MINUTES

THE REGULAR MEETING OF THE
BOARD OF WATER SUPPLY

October 26, 2020

At 2:00 PM on October 26, 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 WebEx
Jennifer Elfein, Program Administrator, Customer Care Division via WebEx
Kathleen Elliott-Pahinui, Information Officer, Communications Office via WebEx
Raelynn Nakabayashi, Executive Assistant I, Executive Support Office via WebEx
Michael Fuke, Program Administrator, Field Operations Division via WebEx
Joseph Cooper, Waterworks Controller, Finance Division via WebEx
Michele Thomas, Executive Assistant I, Human Resources Office via WebEx
Henderson Nuuhiwa, Program Administrator, Information Technology Division via WebEx
Michael Matsuo, Land Administrator, Land Division via WebEx
Erwin Kawata, Program Administrator, Water Quality Division via WebEx
Barry Usagawa, Program Administrator, Water Resources Division via WebEx
Kevin Ihu, Program Administrator, Water System Operations Division via WebEx
David Ebersold, Vice President, CDM Smith via WebEx
Deanna Thyssen, Executive Secretary via WebEx
Joy Cruz-Achiu, Board Secretary

Steven Norstrom, Information Specialist II,
Communications Office
Kathy Mitchell, Administrative Services Officer via
WebEx

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

REGULAR MEETING

Chair Bryan Andaya requested a roll call for the Regular Meeting and stated that all the Board Members, except for himself, were attending remotely via WebEx. Chair Andaya asked each Board Member to respond verbally when their names were called. Vice Chair Kapua Sproat, aye; Board Member Jade Butay, aye; Board Member Ross Sasamura, aye; and Board Member Max Sword, present. Chair Andaya announced that Board Member Soon was visible online via WebEx, but his audio was not working.

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-Achiu, and Information Specialist Steven Norstrom. Joining by telephone, from the City and County Corporation Counsel, were Deputy Jeff Lau, and Deputy Jessica Wong.

Chair Andaya stated under the Fourteenth Supplementary Proclamation issued by Governor David Ige on October 13, 2020, to follow public participation in a matter consistent with social distancing practices, the following procedures are in effect for the meeting.

Chair Andaya stated the Board of Water Supply (BWS) is committed to ensuring adequate access and transparency in everything.

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 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 Public Hearing and Regular Meeting held on September 28, 2020.
MOTION TO APPROVE	Ross Sasamura and Jade Butay motioned and seconded, respectively, to approve the Minutes of the Public Hearing and Regular Meeting of September 28, 2020.
	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.
	Board Member Max Sword announced he would be abstaining from voting since he was absent at the meeting held on September 28, 2020.

Chair Andaya requested that Ms. Cruz-Achiu conduct the roll call vote.

Ms. Cruz-Achiu conducted a roll call vote: Vice Chair Kapua Sproat, aye; Board Member Ross Sasamura, aye; Board Member Jade Butay, aye; and Chair Bryan Andaya, aye.

Ms. Cruz-Achiu announced that the motion passed with four ayes and one abstention.

At 2:07 PM, Board Member Ray Soon joined the Regular Board Meeting via WebEx.

THE MINUTES OF THE PUBLIC HEARING AND REGULAR MEETING HELD ON SEPTEMBER 28, 2020, WERE APPROVED AT THE OCTOBER 26, 2020 BOARD MEETING				
	AYE	NO	ABSTAIN	COMMENT
BRYAN P. ANDAYA	X			
KAPUA SPROAT	X			
RAY C. SOON				ABSENT
MAX J. SWORD			X	
ROSS S. SASAMURA	X			
JADE T. BUTAY	X			

ITEM FOR INFORMATION NO. 1

"October 26, 2020

UPDATE ON 2018-2022 BOARD OR WATER SUPPLY STRATEGIC PLAN AND WATER MASTER PLAN PERFORMANCE METRICS

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

Chair and Members:

Subject: Update on 2018-2022 Board of Water Supply Strategic Plan and Water Master Plan Performance Metrics

Ellen Kitamura, Deputy Manager, will present an update on the Board of Water Supply's 5-Year Strategic Plan for Fiscal Years 2018-2022 and Water Master Plan performance metrics for Fiscal Year 2020.

Respectfully submitted,

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

Attachment"

The foregoing was for information only.

DISCUSSION: Ellen Kitamura, Deputy Manager, gave the report.

Deputy Manager Kitamura reported that the Employee Departure Rate target of 7% was finally met in the past fiscal year. It has been very challenging to meet this metric, however even with the COVID-19 pandemic, BWS continued to aggressively recruit through targeted advertisements and use of social media, as well as participating in numerous job fairs to promote BWS job opportunities. In the past fiscal year, BWS has been able to attract and retain good workers, which lead to the improvement of this metric.

Manager Ernest Lau stated under the BWS Strategic Plan Water Master Plan and Performance Metrics Fiscal Stability indicator, the BWS used the Standard & Poor's (S&P) Bond Rating System, which the BWS earned a triple-A rating. The BWS is one of the few government agencies in Hawaii to achieve this rating. In previous years, the BWS has used Moody's Bond Rating System and maintained an AA class.

Manager Lau expressed his appreciation for the BWS staff hard work and the Board support to achieve the triple-A rating.

Deputy Manager Kitamura reported that the Pipeline Leak Detection target was not met this past fiscal year.

Staffing levels for the Leak Detection Team fell to 50% during the fiscal year. New employees were hired to fill the vacancies, however, they needed to be trained, which affected the miles of pipe that the Leak Detection Team was able to survey. In addition, there were a lack of qualified applicants for one of the vacant positions. This position is in the process of being downgraded and will be filled at the entry-level.

Chair Bryan inquired what position the BWS is having difficulty filling.

Deputy Manager Ellen Kitamura stated that the BWS is having difficulty filling the Water Service Investigator I position in the Field Operations Division.

Manager Lau mentioned the BWS initiated a new pilot program using a satellite leak detection system. The satellite leak detection system circles the world in space, photographs the island of Oahu, and detects water with chlorine. Because the BWS adds chlorine to disinfect our water to make it safe to drink, these satellites can distinguish between naturally occurring water, rainwater, and puddling on the ground versus chlorinated water, making this pilot program beneficial to the BWS. This satellite system provides the BWS a more detailed, focused, and targeted area to detect a leak, optimizing the BWS's limited staff resources.

Deputy Manager Kitamura stated the BWS has joined the Technology Approval Group (TAG) facilitated by Isle, a technical consulting company. Isle will vet emerging technologies and holds workshops on emerging technologies for the various utilities participating in the TAG. The BWS has attended two water workshops, which is an excellent opportunity to learn and ask questions about emerging water technologies.

Board Member Max Sword inquired if the BWS plans to start repairs on the older pipes and where most main breaks occur.

Deputy Manager Kitagawa replied that the BWS has a program that will identify and determine the priority pipes based on factors such as age, material, etc., and the consequence of the failure. This will determine the high-risk pipelines to be scheduled for replacement. As these pipelines are replaced, the annual number of main breaks should go down.

Deputy Manager Kitamura reported that the Pumps Available for Use did not meet the targeted goal of 90%.

Board Member Ray Soon asked what the BWS is doing to improve the percentage of pumps available to be put in service?

Deputy Manager Kitamura explained that the percentage is a moving target. The Water Systems Operations (WSO) Division and Capital Projects (CP) Division continues to put pumps into service. Meanwhile, there are pump failures, which leads to catching up and trying to stay ahead. Therefore, the BWS is placing money into pump infrastructure

projects to increase the numbers that are in service. The BWS goal is to have 90% of pumps available to be put in-service.

Manager Lau added that BWS is also exploring ways to reduce the length of time to place the pumps back into service, which should improve the number of pumps that are available for use.

Deputy Manager Kitamura reported that the Emergency Power metric did not meet the targeted goal of 85%. There are a number of fixed generators that are tentatively scheduled for completion in February 2021. Once these fixed generators are placed online, the mobile generators currently deployed at these sites can be moved to other facilities to increase the island-wide coverage.

Manager Lau expressed his appreciation and wanted to recognize the State of Hawaii for their assistance through the Hawaii Emergency Management Agency (HI-EMA) and Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program. With the help of HI-EMA and FEMA, the BWS is able to build a backup power generator program for consumers.

Manager Lau stated the BWS has applied for FEMA grants to assist in obtaining mobile generators, which FEMA funds up to 75% of the cost, and the BWS covers 25%. Since the application process began, the BWS has acquired one generator.

Ms. Raelynn Nakabayashi, Executive Assistant I, Executive Support Office, stated one application is approved for Barber's Point, and that generator has since been delivered. The BWS has two other applications that were approved at the HI-EMA level for Kaonohi and Mililani and pending FEMA approval.

Board Member Sword asked why is the Residential Satisfaction number in 2019, not higher than sixty-three percent.

Deputy Manager Kitamura stated that the Residential Satisfaction percentage is performed every two years. The last survey was done in 2019, and BWS will be conducting another survey this year.

Ms. Kathleen Elliott-Pahinui, Information Officer, Communications Office, added that the 2019 percentage reflected information gathered after talking to the residents about rates as part of the BWS rate study. Another factor that may affect the Residential Satisfaction percentage could be water main breaks.

Manager Lau mentioned part of the Residential Satisfaction percentage is affected due to the combined BWS and City and County (C&C) Environmental Services (ENV) sewer bill. Consumers tend to look at the bottom figure without looking to see that there are two different amounts for different services.

Mr. David Ebersold, Vice President, CDM Smith, commented sixty-three percent is a high satisfaction number for a utility.

Chair Andaya recalled the last customer satisfaction study to the Board did not raise any concerns. We should provide a copy of the survey to the Board Members.

Vice Chair Kapua Sproat inquired if there is a way to discuss separating the water and sewer bill?

Manager Lau replied that the BWS and the City and County Department of Environmental Services have ongoing conversations concerning this matter. BWS will also discuss this with the new City Administration.

Board Member Soon commented it doesn't concern him to see many red and yellow indicators in the BWS Strategic Plan Water Master Plan and Performance Metrics. The red and yellow in the charts help address and understand the shortfalls and make the BWS a better organization. Board Member Soon also cautioned against changing the metrics, which may lead to masking some of the shortfalls. A clear reason should exist for revising the metrics, such as changing technologies affecting operations as discussed in the pilot program for the leak detection program.

Manager Lau acknowledged appreciation of Board Member Soon's concerns.

Board Member Jade Butay inquired who is responsible for tracking the BWS Strategic Plan Water Master Plan and Performance Metrics.

Deputy Manager Kitamura stated she tracks and reports on the BWS Strategic Plan Water Master Plan and Performance Metrics. However, the metrics are developed with input from the various divisions, making it a team effort. Throughout the year, the divisions participated in programs and projects to meet the targeted metrics.

Manager Lau stated Deputy Manager Kitamura does a great job putting the BWS Strategic Plan Water Master Plan and Performance Metrics presentation together.

Chair Andaya stated the importance of reporting on the performance metrics and echoed Board Member Soon's comments on addressing and understanding the shortfalls in the metrics.

BWS STRATEGIC PLAN
WATER MASTER PLAN
PERFORMANCE METRICS UPDATE

BWS Board of Directors Meeting

October 26, 2020

Overall Summary for FY 2020

PLAN	Total Number of Metrics	Met/on track to meet 🟢	Miss by <10% of goal 🟡	Miss by > 10% of Goal 🔴
Strategic Plan	**9**	**7**	**1**	**1**
Water Master Plan	33	19	5	9

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City and County of Honolulu

Strategic Plan – Performance Metrics

Indicator	Performance Metric	Goal	FY 20	FY 19	FY 18	Status
Water Levels at Index Wells	% Wells with stable water levels	100%	100%	100%	100%	🟢
Water Quality Regulatory Compliance	Number of water quality regulatory violations	0	0	0	0	🟢
Water Conservation	Gallons per capita consumption (gpcd)	<145 by 2040	155	155	155	🟢
Watershed Management	Acres of watershed surveyed	5,200	92,529	112,402	43,739	🟢
Resident Overall Satisfaction	% Strong overall satisfaction with BWS	>59%	NA%	63%	NA	🟢
Employee Departures	Employee turn over rate	7%	7%	8%	10%	🟢
Pipeline Leak Detection	% Pipes check for leaks per year	25%	14%	18%	26%	🔴
Main Breaks	Main breaks per 100 miles of pipe	<15 (3-yr avg)	16	16	16	🟡
Fiscal Stability	Bond rating	AA+ - Fitch Aa2 – Moody's	Met	Met	Met	🟢

🟢 Met/on track to meet 🟡 Miss by <10% of goal 🔴 Miss by >10% of goal

Pipeline Leak Detection

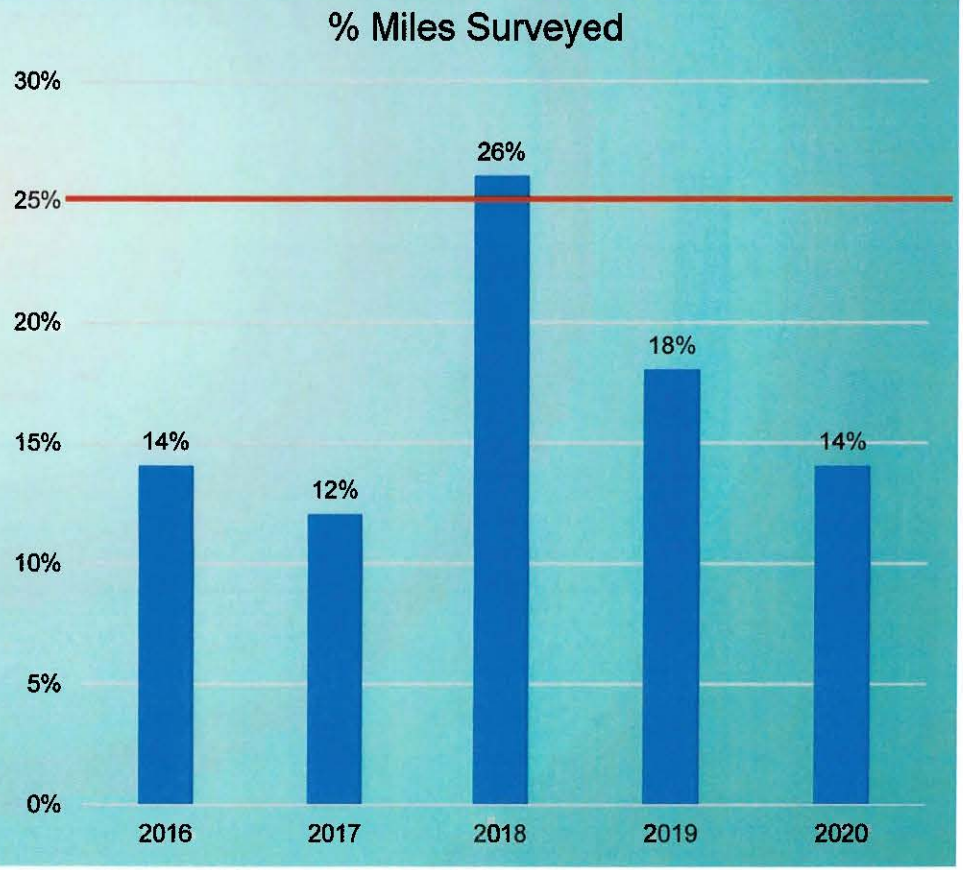
Indicator	Performance Metric (SP)	Goal	FY 20	FY 19	FY 18	Status	Lead
Pipeline Leak Detection	% of pipeline surveyed for leaks	25%	14%	18%	26%	🔴	FO

Summary

- Miles surveyed dropped by 4%

Reasons/Actions Taken

- Staff levels fell to 50% due to time needed for incumbents to become permanent and lack of applicants for vacant position; vacant position being downgraded for entry-level recruitment
- Piloting new satellite-based leak detection technology (Utilis) that may allow for targeted leak survey vs current practice of systematic island-wide survey



