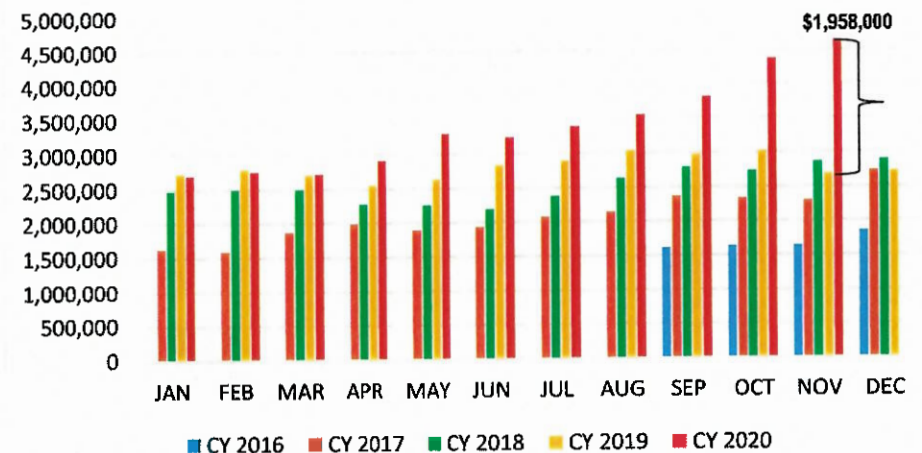
Board of Water Supply
City and County of Honolulu

Delinquent Accounts Residential

Residential Delinquency - Number of Accounts
CY 2016 - Present



Residential Delinquency - Amount in \$
CY 2016 - Present



WATER FOR LIFE

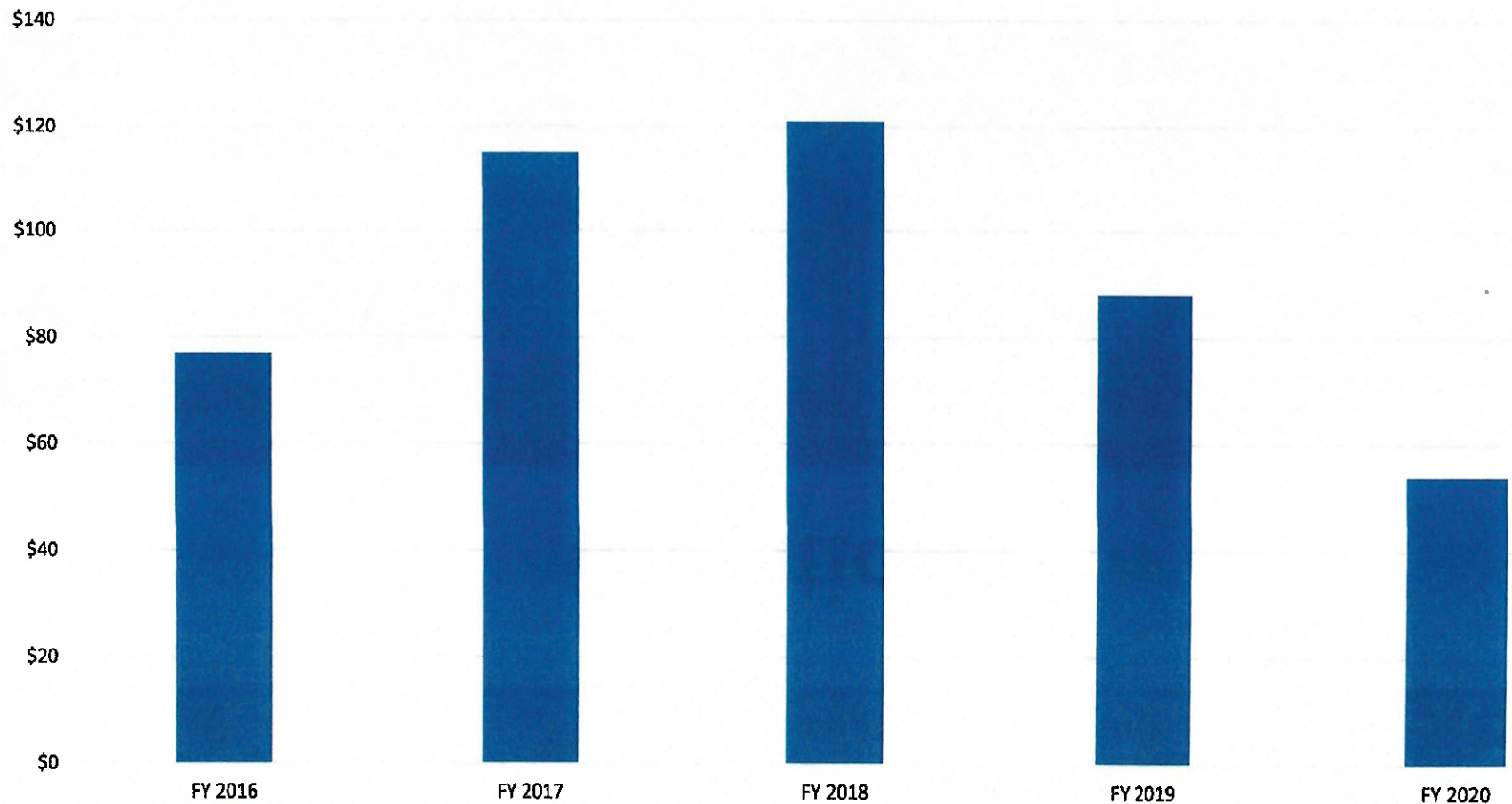
Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

Annual Actual Carry Over (\$M)

