

MINUTES

REGULAR SESSION MEETING OF THE BOARD OF WATER SUPPLY

June 24, 2019

At 2:00 PM on June 24, 2019 in the Board Room of the Public Service Building at 630 South Beretania Street, Honolulu, Hawaii, Board Vice Chair Sproat called to order the Regular Session Meeting.

Present: Kapua Sproat, Vice Chair
Ray C. Soon
Max J. Sword
Ross S. Sasamura

Also Present: Ernest Lau, Manager and Chief Engineer
Ellen Kitamura, Deputy Manager and Chief Engineer
Erwin Kawata
Barry Usagawa
Joe Cooper
Jennifer Elflein
Teriann Akana
Mike Matsuo
Mike Fuke
Kathy Mitchell
Henderson Nuuhiwa
Kevin Ihu
Jason Takaki
Dymian Racoma

Others Present: Moana Yost, Deputy Corporation Counsel
Jeff Lau, Deputy Corporation Counsel
Tom Myers, Brown and Caldwell
Susan Uyesugi, SSFM International

Absent: Bryan P. Andaya, Chair
Kay C. Matsui
Jade T. Butay

**APPROVAL OF
MINUTES**

Approval of the Minutes of the Public Hearing and Regular Meeting held on May 28, 2019.

**MOTION
TO APPROVE**

Ross Sasamura and Max Sword motioned and seconded, respectively, to approve the Minutes of the Public Hearing and Regular Meeting of May 28, 2019. The motion was unanimously carried.

ADOPTION OF
RESOLUTION
NO. 897, 2019

"June 24, 2019

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

Chair and Members:

Subject: Adoption of Resolution No. 897, 2019, Reimbursement of
Capital Expenditures from the Proceeds of Indebtedness

We recommend adoption of Resolution No. 897, 2019, Declaring the Official Intent of the Board of Water Supply of the City and County of Honolulu to Reimburse Itself for Certain Capital Expenditures from the Proceeds of Indebtedness.

The Resolution establishes the time limit for reimbursement of capital expenditures at eighteen months. This brings the Board of Water Supply into compliance with Section 1.150 of the U. S. Treasury Regulations and does not bind the Board to make any expenditure, incur any indebtedness, or proceed with the Project.

The Resolution establishes a limit of \$166,305,000 and attaches the FY 2020 Capital Improvement Program.

Respectfully submitted,

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

Attachment"

DISCUSSION:

Joe Cooper, Waterworks Controller, gave the report. Board Member Soon asked what are cost index and contract adjustments accounts. Mr. Cooper explained that cost index account is used when the contract is awarded and the cost estimate of the project is higher than the actual budgeted amount. The contract adjustment account is used when there are change orders on prior year contracts.

Mr. Soon asked if this resolution meets the objectives of the BWS's Master Plan. Mr. Cooper replied yes, as it's in support of the Capital Improvement Program. Mr. Lau added that this is similar to what the City does when they issue bonds.

Ms. Sproat asked if there was any public testimony on this agenda item, and there was none.

**MOTION TO
ADOPT
RESOLUTION
NO. 897, 2019**

**Max Sword motioned to adopt Resolution No. 897, 2019,
Reimbursement of Capital Expenditures from the Proceeds of
Indebtedness. The motion was seconded by Ray Soon and
unanimously carried.**

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 897, 2019

**A RESOLUTION DECLARING THE OFFICIAL INTENT OF THE
BOARD OF WATER SUPPLY OF THE CITY AND COUNTY
OF HONOLULU TO REIMBURSE ITSELF FOR CERTAIN CAPITAL
EXPENDITURES FROM THE PROCEEDS OF INDEBTEDNESS**

WHEREAS, the Board intends to provide for the acquisition, construction, rehabilitation and/or equipping of certain capital facilities for the Board constituting water system facilities and other capital improvements for the use and benefit of the Board comprising improvements related to the FY 2020 Capital Improvement Program and other related facilities (the "Project"); and

WHEREAS, the Board expects to pay certain expenditures (the "Reimbursement Expenditures") in connection with the Project prior to the issuance of indebtedness for the purpose of financing costs associated with the Project on a long-term basis; and

WHEREAS, the Board reasonably expects that debt obligations for the Project in an amount not expected to exceed \$166,305,000 will be issued and that certain of the proceeds of such debt obligations will be used to reimburse the Reimbursement Expenditures; and

WHEREAS, proceeds of such debt obligations will be allocated to Reimbursement Expenditures no later than 18 months after the later of (i) the date the cost is paid, or (ii) the date the Project is placed in service or abandoned (but in no event more than three years after the cost is paid); and

WHEREAS, the Board may issue debt obligations for the Project in connection with obligations for other projects;

BE IT RESOLVED by the Board of Water Supply of the City and County of Honolulu, Hawaii, as follows:

1. It is hereby found and determined that it is the intent of the Board that bonds be authorized and issued by the Board to provide monies to carry out one or more purposes of the Board, including the acquisition and construction of improvements to the water system of the Board as specified in Schedule I attached hereto.

2. This declaration is made solely for purposes of establishing compliance with the requirements of Section 1.150 2 of the Treasury Regulations, and this declaration does not bind the Board to make any expenditure, incur any indebtedness, or proceed with the Project.

3. The Board hereby declares its official intent to use proceeds of the indebtedness to reimburse itself for the Reimbursement Expenditures after adoption of this resolution.

4. This resolution shall take effect upon the adoption thereof.

APPROVED

ADOPTED:



KAPUA SPROAT
Vice Chair

Honolulu, Hawaii
June 24, 2019

RESOLUTION NO. 897, 2019, REIMBURSEMENT OF CAPITAL EXPENDITURES FROM THE PROCEEDS OF INDEBTEDNESS ADOPTED ON JUNE 24, 2019			
	AYE	NO	COMMENT
BRYAN P. ANDAYA			ABSENT
KAPUA SPROAT	X		
KAY C. MATUSI			ABSENT
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY			ABSENT

Board of Water Supply
Capital Improvement Program Budget
FY 2020

Summary by Categories	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
I - Research and Development0	6,250,000	-	-	-	6,250,000
II - Renewal and Replacement					
A.0Pumps0	6,770,000	-	-	20,500,000	27,270,000
B.0Reservoirs0	-	-	-	-	-
C.0Pipeline0	9,840,000	7,500,000	-	39,010,000	56,350,000
D.0Treatment0	5,100,000	-	-	-	5,100,000
E.0Facilities0	27,150,000	-	-	-	27,150,000
Category II - sub-total	48,860,000	7,500,000	-	59,510,000	115,870,000
III - Capacity Expansion					
A.0Pumps0	-	-	9,050,000	-	9,050,000
B.0Reservoirs0	-	-	11,700,000	-	11,700,000
C.0Pipeline0	-	-	980,000	-	980,000
D.0Treatment0	-	-	-	-	-
E.0Facilities0	100,000	-	-	-	100,000
Category III - sub-total	100,000	-	21,730,000	-	21,830,000
Total Categories I - III	55,210,000	7,500,000	21,730,000	59,510,000	143,950,000
Construction Cost Index Adjustment	3,895,000	750,000	1,930,000	5,780,000	12,355,000
Contract Adjustment Account	10,000,000	-	-	-	10,000,000
Capital Improvement Program Total	69,105,000	8,250,000	23,660,000	65,290,000	166,305,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
<u>I. Research and Development</u>								
1.	Halawa Valley Groundwater Monitoring Wells, Phase II	Install two (2) monitoring wells in Halawa Valley near the Navy Red Hill Underground Fuel Storage Facility.	Const	2,000,000	-	-	-	2,000,000
2.	Construction Management for Various BWS Construction Projects	Provide construction management and training services for selected BWS construction projects.	P&E	3,000,000	-	-	-	3,000,000
3.	Project Management for Various BWS Projects	Provide project management, engineering and training services for selected BWS projects.	P&E	100,000	-	-	-	100,000
4.	Pipeline Condition Assessment	Condition assessment of transmission pipelines as identified by the InfoMaster decision frame work.	P&E	100,000	-	-	-	100,000
5.	Waiatae Nui Well Test	Survey, videolog, clean and clear, test pump and sample well.	P&E	650,000	-	-	-	650,000
6.	Waiawa 228 Reservoir Environmental Assessment	Prepare an environmental assessment and PIM for a site with 3 reservoirs (8.5 MG total capacity: 4 MG, 2.5 MG & 2 MG) and approximately 3,700 lf of influent and an effluent main connection to the 180' system.	P&E	400,000	-	-	-	400,000
Total Category I - Research and Development				6,250,000	-	-	-	6,250,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
II. Renewal and Replacement								
A. Pumps								
7.	Hoaeae Wells Pump Replacement and Electrical Upgrades	Install pump replacement and electrical upgrades.	Const	-	-	-	5,700,000	5,700,000
8.	Waipahu Wells I Renovation	Replace GAC backwash systems, pumping units, motor control center, chlorination system and appurtenances.	Const	-	-	-	7,100,000	7,100,000
9.	Mililani Wells II: Replacement of Pumping Units	Install pump replacements.I	Const	-	-	-	7,700,000	7,700,000
10.	Pump Renewal and Replacement	Renewal and replacement of various BWS pumps and plant facilities.	Const	5,500,000	-	-	-	5,500,000
11.	Honouliuli Wells II MCC Replacement	Install motor control center replacement.I	P&E	300,000	-	-	-	300,000
12.	Temporary Pumping Connections	Install connections for temporary pumps at critical pump stations to improve reliability.	P&E	370,000	-	-	-	370,000
13.	Aiea Wells Renovation	Replace existing pump no. 2, existing piping, valves, instrumentation, motor control center, and switchgear.	P&E	400,000	-	-	-	400,000
14.	Pump Renewal and Replacement	Renewal and replacement of various BWS pumps and plant facilities.	P&E	200,000	-	-	-	200,000
Pumps Total				6,770,000	-	-	20,500,000	27,270,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
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B. Reservoirs

