

MINUTES  
FOR THE MEETING OF  
THE COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: May 17, 2022  
TIME: 9:00 am  
PLACE: Online via Zoom /Meeting ID: 891 0723 4853  
and DLNR Boardroom  
1151 Punchbowl Street, 1<sup>st</sup> Floor  
Honolulu, Hawaii

Chairperson Suzanne D. Case called the meeting of the Commission on Water Resource Management to order at 9:01 a.m. and stated it is held live and held remotely via Zoom and being live streamed on YouTube for public viewing. It was noted the meeting was set to take live oral testimony and written testimony received is acknowledged and will be posted upon the Commission's website. Chairperson Case read the standard contested case statement then took a roll call of the Commissioners. Chairperson Case announced that Item C-5 will not be taken today.

**MEMBERS:** Chairperson Suzanne Case, Mr. Michael Buck, Mr. Neil Hannahs, Dr. Aurora Kagawa-Viviani, Mr. Wayne Katayama, Mr. Paul Meyer, Ms. Kathleen Ho

**COUNSEL:** Ms. Julie China

**STAFF:** Deputy M. Kaleo Manuel, Mr. Neal Fujii, Mr. Ryan Imata, Mr. Dean Uyeno, Dr. Ayron Strauch, Ms. Rae Ann Hyatt, Ms. Katie Roth

**OTHERS:** Ms. Eva Blumenstein (Maui Dept. of Water Supply); Ms. Gina Young (Assistant to Maui Councilmember Shane Sinenci); Mr. Rob Alston; Ms. Rebecca Candilasa (Wilson Okamoto); Ms. Samantha Canon (TBR Development); Mr. Barry Usagawa (Hon. BWS); Dr. Kamana Beamer (UH); NAVFAC: Capt. Randy Harmeyer; Cmdr. Rob Kleinman; Mr. Travis Hylton; Mr. Jeremy Mitchell

All written testimonies submitted is available for review by interested parties and is posted online upon the Commission on Water Resource Management website.

*051722 00:03:37*

**A. APPROVAL OF MINUTES**

April 19, 2022

PUBLIC TESTIMONY – None

Commissioner Kagawa-Viviani noted minor edits to be made.

**MOTION: (KAGAWA-VIVIANI/KATAYAMA)  
To approve April 19, 2022 minutes with recommended edits.  
UNANIMOUSLY APPROVED  
CASE/BUCK/HANNAHS/HO/KAGAWA-VIVIANI/KATAYAMA/MEYER**

*051722 00:04:50*

**B. NON-ACTION ITEM / INFORMATIONAL BRIEFING**

**1. Maui Island Water Use and Development Plan Update**

Mr. Neal Fujii of CWRM Planning Branch introduced the item and Ms. Eva Blumenstein, Maui DWS

PRESENTATION GIVEN BY: Mr. Neal Fujii, CWRM Planning Branch

Mr. Fujii gave a PowerPoint presentation on the update of the Maui Island Water Use and Development Plan (WUDP). The Hawaii Water Plan (HWP) has its own part in the Water Code under HRS 174C31. There are (5) component plans that are the responsible plan preparers which are: Water Resource Protection Plan (CWRM); Water Use & Development Plans (Counties); State Water Projects Plan (DLNR, ED); Water Quality Plan (DOH); and Agriculture Water Use & Development Plan (DOA) with each information flowing into the County Water Use & Development Plans and noting that the WUDP shall include certain statutory requirements such as setting forth the allocation of water to develop policies and strategies to guide the County in its planning, management, and development of water resources to meet projected demands.

An update to the HWP framework requirements is in process and the key parts of the HWP framework were explained. The utilization of the WUDPs by CWRM were noted which states that the HWP shall guide the Commission in the designation of water management areas and in the issuance of permits as set forth in chapter 174C, HRS (§13-170-60, HAR). This is also used to identify where water demand will exceed sustainable yields.

The WUDP serves as the Counties primary guide for water resource management. The Maui WUDP key points were highlighted noting it consists of (6) regional plans based on aquifer sectors. The timeline and background were noted along with the next steps of the process.

*051722 00:17:28*

PRESENTATION GIVEN BY: Ms. Eva Blumenstein, Planning Program Mgr., Maui DWS

Ms. Blumenstein presented a PowerPoint presentation on the update of the Maui WUDP and noted the agenda of the presentation with the purpose and requirements of the plan were stated also noting that it will be used to assist in prioritizing (the Counties) capital improvement budget.

This is the first comprehensive update since 1990 to the 2002 framework. A brief timeline of the plan approval process was highlighted noting the extensive community participation in townhall type meetings, targeted outreach in rural areas, surveys & questionnaires given but the challenge was getting more involvement of the broader community.

The planning framework was outlined noting the Land Use Plans along with the legal, regulatory and the policy guidance was briefed on which will ensure consistency throughout the touched areas of use. In a nutshell, it's a one-island wide holistic document with regional plans which tackles regional conflicts, addresses all water providers and users, sister document to the Maui Island Plan, assist in planning for climate change, incorporating new models, data, court cases, Instream Flow Standards (IFS), while continuing to incorporate land use and water planning.

Maui Dept. of Water Supply (DWS) provides 32 million gallons of water per day (mgd) to residents and business population and 90% of the island's freshwater supply. The planning approach was divided into the (6) aquifer sectors accounting also for planned growth of each district. It evaluates alternative planning scenarios and resource strategies looking a cost-impacts noting issues and concerns, values and objectives also highlighting the guiding principles relating to the public trust doctrine and the State Water Code to create an actionable plan that provides water supplies for diverse water uses noting the assessment of future water resources, cultural resources, conservation, alternative and conventional water sourcing highlighting the importance of maintaining and improving watershed functions to ensure an adequate long-term water supply also, maximizing reuse and efficiency.

