



**Honolulu Board of Water Supply  
Stakeholder Advisory Group**

Meeting 37 Thursday, January 21, 2021 4:00 – 6:00 pm  
Virtual Meeting

**Meeting Notes**

**PURPOSE AND ORGANIZATION OF MEETING NOTES**

The purpose of these notes is to provide an overview of the Board of Water Supply (BWS) Stakeholder Advisory Group meeting. They are not intended as a transcript or as minutes. Major points of the presentations are summarized herein, primarily for context. Copies of presentation materials were provided to all participants and are available on the BWS website. Participants made many comments and asked many questions during the meeting. These are paraphrased to be more concise.

**ATTENDEES**

This was a virtual meeting in which 19 stakeholders participated on-line and/or by phone, in addition to BWS and CDM Smith staff and members of the public. The stakeholders represent diverse interests and communities island-wide.

The following Stakeholders Advisory Group members participated:

- |                     |                                |
|---------------------|--------------------------------|
| Bill Clark          | Resident of Council District 6 |
| Mark Fox            | Environmental                  |
| Shari Ishikawa      | Hawaiian Electric Co.          |
| Will Kane           | Mililani Town Association      |
| Dan Kouchi          | Chamber of Commerce, Hawaii    |
| Bob Leinau          | Resident of Council District 2 |
| Helen Nakano        | Resident of Council District 5 |
| Robbie Nicholas     | Resident of Council District 3 |
| Dean Okimoto        | Nalo Farms, Inc.               |
| Christine Olah      | AARP Hawaii                    |
| Dick Poirier        | Resident of Council District 9 |
| John Reppun         | KEY Project                    |
| Alison Richardson   | Coca-Cola Co.                  |
| Elizabeth Reilly    | Resident of Council District 4 |
| Cynthia Rezentes    | Resident of Council District 1 |
| Chace Shigemasa     | Resident of Council District 7 |
| Walter Thoemmes III | Kamehameha Schools             |
| Guy Yamamoto        | YHB Hawaii                     |
| Cruz Vina Jr.       | Resident of Council District 8 |

## WELCOME

Dave welcomed everyone to the 37<sup>th</sup> meeting of the BWS Stakeholder Advisory Group. He reminded the stakeholders about best meeting practices and reviewed objectives for the meeting:

- Accept notes from Stakeholder Advisory Group meeting #36 in October 2020.
- Hear Board of Water Supply updates on Red Hill fuel storage tanks.
- Review results of the analysis the Long Range Financial Plan factoring in the pandemic.
- Give feedback on BWS's updated Drought Response and Recovery Plan.

**PUBLIC COMMENT:** None.

**ACCEPT MEETING 36 NOTES:** Accepted, with a correction of the meeting date.

The following questions were related to notes of the previous meeting:

**Q: 1)** Is the Airport a federally subsidized entity and would it receive financial support to help pay for stormwater utility fees? **2)** And, a private entity that has a waterway on their property is required by the City to maintain it. Does someone in the City monitor the maintenance of these types of waterways, or do these private entities have to give any water quality reports to the BWS?

**A:** Ernest Lau, BWS Manager and Chief Engineer, said he would follow up with the Honolulu Department of Facilities Management (DFM) to get the answers. Please see the responses from DFM below:

1. The airport does receive various types of Federal funds support. However, it is fundamentally a State facility, specifically a DOT facility. With the Storm Water Utility, all State facilities would be subject to the fee. This would include all the divisions, including airports, harbors, schools, etc. Which monies that DOT uses to pay the storm water fees would be up to them. Note: Federal agencies will also pay fees for all of the impervious area that they own, e.g. military bases, FBI, courthouses, etc. The State has 14% and Federal has 17% of the impervious area on the island.
2. Correct, private owners must maintain the waterways on their property (same as for State and for Federal). There is a stream maintenance ordinance, ROH 41-26, which allows the City to issue citations to private owners to force them to do maintenance. This done only in response to a complaint filed with the City. The City does not have resources to go out and look for violation and do enforcement, and there are also access/trespass issues. Private entities do not have to provide water quality reports.

## BWS UPDATES

Ernest Lau said that the Department of Health would hold Contested Case Hearings related to a permit for the US Navy to operate underground fuel storage tanks at Red Hill. The hearings will be held February 1-5 and the public can view them by going to: [Health.hawaii.gov](http://Health.hawaii.gov).