Reservoirs Total

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C. Pipelines

15.	Kamehameha Heights Water System Improvements, Part III	Install 8-inch mains and appurtenances along Kealia Drive, from Kapalama Avenue to Hillcrest Street; along Hillcrest Street, from Kealia Drive to Skyline Drive; along Naio Street, from Kealia Drive to end; along Makanani Drive, from Naio Street to Lolena Street; along Skyline Drive, from Hillcrest Street to Puna Street; along Puna Street, from Aulii Street to end; along Aulii Street, from Makanani Drive to Alewa Drive; and along Kula Street, from Lolena Street to end - approx. 10,000 lin. ft. Install 12-inch mains and appurtenances along Lolena Street, from Makanani Drive to Kealakai Street; and along Hala Drive, from Lolena Street to Kalepa Place - approx. 1,100 lin. ft.	Const	-	-	-	9,100,000	9,100,000
16.	Akanoho Place 8-Inch Main	Install 8-inch mains and appurtenances along Akanoho Place, from Maulukua Road to end - approx. 2,865 lin. ft.	Const	-	-	-	2,000,000	2,000,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
17.	Aulua Road and Ulukahiki Street 16-Inch Main	Install 16-inch mains and appurtenances along Aulua Road, from FH W03044 to Kalanianaʻole Highway; and along Ulukahiki Street, from Kalanianaʻole Highway to Kailua Road - approx. 7,635 lin. ft. Install 8-inch main along Ulukahiki Street, from near Manu Aloha Street to Kailua Road – approx. 250 lin. ft.	Const	-	-	-	10,000,000	10,000,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
18.	Makakilo Water System Improvements, Part III	<p>Install 8-inch mains and appurtenances along Nohopono Street, from Lihau Street to Palailai Street; along Nohopaa Street, from Lihau Street to Palailai Street; along Nohona Street, from Lihau Street to Palailai Street; along Nenelea Street from Lihau Street to Palailai Street; along Newa Street, from Makakilo Drive to Palailai Street; along Newa Place, from Newa Street to end; along Lihau Street, from Nohohale Street to Newa Street; along Palailai Street, from Nohona Street to Nohohale Street; along Nohohale Street, from Palailai Street to Makakilo Drive; along Mehani Street, from Akaula Street to Auwaeae Street; along Mehani Place, from Mehani Street to end; along Makakilo Drive, from 65 feet West of FH L02483 to Anipeahi Street; along Makakilo Drive, from tee near FH L01849 to 80 feet East FH L01850; and along Palailai Place, from Palailai Street to FH L01964 - approx. 11,400 lin. ft. Install 4-inch mains and appurtenances along Nohohale Street, from Makakilo Drive to Palailai Street; along Palailai Street, from Nohohale Street to Palailai Place; and along Palailai Place, from Palailai Street to end - approx. 1,200 lin.ft</p>	Const	-	-	-	8,700,000	8,700,000

Board of Water Supply
Capital Improvement Program
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Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
19.	Pauoa Water System Improvements	Install 12-inch mains and appurtenances along Kanealii Avenue, from Pauoa Road to Kapalu Street - approx. 2,900 lin. ft. Install 8-inch mains and appurtenances along Lusitana Street, from Pauoa Road to Concordia Street; along Auwaiolimu Street, from Lusitana Street to Hookui Street; along Boyd Lane, from Lusitana Street to end; along Kapaloala Place, from FH M06992 to Pauoa Road; along Ladd Lane, from Lusitana Street to end; and along Whiting Street, from Auwaiolimu Street to Puowaina Drive - approx. 6,100 lin. ft.	Const	-	-	-	7,500,000	7,500,000
20.	Waihee Road Water System Improvements	Install 8-inch and 4-inch mains and appurtenances along Waihee Road, from FH W01673 to end - approx. 300 lin. ft. Transfer approximately fifteen (15) services to the Waihee 265 system.	Const	400,000	-	-	-	400,000
21.	Kalaniana'ole Highway Drain Manhole Replacement	Replace drain manhole and repair berm damaged during the main break near 41-202 Kalaniana'ole Highway.	Const	550,000	-	-	-	550,000

**Board of Water Supply
Capital Improvement Program
FY 2020**

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
22.a	Rehabilitation of Pipeline Tunnels: Moanalua and Quarry Tunnels	Repair shotcrete lining, pipea supports, concrete wall,a headwalls, and entry gates,a replace existing lightinga system, provide protective exterior coating for pipes, repair cracked pipe section at the Moanalua Tunnel, and replace chain link fence with expanded metal fencing at the South Portal of the Quarry Tunnel.	Const	-	7,500,000	-	-	7,500,000
23.	Service Lateral Replacements in Waipio and Waikele	Install service laterals and appurtenances along Moolelu Street, from Waipio Uka Street to end; along Pulai Street, from Waipio Uka Street to end; along Pulelo Street, from Lumaiaina Street to end; along Wehana Place, from Pulelo Street to end; along Pulelo Place, from Pulelo Street to end; along Kanawao Street, from end to end; along Kanawao Place, from Kanawao Street to end; along Laukea Street, from Kanawao Street to Lumaiaina Street; along Pumaia Place, to Laukea Street to end; and along Pumaia Way, from Pumaia Place to end -- approx. 338 services.	Const	1,000,000	-	-	-	1,000,000
24.	Water Main Installation and Replacement	Install and replace water mains at various locations.	Const	100,000	-	-	-	100,000

Board of Water Supply
Capital Improvement Program
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Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
25.	Kamehameha Highway Water System Improvements - Puhuli Street Vicinity	Install 30-inch mains and appurtenance along Kamehameha Highway, from Haleaha Road to 1,000 feet East of Green Valley Road - approx. 5,300 lin. ft. Install 12-inch mains and appurtenance along Kamehameha Highway, from Puhuli Street to 1,000 feet East of Green Valley Road - approx. 9,800 lin. ft.	P&E	1,790,000	-	-	-	1,790,000
26.	Hahaione Street, Hokulani Street and Kahena Street Area Water System Improvements	Install 12-inch mains and appurtenances along Ainapo Street, from Kahena Street to Hahaione Street - approx. 310 lin. ft. Install 8-inch mains and appurtenances along Hahaione Street, from Ainapo Street to Pepekeo Street; and along Kahena Street, from Ainapo Street to Hahaione Street - approx. 4,770 lin. ft. Install 8-inch and 4-inch mains along Ainapo Street, from Hahaione Street to end; along Hokulani Street, from Ainapo Street to end; and along Kulani Street, from Ainapo Street to end - approx. 2,590 lin. ft.	P&E	900,000	-	-	-	900,000
27.	Kaahale Street and Moanalua Road 16-Inch Main	Install 16-inch mains and appurtenances along Kaahalea Street, from Kilinoe Street to Moanalua Road; and along Moanalua Road, from Kaahalea Street to near FH L00646 - approx. 1,460 lin. ft.	P&E	240,000	-	-	-	240,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
28.	Ala Hoku Place 16-Inch Main	Install 16-inch main and appurtenances along Ala Hoku Place, from Ala Aolani Street to end; and along the private road, from Ala Hoku Place to the 16-inch cross-country main - approx. 2,550 lin. ft.	P&E	360,000				360,000

Board of Water Supply
Capital Improvement Program
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Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
29.0	Pohakupunao Road and Pupu Street Area Water System Improvements	Install 12-inch mains and appurtenances along Pohakupuna Road, from Papipi Road to Makule Road - approx. 3,600 lin. ft. Install 8-inch mains and appurtenances along Pohakupuna Place, from Pohakupuna Road to Pupu Street; along Huleia Place, from Pupu Street to end; along Amio Street, from Pohakupuna Road to Pupu Street; along Akua Street, from Amio Street to Pupu Street; along Hailipo Street, from Pohakupuna Road to Pupu Street; along Hailipo Street, from Papipi Road to Onelua Street; along Pohakupuna Road, from Makule Road to Fort Weaver Road; along Makule Road, from Pohakupuna Road to Aikanaka Road; along Onelua Street, from Aikanaka Road to Paaloha Street; along Oama Street, from Onelua Street to Aikanaka Road; along Makaonaona Street, from Onelua Street to Aikanaka Road; and along Paaloha Street, from Papipi Road to Aikanaka Road - approx. 8,520 lin. ft. Install 8-inch and 4-inch mains along Pupu Street, from Papipi Road to end; and along Pupu Place, from Pupu Street to end - approx. 2,640 lin. ft.	P&E		-	-	1,710,000	1,710,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
30.	Leolua Street and Kipou Street Area Water System Improvements	<p>Install 12-inch mains and appurtenances along Leolua Street, from Kunia Road on-ramp to Leoku Street and along Leoku Street, from Waipahu Street to Farrington Highway – approx. 2,400 lin. ft. Install 8-inch mains and appurtenances along Hene Street, from Hulahe Street to Honowai Street; along Hoaeae Street, from Honowai Street to Haaa Street; and along Loaa Street, from Hoaeae Street to Haaa Street - approx. 2,040 lin. ft.</p> <p>Install 8-inch and 4-inch mains and appurtenances along Haaa Street, from Hoaeae Street to end; along Hulahe Street, from Hene Street to end; along Kipou Street, from Honowai Street to end; along Kipou Place, from Kipou Street to end; and along Kiokio Place, from Kipou Street to end - approx. 5,840 lin. ft. Install 4-inch mains and appurtenances along Kiwini Place, from Kipou Street to end - approx. 110 lin. ft.</p>	P&E	1,200,000	-	-	-	1,200,000
31.	Kanunu Street and Makaloa Street 8-inch Main	<p>Install 8-Inch mains and appurtenances along Kanunu Street, from Keeaumoku Street to Kahaka Street; and along Makaloa Street, from Keeaumoku Street to Poni Street - approx. 2,440 lin. ft.</p>	P&E	330,000	-	-	-	330,000