*Chair Case appreciated the work and process being done.*

**051722 01:01:19**

#### QUESTIONS/COMMENTS

Commissioner Buck – appreciated the presentation and the transparency of Maui DWS and Maui County through the process and continuing to protect watersheds but with more work to do on Lana'i and Moloka'i. Based on Commission's expectations on the amount of water available on Maui, did you average the high and low-end model estimates?

Ms. Blumenstein – the plan submitted and adopted by ordinance was completed before the USGS 2019 downscaling study models that were available and we used previous projections that weren't published by USGS, but it was consistent with the first report confirming significant decrease in groundwater recharge in Leeward areas and assuming increase in chlorides.

Commissioner Buck – in the precautionary principle, taking the average is not a realistic assumption.

Ms. Blumenstein – no, it was not the average; it was the two models converging that it was consistent in saying groundwater will decrease.

Commissioner Buck – commented on the central and Ko‘olau aquifer in regards to drilling more wells, increase dependence on groundwater sources, and honoring IFS – which sets up an unrealistic expectation as you know by putting in more wells, you’ll decrease streamflow and those two are conflicting. In the Lahaina aquifer, we’re considering that a water management area and having issues with developers also not having realistic expectations based on the Water Code and the availability of water. With adapting economic and population growth, what jurisdictions does the county water have to influence these?

Ms. Blumenstein – this is where the Maui WUDP supports the West Maui Community Plan. Those are the land. The Land Use policies establish areas for directed growth, even the type of landscaping. These draft strategies are incorporated into the land use approvals so brand-new projects could still have restrictions. It's not the department per se that has that jurisdiction, its integrating that with the land use plan.

Commissioner Hannahs – regarding process, feels like it took about a decade and your inputs were a bit siloed from different agencies. Is it too long a process to be to give you the information you need to do your job?

Ms. Blumenstein – the framework set up is really not possible to do in-house in a realistic timeframe and budget. With outreach we did a little outside the framework but still feel did not reach the broader community.

Commissioner Hannahs – encouraged community outreach to be of ultimate value so let's constantly continue to review the process. In looking to create a water management planning area can you help reconcile the position of the department when we're taking that action?

Ms. Blumenstein – the Maui WUDP is not the department’s plan, it’s the island’s plan which is a balance as we’re tasked with a utility to draft a very broad plan, but equally representing private purveyors and users. In terms of designating Lahaina and the testimony provided by the Department that there are certain issues that should be looked at closer before action, there are solutions in the Lahaina sector and opportunities for the Commission to have a more collaborative approach with private purveyors, with department and the community to have the ultimate goal of sustainable, distributed pumpage by each aquifer system at risk.

We didn't feel designation will accomplish that based on my experience with ‘Iao and Moloka‘i. Once you designate or once there's a contested case petition, it’s too late so that’s why it’s premature and have not been done yet.

Commissioner Hannahs – to our staff, I think that's an open discussion to how we bring these policy regimes into alignment. In our water availability in Wailuku and using that to inform land use planning, how do you need 8 mgd more to support land, population, or development growth?

Ms. Blumenstein – the 6 to 8 mgd is based on the social, economic, forecast population growth for Kahului-Wailuku and Kihei, Makena community planned districts and confirmed in the ongoing update of the South Maui Community plan and looked at what kind of supply can satisfy optimizing water efficiency, diversify an alternative supply, expand recycled water and used a conservative approach but not wanting to underestimate as these are not site specific projects but guidance. If we develop any additional groundwater there’s going to be

hydraulic studies, EIS, and engineering reports to refine what that specific demand is. The demand is not established by us, it's from the Land Use.

Commissioner Hannahs – maybe the conversation needs to be at an administrative executive level or with the planning department regarding what supply is there to meet in terms of resource supply to meet the needs of that population growth or push back and redistribute that population or find a way to recognize it's going to be difficult to support a development model that exceeds the amount of resource we have.

Ms. Blumenstein – agreed and noted the policies are key issues and want to be able to rely on regional resource and take full advantage of recycled water and other alternatives that can inform the Community Plan and the next update on the General Plan.

Commissioner Hannahs – asked on the matrix of the Ag planning objectives.

Ms. Blumenstein – it was just a snapshot.

Commissioner Hannahs – part of the Ag planning objectives is rebuilding infrastructure and thinking about the crops grown. Asked on the ungulate effect on the watershed and overall ground cover and impacts on water availability.

Ms. Blumenstein – each region strategies include to prioritize watershed protection which includes fencing and expanding critical watersheds. It may be more critical to go below in elevation to adapt to climate change with strategies to include the benefits of different ownership, protection restoration activities to know the hydrogen logical impact groundwater recharge or streamflow and restoring native forests.

**051722 01:17:39**

### PUBLIC TESTIMONY

Ms. Gina Young, Representative for Maui Councilmember Shane Sinenci

- Councilmember Shane Sinenci sends his regards and thanks Commissioners for their review of the Maui Island Water Use and Development Plan.
- Committee held (15) meetings on the Plan
- Met with Maui Aha Moku representative on integrating native Hawaiian water resource management, history, strategies, generation, and traditional knowledge into the plan – they remain neutral and not all strategies were adopted by Council.
- West Maui didn't support water system connectivity between the areas (Maui Council did not agree with this)
- The Ko'olau Council didn't support the Haiku well strategy – but supported the Home Rule for water sources; specifically the EMI system
- In Hana, when additional water is available, to prioritize kuleana uses followed by cultural uses, then by affordable housing
- the Council stressed ecosystem management and returning water to the system
- added comments in part 1 included a history of Hawaiian Kanewai water laws and back to case law from late 1890s.