Ernest said he had seen posts about the Navy committing to build a tank with a double-walled system. He said the best solution to protect our water resources is to move the fuel storage elsewhere and into above-ground tanks, not over the drinking water aquifer. The Sierra Club and BWS are intervenors in the contested case.

**Q:** Will the incoming administration and our congressional representation in Washington DC help BWS in resolving the Red Hill fuel storage issue?

**A:** Ernest said that it's a little early to tell. BWS is waiting to see who President Biden appoints as Administrator of the US EPA.

**Q:** Has BWS contacted anyone on the City Council, such as Vice Chair Esther Kiaaina, that could be helpful as well?

**A:** Ernest said this is a good point. BWS has been wanting to open the lines of communication, especially with the new Council Members.

**Comment:** The potential head of EPA is coming out of the Air Quality Division and is a long-time career staffer who understands the issues. Part of the reason that the Navy is looking at building a tank-within-a-tank is that there is new technology now that wasn't available before.

**A:** Ernest said that, out of the 20 tanks built during World War II, two tanks have been out of service for years. Multiple studies have recommended using those two tanks to try out different systems and approaches. Ernest said he is glad the Navy is moving forward to do something about the tanks and to have greater transparency.

**Q:** Attorney fees add up. Does the BWS include legal fees in the budget, or is that pretty much an open-ended contingency?

**A:** BWS has legal fees in our budget and is working with special counsel.

Ernie said that BWS was informed that the Water Commission would like to set interim in-stream flow standards for He'eia stream. Their proposal is to use less water from the tunnel and let more water go back in the stream. BWS will provide the Water Commission with input. Ernest promised to keep the stakeholders informed.

**Comment:** The He'eia situation is fascinating because it's an entire Ahupua'a. He'eia is named as a national estuarine research reserve so this does finally really bring together the entire Ahupua'a and includes Kaneohe Bay itself. The estuary mixing zone is really important. We're all going to learn a lot from this process. Everybody's in that canoe and nobody's out. Everybody's hungering to understand things a lot better.

Barry Usagawa, BWS Water Resources Program Administrator, said that the He'eia interim flow standard is going to require BWS to cut back. We are looking at our systems to find ways to do that. BWS has already cut back pumping by a million gallons since the 1990s, but the Water Commission issued a new, much higher standard, which means we may need to cut back by another 800,000 gallons per day but we are still in discussion and research. Barry said that BWS is going to petition the Water Commission to designate the Waianae aquifer sector as a designated water management area.

He updated the group on the City's recent adoption of Bill 65, which includes One Water climate resilience policy, principles, and procedures. Bill 65 addresses climate change from a very broad, holistic view. It includes the formation of a One Water Panel; developing an interagency MOU; incorporating One Water climate resilience in City plans; developing a checklist of strategic actions; prioritizing, sequencing and implementing One Water climate resilience initiatives; developing One

Water projects to promote scalable concepts; and developing a mechanism for private developments to align investments with City plans. Barry said that the plan is to start small and work towards raising streets that are flooding. He looks forward to reporting about progress in the future.

Barry also announced that with every new administration, there are often changes to leadership of different City offices. Matt Gonser is new director of the City's Office of Climate Change, Resiliency, and Sustainability.

### UPDATED LONG RANGE FINANCIAL PLAN

Dave said that the financial impacts of the pandemic have been discussed in recent Stakeholder Advisory Group meetings. Updates have included the status of water sales and revenues. At our meeting in October, stakeholders started receiving and discussing an update to the Long Range Financial Plan (LRFP). He said he would tell the group how analyses have been progressing and ask for feedback before BWS presents the information to the BWS Board. He said that stakeholders' feedback would be included in the Board presentation, and that the BWS Board may formally adopt an updated LRFP at its February meeting.

A summary of the LRFP was emailed to stakeholders ahead of the meeting. The plan was developed with extensive input from the Stakeholder Advisory Group. It provides the financial framework to support the BWS's 30-year Water Master Plan. The reasons to update this plan now are to:

- Compare actual conditions that are happening to what was anticipated in the plan.
- Evaluate the impacts of the global pandemic.
- Implement appropriate adjustments.

BWS's commitment is to live within its means. There is no intention to change the current five-year water rate schedule.

Dave walked stakeholders through a four-step evaluation process: 1) Revise the baseline; 2) update LRFP scenarios; 3) evaluate COVID 19 impacts; 4) conclusions and recommendations.