🟢 Met/on track to meet 🟡 Miss by <10% of goal 🔴 Miss by >10% of goal

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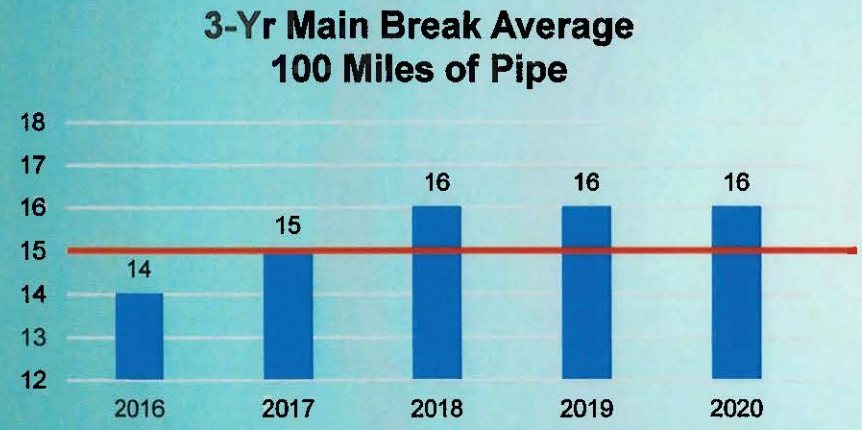
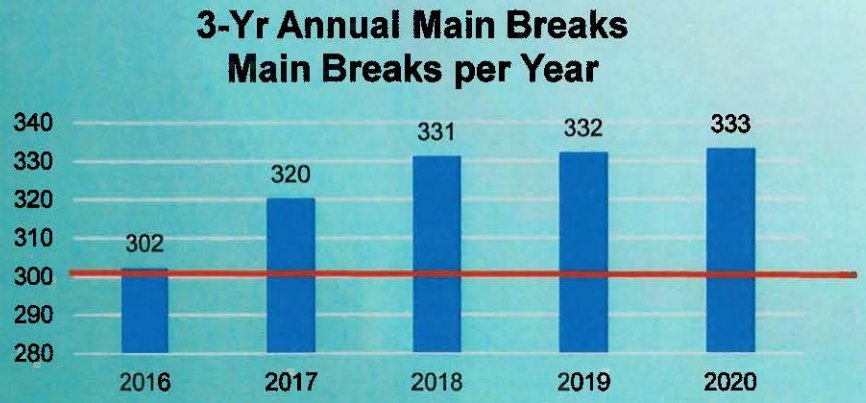
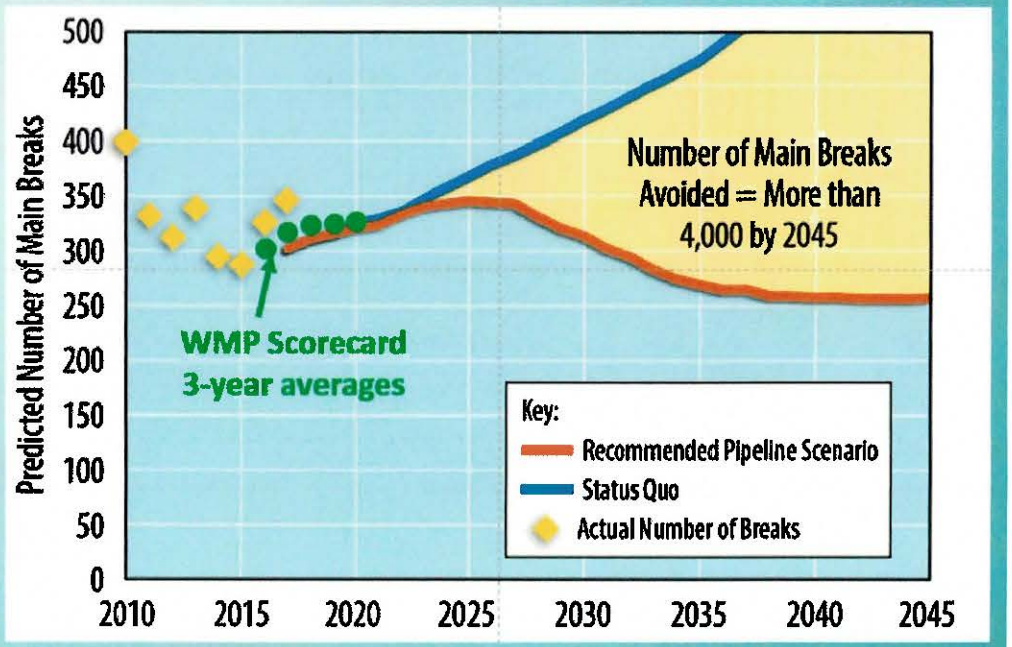
Main Breaks per 100 Miles of Pipe

Indicator	Performance Metric (SP)	Goal	FY 20	FY 19	FY 18	Status	Lead
Main Breaks	Main breaks per 100 miles of pipe	< 15 (3-yr avg)	16	16	16	●	FO







● Met/on track to meet ● Miss by <10% of goal ● Miss by >10% of goal

Overall Summary for FY 2018

PLAN	Total Number of Metrics	Met/on track to meet 🟢	Miss by <10% of goal 🟡	Miss by > 10% of Goal 🔴
Strategic Plan	9	7	1	1
Water Master Plan	**33**	**19**	**5**	**9**

WMP Performance Metrics

- BWS Strategic Plan identified 6 primary steps to provide water from source to tap
- BWS Water Master Plan determined performance metrics in each of these steps to monitor and maintain the health of the water system infrastructure
- The performance metrics are used to target opportunities for improvement

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Supply from nonpotable sources	% of total supply served from nonpotable water system	> 12%	6%	7.10%	7.80%	6.85%
Annual water resource yield	% of available water resource yield used	< 90%	80%	72%	71%	73%
Watershed management	$ budgeted for watershed management	4% of CIP $6.65M	$1.4M	$1.8M	$1.5M	$1.0M
	Acres of watershed surveyed for invasive plant species removal per year	5,200 acres	1,691 acres	43,739 acres	112,402 acres	92,529 acres
	Watershed area protected by fencing	20% of watershed funding	14%	0%	0%	0%
Conservation	$ budgeted for conservation	4% of CIP $6.65M	$0.89M	$1.50M	$1.47M	$2.07M
	Per capita consumption	< 145 gpcd (by 2040, starting at 155 gpcd in 2016)	155 gcpd	155 gcpd	155 gcpd	155 gcpd

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Standby source capacity	% of source capacity used at Maximum Day Demand (MDD)	< 50%	44%	41%	41%	41%
Water level at index wells	% of wells with stable water levels as determined by BWS	100%	100%	100%	100%	100%
Permitted or assessed sustainable yield	Number of sources exceeding source permitted use or assessed sustainable yield (12-month moving avg)	0	0	0	0	4

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Water quality regulatory compliance	Number of water quality regulatory violations	0	0	0	0	0
Treatment on-line	% of chlorination systems on-line	100%	100%	100%	100%	100%
Comprehensive treatment system condition assessment	Perform comprehensive condition assessment of all potable and nonpotable treatment systems	Update every 5 years	On schedule (last 2019)	On schedule	Done	On schedule

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Sufficient pump capacity	% of pressure zones where firm capacity (not counting largest pumping unit at each station) < MDD	< 5%	2.6%	2.8%	2.8%	2.8%
Pumps available for use	% of pumps that are available to be put in-service	> 90%	82%	82%	83%	83%
Emergency power	% of population served indoor demand (85gpcd) in the event of loss of power	> 85%, distributed geographically	71%	71%	71%	77%
Pump station condition assessment	Perform regularly scheduled condition assessment	Update every 5 years	On schedule (last 2019)	On schedule	Done	On schedule

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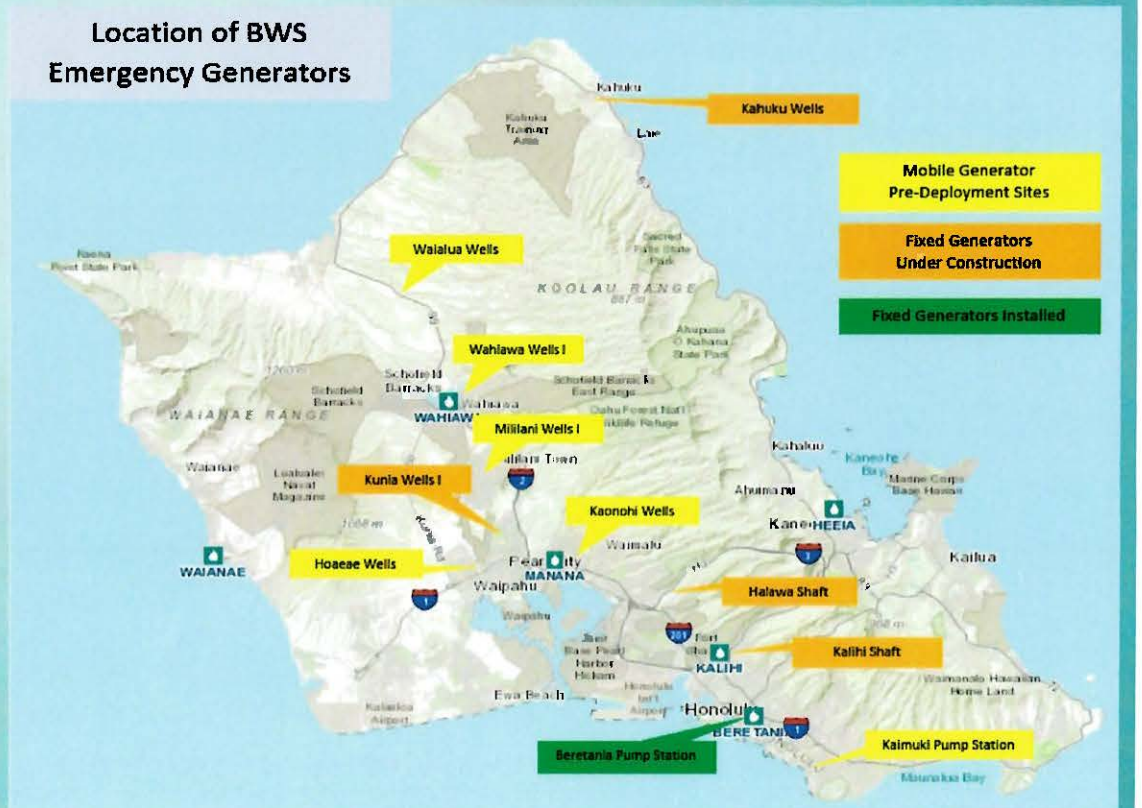
Emergency Power

Indicator	Performance Metric	Goal	FY 20	FY 19	FY 18	Status	Lead
Emergency Power	% of population served indoor demand (85 gpcd) in event of loss of power	>85% distributed geographically	77%	71%	71%	●	WSO

- Mobile Generators Pre-Deployment Sites
  - Waialua Wells
  - Wahiawa Wells I
  - Mililani Wells I
  - Kaonohi Wells
  - Hoaeae Wells
  - Kunia Wells I
  - Kahuku Wells
  - Halawa Shaft
  - Kaimuki Pump Station
- Fixed Generators Under Construction
  - Kunia Wells I
  - Halawa Shaft
  - Kalihi Pump Station
  - Kahuku Wells
- Fixed Generators Installed and Operable
  - Beretania Pump Station

Location of BWS Emergency Generators



● met/on track to meet ● Miss by <10% of goal ● Miss by >10% of goal

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Reservoir restrictions	Number of reservoirs with use restrictions	< 2%	1%	0.58%	0.58%	0.58%
Storage deficient pressure zones	Pressure zones with less than Standard storage and without pumping or transmission equivalency to meet operating, emergency, and fire needs	0%	6%	5%	5%	5%
Reservoir condition assessment	Perform regularly scheduled condition assessment	Update every 10 years	On schedule (last 2015)	On schedule	On schedule	On schedule

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Pipeline breaks	Pipeline breaks and leaks repaired per 100 miles per year (3-year average)	< 15	14 🟢	16 🟡	16 🟡	16 🟡
	Pipeline breaks and leaks repaired per year (3-year average)	< 300	302 🟡	321 🟡	332 🔴	333 🔴
Transmission pipeline breaks	Number of pipeline breaks for ≥ 16 inches in diameter (3-year average)	< 14	10 🟢	13 🟢	12 🟢	11 🟢
Non-revenue water	% of water produced but not sold	< 8.1%	7.8% (5-year average) 🟢	8.54% 🟢	10.05% 🔴	11.49% 🔴
High risk pipelines	Portion of pipelines with risk score	< 5%	12% 🔴	14% 🔴	14% 🔴	23% 🔴

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Pipeline R&R	Miles of system pipeline renewed (3-year average)	21 miles	4.7 miles	3.0 miles	5.1 miles	7.0 miles
Fire hydrant supply	Hydrants that meet fire flow standards	> 99%	98%	98%	98%	99%
Pipeline leak detection	% of pipes checked for leaks per year	25%	14%	26%	18%	14%
PWA pipeline condition assessment	Miles of pipelines recommended for PWA by CapPlan framework (currently 6.3 miles), miles assessed per year	6.3 miles	12 miles	0 miles	0 miles	4 miles

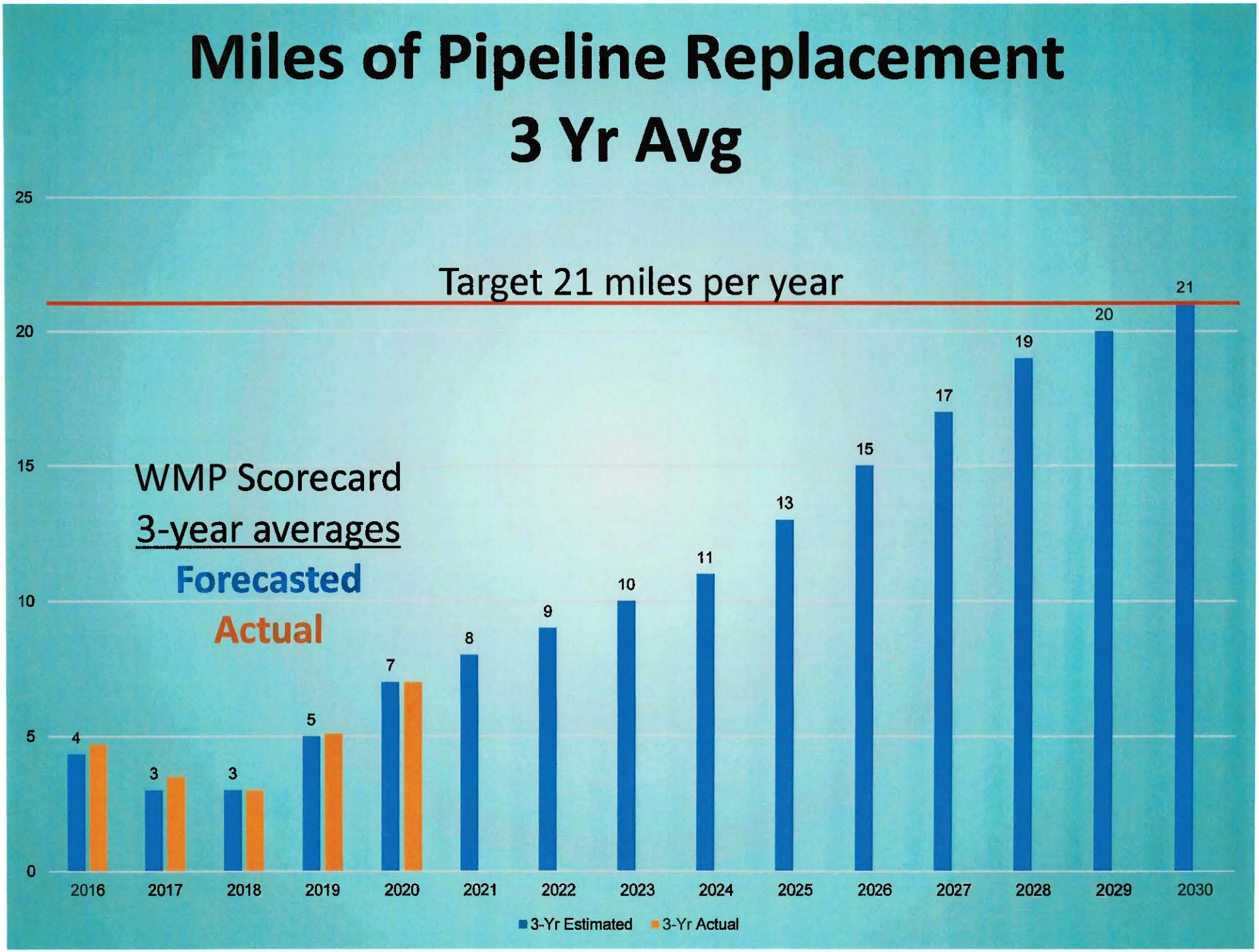
Pipe Wall Assessment (PWA) Condition Assessment

Indicator	Performance Metric (SP)	Goal	FY 20	FY 19	FY 18	Status	Lead
PWA Pipeline Condition Assessment	Miles of pipe assessed per year	6.3 miles	4 miles	0 miles	0 miles	🔴	WR

Summary

- Miles surveyed increased from 0 miles to 4 miles
- Area surveyed – James Campbell Industrial Park
- Area could potentially receive desalinated water from the proposed Kalaeloa Desalination Plant
- Overall – pipes were in good condition
- 3 potential leaks identified for further investigation

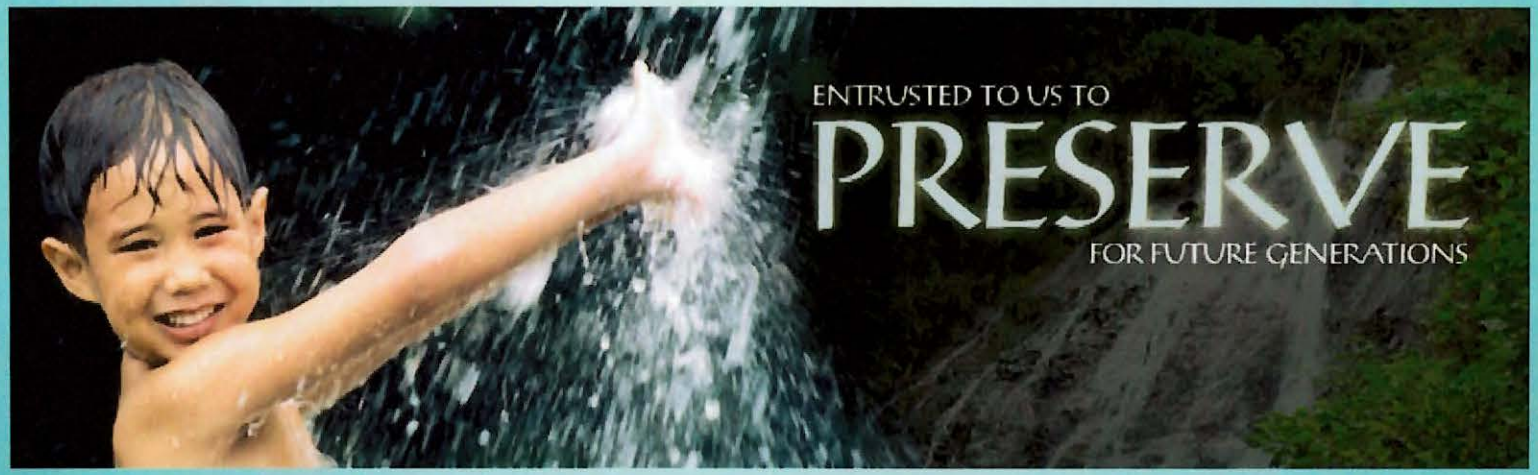
Miles of Pipeline Replacement
3 Yr Avg



TOOLS

Indicator	Metric	Goal	Baseline	FY 2018	FY 2019	FY 2020
Water Master Plan update		Update every 10 years	On schedule (target 2026)	On schedule	On schedule	On schedule
Hydraulic models and CapPlan updated		Update every 5 years	On schedule (target 2021)	On schedule	On schedule	On schedule
GIS update		Annually	On schedule	On schedule	On schedule	On schedule
SCADA reliability	% of sources, pump stations, water treatment plants, and reservoirs utilizing microwave backbone for control data	100% (by 2023)	13% (on track)	15%	23%	25%

Questions?