- strategies were adopted requiring the county to advocate for stream connectivity, kuleana and traditional rights, kalo cultivation, using generational and traditional knowledge, and consulting with local native Hawaiians; asked for the creation of a native Hawaiian advisory group to the Department of Water Supply; education of Department of Water Supply and employees on Hawaiian resource management and rights.
- cited a lack of enforcement by CWRM on stream IIFS with hopes in collaborating with locals on stream monitoring.
- encourage limitations on large hotel water use and penalize water waste behaviors policies directing council to establish new tiered rate structures in a separate hotel category that promotes conservation.
- added environmental protective strategies for dry land native forest, wetland areas, aquifer recharge areas, groundwater and policies directing the Council to revise county laws to promote water catchment, gray water use, efficient landscaping and building requirements and water conservation for golf courses, resorts and public facilities.
- plan to go back to the groups for annual updates to get more local specific information.

#### QUESTIONS/COMMENTS

Commissioner Buck – commented that Maui County is dependent on private purveyors of critical water infrastructure. What was the dialogue on Council level?

Ms. Young – for the Aha Moku Council, they're looking for more local control and input for local users they're looking for prioritizing kuleana uses and watershed management. There was great frustration with the lack of enforcement of the stream flows and a lot of discussion about having local volunteers (*deferred to Eva regarding the private versus the public*).

Ms. Blumenstein – there was not sufficient consultation from the department, but also specifically for water resource management through watershed protection and ungulate control, providing adequate access and be more engaging with the local Hawaiian community.

Chair Case – it's both important issues; but regarding instream flows compliance, please inform the Commission staff for follow-up. Commented that Maui County has long been a model for support for watershed management at the county water system level and statewide and hope the other Counties would follow suit and appreciated it.

#### PUBLIC TESTIMONY CONT'D

Ms. Tara Apo-Priest

- Maui resident and a student of sustainable science management at UH-Maui College.
- consideration on future decisions about the Maui Water Use and Development Plan
- Appreciated CWRM and other departments for work done on plan but to make it more accessible as it's hard to understand, full of complex confusing charts and tables; be presented in a format the Maui community can understand so to provide

opportunity to review and contribute feedback considering all factors.

- Ask for consultant to assist in the Plan
- seems that water is allocated more generously to large scale agriculture, resorts and luxury developments which are the largest water users and need to take a closer look at how they are using water.
- focus on water efficiency and conservation with the large water users held accountable for responsible water conservation and management.
- better plan for South and Central Maui's future water supply
- no information about aquifer in Haiku or impacts on water availability on streams, East Maui communities, native Hawaiian traditional and customary practices.
- Need a better understanding of this water source and consider the residents in that area many who do not have access to county water and need to spend thousands of dollars a month to truck in water.
- need to assess the water available to know how much development we can support.
- highlight areas that still need more attention; water is our most precious resource and cannot afford to mismanage it.

*(end public testimony)*

#### QUESTIONS/COMMENTS

Commissioner Kagawa-Viviani – how often does the Land Use Plan get informed by the Water Use Development plan?

Ms. Blumenstein – it's never in-sync because these are very comprehensive plans; the Maui Island Plan was adopted in 2012 after decade long public input. This was a lot of heavy lifting and will be an overall guidance document that we can fine tune; and even though the plan wasn't finalized, adopted, or approved by the Commission, we still use those draft policies because it represents the broader community, and the Council Committee is happy with it.

It should already inform formulating the land use policies and reflect that in terms of adapting landscaping to the microclimate and considering density of affordable housing but it's an ongoing back and forth process.

Commissioner Kagawa-Viviani – appreciate Maui County Council's work done and engagement in the process. How can we let our constraints on water resources inform land use planning? Is there a process (for the land use planning commission) to take the Water Resources Protection plan or the water plan work into account when thinking about zoning and permitting?

Deputy Manuel – we have a long way to go at improving our land use planning and water resource management integration at the state level; and not just within the water commission, but all bodies that have authority and discretion in decision making. There's opportunity in all counties in movement towards tightening that relationship moving forward into the future as they're inextricably linked to one another.

Within the framework update we're doing in house; we're putting emphasis on what is

authorized planned use and how do we account for that within our water allocations and water resource availability? So there's area for improvement as I don't see decision makers for example, the planning Commission, reference the Water Use Development Plan or our Hawai'i Water Plan in decision making as it's not an explicit connection when it could or should be.

Mr. Fujii – we have a long way to go, but we made some progress and more work to be done.

*Chairperson Case thanked Eva for the presentation as it a complex plan and thanked CWRM staff for their efforts.*

RECESS: 10:35 AM

RECONVENE: 10:47 AM

**051722 01:47:05**

**C. ACTION ITEMS**

- 1. Approval of Application for Well Construction, Pump Installation, Request for Variance and Water Use Permit (WUP No. 1108) to Paul Alston and Valley Well Drilling for Alston Well (Well No. 3-3409-026) New Agricultural Use of 0.025 mgd, Mokulē'ia Ground Water Management Area, O'ahu, TMK (1) 6-8-003:045**

PRESENTATION GIVEN BY: Mr. Ryan Imata, CWRM Groundwater Regulation Branch

Mr. Imata stated the summary of request and provided a brief overview with the background information and noted no negative impacts and CWRM reserves the right to request the contractor to downsize the pump. Mr. Imata stands on the staff submittal and recommendations.