**Board of Water Supply
Capital Improvement Program
FY 2020**

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
32.a	Ahuimanu Road Area Water System Improvements	Install 16-inch mains and appurtenances along Ahuimanu Road, from near Pakai Place to Ahuimanu Place; along Ahuimanu Place, from Ahuimanu Road to Hui Ulii Street; along Hui Ulii Street, from Ahuimanu Place to Alawiki Street; and along Alawiki Street, from Hui Ulii Street to near Maiapilo Way - approx. 6,720 lin. ft.	P&E	820,000	-	-	-	820,000
33.	Kakela Drive and Mohala Way Water System Improvements	Install 8-inch mains and appurtenances along Kakela Drive, from McKinley Street to McKinley Street; and along Mohala Way, from Easta Manoa Road to Beckwitha Street - approx. 1,870 lin. ft. Install 8-inch and 4-inch mains along Kakela Place, from Kakela Drive to end; and along Kakela Iki Place, from Kakela Drive to end - approx. 310 lin. ft.	P&E	300,000	-	-	-	300,000
34.	Ihiloa Loop and Ehupua Place Area Water System Improvements	Install 8-inch mains and appurtenances along Ohialoke Street, from Ihiloa Place to Ehupua Place; and along Ehupua Place, from Ohialoke Street to Poola Street - approx. 2,045 lin. ft. Install 8-inch and 4-inch mains and appurtenances along Ihiloa Place, from near Laukahi Street to Ohialoke Street - approx. 580 lin. ft.	P&E	350,000	-	-	-	350,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
35.	Elelupe Road and Kuliououa Road Water System Improvements	Install 12-inch mains and appurtenances along Kuliouou Road, from Kalanianʻāole Highway to Kaniela Place - approx. 2,650 lin. ft. Install 8-inch mains and appurtenances along Elelupe Road, from Kuliouou Line Booster Pump Station to Kuliouou Road; and along Dalene Way, from Kuliouou Road to Kawekiu Place - approx. 2,950 lin. ft. Install 8-inch and 4-inch mains along Kaniela Place, from Kuliouou Road to end; along Haleloa Place, from Kuliouou Road to end; along Kawekiu Place, from Kuliouou Road to end; along Naleialoha Place, from Kuliouou Road to end; along unnamed place, from Kuliouou Road to end; and along Elelupe Place, from Elelupe Road to end - 2,565 lin. ft.	P&E	1,050,000	-	-	-	1,050,000
36.	Kahala Mall Master Meter Improvements	Install master meters and appurtenances along Hunakai Street and Kilauea Avenue.	P&E	200,000	-	-	-	200,000
37.	Service Lateral Replacement at Various Locations	Topographic Survey for the service lateral replacement at various locations.	P&E	150,000	-	-	-	150,000
38.	Water Main Installation and Replacement	Install and replace water mains at various locations.	P&E	100,000	-	-	-	100,000
Pipelines Total				9,840,000	7,500,000	-	39,010,000	56,350,000

**Board of Water Supply
Capital Improvement Program
FY 2020**

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
<u>Treatment</u>								
39.	Mililani Wells 1 GAC Renovation	Replace valves, piping and appurtenances.	Const	3,000,000	-	-	-	3,000,000
40.	GAC Facility Improvements	Install improvements at select GAC facilities to extend use of existing systems.	Const	500,000	-	-	-	500,000
41.	GAC Interior Corrosion Control at Various Locations	Perform interior corrosion control of selected BWS GAC facilities.	Const	1,500,000	-	-	-	1,500,000
42.	GAC Facility Improvements	Install improvements at select GAC facilities to extend use of existing systems.	P&E	100,000	-	-	-	100,000
Treatment Total				5,100,000	-	-	-	5,100,000
<u>E.cFacilities</u>								
43.	Water Meter Transponders Replacement - Phase II	Replace existing water meter transponders (MXU) by furnishing and installing approximately 80,000 MXUs. CM services funding included for this project.	Const	8,000,000	-	-	-	8,000,000
			P&E	1,000,000	-	-	-	1,000,000
44.	Station Instrumentation	Replace station instrumentation with IPc enabled solutions, eliminating the need for the existing RTUs.	Const	700,000	-	-	-	700,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
45.	Beretania Public Service Building Exterior Improvements	Repave parking lot and courtyard, reconstruction curb and gutter, install curb ramps, repairs to the catwalk and fountain, and repaint the public service building exterior.	Const	3,100,000	-	-	-	3,100,000
46.	Security Improvements at Various Locations	Security improvements and enhancements includes, but not limited to fencing, doors and windows, vegetation setbacks and access control systems at various BWS locations.	Const	3,800,000	-	-	-	3,800,000
47.	Security Fencing at Hoaeae, Mililani I, and Waiau Wells	Install security fencing along the perimeter of the site.	Const	1,300,000	-	-	-	1,300,000
48.	Slope Stabilization Near Ekoa Place	Rockfall Mitigation along BWS property near Ekoa Place.	Const	2,400,000	-	-	-	2,400,000
49.	Facility Repair and Renovation	Repair, renovation, reroofing, fencing and repainting of selected BWS facilities.	Const	2,000,000	-	-	-	2,000,000
50.	Facility Reroofing at Various Locations	Reroofing of selected BWS facilities.	Const	3,000,000	-	-	-	3,000,000
51.	Haiku Stairs Removal	Removal of Haiku Stairs.	P&E	250,000	-	-	-	250,000
52.	Facility Repair and Renovation	Repair, renovation, reroofing, fencing and repainting of selected BWS facilities.	P&E	800,000	-	-	-	800,000

**Board of Water Supply
Capital Improvement Program
FY 2020**

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
53.e	Professional Services for BWS Projects	Obtain services of archaeologists, botanists, environmental engineers, water quality labs, planners, government agencies and others.	P&E	300,000	-	-	-	300,000
54.e	Monitoring Well Assessment and Repair	Provide well condition assessment and associated repair services for monitor wells.	P&E	100,000	-	-	-	100,000
55.e	Security Fencing at Various Locations	Install expanded metal fencing at selected BWS facilities.	P&E	400,000	-	-	-	400,000
Facilities Total				27,150,000	-	-	-	27,150,000
Total Category II - Renewal and Replacement				48,860,000	7,500,000	-	59,510,000	115,870,000

III. Capacity Expansion

A.ePumpse

56.	Pacific Heights Booster No. 1	Land acquisition for new Pacific Heights Booster No. 1 to eliminate cross-country water main between Jack Lane and the Pacific Heights 578 Reservoir.	Land	-	-	100,000	-	100,000
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Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
57.	Waialae West Well	Install one (1) 0.5 MGD pump, control building, pipeline, landscaping, irrigation system, acoustical facilities, electrical equipment, and appurtenances (TMK: 3-3-014:016).	Const	-	-	4,500,000	-	4,500,000
58.	Mililani 994 Booster Station	Install booster station at the Mililani 994 Reservoir to boost to 1150 system.	Const	-	-	3,900,000	-	3,900,000
59.	Maakua Well Unit No. 2	Install new pump no. 2 in existing well including piping, valves, instrumentation, MCC, meter building, and retaining wall.	P&E	-	-	550,000	-	550,000
Pumps Total				-	-	9,050,000	-	9,050,000
<u>B. Reservoirs</u>								
60.e	Kalawahine 180 2.0 MG Reservoir	Install 2.0 MG reservoir and appurtenances (TMK: 2-4-043:082) and 24-inch main along Auwailimu Street and Pensacola Street to Kinau Street - approx. 4,700 lin. ft.	Const	-	-	10,900,000	-	10,900,000
61.	East Kapolei 215 R-1 3.0 MG Reservoir	Install 3.0 MG R-1 reservoir and appurtenances (TMK: 9-1-018:008). Install 16-inch main and appurtenances along the access road, from the proposed reservoir to the Farrington Highway - approx. 2,300 lin. ft.	P&E	-	-	800,000	-	800,000
Reservoirs Total				-	-	11,700,000	-	11,700,000

Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
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C. Pipelines

				-	-	-	-	-
62.a	Dole Street and Kanewai Street Area Water System Improvements	Install 24-inch mains and appurtenances along Dole Street, from FH M02955 to St. Louis Drive; along St. Louis Drive, from Dole Street to Waialae Avenue; along Waialae Avenue, from St. Louis Drive to 1st Avenue; along 1st Avenue, from Waialae Avenue to Harding Avenue; and along Harding Avenue, from 1st Avenue to Kaimuki Pump Station - approx. 4,560 lin. ft. Install 12-inch mains and appurtenances along Kanewai Street, from Dole Street to Kamakini Street - approx. install 8-inch mains and appurtenances along Waialae Avenue, from St. Louis Drive to 1st Avenue; and along 1st Avenue, from Waialae Avenue to Harding Avenue - approx. 760 lin. ft. Install 8-inch and 4-inch mains and appurtenances along Kamakini Street, from FH M06955 to end; and along Kaluawaa Street, from Kamakini Street to end - approx. 1,680 lin. ft.	P&E	-	-	980,000	-	980,000

Pipelines Total

-	-	980,000	-	980,000
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D. Treatment

Treatment Total

-	-	-	-	-
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Board of Water Supply
Capital Improvement Program
FY 2020

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Improvement Fund	Total
E.0Facilities0								
63.0	Kapolei Base Yard Facility	Design-build contract for construction of administration building, warehouse, truck port and parking lot.	Const	100,000	-	-	-	100,000
Facilities Total				<u>100,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>100,000</u>
Total Category III - Capacity0 Expansion0				<u>100,000</u>	<u>-</u>	<u>21,730,000</u>	<u>-</u>	<u>21,830,000</u>
Total Categories I - III				<u>55,210,000</u>	<u>7,500,000</u>	<u>21,730,000</u>	<u>59,510,000</u>	<u>143,950,000</u>
Construction Cost Index Adjustment				3,895,000	750,000	1,930,000	5,780,000	12,355,000
Contract Adjustment Account				10,000,000	-	-	-	10,000,000
Capital Improvement Program Total				<u>69,105,000</u>	<u>8,250,000</u>	<u>23,660,000</u>	<u>65,290,000</u>	<u>166,305,000</u>

"June 24, 2019

ADOPTION OF
RESOLUTION
NO. 898, 2019

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

Chair and Members:

Subject: Adoption of Resolution No. 898, 2019, Acceptance of
Video Production Gift to the Board of Water Supply

We recommend acceptance of the proposed gift to the Honolulu Board of Water Supply (BWS) from Hawaiian Fuinki, LCC, in support of our public education program. The estimated value of this gift is approximately \$18,000.00.

Hawaiian Fuinki, LLC, is offering to increase our existing inventory of public service announcements through a donation of a one-minute, high-quality television commercial on disaster preparedness, the details of which are currently being discussed.

In anticipation of the annual hurricane season, which is now upon us, the BWS has been actively promoting disaster preparedness to Oahu residents as we participate in various City-sponsored emergency preparedness fairs throughout the island. This gift will allow us to share this vital message with countless people, as we disseminate it through mass communications media such as television and social media. It will also benefit all Oahu water users without additional expense to BWS ratepayers.

We deeply appreciate the continued support of this Board for our public education and outreach programs in which we try to encourage all Oahu water users to embrace their roles 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, provided the report.

Mr. Soon asked what type of company is Hawaiian Fuinki. Ms. Elliott-Pahinui explained that it is a production company that Mr. Saxon Sawai is establishing to do film and commercials on Oahu. He is offering to

donate a one-minute, high-quality television commercial on disaster preparedness.