ITEM FOR INFORMATION NO. 2

"October 26, 2020

LONG RANGE FINANCIAL PLAN UPDATE

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

Chair and Members:

Subject: Long Range Financial Plan Update

In 2018, the Board adopted the Long Range Financial Plan to help guide our financial planning. Because the effects of the COVID-19 pandemic were not expected at that time, we are updating the plan. The consultant who is assisting us in revising this plan, Dave Ebersold of CDM Smith, will provide an 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, and Dave Ebersold, President of CDM Smith, gave the report.

Chair Andaya inquired about a plan for addressing the number of delinquent accounts and the increasing dollar volumes.

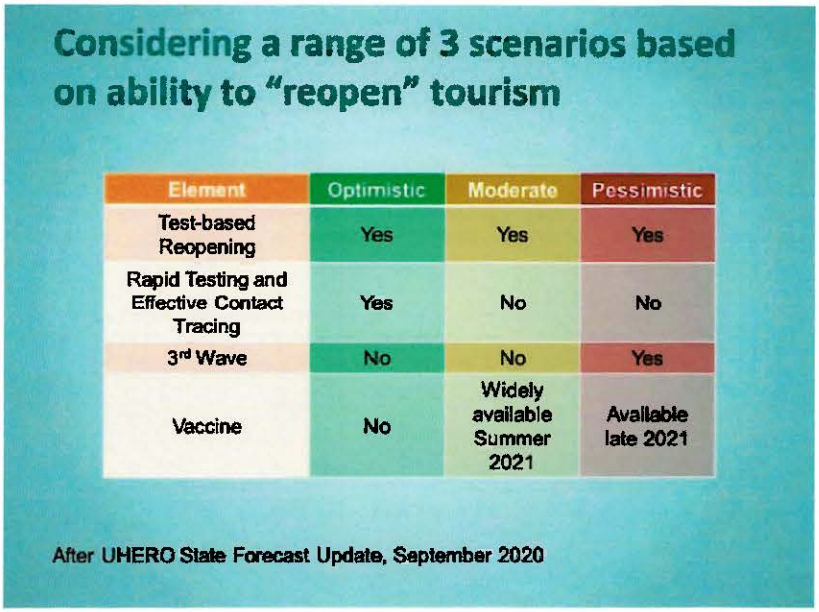
Manager Lau responded the BWS has suspended water shutoff until the end of the year due to COVID-19. The BWS is doing outreach by phone and mailed correspondence, encouraging consumers to make partial payments or payment arrangements.

Manager Lau stated he is hopeful the City and County COVID-19 tiered opening plan will help our island businesses re-open.

Chair Andaya commented that he feels outreach is good, and available Federal, State, and City and County programs could be reimbursed or funded for utilities.

Manager Lau stated under the Coronavirus Aid, Relief, and Economic Security (CARES) Act, funds may not be applied towards government organizations, only private utility services. Therefore, the BWS has been referring ratepayers to Aloha United Way (AUW) and other non-profit organizations to assist with their bills.

Board Member Sword asked whether the BWS will need to adjust the BWS financial plan, based on these three pandemic scenarios noted in the article in the September 2020 University of Hawaii Economic Research Organization (UHERO) to re-open tourism.



Manager Lau replied the re-opening of tourism has a significant impact on the BWS. When the island shutdown and tourists stopped coming into Oahu, the BWS saw a decrease in water usage of three million gallons a day in Waikiki. UHERO's September 2020 article prepared a three-scenario chart on how Hawaii might recover from the pandemic. The BWS is using that chart as a base and seeking the Board's input as to how the BWS will rework the finances accordingly to the island's economy.

Mr. Ebersold stated the chart is used to visualize the different variables: water sales, delinquencies, and stimulus funding, concerning recovery times amongst the three scenarios. The three scenarios can assist in making any decisions and changes in the BWS expenses accordingly.

Vice Chair Kapua Sproat asked what is the timetable for moving forward.

Manager Lau replied originally, the BWS wanted to develop the pandemic scenario fairly quickly, however as more information became available, more time was needed to update the long range financial plan. The tiered re-opening system, testing for Hawaii visitors, and availability of a new vaccine will impact the three scenarios. Therefore, the BWS will have to reassess with the new information.

Vice Chair Sproat inquired when does the BWS consider a delinquent account uncollectable during the pandemic?

Manager Lau replied through the pandemic; the BWS has not deemed any accounts uncollectable. The BWS is continuing its efforts to collect payments. The BWS is trying to ensure that the government accounts are current since the number of these accounts are our large customers.

Chair Andaya stated that the BWS should continue to monitor the previously described factors in the next month moving forward.

Manager Lau agreed that the situation is still evolving and stated that the BWS will definitely seek input from the Board as the BWS develops the final update of the long range financial plan.

Board Member Soon inquired, have any of the BWS projects been delayed or stopped due to concerns.

Manager Lau stated currently, the BWS is discussing moving the larger projects to start later in the next six-year period. For example, one of the projects is the Beretania Complex Redevelopment Project being discussed with the Permitted Interaction Group. Due to the economy and its recovery process, this may not be the right time to redevelop.

Manager Lau also stated that the variable components of the operating budget is being examined since, there is not a lot of discretion in the fixed costs components. The BWS adjusts the expenditures of the Operating budget before reducing the Capital Improvement Program (CIP). The BWS balances debt and cash financing to meet our financial policy targets. With that in mind, the BWS is continuously working to preserve the bond rating, which is AAA rating from S&P, and AA+ from Fitch Group.

Board Member Soon agreed with Manager Lau regarding the deferral of the development of the Beretania campus. The development project would generate income; however, this should not be the only reason for moving the project forward during this time.

Board Member Soon also added that he was glad that the BWS was carefully doing the analysis and cautious about making big decisions ahead of their time.

Manager Lau thanked Board Member Soon for his comments and expressed his appreciation to the Board for approving the increase to the CIP Program at the previous Board meeting. Manager Lau added that the BWS is dependent upon revenues from our customers in paying their water bills and other related charges. This is the BWS primary source of revenues and it is important to maintain this revenue stream to implement the BWS CIP and keep the water systems running safely and reliably for our customers.

WATER FOR LIFE

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

Board of Water Supply
City and County of Honolulu

David Ebersold

CDM Smith

LONG RANGE FINANCIAL PLAN UPDATE

Updating the Long Range Financial Plan

- Provides the financial framework to support the BWS's 30-year Water Master Plan
- Developed with extensive input from Stakeholder Advisory Group
- Adopted by BWS Board February 2018

Long range planning scenarios

Scenario	Uncertainties Considered
Aggressive conservation	Water demands
Aggressive growth	Water demands, water quality
Major natural disaster	Water demands, water quality, economic factors
Major source water contamination	Regulatory requirements, water quality
Climate change	Climate change, water demands, water quality, economic factors
Economic cycle	Economic factors

Aggressive conservation

- Per capita demand decreases 1% per year
- Across-the-board drop, no expectation that only high users conserve

Aggressive growth considered two alternatives

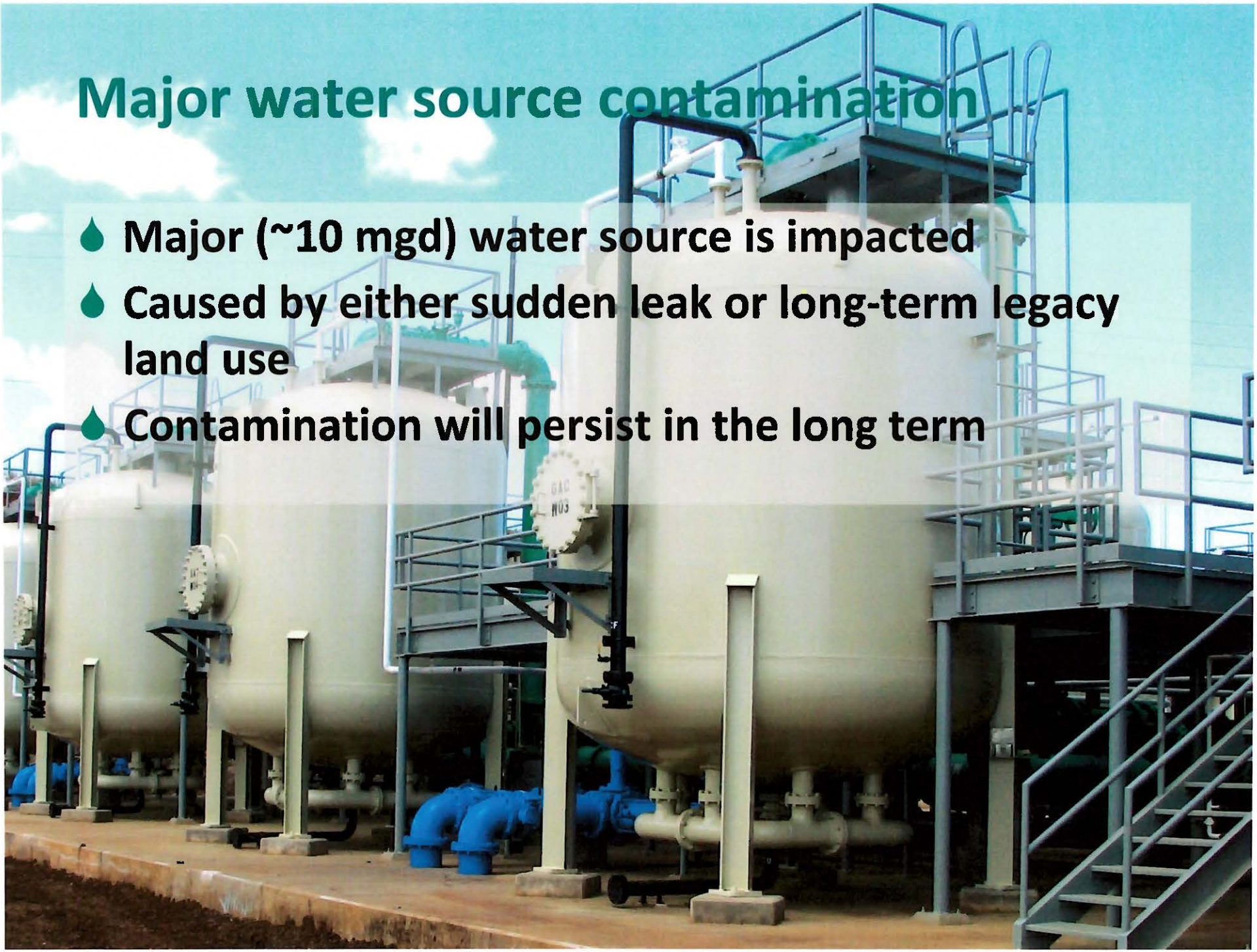
1. WMP High Range Demand Projection Assumptions
   - 0.6 percent per year growth in usage through 2025
   - 0.4 percent per year 2026 – 2040
   - 0.5 percent per year 2041 – 2047
   - No change in usage between existing tiers
2. Aggressive Growth above WMP Assumptions
   - 1% per year in usage

- Expected changes in O&M costs are offset by additional rate-based revenue

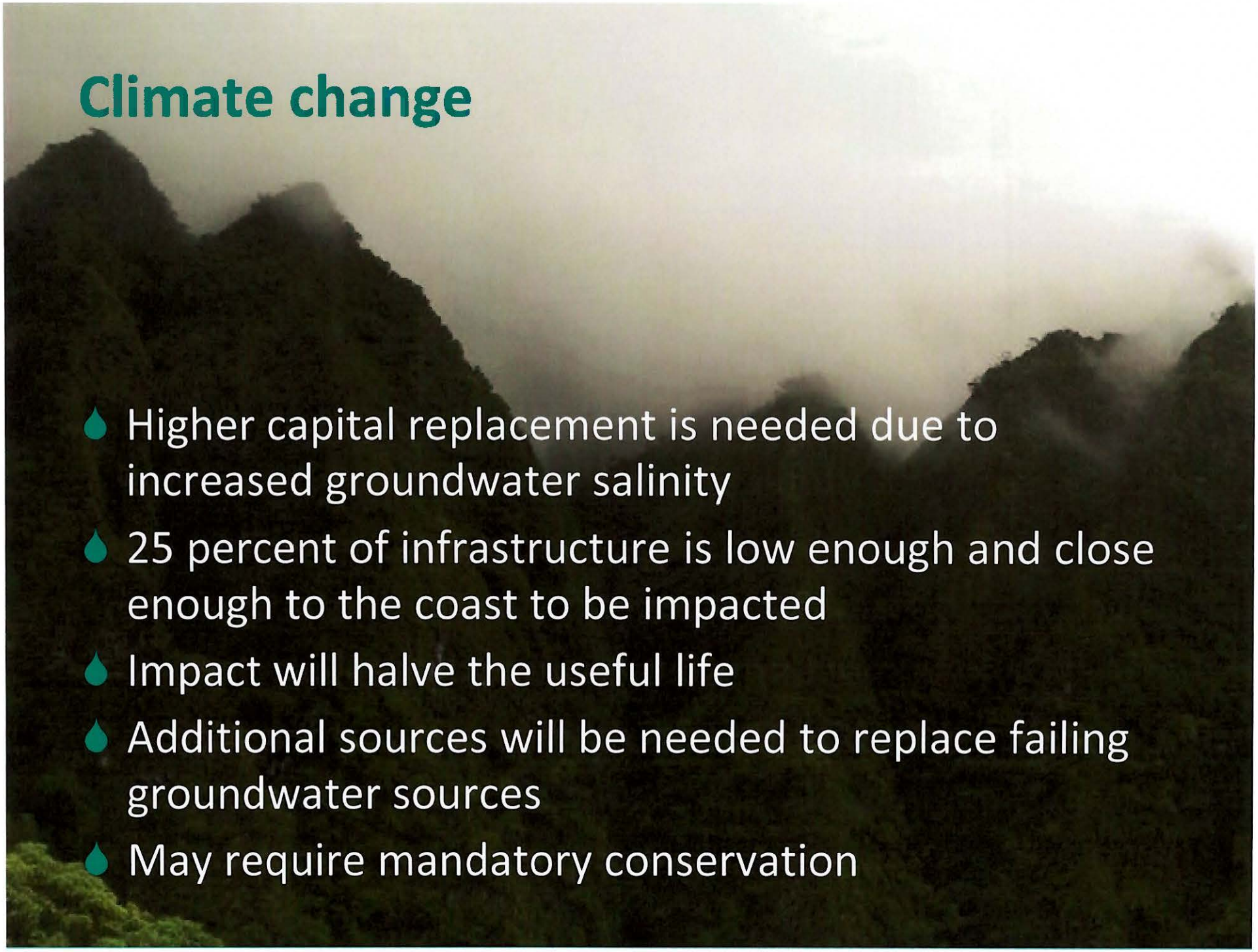
Major natural disaster

- Damage to infrastructure causing capital needs
- Revenue loss from water service interruption or reductions in rate collection
- Over the first year following the event, sampled disaster events caused
  - Capital damage ranging from 1.3 to 4.8% of net assets
  - Revenue loss of 1.9 to 24%
- Impacts to days cash varied from 163 to 201

Major water source contamination



- Major (~10 mgd) water source is impacted
- Caused by either sudden leak or long-term legacy land use
- Contamination will persist in the long term