**QUESTIONS/COMMENTS**

Commissioner Kagawa-Viviani – asked Mr. Imata for the hydrology of that area as it was a known fishery; asked the applicant on its planned use; and consideration of the potential impacts to the near shore fishery.

Mr. Imata – generally the coastal region in Mokulei'a is a thick layer of caprock that confining the fresh water to a deeper geologic formation that presumably pushes the freshwater coastal discharge a farther out in the ocean. We have protection within the provisions of the variance ensuring there's no potential impacts of withdrawal to coastal resources. There'll be a pump test analysis to make sure there's no recharge boundaries to be sure there's no up coning or excessive drawdown also limiting the drill depth.

Commissioner Kagawa-Viviani – wanted more clarity on the hydrology and noted dry conditions in Mokulei'a.



Mr. Imata – stated the groundwater and the deeper confined lens is relatively robust as evidenced of what's happening with Dillingham Airfield and the amount of water, they're able to extract and anything going into that brackish lens isn't going to be very productive. Generally, when wells are drilled in the region, they must go into that deeper lens which is far more abundant than the brackish caprock lens.

Commissioner Buck – thanked the applicant its dedication for farming on O‘ahu and asked how do farmers stay sustainable on this island?

Mr. Rob Alston, Applicant – noted they have a 20-acre farm on the Big Island with lots of fruit trees and vegetables with the primary product being Poha Berry. On Maui, currently farming a couple acres with intentions to expand. On O‘ahu we primarily will farm stock trees for landscaping projects to companies as we believe it’s the lowest maintenance thing we can do and also plan to do more flowers and shrubs for hula halau’s.

Commissioner Buck – do you have any experience or interest in Maile as your first tree crops?

Mr. Alston – for consideration, it’s not currently on the list, but those are fair points. This area has a lot of shore winds, salt and very porous soil as need to figure out what’s going to grow well there (*appreciated the Commissioners attention in taking this up today*).

Commissioner Meyer – appreciated the applicant’s effort in farming and asked (Ryan) on the permit condition stating that should an alternate source be available upon review and approval of that alternate source can be considered; I’m always concerned on well-depth under these conditions-can we strengthen that condition providing that if any recycled water is available, “it shall be reviewed and used”.

Mr. Imata – stated it’s a great idea but not my decision to make and wondered if that then needs to come back to the Commission? Alternatively, we can recommend that delegation is done to the Chair to make the decision. If that’s the case, we would come back to the commission for a revocation of the permit and for practicability, Mr. Alston would then testify on that, may request a contested case hearing, or have the due process to address alternatives, and would be applicable to other alternatives that may become available.

Commissioner Meyer – appreciated the comment and encouraged alternative sources when it’s available.

Mr. Imata – stated there’s no wastewater reuse available in the general area.

**051722 02:01:15**

**MOTION: (HANNAHS/BUCK)**

**To approved item C-1 as submitted.**

**UNANIMOUSLY APPROVED**

**CASE/BUCK/HANNAHS/HO/KAGAWA-VIVIANI/KATAYAMA/MEYER**

051722 02:01:46

**C. ACTION ITEMS**

**2. Approval of Stream Channel Alteration Permit (SCAP.5860.3) to BRE Turtle Bay Resort, LLC for its New Roadway Access Project, ‘Ō‘io Stream, Kahuku, O‘ahu, TMK (1) 5-7-001:048, 049, and 052**

PRESENTATION GIVEN BY: Mr. Dean Uyeno, CWRM Stream Protection & Management Branch

Mr. Uyeno stated the summary of request and highlighted the comments made by C&C Honolulu Dept. of Planning & Permitting, Dept. of Hawaiian Home Lands and U.S. Fish & Wildlife as their comments were incorporated into the SCAP as conditions. Staff stands on its submitted recommendations.

*Chair Case asked applicant for comments*

Ms. Rebecca Candilasa, Wilson Okamoto Corp., (for Applicant)

- Related to condition 1a.-DPP approval; construction plans submitted to DPP and are under review and acknowledge that condition.
- Related to condition 1b.-prior, during and post-engagement consultation with the applicants Cultural Advisory Committee-OHA and NHL-noted going through the process of consultation as part of the Department of the Army permit process with the US Army Corps of Engineers for Section 106 consultation. conducted. No identified interest in the project; no additional information, opposition, or comments were received
- Over the last 10 years Turtle Bay resort had extensive outreach with the local community related to the entitlements for the proposed expansion development.
- A selected, qualified group of community leaders were invited to participate in a cultural advisory committee regarding a supplemental EIS. - current committee in place that meets regularly; consists of 11 members with some being of lineal descendants.
- Stakeholders have played a major role in the development of the overall master plan which reflects the significantly reduced density seen in the proposal.
- Dedication of hundreds of acres into the conservation easement
- Noted conditions 1c. through 1e. will also be incorporated into the plans
- Seek approval for this submittal

QUESTIONS/COMMENTS

Commissioner Kagawa-Viviani – asked where are the burials in relation to the construction and how this project prevents disturbance?

Ms. Candilasa – none of these burials are within the project site; but relative to the project, it’s northwest of the project site and there’s no ground disturbing activity at any of those locations. The applicant and its consultant have been working closely with the State Historic

Preservation Division regarding archaeological surveys and has completed and received approval for a burial treatment, monitoring, preservation, and data recovery plans to addresses the significant archaeological, cultural, historic sites of the property

Commissioner Kagawa-Viviani – appreciated the efforts taken and ensure a continued relationship.