FY 2016 – FY 2020



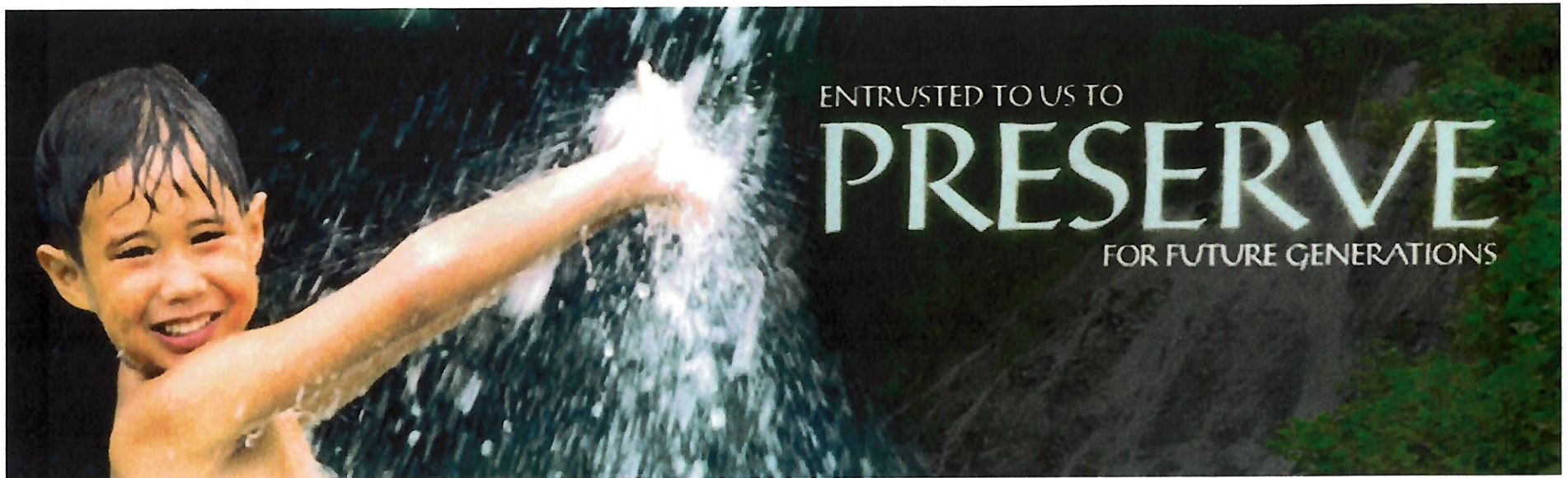
WATER FOR LIFE

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



Board of Water Supply
City and County of Honolulu

Questions?



ITEM FOR INFORMATION NO. 2

"December 14, 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

As reported at the October 26th Board Meeting, BWS initiated a voluntary conservation notice of 10% for Windward and East Honolulu due to declining water levels coupled with unusually hot weather and low rainfall conditions for the previous 7 months.

Presently, there are two aquifer index stations in low groundwater condition. Kaimuki is in Alert condition, while Punaluu is in Caution condition. The monthly production average for November 2020 was 130.14 million gallons per day, which is slightly less than the 5-year monthly average. Most monitoring stations are exhibiting fairly stable water level trends.

The Board of Water Supply rainfall index for the month of November was 79 percent of normal, with a 5-month moving average of 60 percent. As of December 1, 2020, the Hawaii Drought Monitor shows abnormally dry conditions across roughly the southwestern half of Oahu, with moderate drought conditions on the Ewa Plain and the eastern end of Oahu. The National Weather Service is forecasting La Nina conditions continuing through the winter months, with potential above-normal rainfall through June 2021.

We recognize that many customers continue to use water wisely and reduce water waste; we commend them for their efforts. We are asking all our customers to lower their water use where possible through the end of the year.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

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

Mr. Usagawa thanked Board Member Sasamura for all the help and guidance over the years. Most recently, his advice on Bill 65, a Bill for an Ordinance to Amend Chapter 2 of the Revised Ordinances of Honolulu 1990, as Amended, related to the Office of Climate Change, Sustainability and Resiliency, which was passed by Council this last week.

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

POTABLE

STATION	MGD
HONOLULU (1)	
KULIOUOU	0.11
WAILUPE	0.14
AINA KOA	0.15
AINA KOA II	0.73
MANOA II	0.63
PALOLO	1.02
KAIMUKI HIGH	1.10
KAIMUKI LOW	2.79
WILDER	6.93
BERETANIA HIGH	6.53
BERETANIA LOW	0.90
KALIHI HIGH	0.00
KALIHI LOW	0.00
KAPALAMA	1.48
KALIHI SHAFT	7.35
MOANALUA	1.33
HALAWA SHAFT	6.65
KAAMILO	0.87
KALAUAO	6.09
PUNANANI	10.00
KAHUMANU	0.25
HECO WAIU	2.65
MANANA	0.26
WELLS SUBTOTAL:	57.96
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.00
GRAVITY SUBTOTAL:	0.17
HONO. SUBTOTAL:	58.13

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.62
WAIMANALO III	0.00
KUOU I	0.68
KUOU II	0.05
KUOU III	0.50
LULUKU	0.91
HAIKU	0.00
IOLEKAA	0.00
KAHALUU	0.69
KAHANA	0.95
PUNALUU I	0.00
PUNALUU II	2.66
PUNALUU III	0.93
KALUANUI	1.26
MAAKUA	0.29
HAUULA	0.25
WELLS SUBTOTAL:	9.80
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	0.13
WAIHEE TUNNEL	3.51
LULUKU TUNNEL	0.21
HAIKU TUNNEL	0.97
KAHALUU TUNNEL	1.46
GRAVITY SUBTOTAL:	6.48
WIND. SUBTOTAL:	16.28

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.34
OPANA	0.18
WAIALEE I	0.42
WAIALEE II	0.47
HALEIWA	0.00
WAIALUA	1.83
N.SHORE SUBTOTAL:	3.24

STATION	MGD
MILILANI (4)	
MILILANI I	1.57
MILILANI II	0.00
MILILANI III	0.60
MILILANI IV	2.17
MILILANI SUBTOTAL:	4.35

STATION	MGD
WAIHAWA (5)	
WAIHAWA	1.01
WAIHAWA II	2.03
WAIHAWA SUBTOTAL:	3.04

STATION	MGD
PEARL CITY-HALAWA (6)	
HALAWA 277	0.62
HALAWA 550	0.00
AIEA	1.18
AIEA GULCH 497	0.34
AIEA GULCH 550	0.22
KAONOHI I	1.03
WAIMALU I	0.00
NEWTOWN	0.85
WAIU	0.81
PEARL CITY I	0.83
PEARL CITY II	1.11
PEARL CITY III	0.25
PEARL CITY SHAFT	0.93
PEARL CITY-HALAWA SUBTOTAL:	8.17