Board Member Sword asked if BWS will have final control of the content. Ms. Elliott-Pahinui replied that they have a written agreement stating that BWS has complete control of our branding message. Once the commercial is completed, Hawaiian Fuinki will not be able to make edits. Manager Lau mentioned that the opportunity for BWS to reuse this Public Service Announcement (PSA) would be great for BWS because hurricane season comes every year.

Mr. Soon asked if the estimated cost of \$18,000.00 is for the production of the video and will BWS get free air time. Ms. Elliott-Pahinui confirmed that it will cost about \$18,000.00 to produce the video and that BWS will be able to run the commercial on Olelo at no cost. BWS will work with our advertising agency to leverage the cost spent on media to use the video as a PSA.

Vice Chair Sproat asked if BWS could post the video on BWS's website. Ms. Elliott-Pahinui replied yes, as well as BWS's other social media sites.

**MOTION TO
ADOPT
RESOLUTION
NO. 898, 2019**

Ray Soon motioned to adopt Resolution No. 898, 2019, Acceptance of Video Production Gift to the Board of Water Supply. The motion was seconded by Max Sword and unanimously carried.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 898, 2019

ACCEPTANCE OF VIDEO PRODUCTION GIFT
TO THE BOARD OF WATER SUPPLY

WHEREAS, the Board of Water Supply (BWS) works diligently to raise awareness among Oahu residents about the importance of using our island's precious resource efficiently to further its mission of providing safe, dependable, and affordable water now and for future generations; and

WHEREAS, to efficiently reach all Oahu residents with this messaging, the BWS incorporates mass media advertising using various platforms, including television and social media, to encourage responsible stewardship of our water supply; and

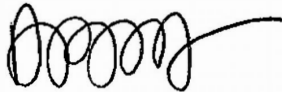
WHEREAS, in support of the BWS's mass media outreach efforts, Hawaiian Fuinki, LLC, is offering to donate video production skills and services to the BWS to work with Oahu Films to create a one-minute, high-quality video spot, as well as a 30-second and a 15-second version, for the BWS to use, publish, distribute and copyright; and

WHEREAS, the description and monetary value of this donation are set forth in the correspondence from the BWS Manager and Chief Engineer (attached); now, therefore,

BE IT RESOLVED that the Board of Water Supply hereby accepts the gift estimated in value of \$18,000.00 and directs the Manager and Chief Engineer, or his delegate, to accept and thank Hawaiian Fuinki, LLC, for this gift.

APPROVED

ADOPTED:



KAPUA SPROAT
Vice Chair

Honolulu, Hawaii
June 24, 2019

RESOLUTION NO. 898, 2019, ACCEPTANCE OF VIDEO PRODUCTION GIFT TO THE BOARD OF WATER SUPPLY ADOPTED ON JUNE 24, 2019			
	AYE	NO	COMMENT
BRYAN P. ANDAYA			ABSENT
KAPUA SPROAT	X		
KAY C. MATUSI			ABSENT
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY			ABSENT

“June 24, 2019

**ADOPTION OF
RESOLUTION
NO. 899, 2019**

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

Chair and Members:

Subject: Adoption of Resolution No. 899, 2019, Acceptance of Gift
to the Board of Water Supply from Hawaiian Earth
Recycling LLC, in Support of the 2019 Annual Halawa
Xeriscape Garden Open House and Unthirsty Plant Sale

We recommend the adoption of the attached Resolution No. 899, 2019, that accepts the proposed gift to the Board of Water Supply (BWS), City and County of Honolulu, from Hawaiian Earth Recycling LLC, in support of our 2019 Annual Halawa Xeriscape Garden Open House and Unthirsty Plant Sale, which will be held on August 3, 2019. The donor's total value of this gift is \$925.00.

The BWS's Annual Halawa Xeriscape Garden Open House and Unthirsty Plant Sale, located at the BWS facility at the end Iwaena Street, is a well-established, successful public outreach program. It educates Oahu residents about the importance of outdoor water conservation and sustainable gardens. Studies show that more than 30 percent of residential water use occurs outdoors, so it makes sense for the BWS to promote water-saving methods in this area, which in turn can reduce the customer's combined water and wastewater bill.

This donation from Hawaiian Earth Recycling LLC, allows the BWS to give free soil conditioner/compost to Plant Sale visitors and encourage them to incorporate into their own home gardens some of the techniques they learn at the event.

We deeply appreciate the continued support of this Board for this very valuable and worthwhile public outreach program. Plant Sale attendees are encouraged to use the information we provide at the event to become better 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, provided the report. There were no comments or discussion.

Ms. Sproat asked if there was any public testimony on this agenda item, and there was none.

**MOTION TO
ADOPT
RESOLUTION
NO. 899, 2019**

Ray Soon motioned to adopt Resolution No. 899, 2019, Acceptance of Gift to the Board of Water Supply from Hawaiian Earth Recycling LLC, in Support of the Unthirsty Plant Sale. The motion was seconded by Max Sword and unanimously carried.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 899, 2019

ACCEPTANCE OF GIFT TO THE BOARD OF WATER SUPPLY
FROM HAWAIIAN EARTH RECYCLING LLC,
IN SUPPORT OF THE
2019 ANNUAL HALAWA XERISCAPE GARDEN OPEN HOUSE
AND UNTHIRSTY PLANT SALE

WHEREAS, the Board of Water Supply's (BWS) Annual Halawa Xeriscape Garden Open House and Unthirsty Plant Sale is an annual public outreach activity that educates Oahu water users about incorporating drought tolerant plants, earth-friendly planting and maintenance techniques, and water conservation methods in their landscapes and gardens to promote efficient outdoor water use; 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, Hawaiian Earth Recycling LLC, is offering a gift of 25 cubic yards of Soil Conditioner/Compost, totaling \$925.00, for the BWS to distribute to the public at the 2019 Annual Halawa Xeriscape Garden Open House and Unthirsty Plant Sale; and

WHEREAS, the gift to the BWS is beneficial because using soil conditioner/ compost improves the soil's ability to retain water and reduces irrigation needs of landscapes or gardens that use it, further promoting outdoor water use efficiency; now, therefore

BE IT RESOLVED that the Board of Water Supply hereby accepts the gift valued at \$925.00, and directs the Manager and Chief Engineer, or his delegate, to accept and thank the donor for this gift.

ADOPTED:



KAPUA SPROAT
Vice Chair

Honolulu, Hawaii
June 24, 2019

RESOLUTION NO. 899, 2019, ACCEPTANCE OF GIFT TO THE BOARD OF WATER SUPPLY FROM HAWAIIAN EARTH RECYCLING LLC, IN SUPPORT OF THE 2019 ANNUAL HALAWA XERISCAPE GARDEN OPEN HOUSE AND UNTHIRSTY PLANT SALE ADOPTED ON JUNE 24, 2019

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

APPROVED

"June 24, 2019

**ELECTION OF
CHAIR AND
VICE CHAIR**

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

Chair and Members:

Subject: Election of the Chair and Vice Chair of the Board of
Water Supply Beginning July 1, 2019

The Bylaws of the Board of Water Supply provides that the Chair and Vice Chair of the Board shall be elected annually from among and by the appointed members of the Board at the first regular meeting in June.

Accordingly, election of the Chair and Vice Chair of the Board for the ensuing year commencing July 1, 2019, is on the agenda for this June 24, 2019 regular meeting.

Respectfully submitted,

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

**NOMINATION
AND MOTION**

Ray Soon nominated Bryan Andaya to continue as Board Chair and Kapua Sproat to continue as Board Vice Chair. The motion was seconded by Ross Sasamura. Ms. Sproat noted that as Chair, she is unable to nominate anyone. The motion was unanimously carried.

Mr. Lau congratulated Ms. Sproat and she replied that it is truly an honor and a privilege to serve.

BRYAN ANDAYA ELECTED AS CHAIR AND KAPUA SPROAT ELECTED AS VICE CHAIR OF THE BOARD OF WATER SUPPLY, COMMENCING JULY 1, 2019, AT THE JUNE 24, 2019 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA			ABSENT
KAPUA SPROAT	X		
KAY C MATSUI			ABSENT
RAY C SOON	X		
MAX J SWORD	X		
ROSS S SASAMURA	X		
JADE T BUTAY			ABSENT

ITEM FOR INFORMATION NO. 1

"June 24, 2019

WATER SYSTEM
REVENUE BONDS-
COMPLIANCE
WITH RATE
COVENANT

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

Chair and Members:

Subject: Water System Revenue Bonds - Compliance with
Rate Covenant

In accordance with Article VIII, Section 8.02, Rates and Charges, of the Water System Revenue Bonds, Resolution No. 717, 2001, we have completed a review of the financial condition of the Board of Water Supply for the purpose of estimating whether the Net Revenues for the current fiscal year and the next succeeding fiscal year will be sufficient to comply with the rate covenant in Section 8.02.

Our review included an examination of the financial and accounting records which we considered necessary to express an opinion on the adequacy of the department's rates and other charges such that Net Revenues shall not be less than the Net Revenue Requirement in each fiscal year.

In our opinion, Net Revenues for fiscal years 2019 and 2020 will not be less than the Net Revenue Requirement for such fiscal years.

The attached schedules present the actual and estimated revenues and expenditures in compliance with the above rate covenant.

Respectfully submitted,

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

Attachments"

The foregoing was for information only.

DISCUSSION: Mr. Soon commented that the net revenues have come down to a slightly more reasonable level than they were in the past. He realizes that there is a risk if net revenues are too low, but having it too high may invite many inquiries from the rate payers.

Mr. Cooper noted that BWS will be proposing to issue bonds in the third or fourth quarter and the payment on those bonds will not occur until

fiscal year 2021, so the percentages for this year and next year presented today do not include those payments. Those future payments will be in a report planned for the next Board Meeting. Mr. Lau noted that BWS is working within the Board's adopted financial policy, which states that the working capital fund is also for major emergencies or disasters to help in recovery. Mr. Lau stated that BWS has worked very hard over the last few years to right size revenue carry-over from year to year and to incorporate as much of the carry-over as possible into the Capital Improvement Program to make it affordable for our customers.

Ms. Sproat asked the Board Members if they had any suggested direction they would like to provide to the BWS staff. Mr. Lau offered the Board Members to contact him at any time if they wanted to discuss this further.