Commissioner Hannahs – asked if the applicant has done native plant restorative work for this project.

Ms. Candilasa – completed a large master landscape renovation project around the resort hotel, which 90% of the plants planted are native.

Commissioner Hannahs – commended the project’s efforts in regard to its commitment to cultural efforts.

**051722 02:10:04**

**MOTION: (BUCK/MEYER)  
To approve Item C-2 as submitted.  
UNANIMOUSLY APPROVED**

**051722 02:10:30**

**C. ACTION ITEMS**

**3. Delegation of Authority to the Deputy Director to Enter into a Memorandum of Agreement with the Honolulu Board of Water Supply to Partner on Water Conservation Measures**

*Deputy Manuel introduced Ms. Katie Roth as the new CWRM Planning Branch Manager and noted her previous tenure upon Water Commission serving under Deputy William Tam. Chair Case noted Ms. Roth’s extensive background previously with the DLNR Division of Forestry & Wildlife.*

PRESENTATION GIVEN BY: Mr. Jeremy Kimura, CWRM Planning Branch

Mr. Kimura stated the summary of request and noted that water conservation measures for the island of O‘ahu is of high importance as the dry summer months are approaching; and that O‘ahu municipal water use are more than that of Maui and Hawai‘i Island combined. There is large potential for conservation savings and will have a big impact in terms of reducing our capital water use for the State. The staff’s recommendations were noted.

QUESTIONS/COMMENTS

Commissioner Buck – how does this relate to the Water Council’s efforts on conservation?

Deputy Manuel – this is to help support the Board in their conservation messaging they’re

already doing; especially as we anticipate a drier period this summer. We're also coordinating with Hawai'i Community Foundation. It's in alignment with strategies for outreach, communication, education, and conservation efforts; but this is CWRM working directly with the Board of Water Supply.

*Chair Case asked BWS for comments.*

Mr. Barry Usagawa, Hon. Board of Water Supply

- confirms on Deputy Manuel statement and Commissioner Buck – there's a specific water conservation campaign geared for tourism.
- there is that gap between information to residents regarding conservation and their understanding, or their perspective of how tourists treat our water and understanding where the water source comes from, the watershed.
- Providing funding for efforts by HCF
- appreciates Commission support in these efforts
- scratching the surface for water conservation and any kind of coordination is benefitting

Commissioner Katayama – what's the total scope of this program looking at all participants?

Deputy Manuel – it's a draft scope and working with BWS to finalize. We want to report back on the outcome of the outreach effort; we need to get this budgeting process and approvals through to continue to build out the scope.

The amount of funding is minimal; we're only helping to contribute a fraction to their larger conservation efforts and our focus is on protecting the resource. This will get us support and build capacity as we don't have that function internally within the Water Commission, and the Board has that infrastructure in place.

Commissioner Katayama – what is the sense of urgency in achieving the conservation?

Mr. Usagawa – we are in an alert water shortage condition for Honolulu and Halawa system due to Red Hill and working on specific tourism campaign to get the message out by the start of summer. Intent to partner with a large hotel chain to address our water conservation efforts to customers. This summer is our test case to see how far pumpage will rise versus our reduced capacity and for BWS, it's urgent.

There is a longer-term benefit and upside potential and opportunity to move this forward as the (O'ahu) demand is \$145 per capita day with other municipalities that are lower. Currently working on a study to reduce the per capita rate. Also working on a Watershed Management Plan in relation to climate change and utilizing tools like our Water Sensible program which offers incentives and rebates.

It's really about behaviors and how do you change that? It comes with education, messaging and strategies and appreciate the Commission's help in getting those messages out.

Commissioner Katayama – if you're conservation goals are not met, are you anticipating

coming before the Commission to take more action or do you have proper tools in place to do that??"

Mr. Usagawa – we have the tools in place and this shortage is not resource based or supply, it's infrastructure; not having enough pumping capacity, but it's a decision for our board first and is currently being updated. We don't see ourselves in critical at this point, but we'll be proposing that to our board. Conservation right now is a 10% voluntary base and Ernie Lau has attended 200 presentations with to all these various stakeholders with developers also being responsive on ways in being more efficient and investigated on gray water reuse. We'll see this summer on how the community, meet those conservation targets set.

Commissioner Katayama – in terms of your voluntary goals, how well have you achieved those?

Mr. Usagawa – we'll see in August, September, October timeframe relative to our capacity. If they stay in historical max, the demand figures of previous years, we'll be okay. If they go higher, we'll wrap up our messaging and have the tools to get more stringent, progressively restrictive. At this point, the data doesn't show that we need it.

Commissioner Katayama – commented on (water use) behavioral changes.

Mr. Usagawa – in terms of the water shortage once we're in mandatory we set allotments. Those that don't meet the allotments, we can install flow restrictors and can increase water rates. We're doing a survey to figure out in general, what the customers incorporate in their normal day-to-day practices and having that understanding will allow us to focus and prioritize our efforts with limited resources; and one of those gaps is tourism.

Commissioner Katayama – is this MOA targeted for tourism?

Mr. Usagawa – it's one of the facets; there's others as the scope is in progress and will be added. It's our current focus with the Hawai'i Community Foundation and the Freshwater Council. The messaging is called "treat every drop like it's our last" with messaging of the at direct entry points at the airport, specific hotels, beach parks and showers-areas where tourists are heavily at. It's a way to inform the residents through a focus on tourism

Commissioner Katayama – appreciated the efforts.