1. Revise the baseline: The purpose was to update the financial model to reflect actual conditions and make needed adjustments. The team looked at actual conditions from 2013 through the current time. In fiscal years 2013 through 2017, BWS's Operations and Maintenance (O&M) budgets were set, but not all of the money was getting spent. BWS made significant changes with the implementation of the LRFP. In FY 2018, the O&M budget dropped significantly and increases in 2019 were modest.

However, in FY 2020, actual O&M expenditures begin to outpace the budget assumptions set in the LRFP. The gap in FY 2020 was approximately \$20 million. Reasons for the increase in O&M spending included:

- Replacing a reverse osmosis line for the recycled water system.
- Paying for certain studies and assessments.
- Increases in emergency road repairs.
- Buying new and replacement vehicles.
- Buying mobile generators (75% of the costs is anticipated to be reimbursed by FEMA).
- Increases in electricity and employee retirement costs.

Dave said that revising the baseline realigns the O&M budget with the LRF. Steps being taken include reducing planned spending in FY 2021 by \$14.7 million; limiting increases over the next four years to 1.2% -- 1.7%; and limiting increases in FY 2026 and 2027 to 2.4% -- 2.7%.

Ellen Kitamura, BWS Deputy Manager and Chief Engineer, reaffirmed that BWS is focused on making sure that the budgets are tightened as much as possible since so much about the future is unknown.

Dave said that capital expenditures have increased in a similar way. The encumbrances for FY 2018, 2019 and 2020 were close what the LRF planned. The capital expenditures budget for FY 2021, however, exceeds the long range model by about \$70 million (\$201.6 million vs. \$129.7 million).

Some of the drivers of the higher capital projects budget include:

- Expedited construction of the Manana base yard secondary lab and control center.
- Accelerated Lanikai water system improvements.
- New connecting pipelines for the Kalawahine 180 reservoir.

Planned capital expenditures are being adjusted for the decade between 2021 and 2031 and will get the budget back on track. The changes total about 2% of the amount expected to be spent during that 10-year period.

A revised baseline 10-year forecast enables the BWS to:

- Keep within its means of the five-year water rate schedule that's already been adopted.
- Keep to the annual revenue increases that were anticipated in the 10-year horizon in the Long Range Financial Plan.

This includes shifting the timing of some capital projects and adjusting the mix of cash and bonds.

**Q:** 1) What is the assumption as it relates to bond interest? Is it just going to stay the same all the way through? 2) Also, capital improvement projects will increase. Is all of that work going to be contracted out to private companies, who have a profit margin, or can the BWS do some of it in-house?

**A:** Joe Cooper, BWS Waterworks Controller, said he believe that the true interest cost on bond is about 3.5%. and 1.75% for State Revolving Fund (SRF) loans. BWS is getting ready to issue bonds now. The rates are currently pretty low but have gone up in the last couple of months. The bond rate is probably going to be under 3%, so using 3.5% for the study period looks like a good target.

Ellen Kitamura answered the second question. BWS is planning to contract out the construction work but the idea of doing some in-house is something that we can look at. BWS has internal field crews but their job is to repair main breaks. They are also looking at installing water meters.

Ernest Lau added that the size of the capital program will grow over time. This year, it's going to be over \$200 million. He said that BWS tried to do one small pipeline job using our own field crews that are very skillful at doing maintenance and emergency repairs. BWS needs the current staff for repairs and maintenance work and added that we are short-handed right now. BWS is going to rely on the construction community and by doing that, we will create construction jobs for many.

**2. Evaluate previous scenarios:** Six scenarios of the LRF included aggressive conservation, aggressive growth, a major natural disaster, contamination of a major source of water, climate change, and an economic downturn. The evaluation indicated that no significant change to these

scenarios is needed. Monitoring using the scorecard and other metrics is important to staying on top of changing conditions. BWS's financial tools appear to be adequate. With commitment to implementing the Water Master Plan and the adopted financial policies, we do not anticipate high rate shock for customers under any of the six scenarios.