Ms. Sproat asked if there was any public testimony on this agenda item, and there was none.

Board of Water Supply
City and County of Honolulu
SUPPLEMENTAL SCHEDULE OF NET REVENUE REQUIREMENT
As of May 31, 2019

	<u>Amount</u>
REVENUES:	
Water sales	\$ 207,891,367
Interest	6,258,591
Other	<u>4,733,686</u>
Total revenues	<u>218,883,644</u>
DEDUCTIONS:	
Operating expenses	169,552,272
Less depreciation expense	<u>(43,049,464)</u>
Total deductions	<u>126,502,809</u>
Net revenues	<u><u>\$ 92,380,835</u></u>
NET REVENUE REQUIREMENT:	
Greater of:	
1) Aggregate debt service	\$ 16,387,250
Required deposits - subordinate obligation fund	<u>16,387,250</u>
	<u><u>16,387,250</u></u>
2) Aggregate debt service	16,387,250
	x 1.20
	<u>19,664,700</u>
	<u><u>19,664,700</u></u>
Net revenue requirement	<u><u>\$ 19,664,700</u></u>

Current ratio

5.64

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
CALCULATIONS OF NET REVENUES AND NET REVENUE REQUIREMENT
FISCAL YEAR ENDING JUNE 30, 2020

	PROJECTED FY 2020
REVENUES	
Water sales	\$ 237,331,800
Other charges & services	3,565,100
Interest revenue	<u>5,340,000</u>
Total revenues	<u><u>\$ 246,236,900</u></u>
DEDUCTIONS	
Operating expenses	<u>\$ 143,885,900</u>
Net revenues	<u><u>\$ 102,351,000</u></u>
NET REVENUE REQUIREMENT	
Greater of:	
1) Aggregate debt service for FY 19	\$ 17,860,000
Required deposits - subordinate obligation fund	<u>17,860,000</u>
	<u><u>\$ 17,860,000</u></u>
2) Aggregate debt service for FY 19	\$ 17,860,000
	x 1.20
	<u>21,432,000</u>
	<u><u>\$ 21,432,000</u></u>
Target Net Requirement of 1.7	\$ 30,362,000
Current Ratio	<u><u>5.73</u></u>

ITEM FOR INFORMATION NO. 2

“June 24, 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 were no aquifer index wells within low groundwater status for the production month of May 2019. The monthly production average for May 2019 was 138.71 million gallons per day.

The Board of Water Supply rainfall index for the month of May 2019 was 69 percent of normal; with a 5-month moving average of 72 percent. As of June 4, 2019, the Hawaii Drought Monitor shows abnormally dry conditions for all of Oahu, with moderate drought conditions on the leeward side of the island, and severe drought conditions on the leeward coast from Nanakuli to Makaha.

The National Weather Service (NWS) is predicting the continuation of El Nino conditions through the summer which normally can correlate to decreased precipitation on Oahu. However, the Central Pacific Hurricane Center is predicting 70 percent chance of above-normal tropical cyclone activity during the hurricane season. The NWS said that Hawaiian Islands could be threatened by 5 to 8 storms from June through November; increasing probabilities for above normal rainfall during the summer months.

Most monitoring wells are showing decreasing trends, resulting from below average rainfall and increased pumping during the summer months.

Respectfully submitted,

/s/ for 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. He informed the Board that there will be a meeting of the Oahu Drought Committee tomorrow, which is coordinated by the Commission on Water Resource Management. All participants such as the National Weather Service, will report on drought conditions and how

they are preparing for this upcoming season. Mr. Usagawa will provide an update at next month's Board Meeting.

Mr. Lau reminded everyone that hurricane season is here and to be prepared with a supply of 14 days of food and about a gallon a day of water per person, that you can get right from the tap. Ms. Sproat asked if there was any public testimony on this agenda item, and there was none.

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

POTABLE

STATION	MGD
HONOLULU (1)	
KULIOUOU	0.05
WAILUPE	0.11
A'INA KOA	0.14
A'INA KOA II	0.83
MANOAAI	0.00
PALOLO	1.19
KAIMUKI HIGH	2.66
KAIMUKI LOW	2.21
WILDER	4.88
BERETANIA HIGH	3.50
BERETANIA LOW	5.38
KALIHI/HIGH	3.00
KALIHI/LOW	2.11
KAPALAMA	0.36
KALIHI SHAFT	8.54
MOANALUA	1.16
HALAWA SHAFT	8.69
KAAMILO	0.89
KALAUAO	5.71
PUNANANI	10.46
KAHUMANU	0.25
HECOMAIAU	2.63
MANANA	0.22
WELLS SUBTOTAL:	64.98
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.23
GRAVITY SUBTOTAL:	0.40
HONO. SUBTOTAL:	65.38

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.52
WAIMANALO/II	0.00
KUOU I	1.28
KUOUAII	0.05
KUOUAII	0.58
LULUKU	0.95
HAIKU	0.00
IOLEKAA	0.00
KAHALUU	0.80
KAHANA	1.01
PUNALUU I	0.00
PUNALUU II	1.68
PUNALUU III	0.00
KALUANUI	0.27
MAAKUA	0.20
HAUULA	0.26
WELLS SUBTOTAL:	7.61
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	0.49
WAIHEE TUNNEL	4.95
LULUKU TUNNEL	0.07
HAIKU TUNNEL	1.07
KAHALUU TUNNEL	1.48
GRAVITY SUBTOTAL:	8.25
WIND. SUBTOTAL:	15.86

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.44
OPANA	0.17
WAIALEEA	0.42
WAIALEE II	0.41
HALEIWA	0.00
WAIALUA	1.76
N.SHORE SUBTOTAL:	3.20

STATION	MGD
MILILANI (4)	
MILILANI I	2.05
MILILANI II	0.00
MILILANI III	0.70
MILILANI IV	1.70
MILILANI SUBTOTAL:	4.44

STATION	MGD
WAHIAWA (5)	
WAHIAWA	1.11
WAHIAWA II	1.90
WAHIAWA SUBTOTAL:	3.01

STATION	MGD
PEARL CITY-HALAWA (6)	
HALAWA 277	0.60
HALAWA 550	0.00
AIEA	1.17
AIEA GULCH 497	0.41
AIEA GULCH 550	0.20
KAONOHI I	1.11
WAIMALUA	0.00
NEWTOWN	1.00
WAI'AU	0.74
PEARL CITY I	0.49
PEARL CITY II	1.07
PEARL CITY III	0.37
PEARL CITY SHAFT	0.93
PEARL CITY-HALAWA SUBTOTAL:	8.10

STATION	MGD
WAIPAHU-EWA (7)	
WAIPIO HTS.	1.48
WAIPIO HTS. I	0.85
WAIPIO HTS. II	0.37
WAIPIO HTS. III	1.20
WAIPAHU	3.94
WAIPAHU II	1.97
WAIPAHU III	1.70
WAIPAHU IV	2.64
KUNIAA	4.69
KUNIAA II	1.97
KUNIA III	1.48
HOAEAE	5.39
HONOULIULIA	0.00
HONOULIULI II	6.87
MAKAKILO	0.29
WAIPAHU-EWA SUBTOTAL:	34.86

STATION	MGD
WAIANAE (8)	
MAKAHAA	0.36
MAKAHA II	0.06
MAKAHA III	0.39
MAKAHA V	0.20
MAKAHA VI	0.00
MAKAHA SHAFT	0.00
KAMAILE	0.00
WAIANAE I	0.16
WAIANAE II	0.43
WAIANAE III	0.70
WELLS SUBTOTAL:	2.31
WAI. C&C TUNNEL	1.40
WAI. PLANT. TUNNELS	0.16
GRAVITY SUBTOTAL:	1.56
WAIANAE SUBTOTAL:	3.87

NONPOTABLE

NONPOTABLE	MGD
KALAUAO SPRINGS	0.76
BARBERS POINT WELL	1.27
GLOVER TUNNEL NP	0.43
NONPOTABLE TOTAL:	2.47

RECYCLED WATER (APRIL 2019)

RECYCLED WATER	MGD
HONOULIULI WRF R-1	6.74
HONOULIULI WRF RO	1.52
RECYCLED WATER TOTAL:	8.26

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

PRODUCTION SUMMARIES

TOTAL WATER	MGD
PUMPAGE	128.50
GRAVITY	10.21
POTABLE TOTAL:	138.71
NONPOTABLE	2.47
RECYCLED WATER	8.26
TOTAL WATER:	149.44

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS				
POTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE/ BWS YLDS	B MAY 2019	C DIFF. A-B
1	HONOLULU	82.93	64.98	17.95
2	WINDWARD	25.02	10.42	14.60
3	NORTH SHORE	4.70	3.20	1.49
4	MILILANI	7.53	4.44	3.09
5	WAIHAWA	4.27	3.01	1.26
6	PEARL CITY-HALAWA	12.25	8.10	4.15
7	WAIPAHU-EWA	50.63	34.86	15.77
8	WAIANAE	4.34	2.31	2.03
TOTAL:		191.67	131.31	60.36

CWRM PERMITTED USE FOR BWS				
NONPOTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE	B MAY 2019	C DIFF. A-B
7	WAIPAHU-EWA (BARBERS POINT WELL)	1.00	1.27	-0.27
TOTAL:		1.00	1.27	-0.27

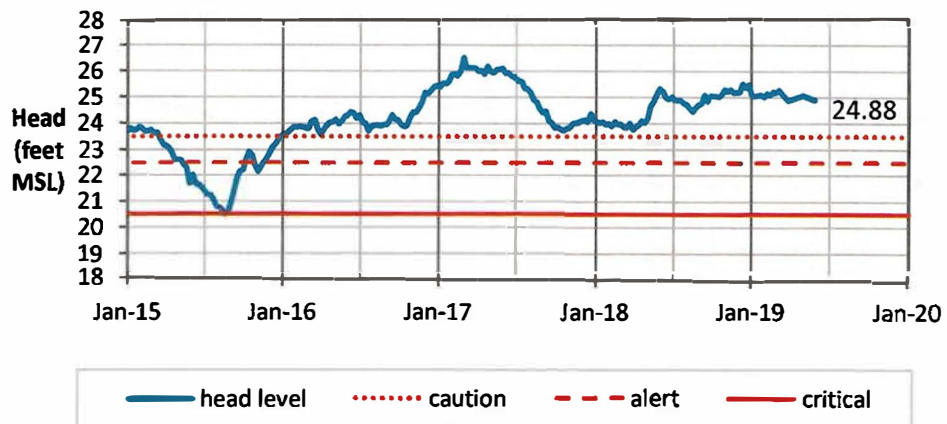
EFFECTIVE WATER DEMAND PER DISTRICT

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS			
FROM	TO		MGD
2	1	WINDWARD EXPORT	1.15
7	8	BARBERS PT LB	5.84