Commissioner Hannahs – also appreciated BWS efforts noting O'ahu's population density and the Red Hill crisis and asked if we have similar MOAs with other Department of Water Supply and can they be incorporated in this one?

Deputy Manuel – we could engage; and the (Water) Code anticipates these types of agreements in working with other utilities and municipalities on conservation efforts. We do have a Water Conservation Plan developed and been slowly implementing the strategies articulated in that planning effort and looking at updating that as well. The urgency is also due to the current Red Hill situation, upcoming summer, and most populated island in which the board provides most of the water. We can get the biggest bang for our buck and leverage the minimal resources that we do have.

We can look at other islands on conservation efforts and areas for improvement - working government to government is always easier and, in my opinion, there's a need in the private water systems more so than the public utilities. It comes down to resources and allocation of those resources.

Commissioner Hannahs – these resources are well spent and as Barry testified, behavioral change takes a while.

Commissioner Kagawa-Viviani – noted the MOA's focus as stated in the written submittal; noted the large amount of water used at UH and asked what emphasis will be placed on these bigger organizations to help build the water literacy to conserve – is audits part of the program?

Mr. Fujii – the water audit is a utility type of audit; there are facility audits that can be done. Agree there's lots of opportunity at the UH campuses and is one of BWS largest customers.

Deputy Manuel – in general, conservation is all of our responsibility. Most times, a lot presented to this Commission is regard to general aquifer health and whether we have or don't have water versus being best users of that resource.

On the use side, and in working with our planning branch, we're looking at strategies, policies and updating our water conservation program in dealing with these large users and increase efficiencies. Partnering with BWS is our recommended strategy in the first phases of a conservation strategy and approach and think more strategically how to do that with our team at the Water Commission.

Commissioner Meyer – commented that in the 70s and early 80s, this topic was developed regarding consumer and business behavior effectively by the American Waterworks Association and would be a great resource for our planning group at CWRM.

Mr. Usagawa – UH uses 0.250 mgd; there, we're focusing on leak detection and repairs as well as cooling towers and finding ways to reduce cost and use. Then focusing on getting the messages out to the users, the students and getting that water conservation messaging out so it affects behavior.

Commissioner Kagawa-Viviani – appreciated BWS efforts and hopes that best practices could be made more broadly

Commissioner Kathy Ho – commented it's an efficient use of limited funds which the Commission was able to give and noted in paragraph 3 of the MOU, states a broad scope of partnering up and encourage universities and other entities to do building and facility audits and is an efficient use of the limited funds.

We're (DOH) is looking at partnering with the University of Hawai'i on workforce development so that you could get someone within the environmental department to assist with conservation measures on ways the University or other entities can save water, it starts with the with educating and this MOU is an efficient way on conservation.

Mr. Usagawa – appreciated Commissioner Meyer's comments on the AWA.

051722 02:41:32

*Note: Commissioner Katayama's absence on the vote due to computer issues*

**MOTION: (KAGAWA-VIVIANI /HANNAHS)  
To approve Item C-3 as submitted.  
UNANIMOUSLY APPROVED**

051722 02:42:28

**C. ACTION ITEMS**

**4. Delegation of Authority to the Deputy Director to Enter into a Memorandum of Agreement with the University of Hawai'i for the Services of Graduate Research Assistants to Assist the Commission in Research of Traditional and Customary Practices and Appurtenant Rights**

PRESENTATION GIVEN BY: Ms. Katie Roth, CWRM Planning Branch

Ms. Roth stated the summary of request and noted the MOA will employ a graduate research assistant for 12 months, with the option to extend. The total amount of funding needed for the project is \$40,000. The Planning Branch stands on its written submittal.

*Chair Case asked Dr. Beamer for comments*

Dr. Kamana Beamer, UH

- welcomes this opportunity to mentor
- supports the Commission's continued efforts in traditional and customary practices and appurtenant rights
- will work closely with CWRM's Planning Branch
- there's a need and this is a great opportunity to get some expertise and train and develop younger leadership
- appreciates the Commission's consideration

**QUESTIONS/COMMENTS**

Commissioner Buck – what specific areas you think the Commission needs assistance in?

Deputy Manuel – it started with me kind of engaging in this process and a lot of the work when I first came on, noted that sustainable yield in general doesn't explicitly take into account traditional, customary practices, and groundwater dependent ecosystems; but via our permitting process, does that. Internally, I have taken on that function.

Building the capacity of our Water Commission staff, understanding our role and responsibility under Ka Pa'akai analysis, engaging with Aha Moku, is an area where I think



this graduate research assistant can help support staff in that process. There are other areas that can be applicable across all regions.

Regarding appurtenant rights, with potential designation of Lahaina designation of an aquifer sector area, there are traditional, cultural practices that exist in area and LCA's. So, recognizing, documenting and quantifying appurtenant rights would be helpful. It's a great research opportunity to proactively do that versus relying on individuals to apply for those rights.

We want to work with Dr. Beamer and those that aligns with their values and what they're researching already. We're open and flexible in doing that kind of work but have a long way to go in building the capacity internally around traditional and customary practices as a public trust use of water for the Water Commission.

In my opinion, this will become more of an issue as climate uncertainties occur with more reliance on ground and surface water for practices increase. These are areas where we need the support and assistance and a great way for us to do that with limited resources; creating that partnership where expertise is within the university system. Hopefully, this can help getting staff and increasing actual permanent staff.

Commissioner Hannahs – appreciated the MOA and noted the need for mentorship of the next generation and noted Dr. Beamer's expertise. Asked if we could have more candidates, not limited to "one" and if possible, to partner with other entities such as KS and HCF.