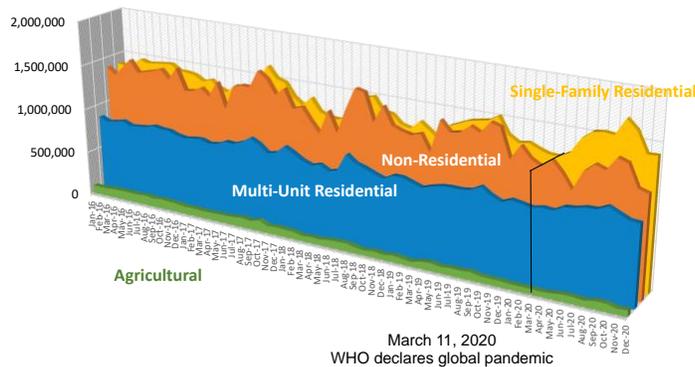
3. Evaluate impacts of COVID-19 on water use and revenues: Dave showed the group charts indicating total island-wide water production on a daily basis, rainfall index, and consumption rates of BWS's single family residential, multi-family residential, commercial, and agricultural customers. Changes in BWS's water demands are largely driven by changes in the weather. When it's hot and dry, demand goes up. When it's wet and cool, demand goes down.

Overall water sales haven't been significantly impacted by the pandemic. However, evaluating the billing data by customer segment is telling. Residential water use after March 2020 is higher than the average over the past five years.

As we look at non-residential consumption, we see the opposite happening. As tourism and businesses have shut down, we would expect non-residential consumption to drop. And that's exactly what has occurred.

The chart below shows water consumption by each of BWS's customer classes since January 2016 and shows the shift in these long-term usage trends since March 2020.

## Historical Water Consumption January 2016 – December 2020



Dave said that other water agencies are seeing similar trends, and what this suggests is that people are staying home, using more water. More people are in the house for longer periods of time. While there's been a shift in usage from non-residential to residential, overall water consumption for BWS really hasn't been impacted. Dave said the group has been hearing about delinquencies in BWS bill payments for several meetings. The percentage of residential customer delinquent accounts in 2020 is in the same range as it has been over the past three years (2017-2019). But after March of 2020, we start to see a different story: the dollar value of those delinquencies goes up significantly when compared to 2017-2019. In fact, for residential customers, the peak was about 83% higher in 2020 than in 2019, and at the end of December 2020, the total amount delinquent compared to 2019 was

about \$1.9 million higher. He added that BWS has not been shutting off any water services due to delinquencies, and that's expected to continue through the end of March 2021.

As the effects of the pandemic began to hit commercial customers, the number of delinquent accounts also began to rise. That's not unexpected, as folks have closed their businesses and don't have revenue coming in. Lately, the number of commercial customer delinquencies has been trending back downward, closer to the average of previous years. Similar to residential customers, the dollar value of those delinquencies has increased quite a bit. In September, the dollar value of delinquencies in the commercial customer class was 113% higher than in 2019, and as of the end of December, the amount was about \$700,000 higher than in 2019.

If we consider the University of Hawaii Economic Research Organization's forecasting and think about recovery in terms of the ability to reopen tourism, there were three different scenarios to evaluate: 1) optimistic, 2) moderate, and 3) pessimistic. Feedback from stakeholders at the October 2020 meeting was that the group didn't see any particular issues with the scenarios but recommended that BWS pay attention to the nuances. These could include that some delinquent funds may never be paid. There may be some economic relief funding in the future that doesn't exist today. There's also the opportunity for some conservation education here as it relates to reducing water bills.

- Under the **optimistic scenario**, we assumed a reasonably strong economic recovery in mid-year, and then a recovery in delinquencies about three months after that.
- In the **moderate scenario**, we assumed that achieving a reasonably strong economic recovery would take a few months longer, and a decline in delinquencies would happen more gradually.
- In the **pessimistic scenario**, we assumed delinquencies would go up significantly before a recovery starts in, perhaps, the third quarter of 2021. The economy and delinquencies might not return to more normal levels until late 2022.

The three scenarios represent a shift in the timing of BWS receiving delinquent revenues. For the most part, the difference among the scenarios is “when” BWS will receive the delinquent revenues. But, as stakeholders correctly pointed out, BWS may not recover all of revenues that are delinquent and thought to was given to how much of that might end up being unrecoverable. The chart below shows the results of analyzing the three scenarios for uncollectable debt.

## Scenarios for Uncollectable Debt

Residential			
	Optimistic	Moderate	Pessimistic
Highest Amount of Delinquency	\$1,766,625	\$1,945,885	\$2,720,057
% Uncollectable	5%	10%	15%
\$ Uncollectable	\$88,331	\$194,589	\$408,009

Commercial			
	Optimistic	Moderate	Pessimistic
Highest Amount of Delinquency	\$703,214	\$881,238	\$1,113,020
% Uncollectable	5%	10%	15%
\$ Uncollectable	\$35,161	\$88,124	\$169,953

Dave noted that the BWS's annual revenues are about \$230 million a year. Overall BWS's finances are stable, and the uncollectable revenues can be managed by adjusting expenses, changing the timing of projects, and similar actions.