Climate change

- Higher capital replacement is needed due to increased groundwater salinity
- 25 percent of infrastructure is low enough and close enough to the coast to be impacted
- Impact will halve the useful life
- Additional sources will be needed to replace failing groundwater sources
- May require mandatory conservation

Economic downturn

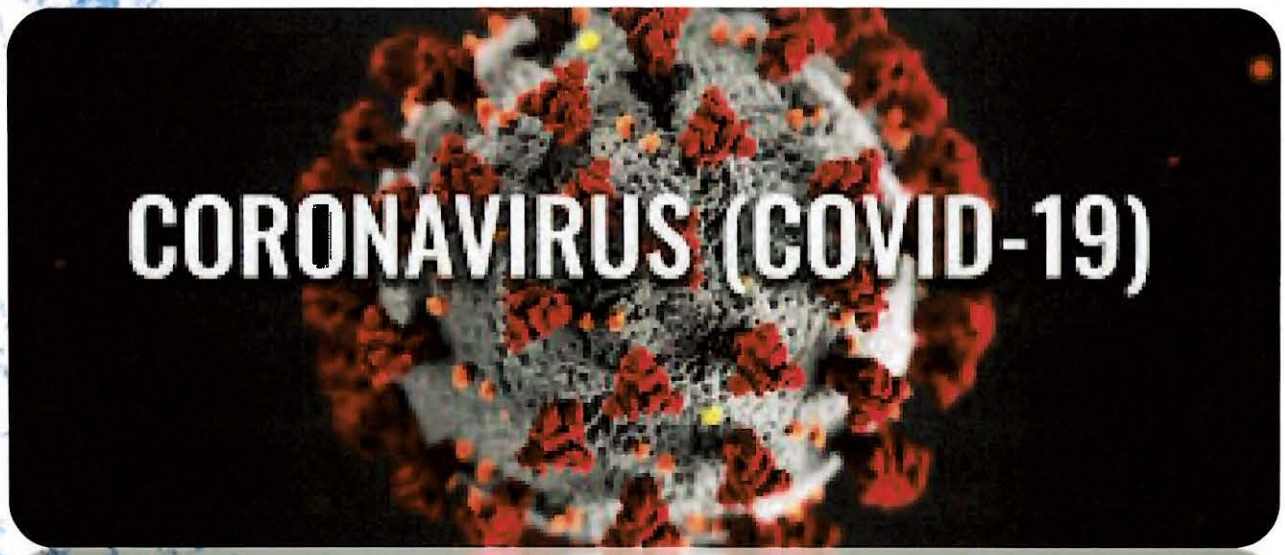
- Assume an economic downturn similar to the Great Recession of 2008-2009 that lasted 18 months

Evaluated each scenario against financial mitigation strategies

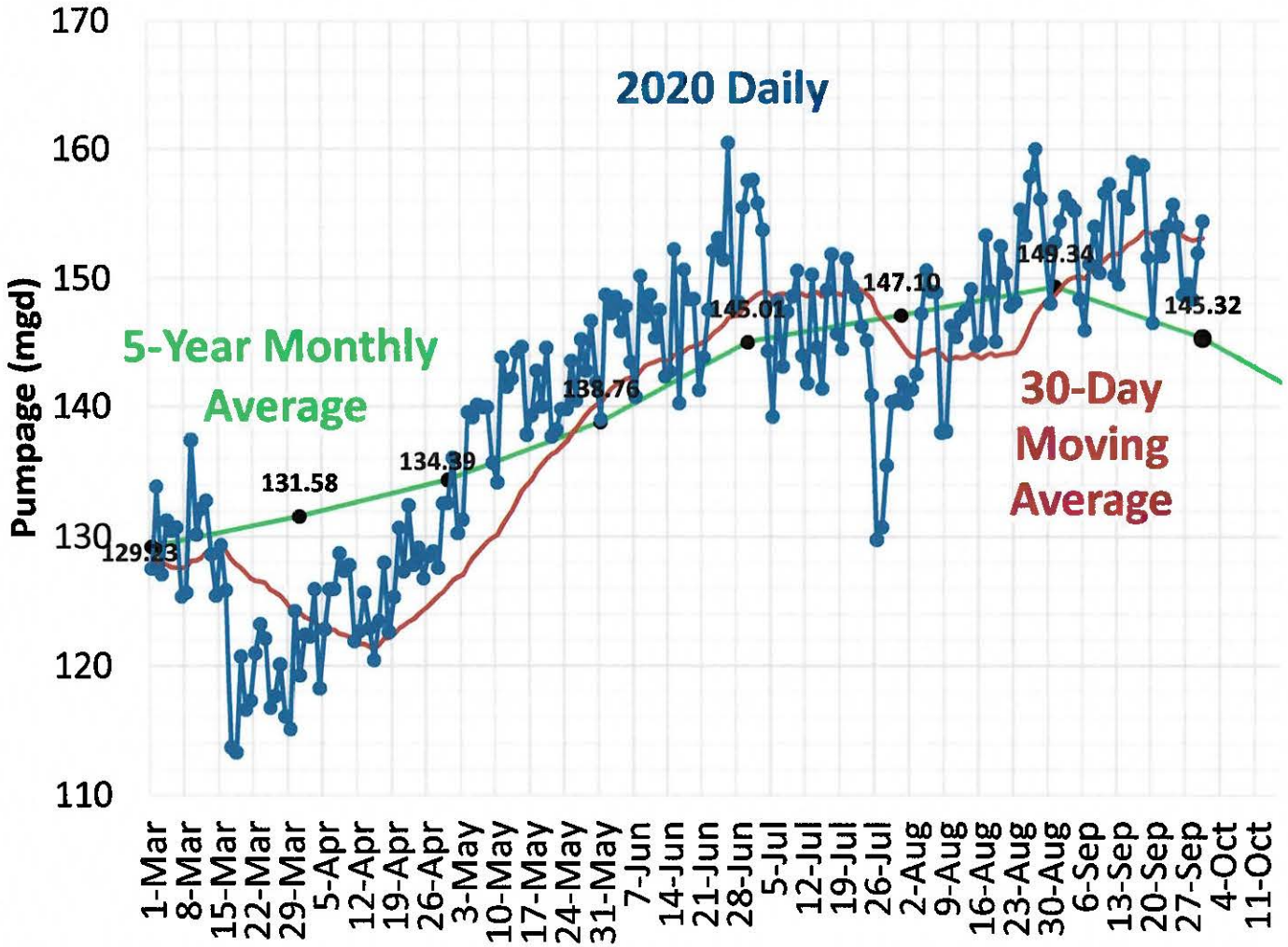
Access Working Capital	Defer Expenses	Raise/ Restructure Rates	Issue Debt	Public Private Partnerships

Conclusions from long range trend analysis

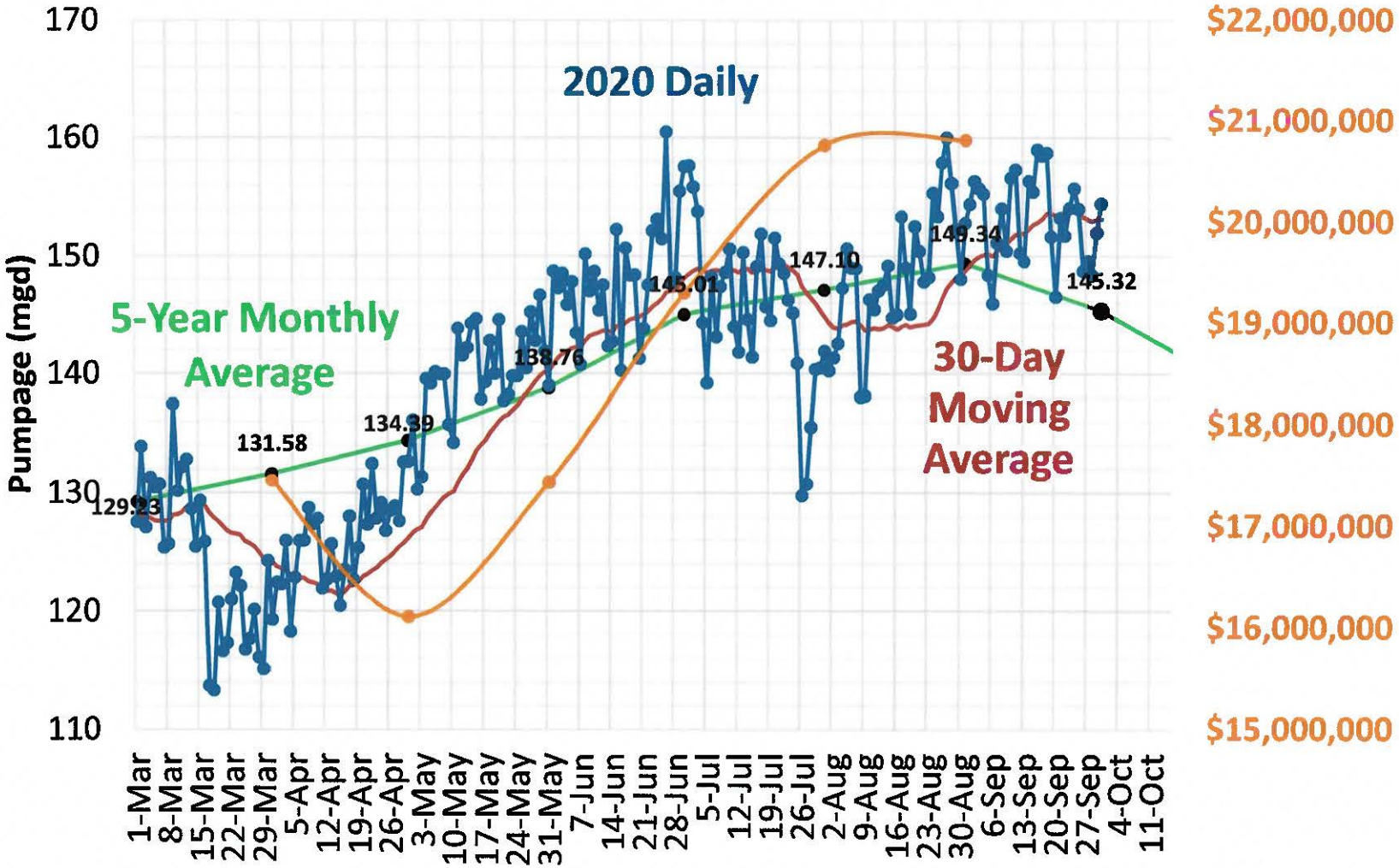
- Monitoring using Water Master Plan scorecard and other available metrics important to assessing changing conditions
- Financial tools available to BWS appear adequate
- With commitment to Water Master Plan implementation and BWS's financial policies, high rate shock under any scenario not anticipated


CORONAVIRUS (COVID-19)

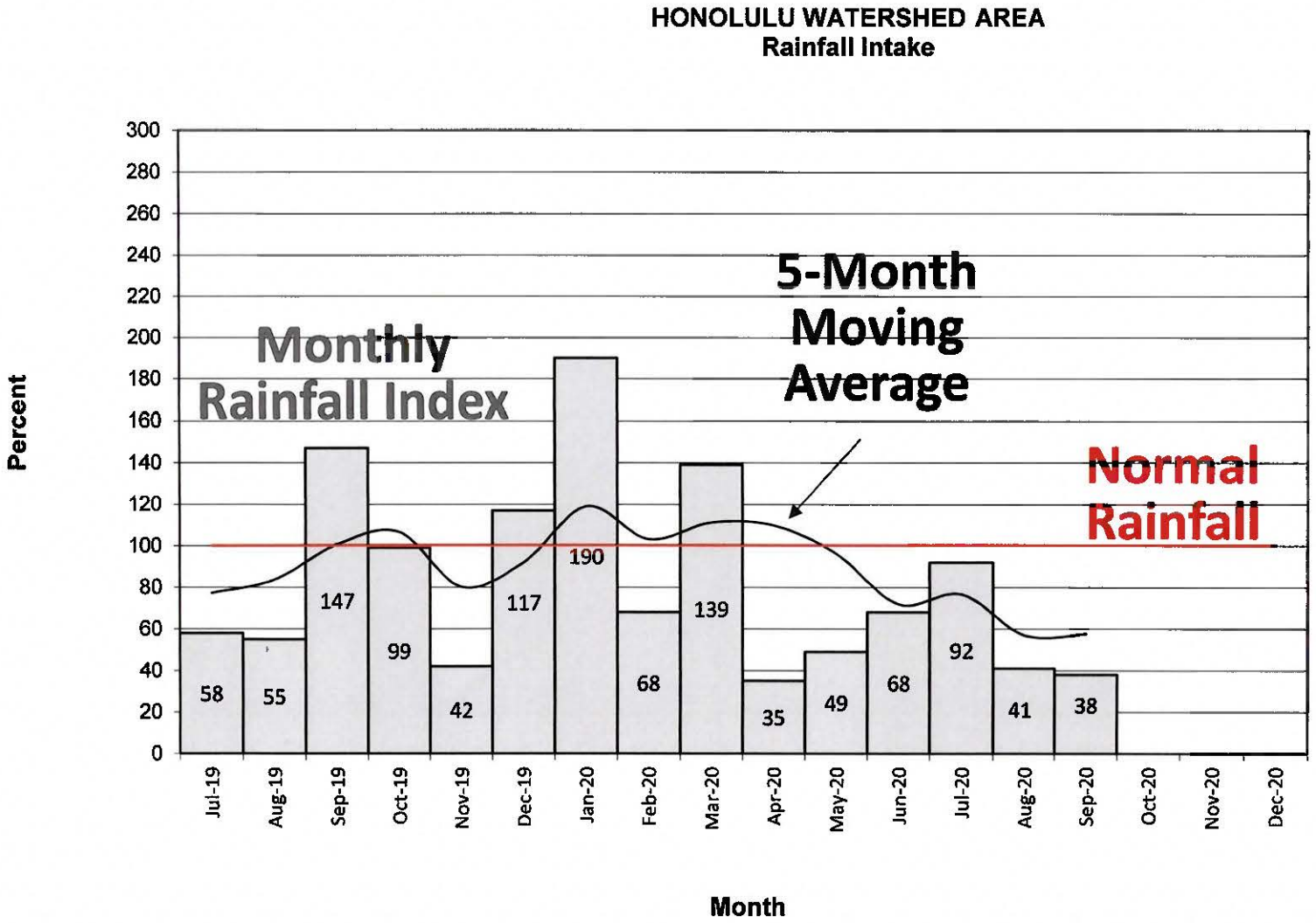
Total Island Potable Water Production Since March 1, 2020



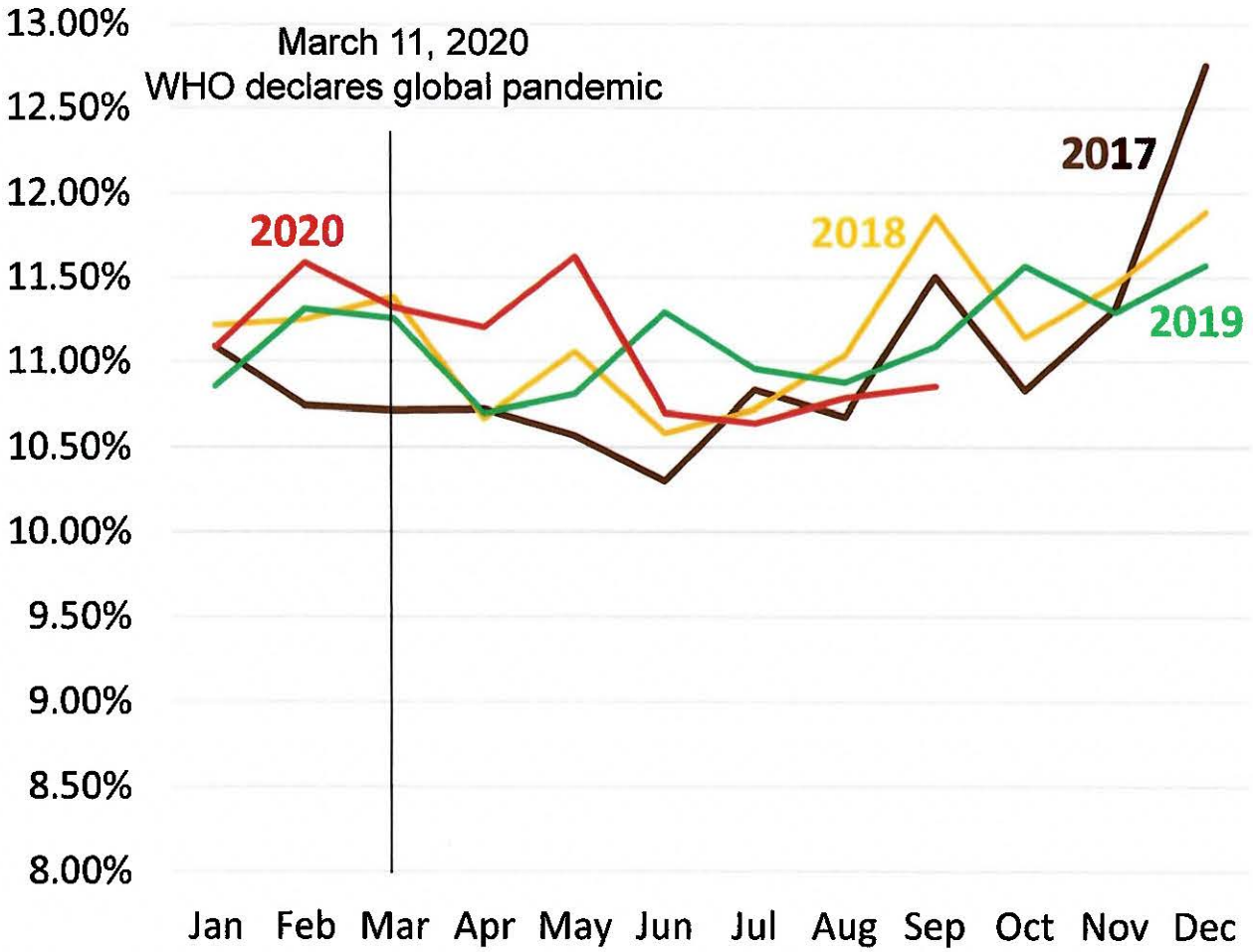
Total Island Potable Water Production Since March 1, 2020, With Revenue