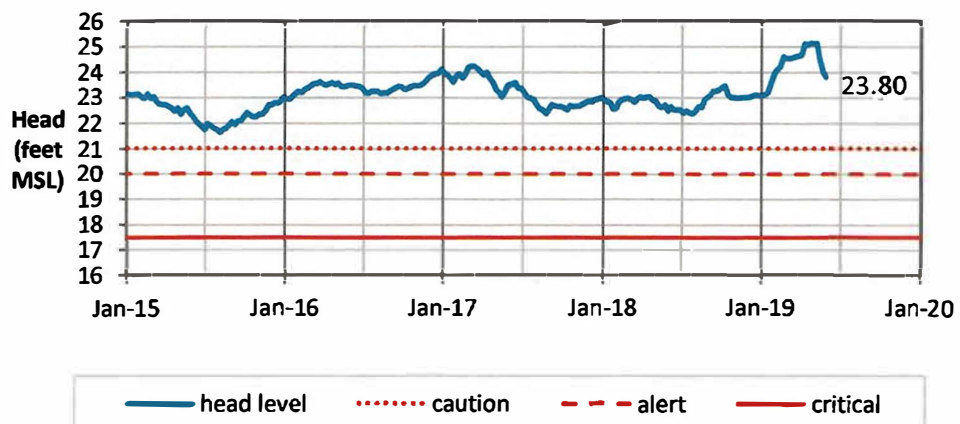
WATER USE DISTRICTS		SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	64.98	1.15	-	66.13
2	WINDWARD	10.42	-	1.15	9.26
3	NORTH SHORE	3.20	-	-	3.20
4	MILILANI	4.44	-	-	4.44
5	WAIHAWA	3.01	-	-	3.01A
6	PEARL CITY-HALAWA	8.10	-	-	8.10
7	WAIPAHU-EWA	34.86	-	5.84	29.02
8	WAIANAE	2.31	5.84	-	8.14
TOTAL:		131.31	6.99	6.99	131.31