Conclusions and recommendations:

- Annual budgeting process should be calibrated with LRFP.
- LRFP update resulted in revised baseline and commitment to “live within our means”.
- Revised baseline can be accomplished under current rate schedule and LRFP-anticipated revenue increases.
- \$ currently collected from Water System Facilities Charge are insufficient to cover costs of growth-related projects.
- Update of the Water System Facilities Charge should be completed.
- Reductions in non-residential demands have been offset by increases in residential demands, no overall impact to water use.
- The overall delinquency rate has remained within historical range.
- \$ value of residential delinquencies has increased as much as \$1.96 million (73%) compared to 2019.
- \$ value of commercial delinquencies has increased as much as \$1.1 million (113%) compared to 2019.
- Total delinquencies as of December 2020 are \$2.6 million, about 1.1 % of BWS’s total annual budget.

Dave concluded by telling the group that projections of the total amount of dollars that may become uncollectable aren't expected to result in significant financial impacts, but it should continue to be closely monitored, along with the potential availability of stimulus funding. He said that we are still in the midst of a global pandemic, the end of this story has yet to be written, so it really puts the emphasis on continued monitoring as we go forward.

**Comment:** The last consolidated appropriations bill, which was signed December 27<sup>th</sup>, includes funding for rental and utility assistance. There may be some opportunity to address some of the delinquent payments. The first round of the CARES Act included a restriction on funding for rent and utilities, because of money going from one government to another government agency. We're trying to get answers to questions related to DHHL renters, along with a clear understanding of whether or not money from the latest bill can be used to pay an entity like BWS. A unique thing about this latest program is that the renter does not necessarily have to initiate the application. According to this new bill, the vendor (e.g., BWS) can apply on behalf of the renter. The information is in Division N of the bill, specifically the emergency rental assistance program.

**A:** Ernest said BWS will request Corporation Counsel legal services for an interpretation of those portions of the bill.

**Comment:** There should be an opportunity for some entity (not necessarily BWS) to look into the demographics associated with the people who are having a hard time paying. It isn't doomsday all around, and some sectors are doing well financially. It would be helpful to take a closer look at the people who are having financial stresses at this point in time.

**Comment:** A June 2020 study by UHERO called *Estimating the Need for Rental Assistance in Hawaii* (<https://uhero.hawaii.edu/estimating-the-need-for-rental-assistance-in-hawaii/>) included scenarios of

who and how people are being impacted. The study discussed the impacts of COVID making it even more difficult for some people to survive. It talks about the amount of money a family needs to pay not only the rent, but any other bills that they might have. The report includes examples of how this is impacting people, whether they're on the lower end of the economic scale or closer to the median.

## **DROUGHT RESPONSE AND RECOVERY PLAN**

Barry Usagawa told the group that BWS updated all of its emergency response plans including for droughts. He reviewed the history of major droughts in the islands:

- In 1953, a drought affected the Big Island, Kauai, Maui, and Oahu, mostly impacting agriculture. Rainfall was 40% less than normal.
- In 1962, the State declared a drought disaster for the islands of Hawaii and Maui. Crops were damaged, cattle died, and fire hazards were severe. Losses for the year totaled \$200,000. Barry said his father worked for the Division of Forestry on the Big Island and fought these fires.
- From 1980 to 1981, the State declared a drought disaster for Hawaii and Maui. Damages to agriculture and cattle industries totaled \$1.4 million. Two years later, drought struck again, reducing crop production in Waimea and Kamuela, Hawaii by 80 percent.
- In 1996, a drought emergency was declared for Hawaii, Maui and Molokai. Losses to agriculture and cattle industries reached \$9.4 million.
- In July 2000, Governor Cayetano issued a statewide declaration of drought. In March 2001, U.S. Department of Agriculture Secretary Ann M. Veneman declared the counties primary disaster areas due to drought.
- In August 2003, BWS declared a low groundwater condition where 7 index monitoring wells were in alert and one in critical low levels

Barry told that group that during a drought, one of the first things that happens is pasture lands get dry and stream flow begins to reduce. When stream flows start to decrease, agricultural diversions from the streams are affected. As a drought continues, it starts to reduce aquifer water levels.