Water Demands are Very Dependent Upon Weather

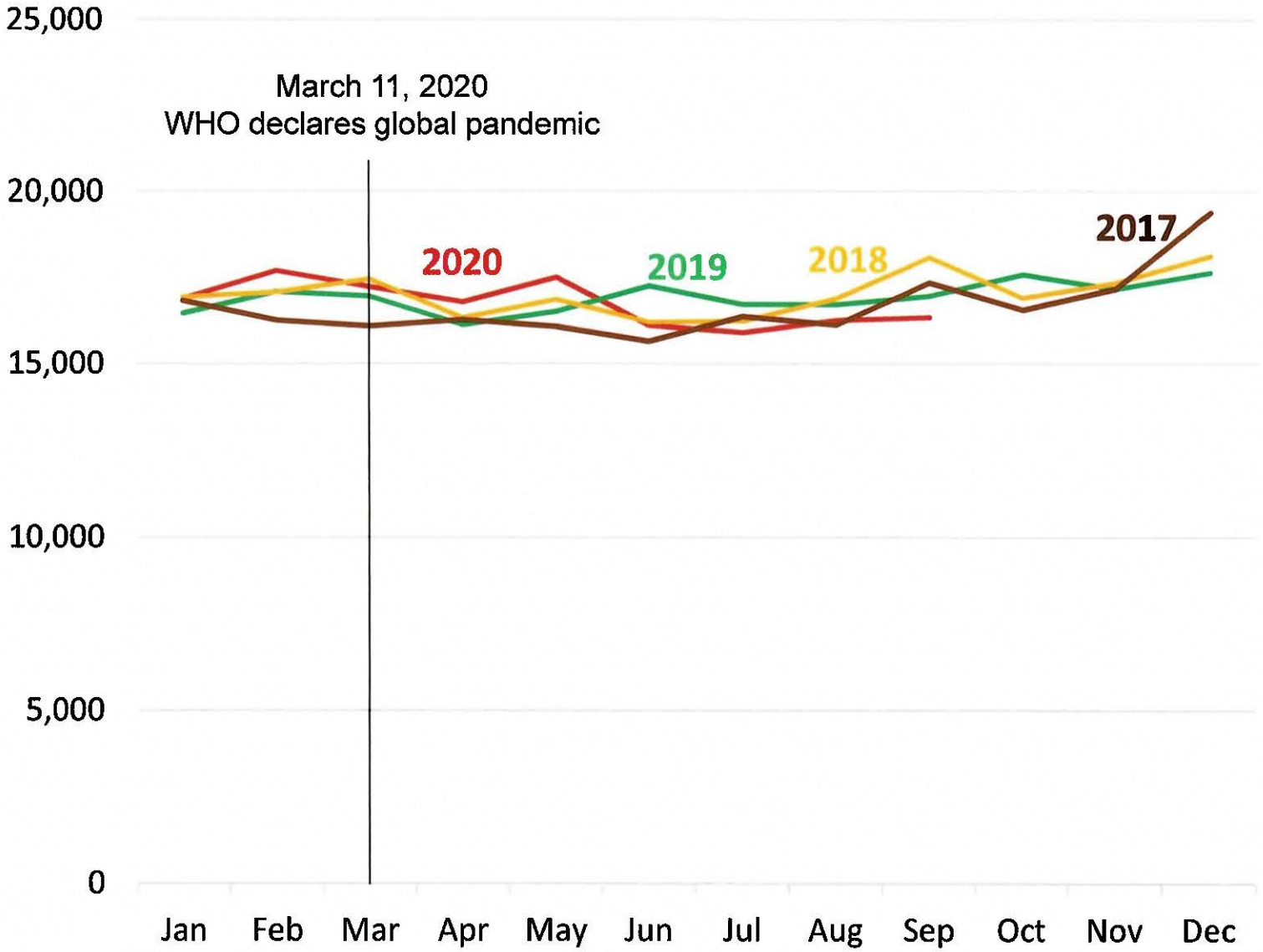


Percentage of Water Accounts 30 Days Past Due – 2017 to Present

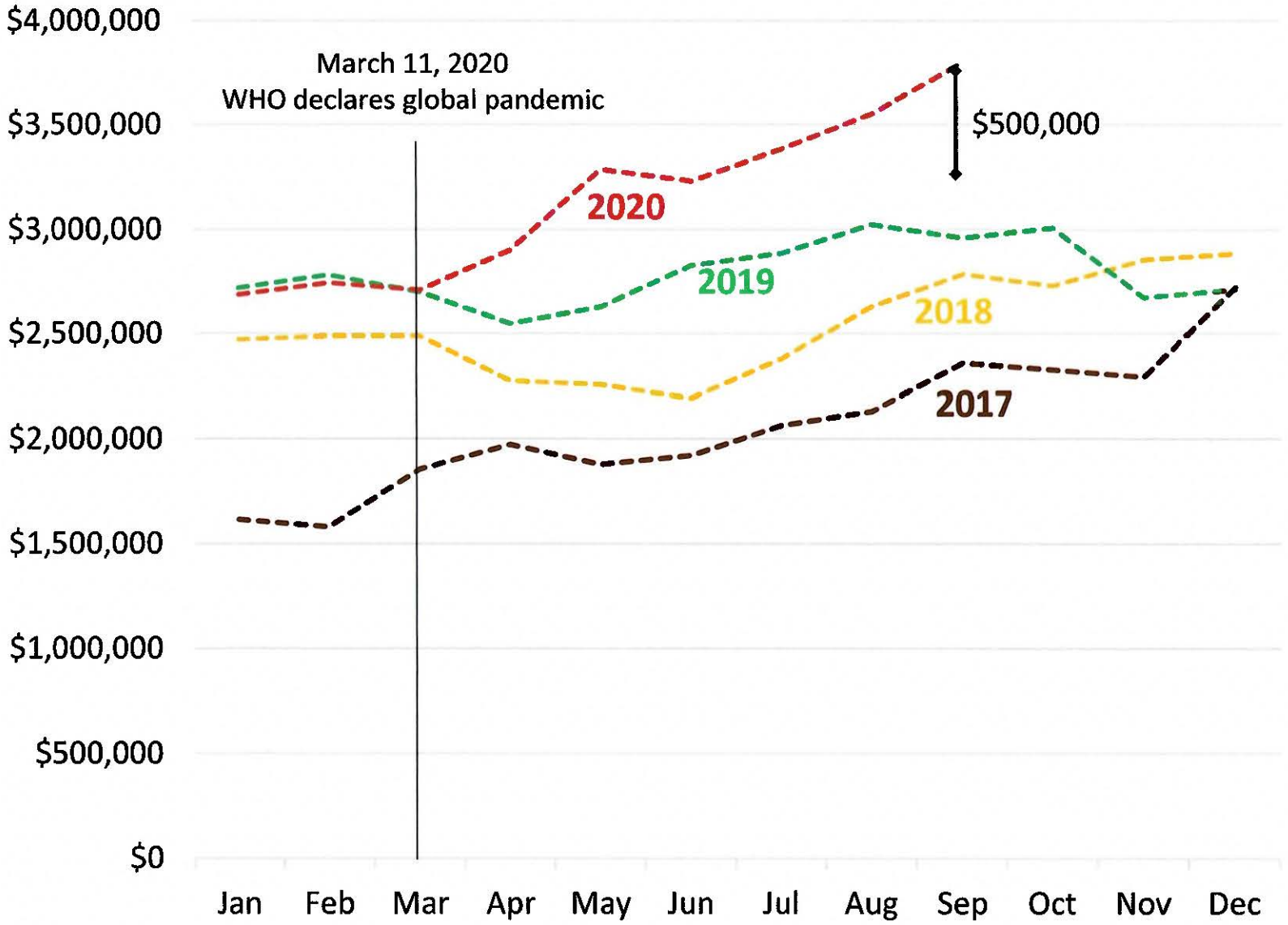


Note: BWS uncollectable accounts average 2015-2019 = 0.2% of operating revenue ($459,490 annually)

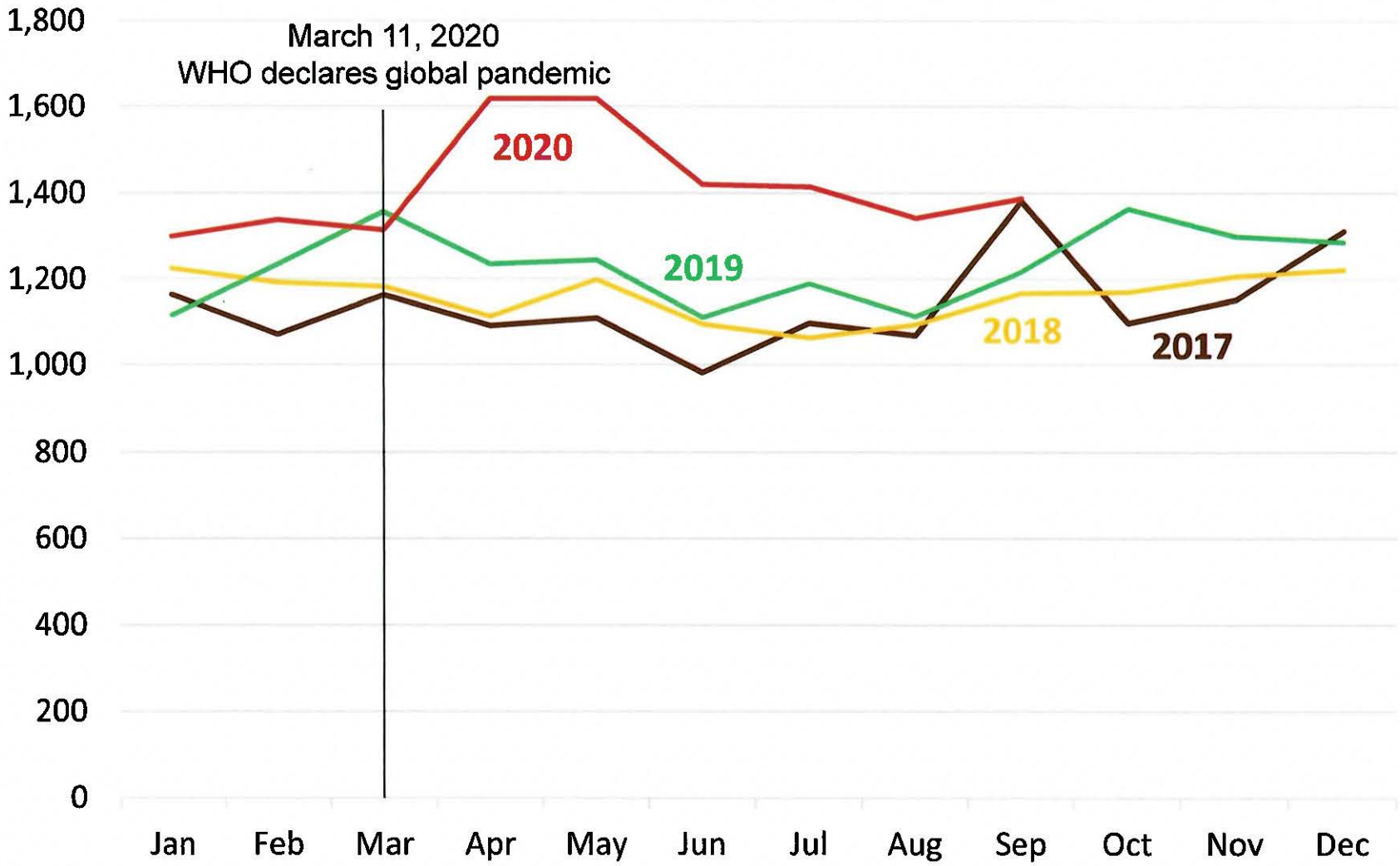
Monthly Residential Water Customer Delinquency – 2017 to Present (Number)



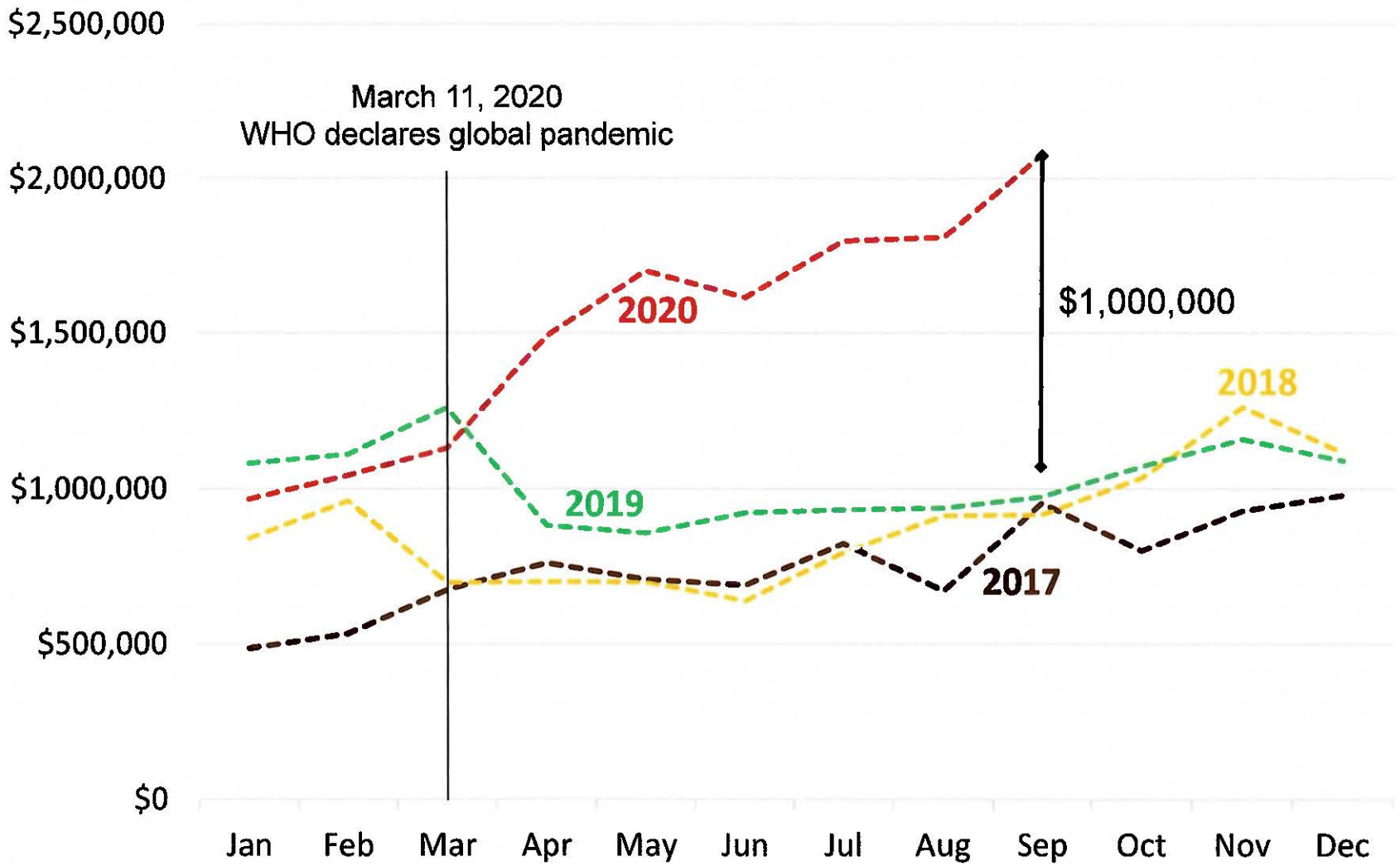
Monthly Residential Water Customer Delinquency – 2017 to Present ($)



Monthly Commercial Water Customer Delinquency – 2017 to Present (Number)



Monthly Commercial Water Customer Delinquency – 2017 to Present ($)



Variables to Consider in New Pandemic Scenario

Revenue	Expense
Water sales	Operations & Maintenance
Account growth (contraction)	Fixed
Usage per account	Variable
Delinquencies	Capital Improvement Program
$ Amount	Cash
Duration of repayment	Debt
Uncollectable accounts	Timing
Stimulus Funding	