STATION	MGD
WAIPAHU-EWA (7)	
WAIPIO HTS.	0.86
WAIPIO HTS. I	0.62
WAIPIO HTS. II	0.24
WAIPIO HTS. III	1.17
WAIPAHU	5.59
WAIPAHU II	2.15
WAIPAHU III	1.60
WAIPAHU IV	2.86
KUNIA I	4.42
KUNIA II	1.84
KUNIA III	1.24
HOAEAE	6.04
HONOULIULI I	0.00
HONOULIULI II	4.43
MAKAKILO	0.28
WAIPAHU-EWA SUBTOTAL:	33.34

STATION	MGD
WAIANAE (8)	
MAKAHA I	0.00
MAKAHA II	0.22
MAKAHA III	0.25
MAKAHA V	0.16
MAKAHA VI	0.00
MAKAHA SHAFT	0.00
KAMAILE	0.06
WAIANAE I	0.10
WAIANAE II	0.49
WAIANAE III	0.65
WELLS SUBTOTAL:	1.94
WAI. C&C TUNNEL	1.40
WAI. PLANT. TUNNELS	0.25
GRAVITY SUBTOTAL:	1.65
WAIANAE SUBTOTAL:	3.59

NONPOTABLE

NONPOTABLE	MGD
KALAUAO SPRINGS	0.35
BARBERS POINT WELL	1.04
GLOVER TUNNEL NP	0.62
NONPOTABLE TOTAL:	2.01

RECYCLED WATER (OCTOBER 2020)

RECYCLED WATER	MGD
HONOULIULI WRF R-1	6.32
HONOULIULI WRF RO	1.38
RECYCLED WATER TOTAL:	7.70

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

PRODUCTION SUMMARIES

TOTAL WATER	MGD
PUMPAGE	121.83
GRAVITY	8.30
POTABLE TOTAL:	130.14
NONPOTABLE	2.01
RECYCLED WATER	7.70
TOTAL WATER:	139.85

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS				
POTABLE SOURCES				
WATER USE DISTRICTS		A	B	C
		PERMITTED USE/ BWS YLDS	NOV 2020	DIFF. A-B
1	HONOLULU	82.93	57.96	24.97
2	WINDWARD	25.02	12.63	12.39
3	NORTH SHORE	4.70	3.24	1.46
4	MILILANI	7.53	4.35	3.18
5	WAIHAWA	4.27	3.04	1.23
6	PEARL CITY-HALAWA	12.25	8.17	4.08
7	WAIPAHU-EWA	50.63	33.34	17.29
8	WAIANAE	4.34	1.94	2.40
TOTAL:		191.67	124.67	67.00

CWRM PERMITTED USE FOR BWS				
NONPOTABLE SOURCES				
WATER USE DISTRICTS		A	B	C
		PERMITTED USE	NOV 2020	DIFF. A-B
7	WAIPAHU-EWA (BARBERS POINT WELL)	1.00	1.04	-0.04
TOTAL:		1.00	1.04	-0.04

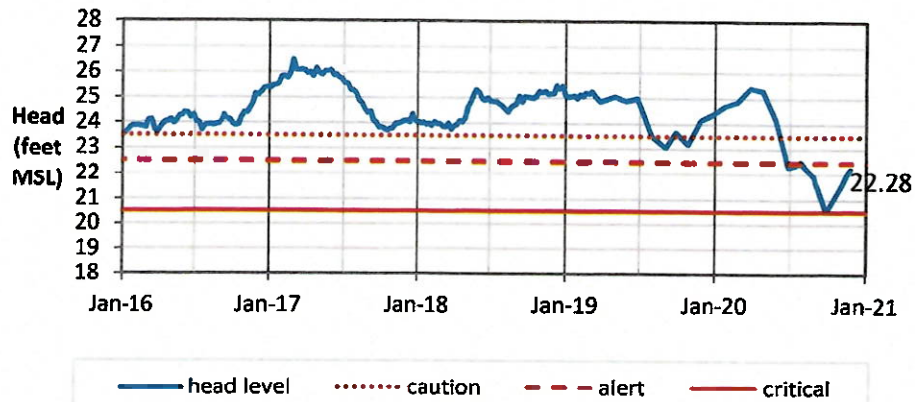
EFFECTIVE WATER DEMAND PER DISTRICT

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS			
FROM	TO		MGD
2	1	WINDWARD EXPORT	1.20
7	8	BARBERS PT LB	5.69

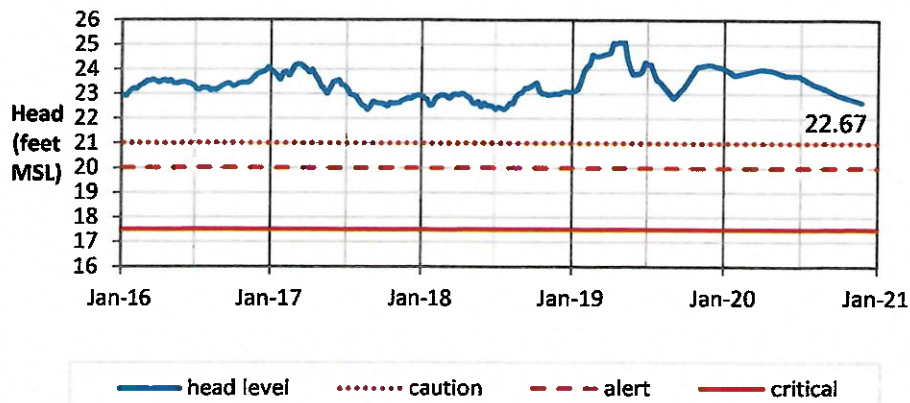
WATER USE DISTRICTS		SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	57.96	1.20	-	59.16
2	WINDWARD	12.63	-	1.20	11.43
3	NORTH SHORE	3.24	-	-	3.24
4	MILILANI	4.35	-	-	4.35
5	WAIHAWA	3.04	-	-	3.04
6	PEARL CITY-HALAWA	8.17	-	-	8.17
7	WAIPAHU-EWA	33.34	-	5.69	27.65
8	WAIANAE	1.94	5.69	-	7.62
TOTAL:		124.67	6.89	6.89	124.67