Weekly Head Report

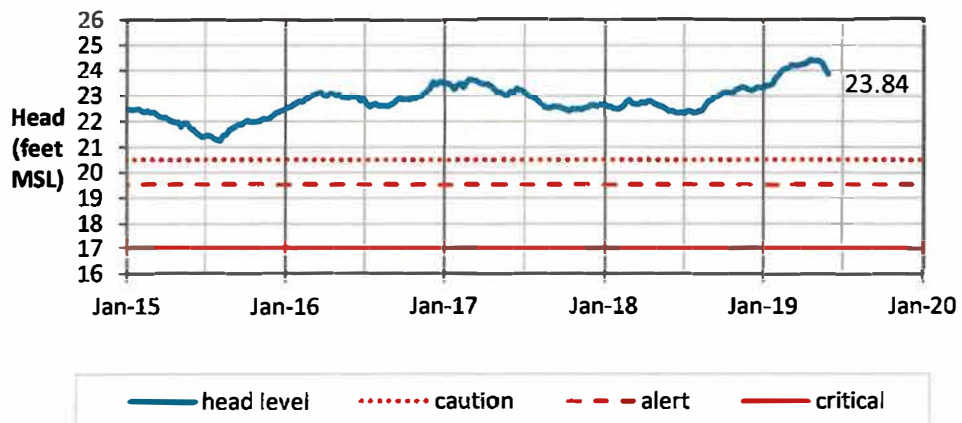
Kaimuki 06/07/19



Beretania 06/05/19

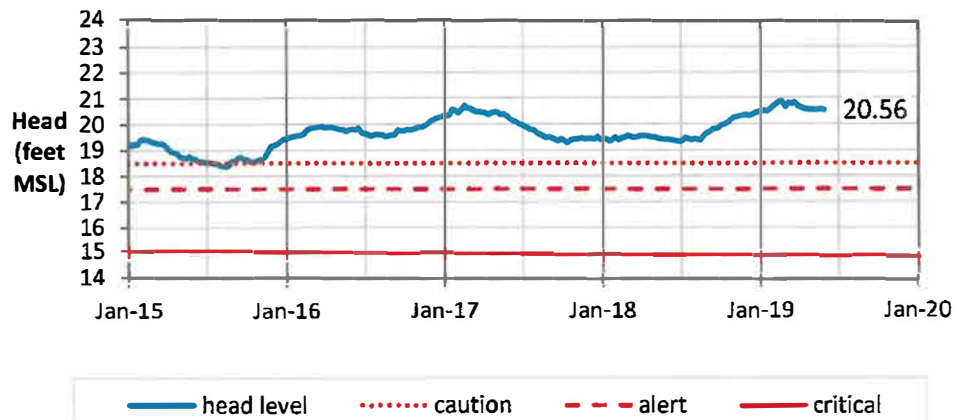


Kalihi 06/05/19

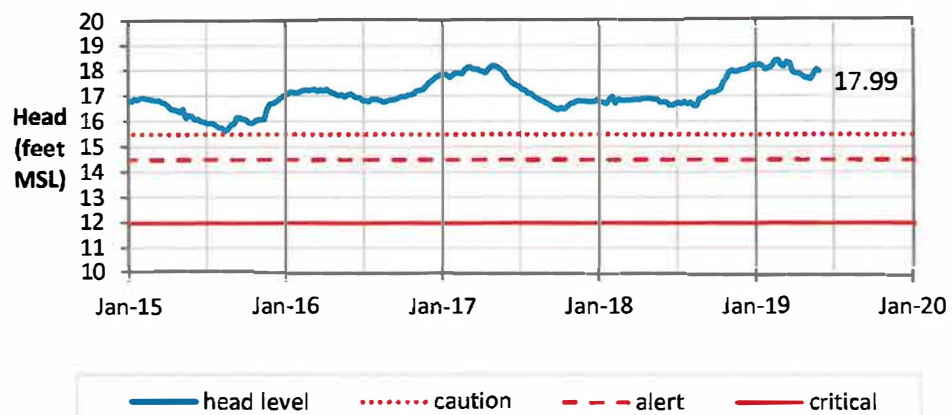


Weekly Head Report

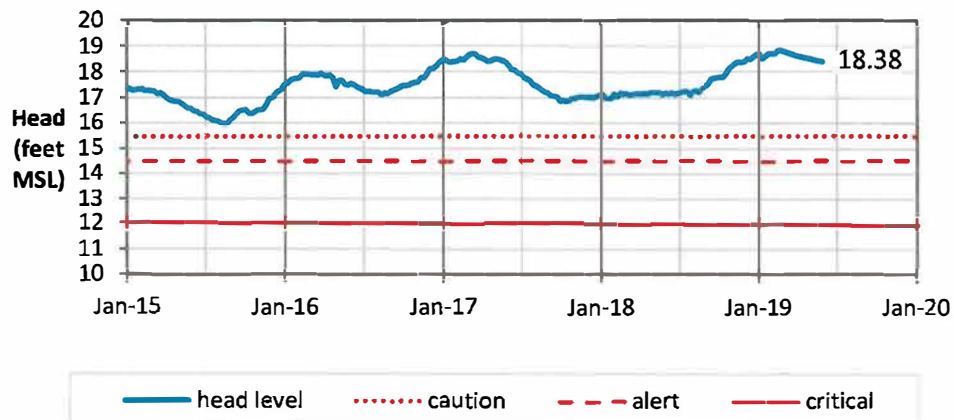
Moanalua 06/05/19



Halawa 06/05/19

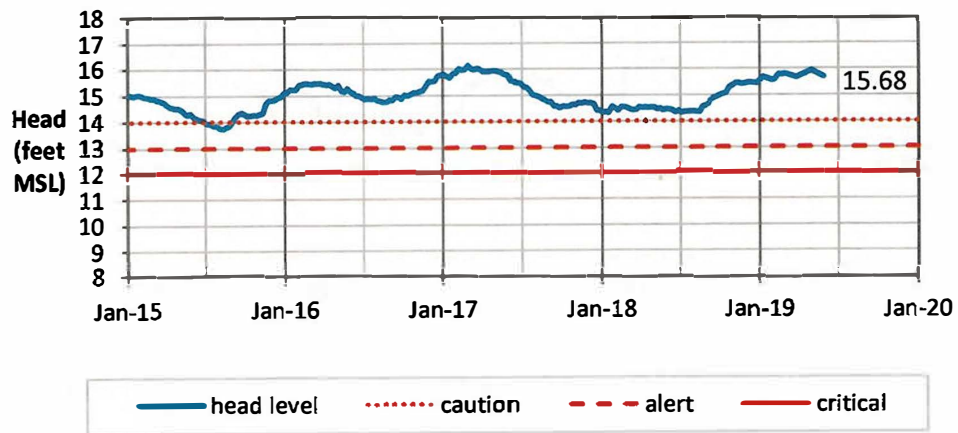


Kalauao 06/07/19

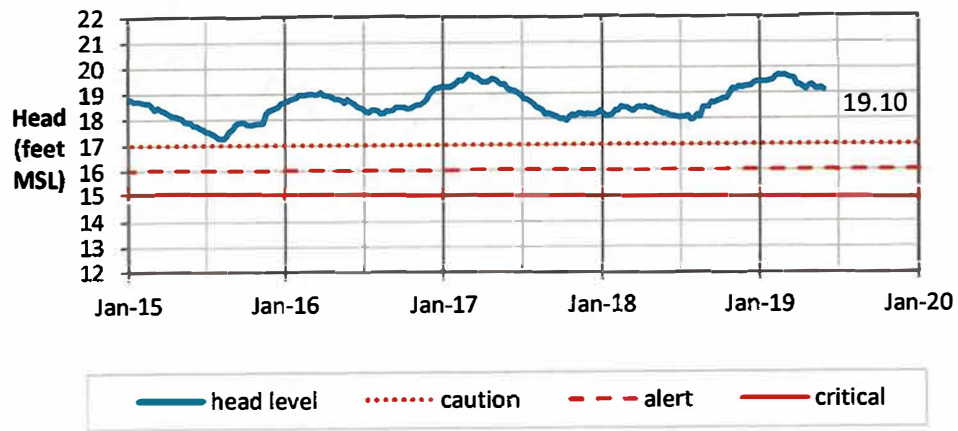


Weekly Head Report

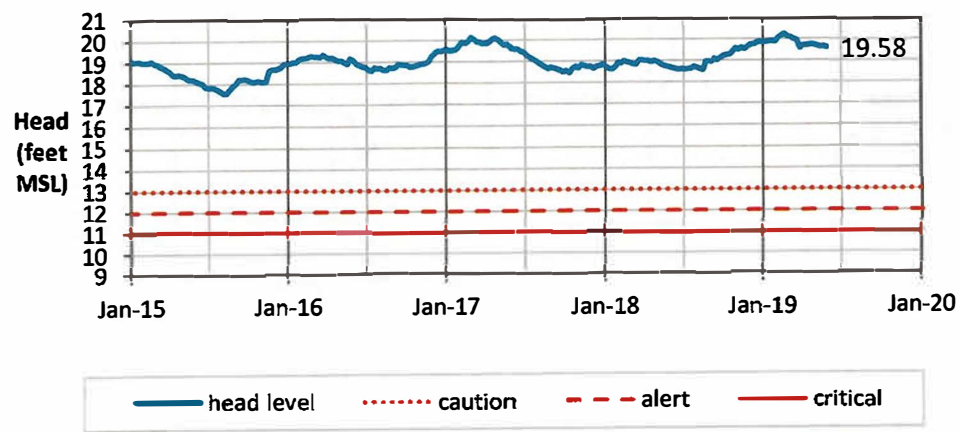
Pearl City 06/07/19



Waipahu 06/05/19

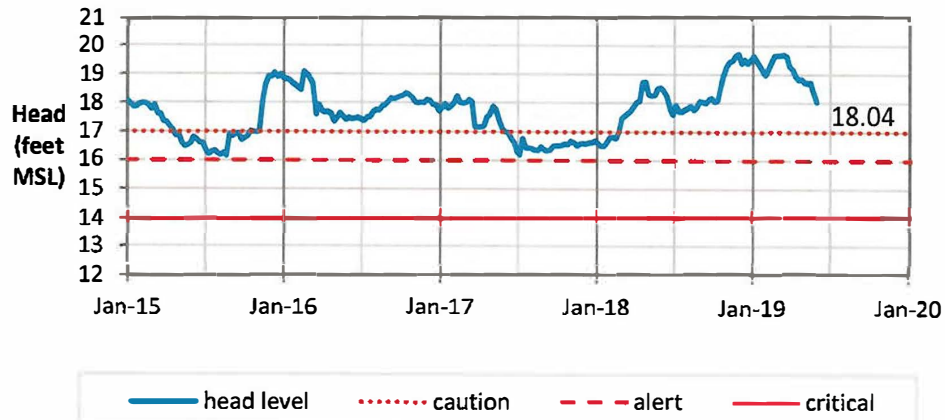


Hoeaee-Kunia 06/05/19

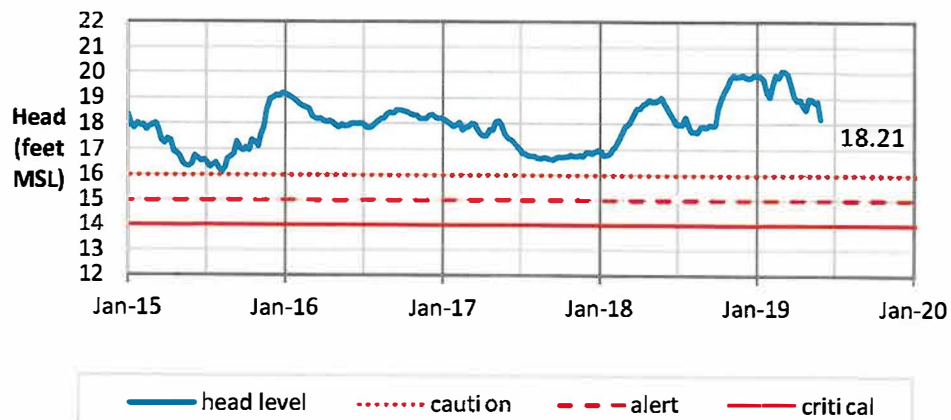


Weekly Head Report

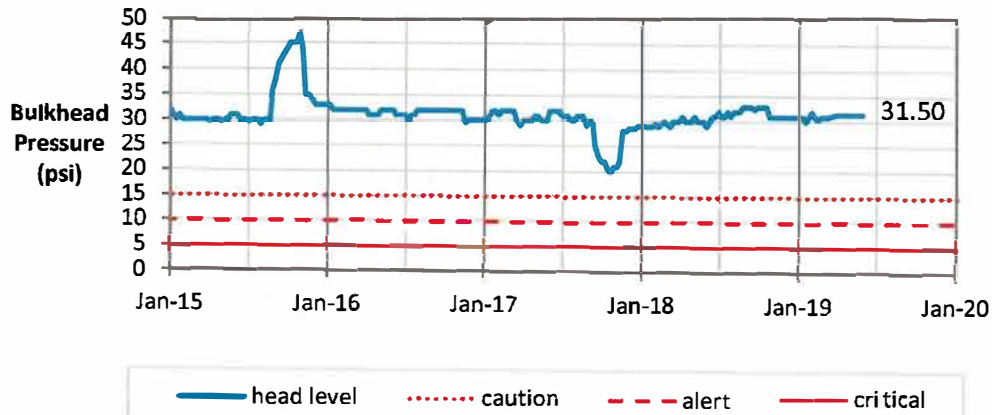
Punaluu 06/05/19



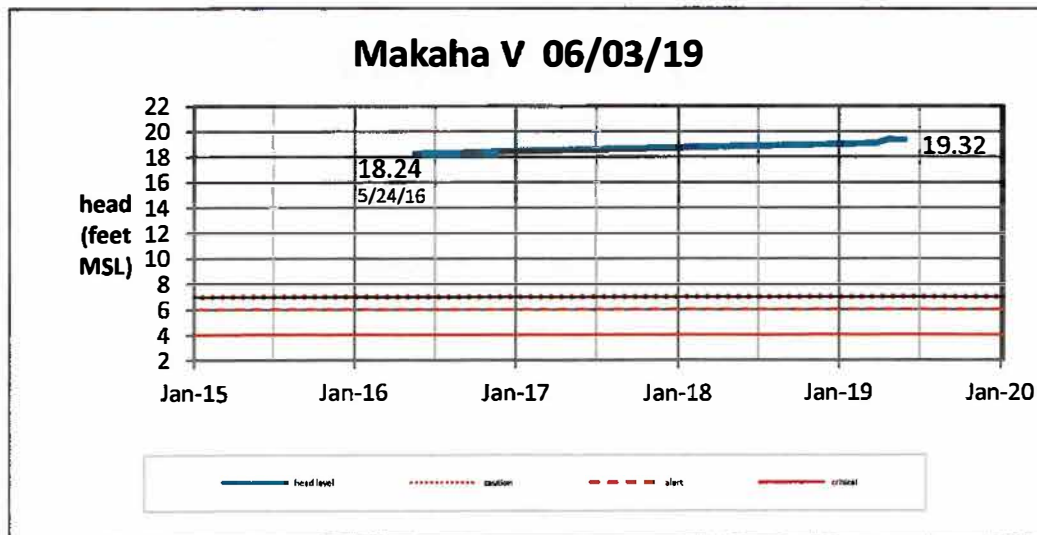
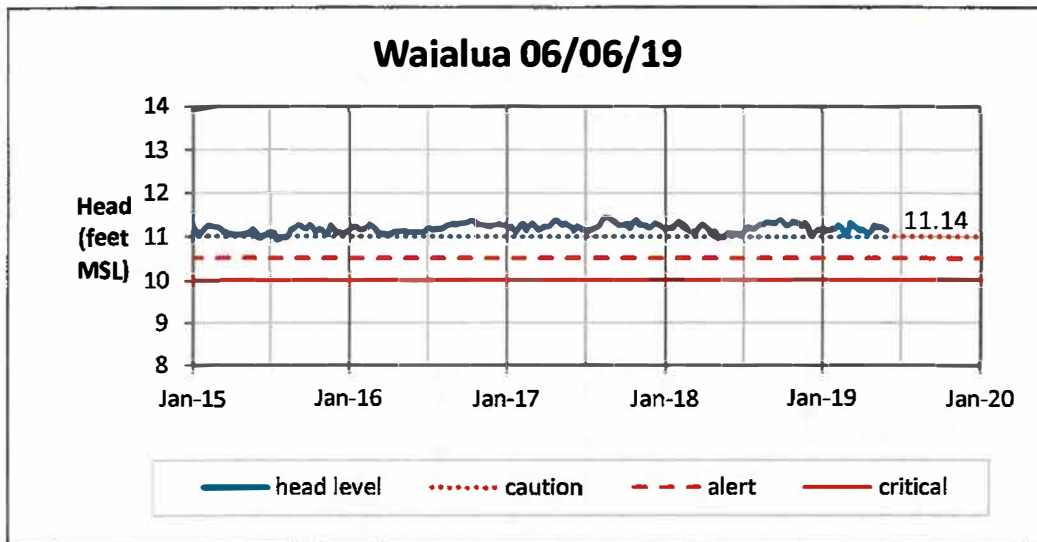
Kaluanui 06/06/19