Deputy Manuel – part of it is resource and a lot is internal capacity; with our small staff, we need to create these relationships and need certain amount of staff time to ensure there's a connection and liaison with the work so that it's relevant. We have a legal fellow with Ka Huli Ao which has been very helpful in doing some of that work.

There're other potential conversations about urban regional planning around planning work and a lot is based on what we can handle and grow. The reason the delegation is there is, if we have the resources and if or others can handle mentoring students, then we could bring on more.

Commissioner Kagawa-Viviani – what kinds of track records have there been for graduate students working with the Commission on projects?

Deputy Manuel – we have had student helpers that are usually undergraduates; we're looking at hiring one. Usually, during breaks we'll bring a student helper to assist on projects; but not sure how many there's been (*deferred to Ryan or Neal*).

Mr. Fujii – there's been many legal interns (*wasn't sure on "number"*)

Commissioner Kagawa-Viviani – how are those generally funded or are they through these partnerships? What's the best usefulness of student trainees working to help commission or a state agency project?

Deputy Manuel – this is a MOA; the student helper are actual positions we can fill and are funded directly by us, housed in our office and work directly on projects that we assign them.



Ms. Roth – added, in my experience working with the Division of Forestry and Wildlife, in filling that gap in capacity is hiring through UH and is interested in doing more if we have the funding capacity to do it. There are opportunities to hire folks with expertise through UH.

**051722 02:53:55**

**MOTION: (HANNAHS/HO)  
To approve Item C-4 as submitted.  
UNANIMOUSLY APPROVED**

RECESS: 11:55 AM

RECONVENE: 1:59 PM

**051722 02:57:40**

**D. RED HILL ITEMS**

**1. Status Update and Recommendations from the Red Hill Permitted Interaction Group on the Scope of Work Approved at the January 7, 2022 Meeting.**

PRESENTATION GIVEN BY: Commissioner Michael Buck

Commissioner Buck urge everyone to read the detailed report submitted and recognized Commissioner Kagawa-Viviani for her hard-work done which provides the full range of issues that you asked for permitted interaction group to address. At the January 7<sup>th</sup> meeting, you adopted a position that the Commission would use its full range of authority and capacity to work with all the stakeholders...

The focus of this presentation is to report on the groups analysis of what we think is the problem on progress being made; the role of the Commission in addressing its public trust responsibilities, the goals of future commission actions, and specific recommendations for the Commission to deliberate and act upon.

The Red Hill Fuel Tanks are the single, biggest threat to South O‘ahu drinking water since the establishment of the Water Code. Its timeframe will extend past this Commission. A goal is to establish a platform for future Commission and Commissioners. There’s a lot of scientific uncertainty surrounding the fuel release and contamination. It may take up to 3 to 5 years before monitoring Wells are in, data models are collected, and the Board of Water Supply feels comfortable.

Don't believe the public trusts the Navy's commitment or capability to safely decommission the fuel tanks. Monitoring, transparency, multi-stakeholder coordination, aquifer remediation and recovery, and data sharing-all needs to be on-going and continue. There are (2) emergency orders from the State Department of Health which are legal standing documents which are helpful.

The Commission have unique and explicit public trust responsibilities for managing water and other resources not held by any other State. The Water Code provides comprehensive legal authority which has not been fully exercised to address the aspects of the Red Hill crisis, especially regarding the longer-term aquifer management recovery. Until now, we've only acted as advisory role.

The recommended Water Commission action were stated noting the Commission should modify the three Navy water permits to require an enforceable plan for aquifer remediation and recovery with stated agency responsibilities, implementation schedules, and funding requirements. To implement the action, we can just bring on a dedicated staff on a 2-year assignment to provide the coordination and representation of planning needed to align all the planning processes with the commission requirements for what we believe is acceptable, aquifer remediation and recovery plan.

## DISCUSSION

Commissioner Meyer – Aurora and Mike did most of the heavy lifting for the Group; I resigned from the P.I.G to the Chair after the Secretary of Defense agreed to defuel and decommission the Red Hill Facility. Mike and Aurora invested much more time and energy and deserve the credit for the contribution and comprehensive recommendations.

One frustration is that even though the State Water Code clearly charges the Water Commission with responsibility, the only tools we were advised we had for management of this Red Hill situation, was the water use permits and other permits in connection with that facility. We do not have a specific authority to issue orders or sanction activities, and I think that's most unfortunate. I feel it would be inconsistent with the responsibilities established in the water code (of the Commission) to not have those authorities like the Department of Health and should be remedied.

It's especially critical, that we work with Department of Health, the Water Board, the Navy, and others to establish and manage a comprehensive management plan for complete remediation.

Commissioner Kagawa-Viviani – added, the challenge between the jurisdiction of the commission and DOH, seems we have bureaucratic divisions between water quality and water quantity. The moment the BWS shut-off Red Hill and Halawa Shaft, we were in a 20 mgd shortage, that's unprecedented. Reading through the Code and administrative rules this (types of) situation was not considered – how do we retool procedures to make it happen?