Head Report

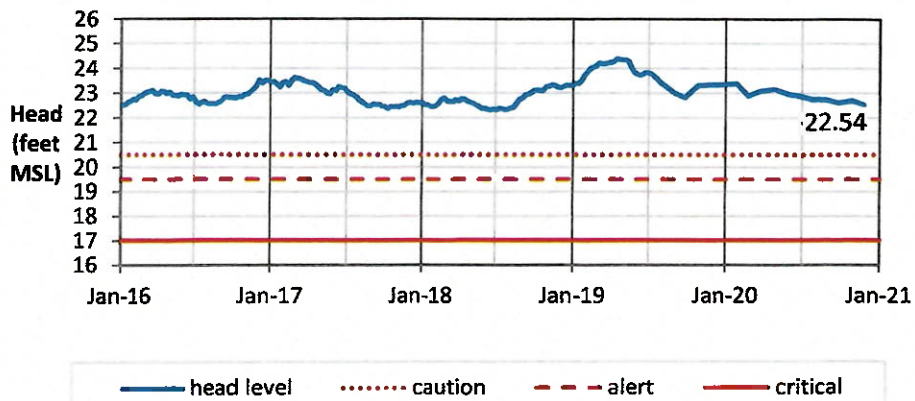
Kaimuki 11/30/20



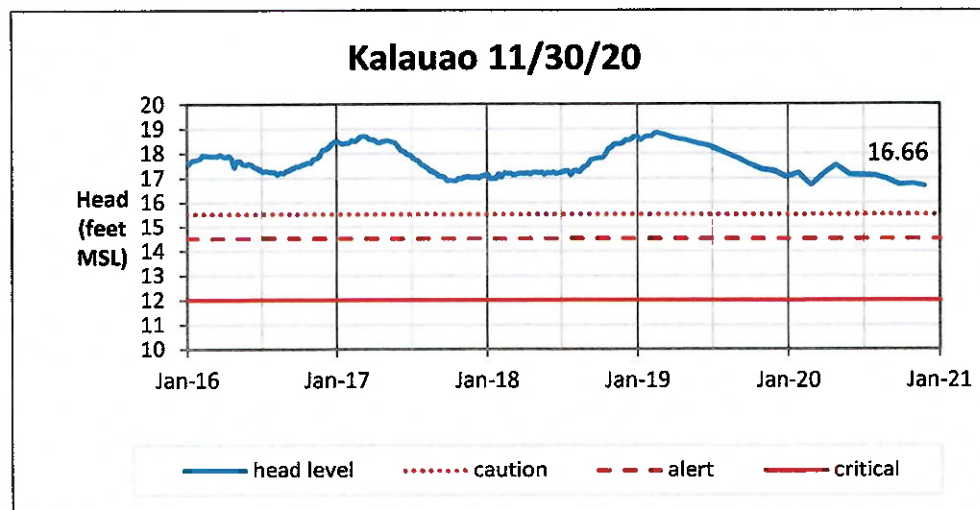
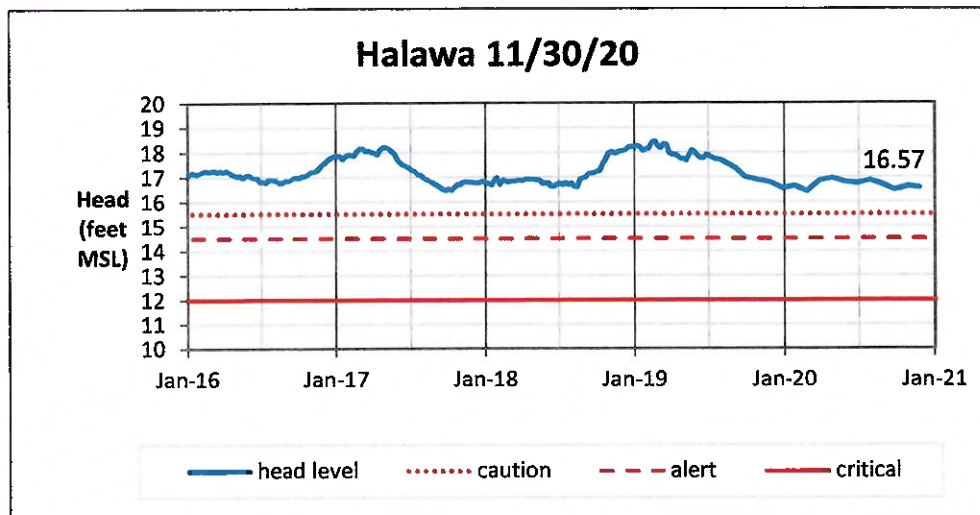
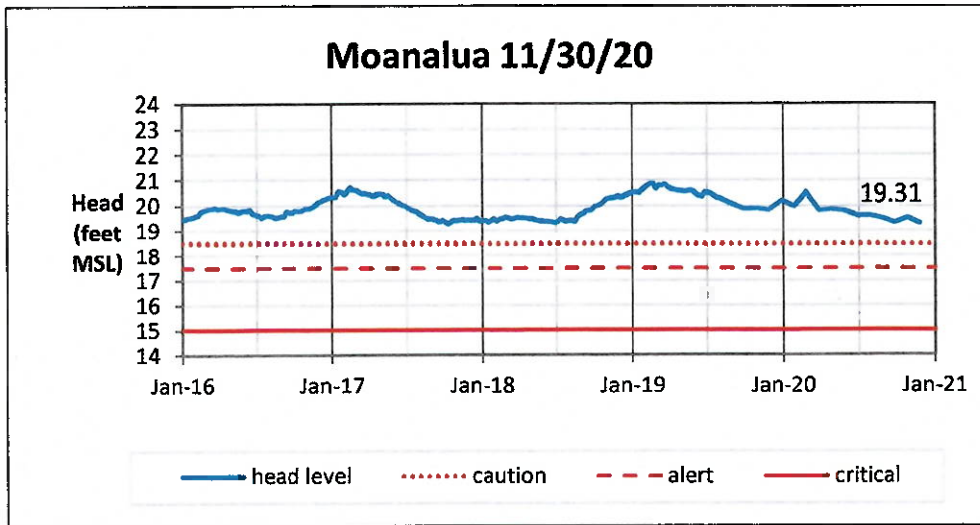
Beretania 11/30/20