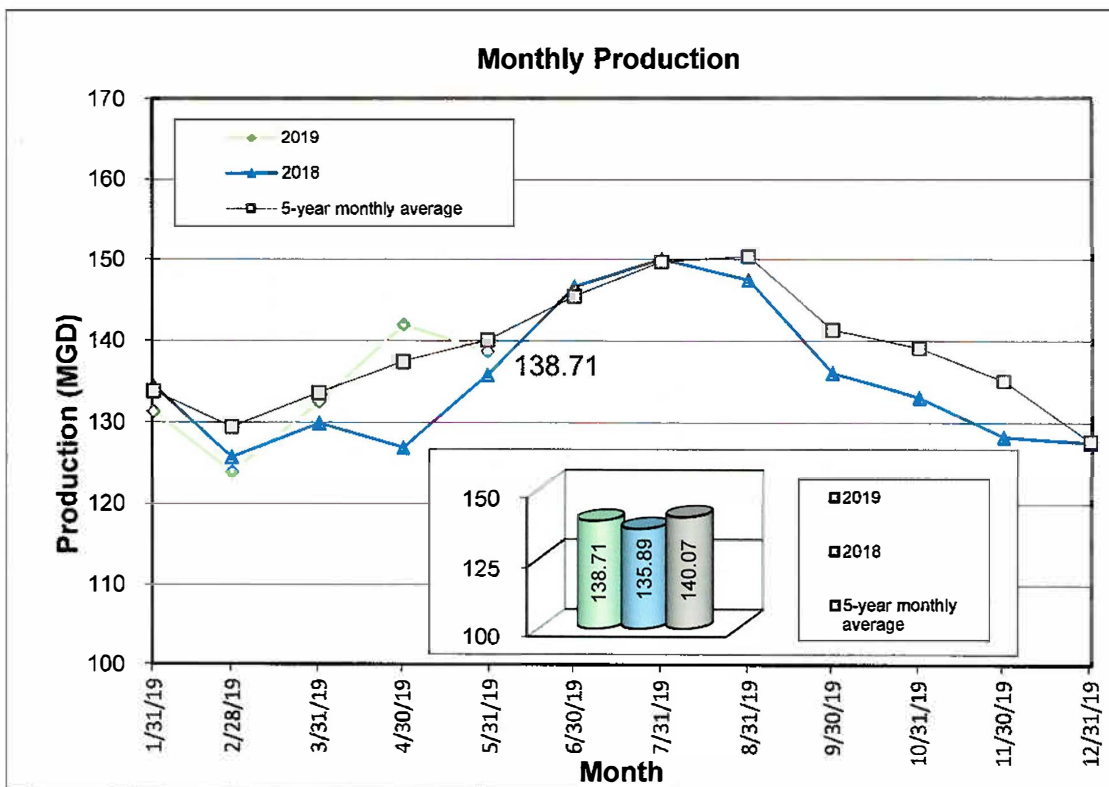
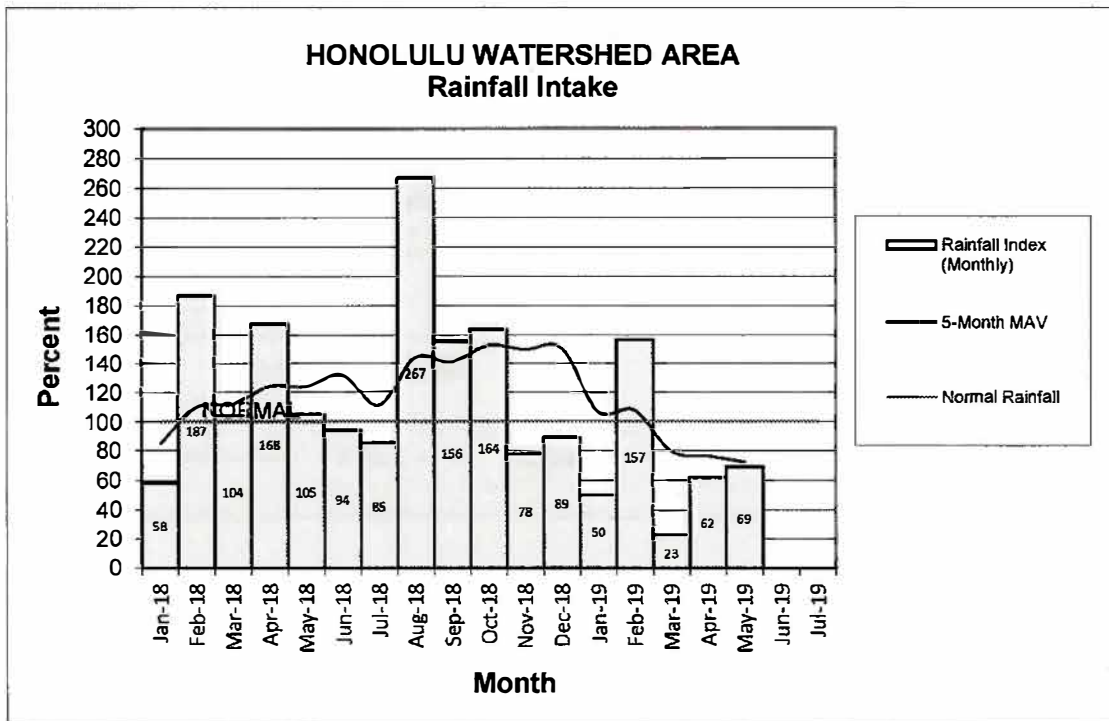


Waihee Tunnel 06/03/19



Weekly Head Report





ITEM FOR INFORMATION NO. 3

"June 24, 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 May 2019

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

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION:

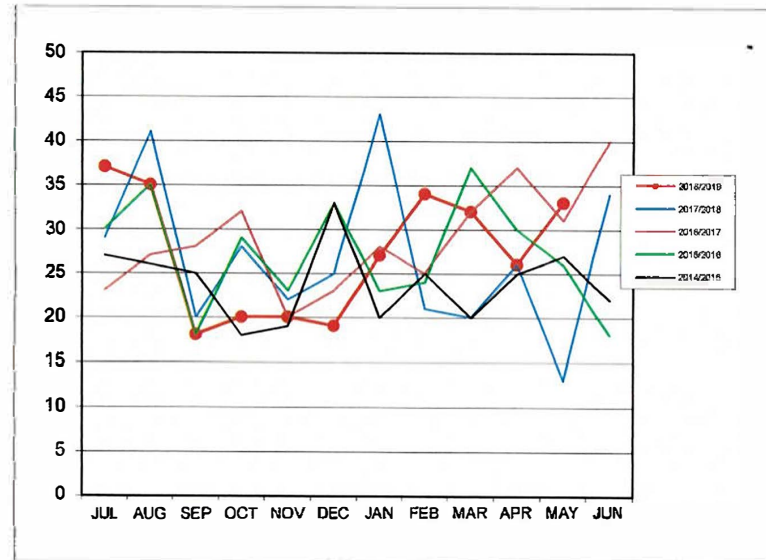
Mike Fuke, Program Administrator, Field Operations, gave the report. He reported that of the 33 main breaks in May, two were significant. The first one was a 16-inch main break on Farrington Highway causing traffic issues. The second was a 20-inch main break on Mailiili, which took about 100 hours to complete repairs.

Ms. Sproat asked if there was any public testimony on this agenda item, and there was none.

WATER MAIN REPAIR REPORT for May 2019

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2018/2019	37	35	18	20	20	19	27	34	32	26	33		301
2017/2018	29	41	20	28	22	25	43	21	20	26	13	34	322
2016/2017	23	27	28	32	20	23	28	25	32	37	31	40	346
2015/2016	30	35	18	29	23	33	23	24	37	30	26	18	326
2014/2015	27	26	25	18	19	33	20	25	20	25	27	22	287

Date	Address	Size (In)	Pipe Type
5/2/2019	45-162 Neepapa Pl, Kaneohe	4	CI
5/2/2019	1578 Ala Aolua Lp, Honolulu	8	CI
5/3/2019	44-035 Aina Moi Pl, Kaneohe	6	CI
5/3/2019	87-118 Hookele St, Waianae	6	CI
5/4/2019	4373 Halupa St, Honolulu	12	PVC
5/6/2019	84-215 McArthur St, Waianae	8	PVC
5/6/2019	629 Piikoi St, Honolulu	8	CI
5/6/2019	64 Kilea Pl, Wahiawa	6	CI
5/7/2019	2632 Kilihau St, Honolulu	8	CI
5/8/2019	85 625 Farrington Hwy, Waianae	16	CC
5/8/2019	85-277 McArthur St, Waianae	8	PVC
5/12/2019	51-378 Kamehameha Hwy, Kaaawa	6	CI
5/14/2019	45-176 Kokokahi Pl, Kaneohe	8	CI
5/16/2019	2066 Kalia Rd, Honolulu	12	PVC
5/16/2019	91-206 Makahou St, Kapolei	8	DI
5/16/2019	218 Kamani St, Honolulu	8	CI
5/16/2019	98-1047 Kaonohi St, Aiea	8	CI
5/17/2019	1445 Paina St, Honolulu	6	CI
5/17/2019	220 Kamani St, Honolulu	8	CI
5/18/2019	91-618 Pupū St, Ewa Beach	8	CI
5/20/2019	2551 Booth Rd, Honolulu	4	CI
5/20/2019	53-594 Kamehameha Hwy, Hauula	12	AC
5/21/2019	3577 Waakaua Pl, Honolulu	6	CI
5/22/2019	84-545 Kili Dr, Waianae	12	AC
5/23/2019	2593 Booth Rd, Honolulu	6	CI
5/23/2019	86-197 Mailiili Rd, Waianae	20	CC
5/24/2019	1744 Koikoi St, Wahiawa	8	PVC
5/25/2019	91-1018 Waihua Pl, Ewa Beach	8	DI
5/26/2019	1605 Kealia Dr, Honolulu	6	CI
5/29/2019	87-177 St Johns Rd, Waianae	8	CI
5/29/2019	87-521 Manuaihue St, Waianae	8	CI
5/29/2019	1548 Ahuawa Lp, Honolulu	8	CI
5/31/2019	604 11th Ave, Honolulu	6	CI

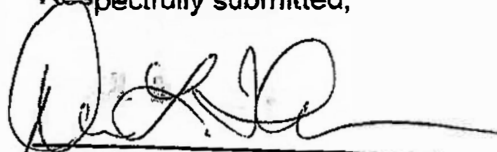


27 miles of pipeline were surveyed by the Leak Detection Team in the month of May.

**MOTION TO
ADJOURN**

There being no further business Vice Chair Sproat at 2:26 PM called for a motion to adjourn the Open Session. Ray Soon so moved; seconded by Max Sword and unanimously carried.

Respectfully submitted,


DEANNA L. THYSSEN

APPROVED:


BRYAN P. ANDAYA
Chair of the Board

JUL 22 2019

Date

THE MINUTES OF THE AMENDED REGULAR SESSION BOARD MEETING ON JUNE 24, 2019 WERE APPROVED AT THE JULY 22, 2019 BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA			ABSENT
KAPUA SPROAT	X		
KAY C. MATSUI			ABSENT
RAY C. SOON	X		
MAX J. SWORD	X		
ROSS S. SASAMURA	X		
JADE T. BUTAY			ABSENT