Considering a range of 3 scenarios based on ability to "reopen" tourism

Element	Optimistic	Moderate	Pessimistic
Test-based Reopening	Yes	Yes	Yes
Rapid Testing and Effective Contact Tracing	Yes	No	No
3rd Wave	No	No	Yes
Vaccine	No	Widely available Summer 2021	Available late 2021

After UHERO State Forecast Update, September 2020

Stakeholder Advisory Group Input
October 15, 2020

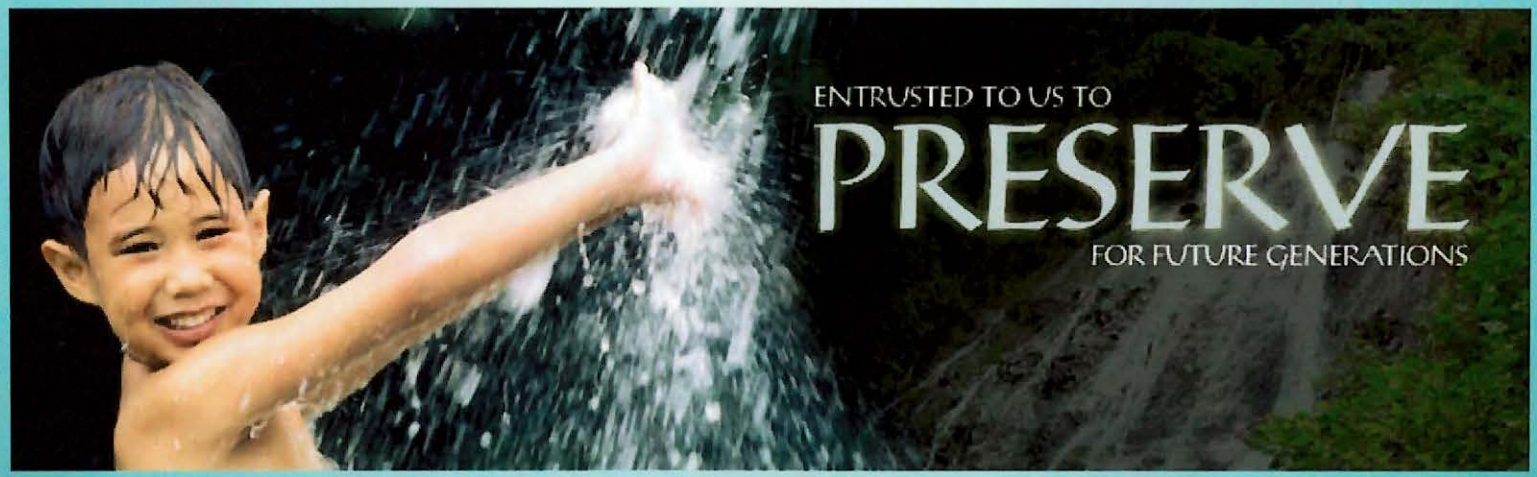
- No concerns with scenarios were expressed, just nuances to consider in modeling.
- Need to factor in that some delinquent funds will never be repaid. BWS will lose money.
- To recover some or all of that money, BWS may be able to pursue economic relief funding that may not exist today.

Stakeholder Advisory Group Input October 15, 2020 (Continued)

- Unintended Consequences
  - People are gardening at home to put food on the table to save money on groceries.
  - The unintended consequence is that they're using much more water and their water bill increases.
  - That becomes a bill that's hard to pay, but it can be delinquent where paying for groceries cannot.
  - Education on water conservation focused on home gardening will help these people reduce their water consumption without affecting the amount of food they can put on the table.

Mahalo!

Questions & Answers



ITEM FOR INFORMATION NO. 3

"October 26, 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

BWS has 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 last 7 months, April through October.

There were three aquifer index stations in low groundwater condition. Punaluu and Kaimuki are in Alert, and Waihee Tunnel is in Critical low groundwater condition. The monthly production average for September 2020 was 153.10 million gallons per day, which is about 8 mgd above the 5-year monthly average. Most monitoring stations are exhibiting decreasing water level trends.

The Board of Water Supply rainfall index for the month of September 2020 was 38 percent of normal, with a 5-month moving average of 58 percent. As of October 6, 2020, the Hawaii Drought Monitor shows abnormally dry conditions for the windward side of Oahu, moderate drought conditions on the leeward side of Oahu, and severe drought conditions on the leeward coast stretching from Ewa Beach to Makaha. The National Weather Service is predicting below average rainfall for October 2020 and has updated their wet season forecast confirming previous forecasts that a La Nina condition exists with expectations for above normal rainfall this winter.

The BWS Communications Office, with the help of the Water Conservation Branch, have sent letters requesting voluntary conservation to state and city agencies, military installations, large water users, and the neighborhood boards. Recommendations include:

- Limit lawn and landscape irrigation to twice a week, before 9 a.m. or after 5 p.m. when evaporation is lower;
- Postponing installation of new landscaping (which require constant irrigation);
- Postponing car washes and refilling of swimming pools;
- Checking and fixing dripping faucets and running toilets;
- Check for and repair property leaks, especially on irrigation systems.

In addition, a news release was sent to all TV, radio, and social media outlets. The release resulted in several interviews and a newspaper article discussing the drought and conservation.

We recognize that many customers are already doing their best 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 discussion.

PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF SEPTEMBER 2020

POTABLE

STATION	MGD
HONOLULU (1)	
KULIOUOU	0.29
WAILUPE	0.16
AINA KOA	0.15
AINA KOA II	0.79
MANOA II	0.96
PALOLO	1.14
KAIMUKI HIGH	2.48
KAIMUKI LOW	4.68
WILDER	7.06
BERETANIA HIGH	5.01
BERETANIA LOW	1.06
KALIHI HIGH	0.00
KALIHI LOW	0.00
KAPALAMA	2.58
KALIHI SHAFT	7.91
MOANALUA	1.18
HALAWA SHAFT	8.59
KAAMILO	0.87
KALAUAO	7.23
PUNANANI	8.74
KAAHUMANU	0.26
HECO WAIAU	2.61
MANANA	0.25
WELLS SUBTOTAL:	64.00
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.23
GRAVITY SUBTOTAL:	0.40
HONO. SUBTOTAL:	64.40

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.62
WAIMANALO III	0.00
KUOU I	1.00
KUOU II	0.05
KUOU III	0.78
LULUKU	0.91
HAIKU	0.00
IOLEKAA	0.00
KAHALUU	0.71
KAHANA	0.99
PUNALUU I	0.00
PUNALUU II	4.13
PUNALUU III	1.03
KALUANUI	1.29
MAAKUA	0.30
HAUULA	0.26
WELLS SUBTOTAL:	12.06
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	0.13
WAIHEE TUNNEL	6.68
LULUKU TUNNEL	0.15
HAIKU TUNNEL	0.97
KAHALUU TUNNEL	1.32
GRAVITY SUBTOTAL:	9.45
WIND. SUBTOTAL:	21.50

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.52
OPANA	0.21
WAIALEE I	0.44
WAIALEE II	0.69
HALEIWA	0.00
WAIALUA	2.53
N.SHORE SUBTOTAL:	4.38

MILILANI (4)	
MILILANI I	2.84
MILILANI II	0.00
MILILANI III	0.95
MILILANI IV	2.20
MILILANI SUBTOTAL:	5.98

WAHIAWA (5)	
WAHIAWA	1.33
WAHIAWA II	2.25
WAHIAWA SUBTOTAL:	3.58

PEARL CITY-HALAWA (6)	
HALAWA 277	0.69
HALAWA 550	0.00
AIEA	1.19
AIEA GULCH 497	0.52
AIEA GULCH 550	0.27
KAONOHI I	1.12
WAIMALU I	0.00
NEWTOWN	1.19
WAIAU	1.14
PEARL CITY I	0.84
PEARL CITY II	1.28
PEARL CITY III	0.30
PEARL CITY SHAFT	0.92
PEARL CITY-HALAWA SUBTOTAL:	9.45

STATION	MGD
WAIPAHU-EWA (7)	
WAIPIO HTS.	1.86
WAIPIO HTS. I	0.99
WAIPIO HTS. II	0.45
WAIPIO HTS. III	1.33
WAIPAHU	5.62
WAIPAHU II	2.27
WAIPAHU III	4.01
WAIPAHU IV	3.28
KUNIA I	4.89
KUNIA II	2.33
KUNIA III	1.44
HOAEAE	6.11
HONOULIULI I	0.00
HONOULIULI II	4.28
MAKAKILO	0.30
WAIPAHU-EWA SUBTOTAL:	39.15

WAIANAE (8)	
MAKAHA I	0.00
MAKAHA II	0.33
MAKAHA III	0.75
MAKAHA V	0.38
MAKAHA VI	0.00
MAKAHA SHAFT	0.00
KAMAILE	0.07
WAIANAE I	0.03
WAIANAE II	0.80
WAIANAE III	0.73
WELLS SUBTOTAL:	3.09
WAIA. C&C TUNNEL	1.40
WAIA. PLANT. TUNNELS	0.16
GRAVITY SUBTOTAL:	1.56
WAIANAE SUBTOTAL:	4.65

NONPOTABLE

NONPOTABLE	MGD
KALAUAO SPRINGS	0.34
BARBERS POINT WELL	1.32
GLOVER TUNNEL NP	0.31
NONPOTABLE TOTAL:	1.97

RECYCLED WATER (AUGUST 2020)

RECYCLED WATER	MGD
HONOULIULI WRF R-1	8.80
HONOULIULI WRF RO	1.26
RECYCLED WATER TOTAL:	10.06

PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF SEPTEMBER 2020

PRODUCTION SUMMARIES

TOTAL WATER	MGD
PUMPAGE	141.70
GRAVITY	11.41
POTABLE TOTAL:	153.10
NONPOTABLE	1.97
RECYCLED WATER	10.06
TOTAL WATER:	165.14

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS POTABLE SOURCES

	WATER USE DISTRICTS	A PERMITTED USE/ BWS YLDS	B SEP 2020	C DIFF. A-B
1	HONOLULU	82.93	64.00	18.93
2	WINDWARD	25.02	14.69	10.33
3	NORTH SHORE	4.70	4.38	0.31
4	MILILANI	7.53	5.98	1.55
5	WAHIAWA	4.27	3.58	0.69
6	PEARL CITY-HALAWA	12.25	9.45	2.80
7	WAIPAHU-EWA	50.63	39.15	11.48
8	WAIANAE	4.34	3.09	1.25
	TOTAL:	191.67	144.33	47.33

CWRM PERMITTED USE FOR BWS NONPOTABLE SOURCES

	WATER USE DISTRICTS	A PERMITTED USE	B SEP 2020	C DIFF. A-B
7	WAIPAHU-EWA (BARBERS POINT WELL)	1.00	1.32	-0.32
	TOTAL:	1.00	1.32	-0.32

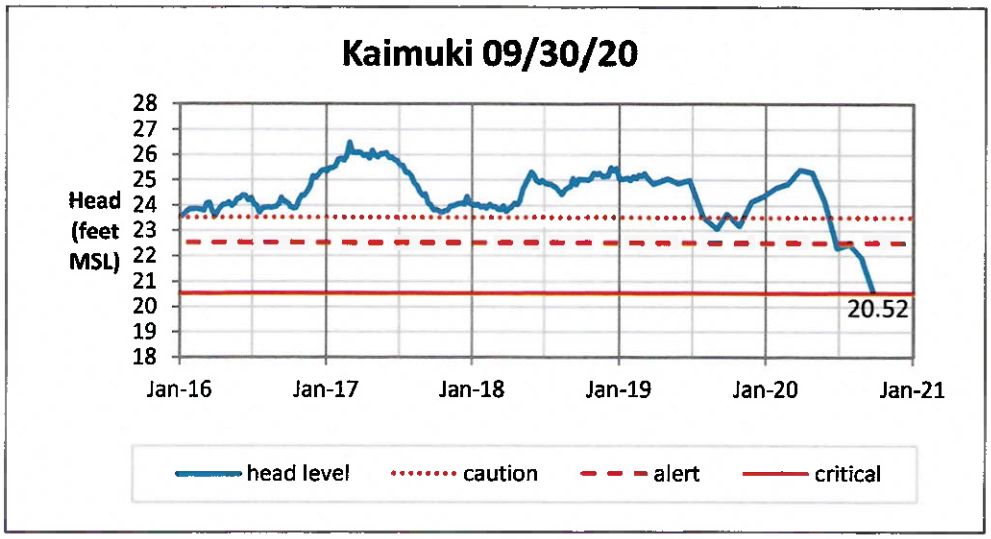
EFFECTIVE WATER DEMAND PER DISTRICT

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS

FROM	TO		MGD
2	1	WINDWARD EXPORT	1.44
7	8	BARBERS PT LB	6.85

	WATER USE DISTRICTS	SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	64.00	1.44	-	65.44
2	WINDWARD	14.69	-	1.44	13.25
3	NORTH SHORE	4.38	-	-	4.38
4	MILILANI	5.98	-	-	5.98
5	WAHIAWA	3.58	-	-	3.58
6	PEARL CITY-HALAWA	9.45	-	-	9.45
7	WAIPAHU-EWA	39.15	-	6.85	32.30
8	WAIANAE	3.09	6.85	-	9.94
	TOTAL:	144.33	8.29	8.29	144.33

Head Report


Kaimuki 09/30/20
Head (feet MSL)
28
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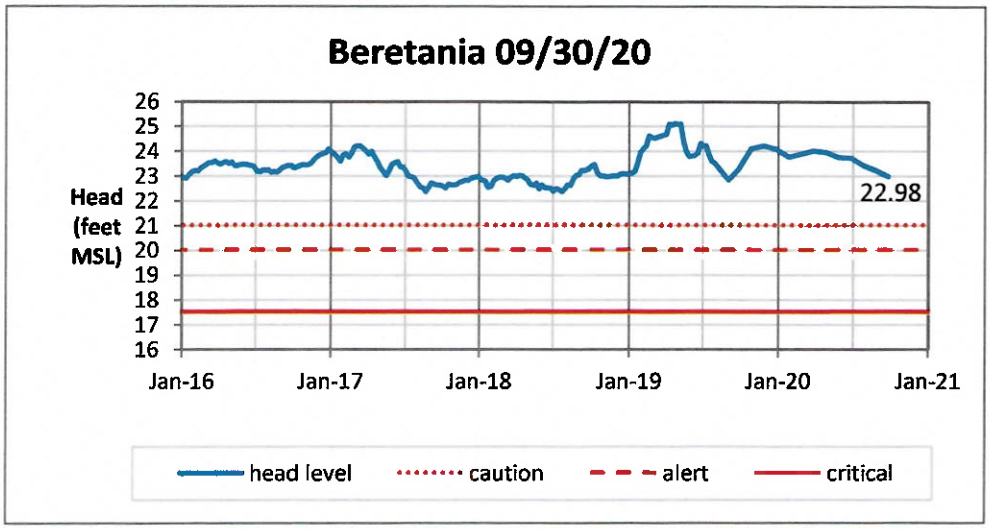
Jan-20
Jan-21
head level
caution
alert
critical


Beretania 09/30/20
Head (feet MSL)
26
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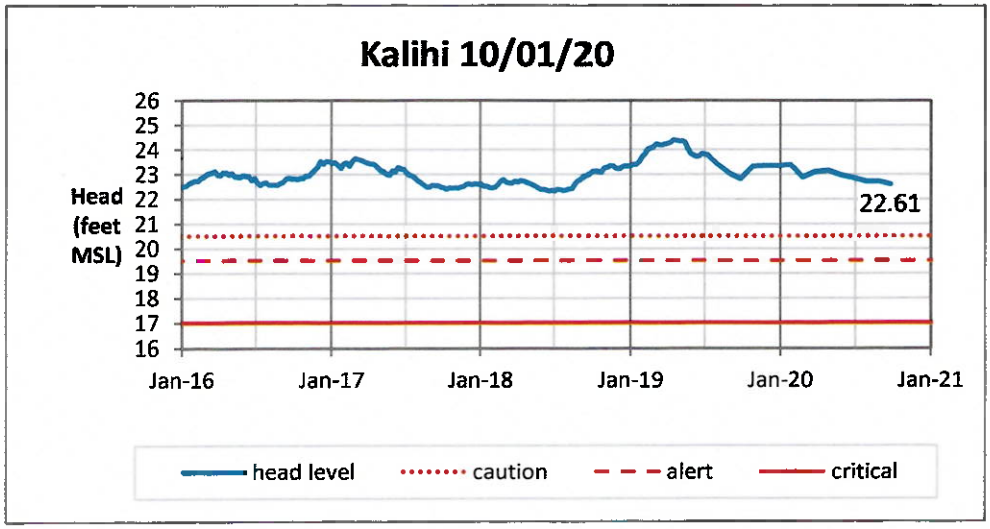
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical


Kalihi 10/01/20
Head (feet MSL)
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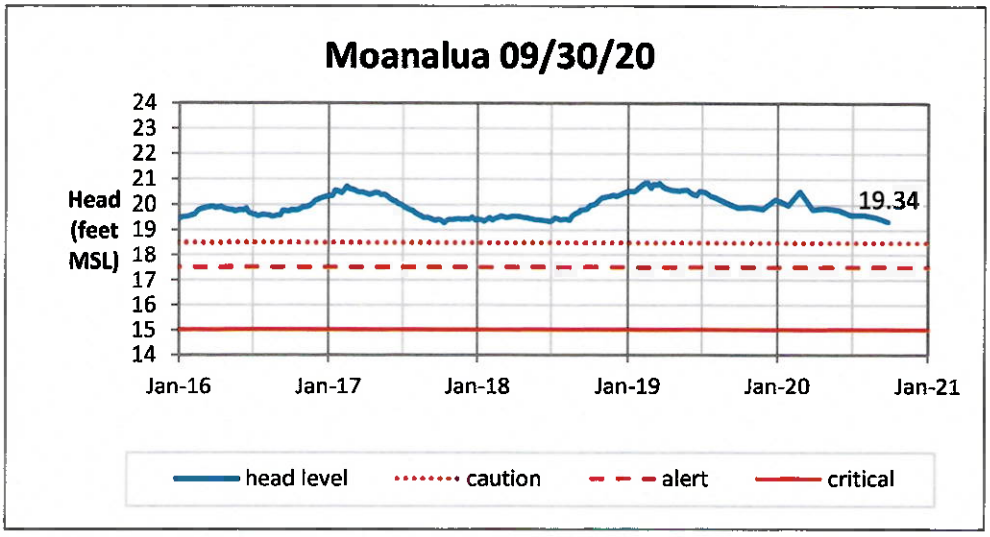
head level
caution
alert
critical

Head Report


Moanalua 09/30/20
Head (feet MSL)
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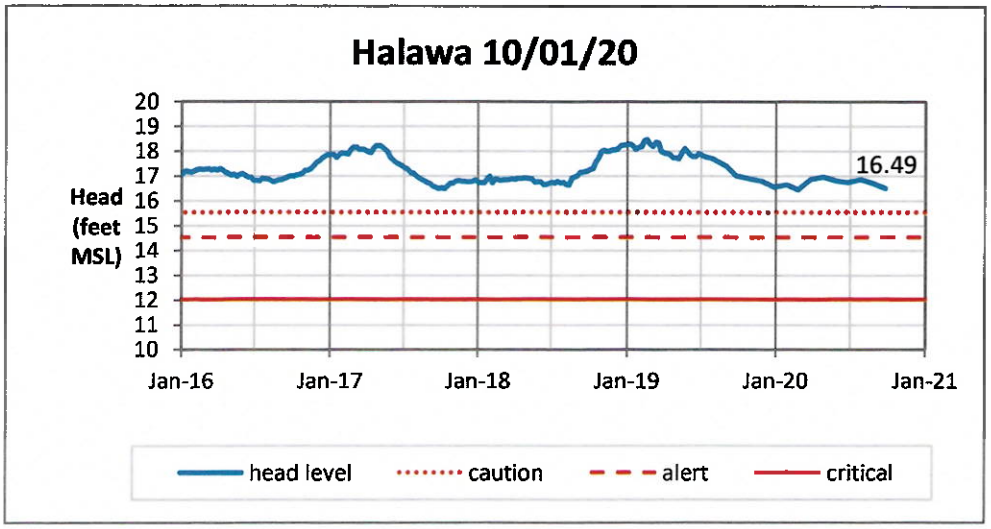
head level
caution
alert
critical


Halawa 10/01/20
Head (feet MSL)
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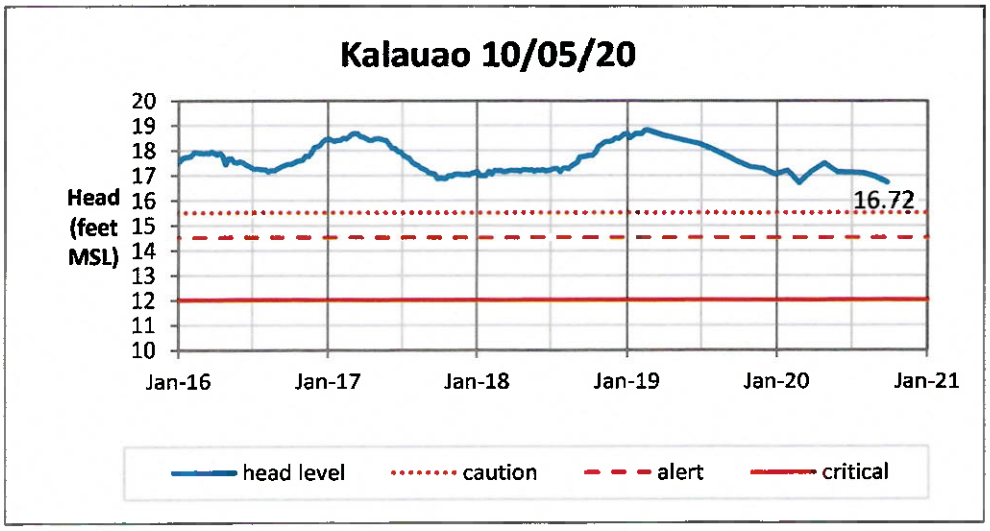
head level
caution
alert
critical


Kalauao 10/05/20
Head (feet MSL)
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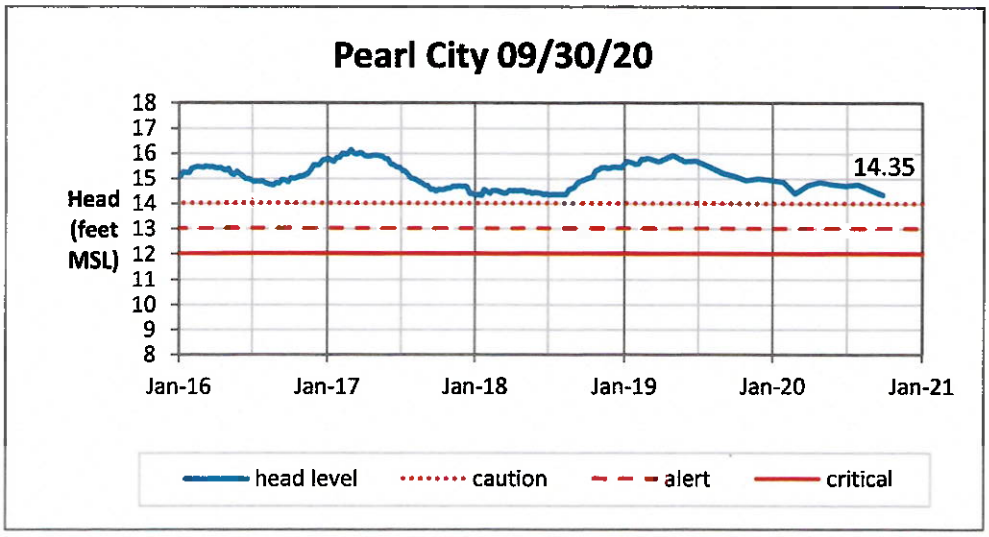
head level
caution
alert
critical

Head Report


Pearl City 09/30/20
Head (feet MSL)
18
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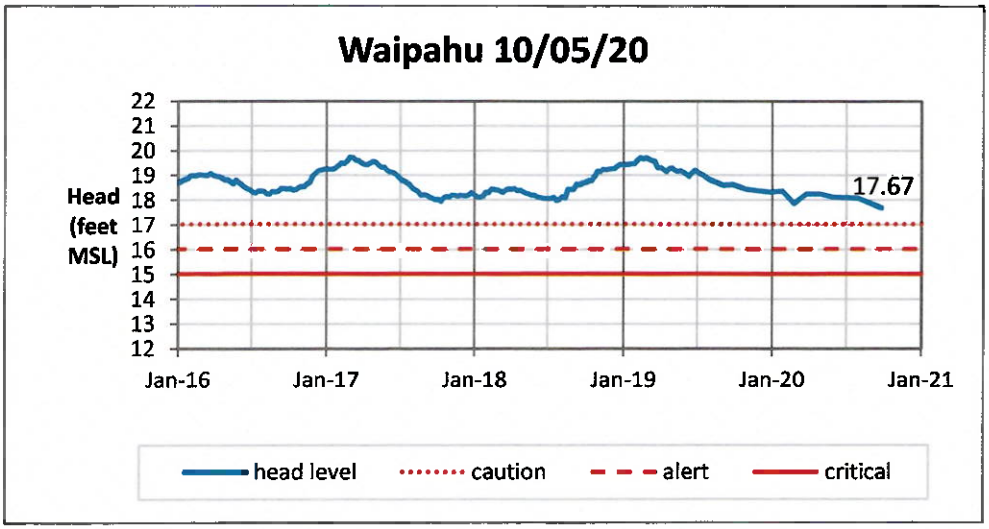
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical


Waipahu 10/05/20
Head (feet MSL)
22
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Jan-16
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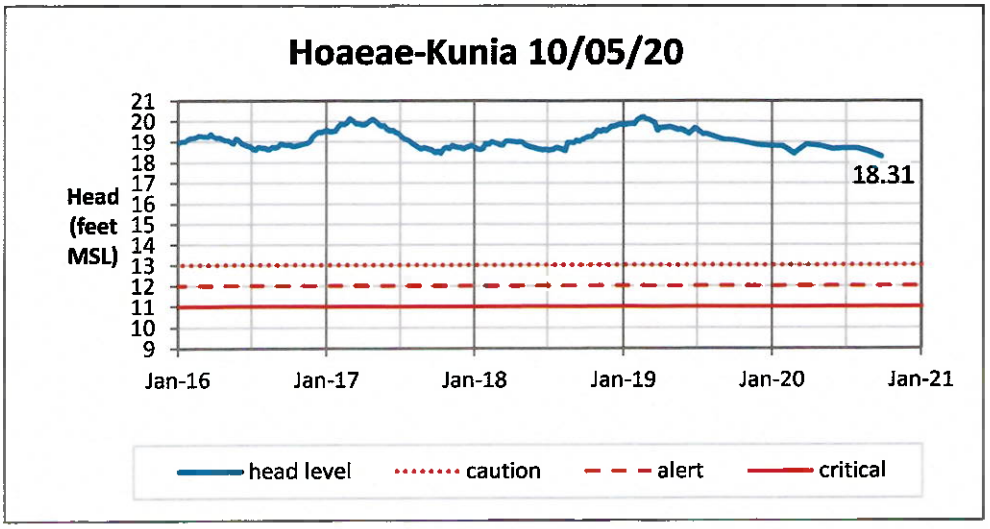
Jan-20
Jan-21
head level
caution
alert
critical


Hoaeae-Kunia 10/05/20
Head (feet MSL)
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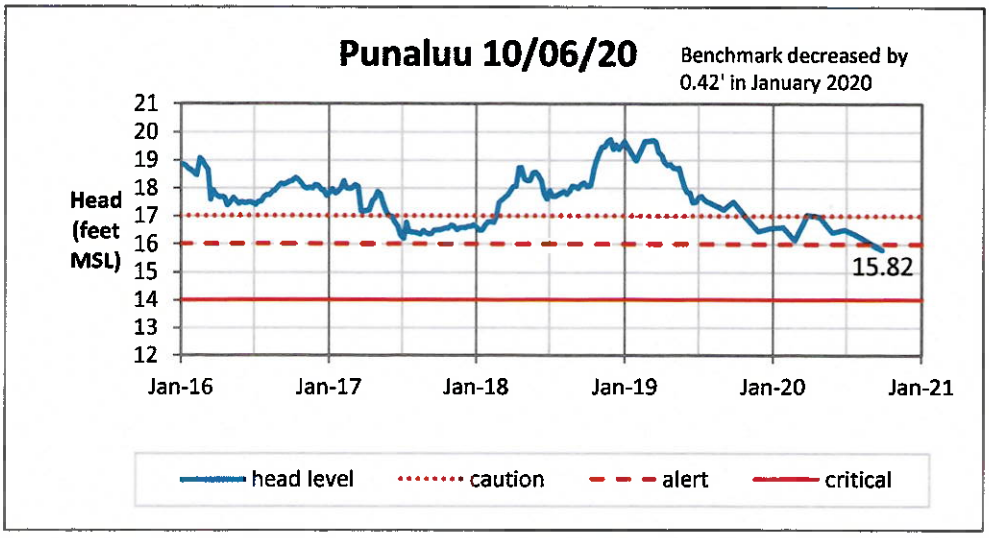
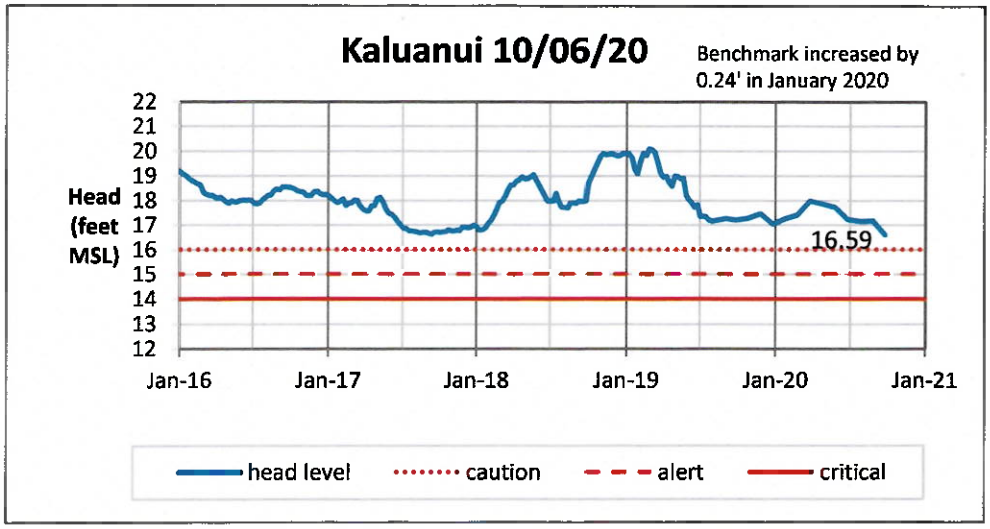
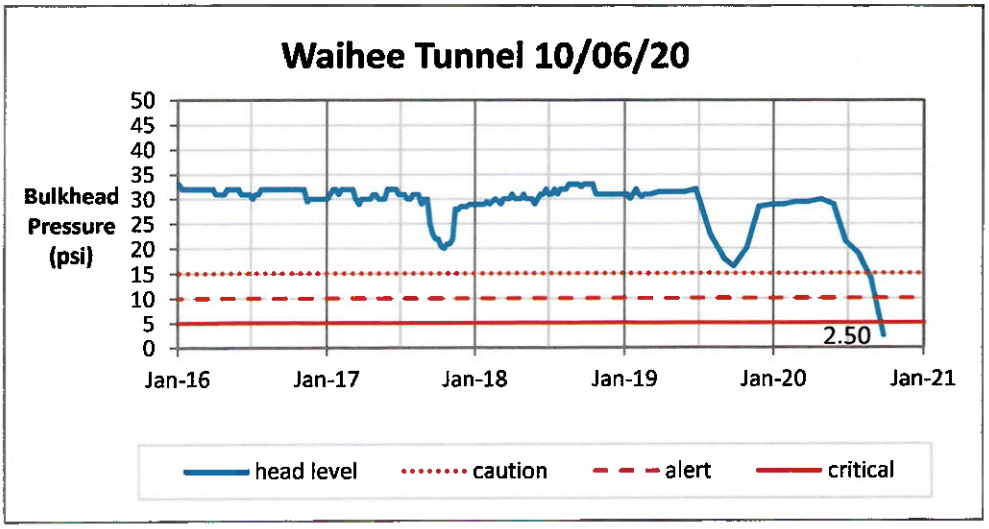
15
14
13
12
11
10
9
18.31
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical

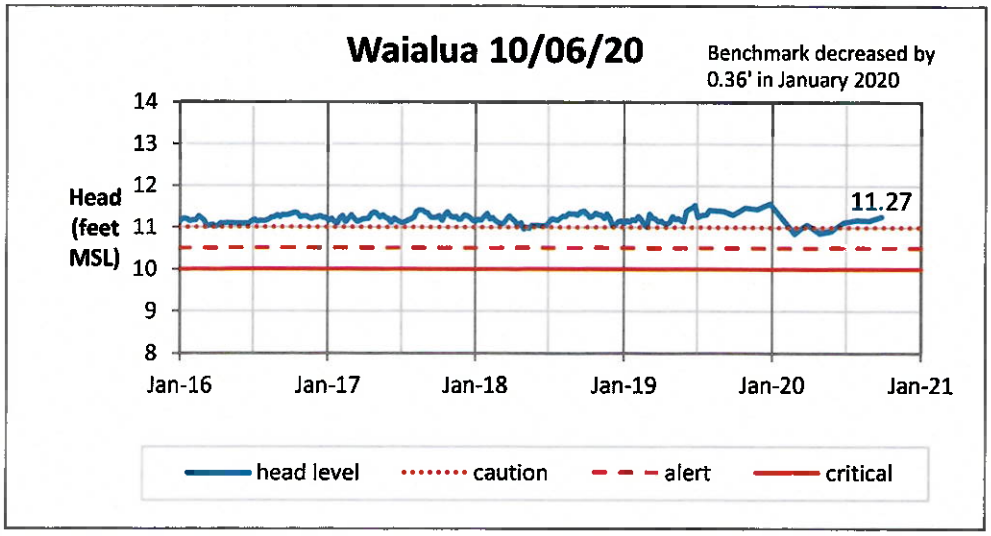
Head Report

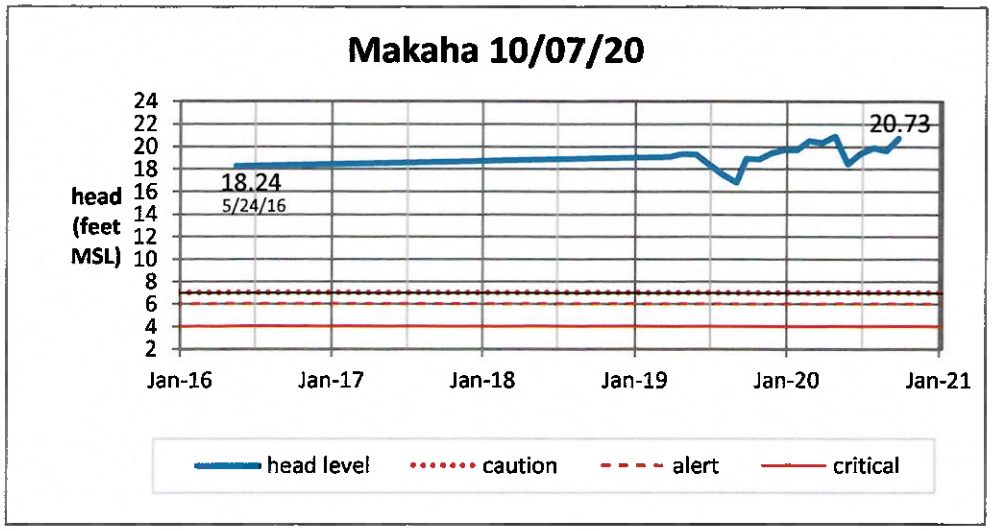

Punaluu 10/06/20
Benchmark decreased by 0.42' in January 2020
Head (feet MSL)
21
20
19
18
17
16
15
14
13
12
15.82
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical

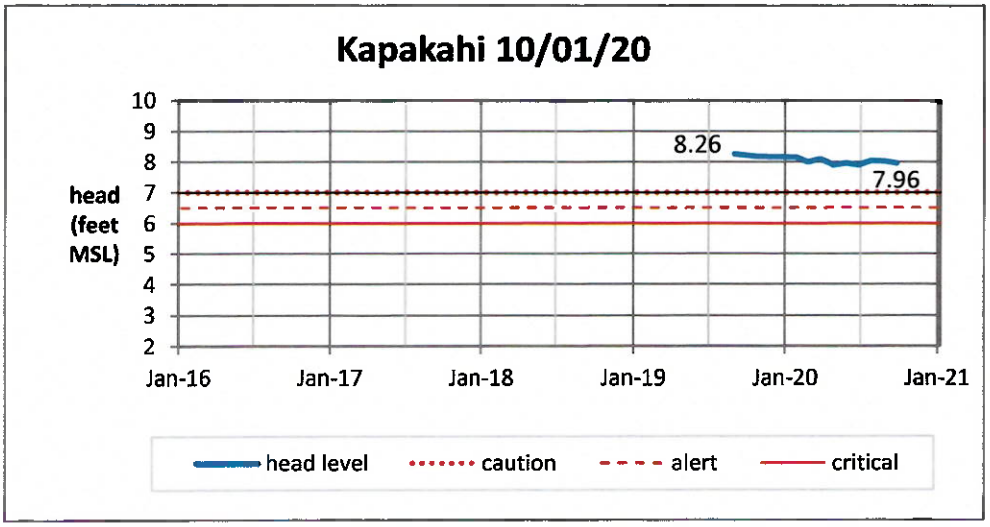

Kaluanui 10/06/20
Benchmark increased by 0.24' in January 2020
Head (feet MSL)
22
21
20
19
18
17
16
15
14
13
12
16.59
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical

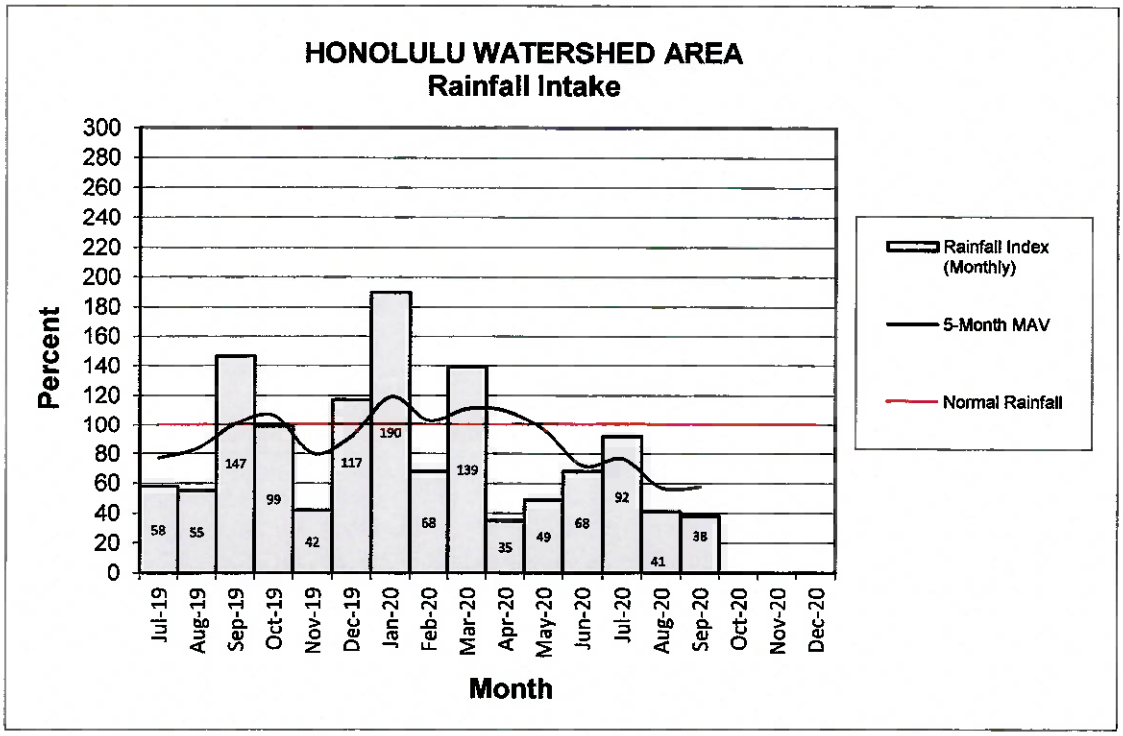

Waihee Tunnel 10/06/20
Bulkhead Pressure (psi)
50
45
40
35
30
25
20
15
10
5
0
2.50
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical

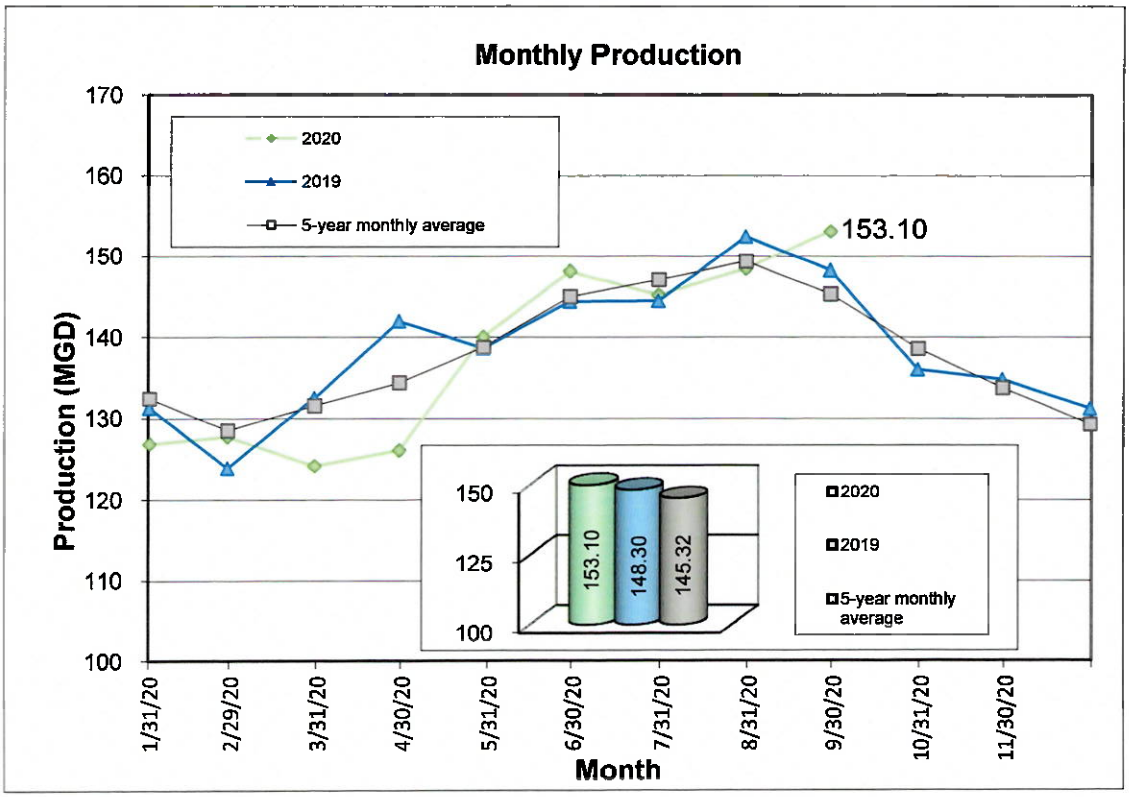
Head Report


Waialua 10/06/20
Benchmark decreased by 0.36' in January 2020
Head (feet MSL)
14
13
12
11
10
9
8
11.27
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical


Makaha 10/07/20
head (feet MSL)
24
22
20
18
16
14
12
10
8
6
4
2
18.24
5/24/16
20.73
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical


Kapakahi 10/01/20
head (feet MSL)
10
9
8
7
6
5
4
3
2
8.26
7.96
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
head level
caution
alert
critical


HONOLULU WATERSHED AREA
Rainfall Intake
Percent
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
58
55
147
99
42
117
190
68
139
35
49
68
92
41
38
Jul-19
Aug-19
Sep-19
Oct-19
Nov-19
Dec-19
Jan-20
Feb-20
Mar-20
Apr-20
May-20
Jun-20
Jul-20
Aug-20
Sep-20
Oct-20
Nov-20
Dec-20
Month
Rainfall Index (Monthly)
5-Month MAV
Normal Rainfall


Monthly Production
Production (MGD)
170
160
150
140
130
120
110
100
2020
2019
5-year monthly average
153.10
1/31/20
2/29/20
3/31/20
4/30/20
5/31/20
6/30/20
7/31/20
8/31/20
9/30/20
10/31/20
11/30/20
Month
150
125
100
153.10
148.30
145.32
2020
2019
5-year monthly average

ITEM FOR INFORMATION NO. 4

"October 26, 2020

WATER MAIN REPAIR REPORT FOR SEPTEMBER 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 September 2020

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

Manager Lau asked Mr. Michael Fuke to share his experience with the satellite leak detection system.

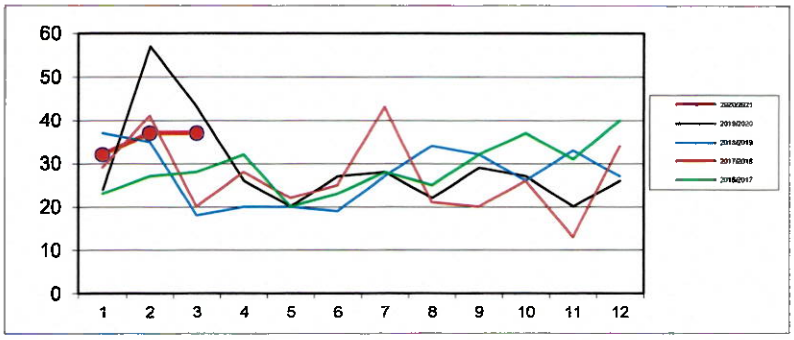
Mr. Fuke stated that using the satellite leak detection system, Utilis was a positive experience. Mr. Fuke mentioned after fixing the main break in the Makapuu area, the Field Operations team looked at Utilis and saw that it detected a leak on the 36-inch main. Mr. Fuke stated that the Utilis technology would benefit the BWS.

WATER MAIN REPAIR REPORT

for September 2020

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2020/2021	32	37	**37**										**106**
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
9/3/2020	2666 E Manoa Rd, Honolulu	8	CI
9/4/2020	2115 Alaeloa St, Honolulu	8	CI
9/4/2020	744 Kapiolani Blvd, Honolulu	6	DI
9/6/2020	99-859 Iwaiwa St, Aiea	12	AC
9/8/2020	2209 Apoepoe St, Pearl City	8	CI
9/8/2020	291 Kaliponi St, Wahiawa	8	CI
9/9/2020	99-557 Kahilinai Pl, Aiea	8	CI
9/11/2020	923 Emmeluth Ln, Honolulu	8	DI
9/12/2020	47-654 Mapele Rd, Kaneohe	8	CI
9/14/2020	99-865 Aiea Heights Dr, Aiea	4	CI
9/15/2020	99-837 Aiea Heights Dr, Aiea	4	CI
9/16/2020	2249 Anapanapa St, Pearl City	8	CI
9/16/2020	94-211 Leonui St, Waipahu	8	CI
9/16/2020	401 Atkinson Dr, Honolulu	12	PVC
9/16/2020	916 Kapiolani Blvd, Honolulu	12	PVC
9/17/2020	520 Ward Ave, Honolulu	12	DI
9/17/2020	99-1275 Aiea Heights Dr, Aiea	6	CI
9/17/2020	86-246 Kuwale Rd, Waianae	8	CI
9/17/2020	2532 Booth Rd, Honolulu	6	CI
9/18/2020	98-1020 Oliwa St, Aiea	12	CI
9/18/2020	45-628 Apuapu St, Kaneohe	8	CI
9/20/2020	87-212 Laulele St, Waianae	8	CI
9/21/2020	85-946 Mill St, Waianae	8	CI
9/22/2020	2363 Booth Rd, Honolulu	6	CI
9/22/2020	85-215 McArthur St, Waianae	8	PVC
9/22/2020	85-368 Waianae Valley Rd, Waianae	12	CI
9/22/2020	48 Kamehameha Hwy, Kaneohe	4	CI
9/23/2020	2202 Kula Kolea St, Honolulu	6	CI
9/24/2020	2730 Booth Rd, Honolulu	6	CI
9/24/2020	99-544 Paihi St, Aiea	8	CI
9/24/2020	2197 10th Ave, Honolulu	12	CI
9/26/2020	98-1393 F Hinu Pl, Pearl City	8	CI
9/27/2020	2329 Star Rd, Honolulu	8	CI
9/28/2020	94432 Hoaeae St, Waipahu	8	CI
9/29/2020	94-349 Peke Ln, Waipahu	8	CI
9/30/2020	99-803 Halawa Heights Rd, Aiea	12	CI
9/30/2020	7 Kamehameha Hwy, Kaneohe	12	CI



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

MOTION TO RECESS INTO EXECUTIVE SESSION

There being no further business Chair Andaya called for motion to adjourn the Open Session. Max Sword so moved; seconded Jade Butay.

Chair Andaya requested the Board Secretary Ms. Joy Cruz-Achiu conduct a roll call vote.

Ms. Cruz-Achiu conducted a roll call vote: Vice Chair Kapua Sproat, aye; Board Member Ray Soon, aye; Board Member Ross Sasamura, aye; Board Member Jade Butay, aye; and Chair Bryan Andaya, aye.

Ms. Cruz-Achiu announced that the motion passed with five ayes.

Upon unanimous approved motion, the Board recessed into Executive Session Pursuant to [HRS § 92-5(a)(4)] at 3:53 PM to Consider Issues Pertaining to Matters Posted for Discussion at an Executive Session.

OPEN SESSION

The Board reconvened in Open Session at 4:56 PM.

MOTION TO ADJOURN

There being no further business Chair Andaya at 4:57 PM called for a motion to adjourn the Open Session. Ross Sasamura so moved; seconded by Max Sword and unanimously carried.

The minutes of the Regular Meeting held on October 26, 2020 are respectfully submitted,

JOY CRUZ-ACHIU

APPROVED:

BRYAN P. ANDAYA
Chair of the Board

NOV 23 2020
Date

THE MINUTES OF THE REGULAR SESSION BOARD MEETING ON OCTOBER 26, 2020 WERE APPROVED AT THE NOVEMBER 23, 2020 BOARD MEETING				
	AYE	NO	ABSTAIN	COMMENT
BRYAN P. ANDAYA	X			
KAPUA SPROAT	X			
RAY C. SOON	X			
MAX J. SWORD	X			
ROSS S. SASAMURA	X			
JADE T. BUTAY	X			