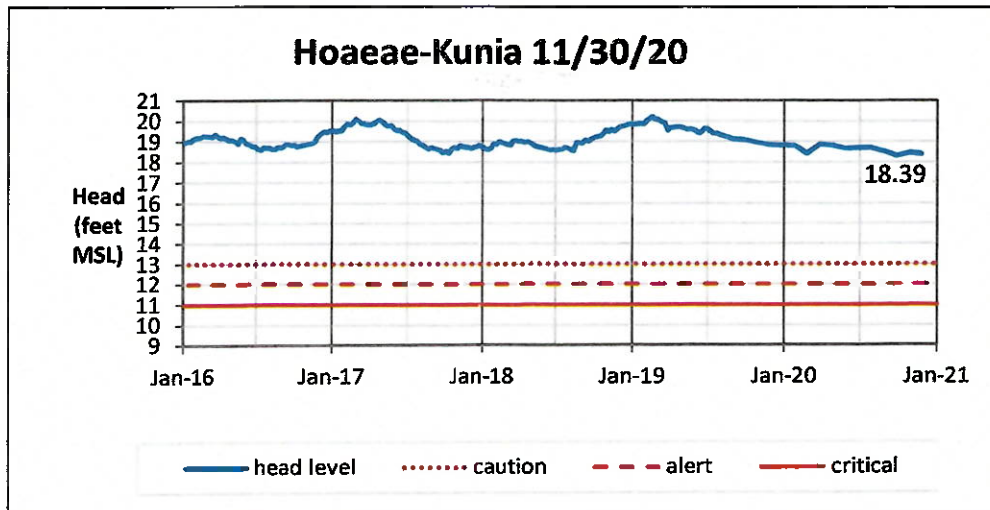
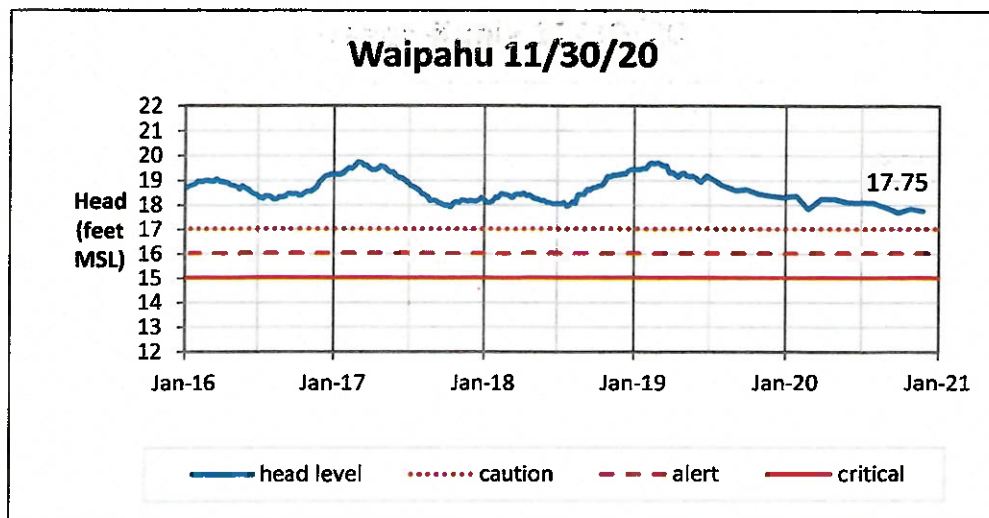
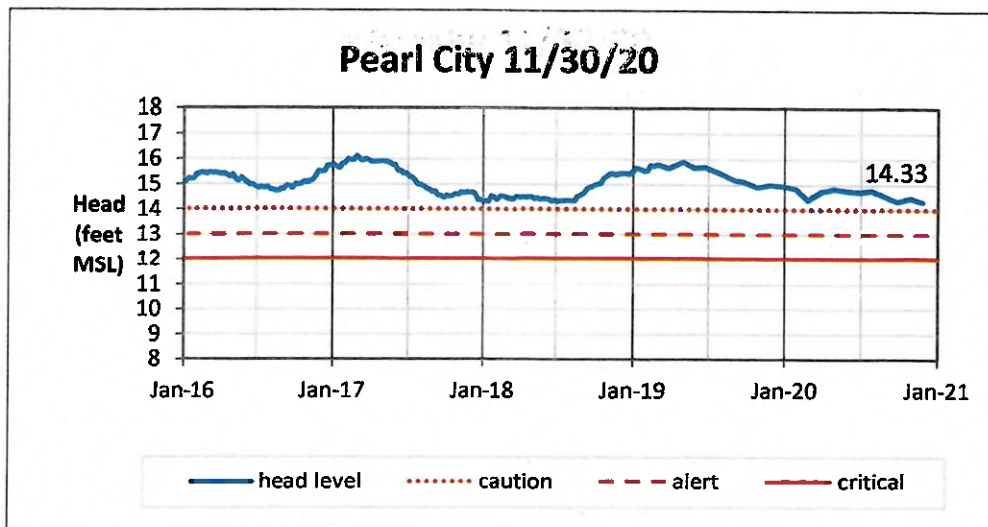
Kalihi 11/30/20