BWS monitors drought using information from the National Weather Service, and our own readings of monthly rainfall, current groundwater levels, and low groundwater triggers. Rainfall varies, but in April the rainfall index dropped to 35% of normal levels and for much of the rest of 2020, a number of our wells were affected. In fall 2020, we called for voluntary conservation.

Barry said that while Windward and east-facing sources (wells) were low during this time, wells in town and Pearl Harbor were high. In fact, only 3 of BWS's 15 index wells were in low ground water condition. Drought can be regional. It can be island-wide. It can be statewide.

The Drought Response and Recovery Plan has three objectives:

- Prevent source water quality degradation from saltwater intrusion.
- Reduce potable water use during drought.
- Ensure aquifer recovery post-drought to prevent long-term declining groundwater level trends.

Pearl Harbor water levels were around 40 feet above mean sea level in pre-contact Hawaii. Now they are in the 20-foot range. Post-drought, when the rains come, BWS cuts back pumping and allows the aquifers to recharge. When we have drought and high temperatures, demand often increases. If we pump wells too hard, we could pull brackish water into our sources and actually lose the source. The lens may break between saltwater and fresh water, and that's something that we don't want to do. We have triggers so that this kind of situation doesn't happen.

There are five phases in the Drought Response Plan: 1) pre-drought conditions, 2) drought monitoring, 3) low groundwater condition, 4) low groundwater condition/CWRM declares water shortage, and 5) recovery.

A number of agencies can declare drought. The US Department of Agriculture can declare a drought or a disaster when there's eight consecutive weeks of severe drought conditions affecting farmers. That frees up federal funding for farmers to buy water or feed. Other agencies include the county, state, regional agencies like BWS, and CWRM.

**Q:** Who makes up the Oahu Drought Committee?

**A:** Barry is one of the co-chairs. Jason Shitanishi from USDA is another co-chair. The committee includes Neal Fujii with the State Water Commission who serves as the State Drought Coordinator. The committee usually meets at the beginning of the summer with farmers and the National Weather Service to discuss drought conditions. The National Weather Service can forecast up to six months ahead through their climate models. If they anticipate a strong El Nino, then all the different entities and agencies start to ramp up to prepare for drought. The Oahu Drought Committee feeds up into the Hawaii Drought Council.

Barry added that BWS has its own Water Emergency Committee; Ellen Kitamura is the chair. The committee includes Barry; BWS's hydrology, geology, and water conservation branches; water systems operations; and the communications office.

The Drought Response and Recovery Plan includes objectives, strategies and tactics:

Objectives	Strategies	Tactics
<ul style="list-style-type: none"> <li>• Avoid excessively lowering of ambient groundwater table</li> <li>• Protect sources of supply</li> <li>• Avoid excessive saltwater intrusion, mineralization, degradation</li> <li>• Prevent interference with operations of other wells</li> </ul>	<ul style="list-style-type: none"> <li>• Limit excessive head level drops in designated groundwater control areas</li> <li>• Limit chloride content rises over the short term</li> </ul>	<ul style="list-style-type: none"> <li>• Data collection</li> <li>• Conservation outreach</li> <li>• Inter-agency coordination</li> <li>• Voluntary conservation measures</li> <li>• Mandatory conservation measures</li> <li>• Water allotments and flow restrictors</li> <li>• Non-residential conservation targets</li> <li>• Irrigation schedule</li> <li>• Optimize well operation</li> <li>• Engage critical customers</li> <li>• Public outreach and education</li> <li>• Public communication</li> </ul>

The most important thing is the post recovery, so that water levels don't continue to decline and that we allow aquifers to naturally recharge and restore themselves. Alternative water sources like recycled water and seawater desalination are very important. Diversifying our water sources helps to drought-proof supplies and makes them more resilient to these types of drought conditions. There are models that show trends related to climate change, although it's too early to determine whether they will lean wet or dry. UH forecasting really helps us to look forward.

## **NEXT STEPS**

Dave thanked everyone for participating before closing the meeting. Again, we were missing only two members of our Stakeholder Advisory Group, which is a phenomenal turnout, especially as we continue meeting in these times. Ernest told the group that they continue to amaze him. BWS really appreciates that everyone has stayed with the group and continues to contribute. He thanked stakeholders for their input.

Dave said that our meeting dates are set for 2021: April 22nd, July 15th and October 21st.