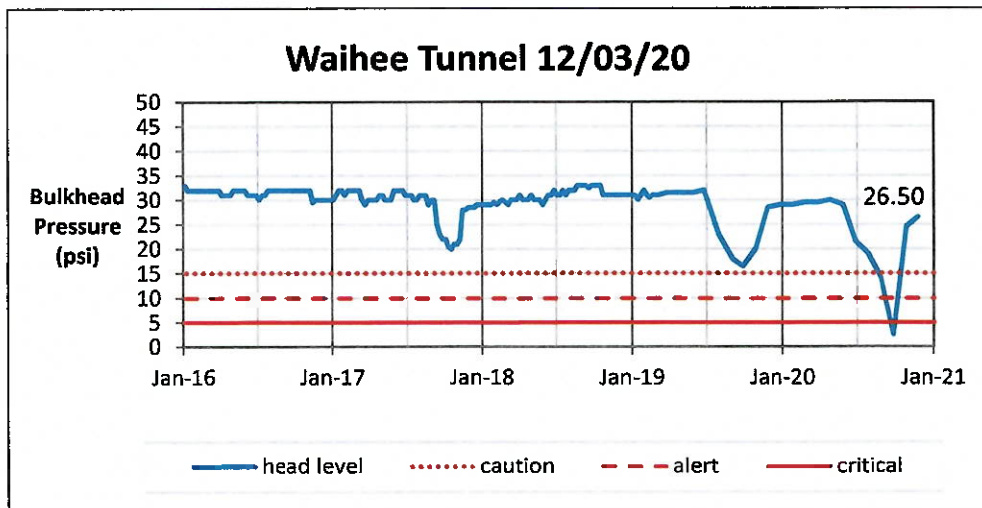
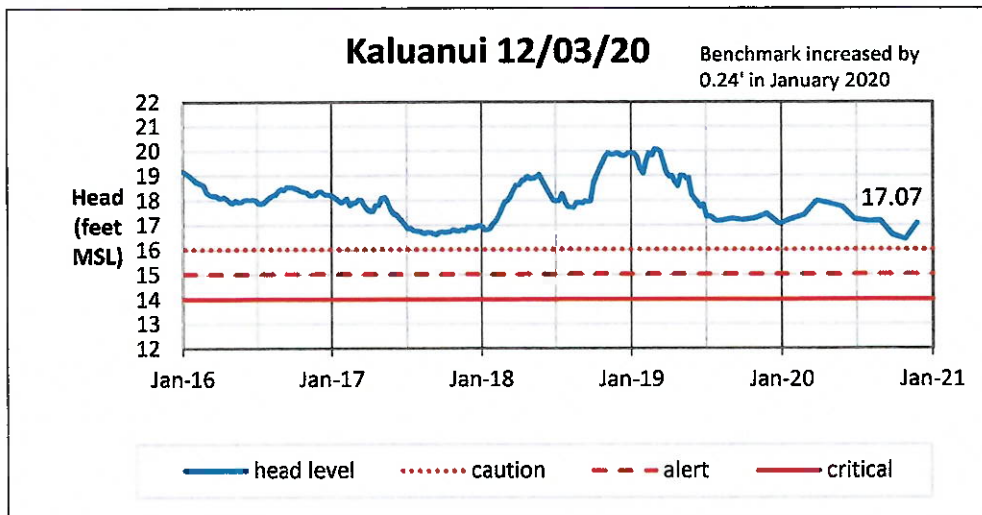
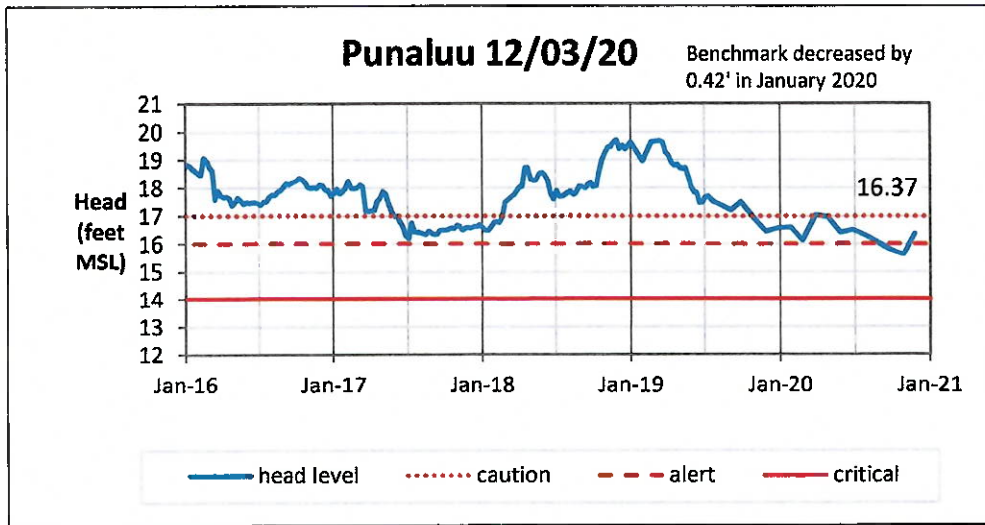
Head Report



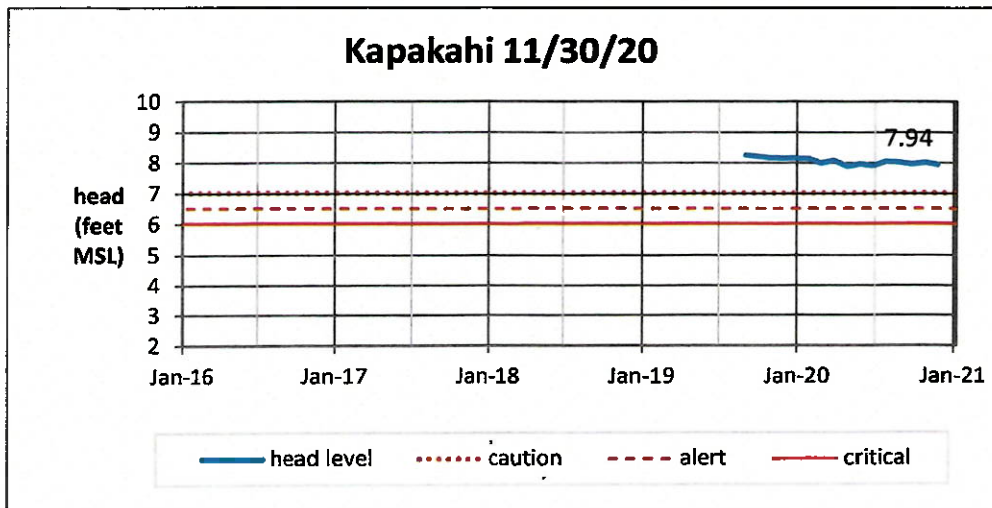
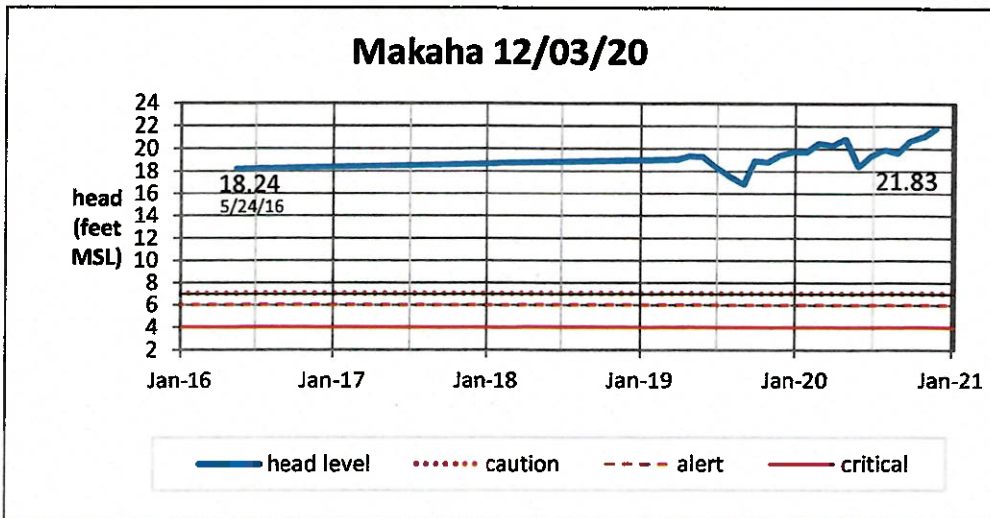
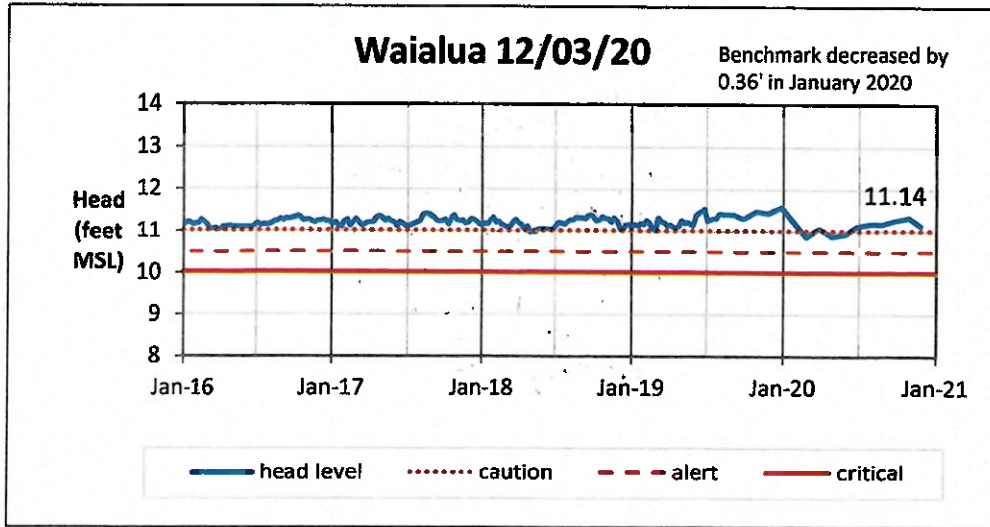
Head Report



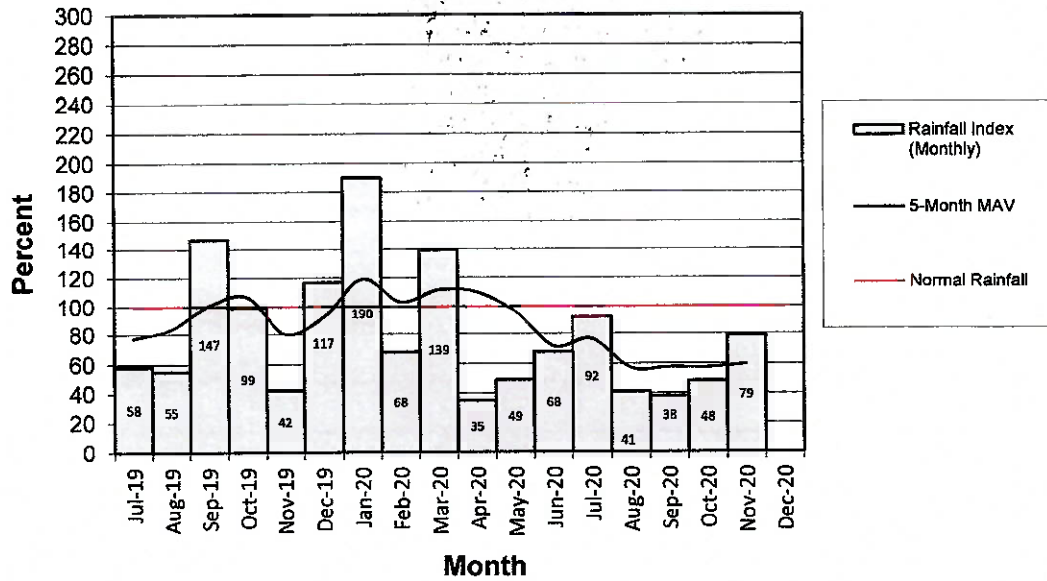
Head Report



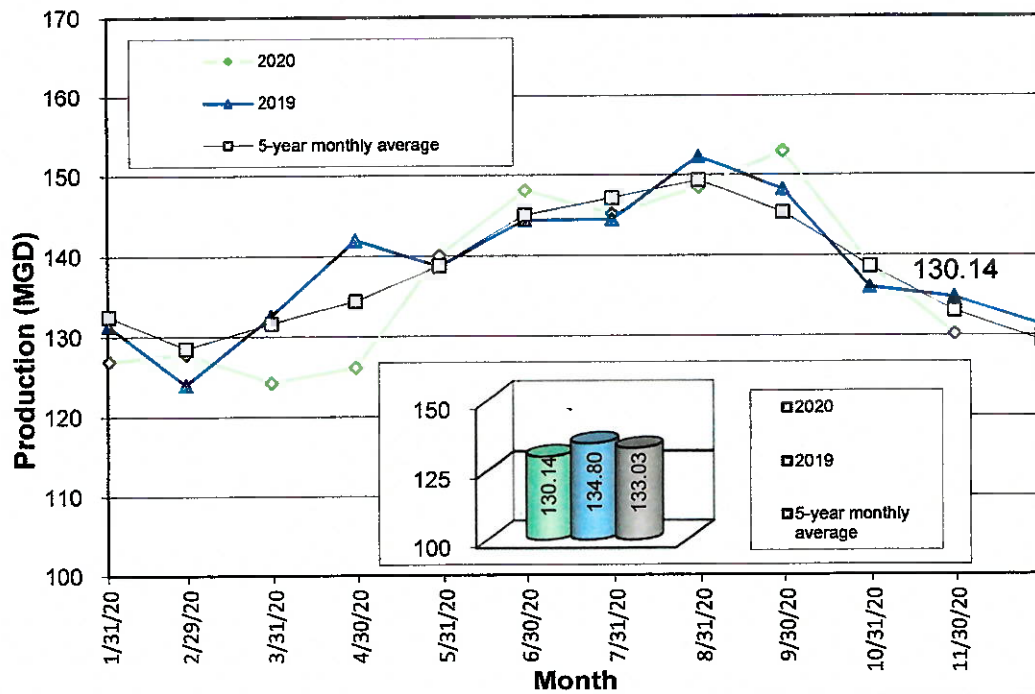
Head Report



HONOLULU WATERSHED AREA Rainfall Intake



Monthly Production



ITEM FOR INFORMATION NO. 3

"December 14, 2020

WATER MAIN
REPAIR
REPORT FOR
NOVEMBER
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 November 2020

Michael Fuke, Program Administrator, Field Operations Division, will report on water main repair work for the month of November 2020.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION:

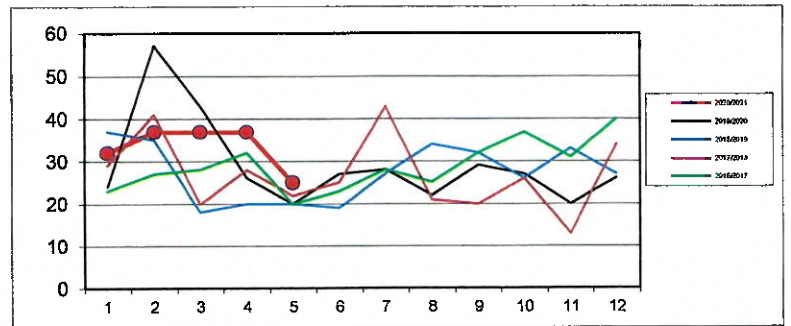
Michael Fuke, Program Administrator, Field Operations Division, gave the report. There were no comments or questions from the Board.

Mr. Fuke thanked Board Member Sasamura his assistance on climate change issues. He wished Board Member Sasamura good luck in retirement.

WATER MAIN REPAIR REPORT for November 2020

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2020/2021	32	37	37	37	25								168
2019/2020	24	57	43	26	20	27	28	22	29	27	20	26	349
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

Date	Address	Size (In)	Pipe Type
11/2/2020	1131 Kahului St, Honolulu	8	CI
11/5/2020	94-1047 Maikai St, Waipahu	8	CI
11/5/2020	155 Polulani Pl, Honolulu	4	CI
11/7/2020	86-253 Kawili St, Waianae	8	PVC
11/8/2020	84-707 Moua St, Waianae	8	PVC
11/8/2020	875 Aulua Rd, Kailua	12	CI
11/9/2020	425 Ena Rd, Honolulu	6	CI
11/10/2020	741 Ailuna St, Honolulu	8	CI
11/10/2020	99-037 Nalopaka Pl, Aiea	6	CI
11/10/2020	2980 Makalei Pl, Honolulu	6	CI
11/11/2020	1811 Lanikeha Pl, Pearl City	16	CI
11/12/2020	44 Dowsett Ave, Honolulu	8	PVC
11/13/2020	41-202 Kalanianaʻole Hwy, Waimanalo	30	CC
11/14/2020	86-277 Kawili St, Waianae	8	PVC
11/14/2020	41-1520 Lukanela St, Waimanalo	6	CI
11/14/2020	41-575 Poalima St, Waimanalo	6	CI
11/16/2020	41-1606 Kalanianaʻole Hwy, Waimanalo	20	CC
11/17/2020	736 Ahua St, Honolulu	8	CI
11/19/2020	3536 Salt Lake Blvd, Honolulu	6	CI
11/19/2020	5838 Poola St, Honolulu	8	CI
11/21/2020	865 Ahua St, Honolulu	8	CI
11/22/2020	2177 Aha Niu Pl, Honolulu	8	DI
11/26/2020	1816 Kumakani Pl, Honolulu	4	CI
11/30/2020	2388 Palolo Ave, Honolulu	8	CI
11/30/2020	904 Peach St, Wahiawa	6	CI



8 miles of pipeline were surveyed by the Leak Detection Team in the month of November.


MOTION TO
ADJOURN

There being no further business Chair Andaya wished everyone Happy Holidays and for better times in 2021 and at 2:35 PM called for a motion to adjourn the Regular Session. Max Sword so moved; seconded by Jade Butay and unanimously carried.

The minutes of the Regular Meeting held on December 14, 2020 are respectfully submitted,


JOY CRUZ-ACHIU

APPROVED:


BRYAN P. ANDAYA
Chair of the Board
JAN 25 2021

Date

THE MINUTES OF THE REGULAR SESSION BOARD MEETING ON DECEMBER 14, 2020 WERE APPROVED AT THE JANUARY 25, 2020 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
KAPUA SPROAT	X		
RAY C. SOON	X		
MAX J. SWORD			ABSENT
JADE T. BUTAY	X		
ROGER BABCOCK			ABSENT