Staff have been reaching out to DOH to identify what are those triggers and how can we learn from the situation. We can't solve the problem but could build and retool the existing tools within the Commission to address it. The staff has the data and I believe the Commissioners and the P.I.G. have a broader responsibility to the public,

**051722 03:24:55**

## PUBLIC TESTIMONY

Ms. Rebekah Garrison

- member of the O‘ahu Water Protectors
- thanked CWRM for prioritizing this issue to protect clean, unpolluted drinking water; and the P.I.G. and Deputy Manuel for continued support in public commentary.
- the public does not trust the military with respect to Kapukaki (Red Hill)
- the Commission has a duty to keep O‘ahu sole source aquifer safe and to enforce regulation when harm to the island's unique ecosystem is caused
- encourage the Commission to follow the public’s lead; uphold the Water Code
- The U.S. military is not a beneficiary of this public trust
- a legal option: the Commission may consider pursuing a mandate for the Military abide by a different set of water use laws, regulations, and permits
- The fuel releases at the Red Hill Bulk Fuel Storage Facility require the Commission to exercise its full authority and fiduciary responsibility to protect its water resource from further contamination.
- (CWRM) to create enforcement staff ensuring water conservation regulation, including prohibiting water use for landscaping golf courses, car washes and other non-essential purposes-for US Military and civilians alike, unless and until the aquifer is remediated and no longer under threat
- “hold” the Navy's, water use permits to conditions of shutting down the entire Red Hill Bulk Fuel Storage Facility and cleaning of the aquifer
- enforce the Department of Health to attend Commission meetings.

Ms. Ann Wright

- retired Army Colonel and former US Diplomat; lived in Honolulu for 20-years
- highly concerned of the timeline of the defueling of the tanks.
- Military is defueling tanks in Manchester, Washington State-which took 9-years to get process moving – complex is smaller than Red Hill Fuel Storage area
- urge the commission to “keep the Navy's feet to the fire” and get a good timeline
- continue to listen to the affected families especially those whose health is affected by this.

Mr. Wayne Tanaka, Counsel for Sierra Club

- submitted written testimony
- the Commission is a primary trustee of our public trust water resources.
- someone is threatening to destroy your trust corpus and the Commission has a duty to stop them
- Supreme Court affirms the public trust recognizing the State statutes transcending the State Water Code
- resource protection is one of the important underlying purposes of the trust
- impose conditions necessary to get the Navy to act with the appropriate sense of urgency
- if there is argument against your authority, let that come from the Navy
- impose additional conditions, including water use accounting and reporting

requirements and restrictions that could reduce pumping from Waiawa to mitigate no plume spread and depletion of water resources; public meeting requirements for Navy leadership to respond directly to public questions and concerns

- treat the situation with utmost urgency

#### Dr. Kamana Beamer

- UH Professor and member of O‘ahu Water Protectors of Ka‘ohewai; testifying in personal capacity
- Mahalo to the Commission for commitment and efforts and echo testimonies heard earlier
- an unprecedented crisis
- the Commission is responsible for protecting the most precious resource and need to act with a sense of urgency
- possibility of another catastrophic leak and everyone that has been working on this issue will be held accountable
- the Commission should seek outside counsel; if this should litigate-let the Supreme Court decide
- the future of water on O‘ahu will never be the same
- connecting it to permitting conditions and water use is important

#### Ms. Gina Hara

- from Halawa, O‘ahu
- thanked the Commission for considering the power of the permit; thanked Kathy Ho (DOH) for the visual map used at Friday’s meeting
- attended countless meetings and knowing that there was a 27% chance of a leak
- need to be an agent to act on behalf of Hawai‘i; one staff member on CWRM is not enough
- holistic approach to remediation possibly using microorganisms
- do your own due diligence; demand a daily incident report
- need a systemic change in how Hawai‘i approaches water and integrate all resources

#### T. Alana

- keiki of the land, mother, and steward of the pae ‘aina
- very frustrated at ongoing situation and feels the Navy has been polluting our lands, oceans, aquifer, animals, the food we grow, and the people who live here
- concerned and questioned why DOH changed the EAL levels
- the Navy needs to clean up their (environmental) mess and pay for the damages created; taxpayers should not pay
- residents purchased water filters, re-piped homes, new appliances, and water heaters
- residents have added stress such as mental, emotional, and physical problems
- DOH, EPA, State and Federal government, and the United States all share this responsibility and need to do what's right by the people

Ms. Davie-Ann Momilani Thomas

- grew up on Honolulu aquifer; Navy spouse; reside at Pearl City Peninsula Navy housing
- consume 5% of navy tap water
- suffer from health issues due to residential contaminated water caused by the Red Hill fuel leak
- encourage Navy Region-Hawaii and Pentagon to return the free bottled water to our military community and Kapalina Beach Homes
- urge Department of Health to lower EAL levels to ensure no contaminants within water system

Ms. Healani Sonoda-Pale

- testifying as a O‘ahu water protector, daughter, a mother, sister, aunt, kanaka ma‘oli, someone who cares about the people who live on this island, and the ability of my children and future generations to live here
- family roots go back to time immemorial
- need a future with clean water for our children and future grandchildren
- need to take action as the Navy had since 2014 to address the fuel tank problems
- shut down the US Military's water as soon as possible
- facing the greatest disaster this island ever seen
- intervene in the Navy’s stall tactics – act now!

*(end of public testimony)*

**051722 03:24:55**

**MOTION: (CASE/MEYER)**

**To go into Executive Session pursuant to HRS 92-5(a)(4) to consult with its attorney on questions and issues pertaining to the Commission's powers, duties, privileges, immunities and liabilities.**

**UNANIMOUSLY APPROVED**

RECESS: 3:00 PM

RECONVENE: 3:48 PM

Chairperson Case noted that the commissioners did not talk any substance on the subject matter but noted the Permitted Interaction Group’s (P.I.G.) specific processes of the matter; and all of the discussion with the full commissioners, will be held in a sunshine meeting. Item D-1 will not be further discussed in today's meeting however, it will be heard at a following agendized meeting along with recommendations from the P.I.G.

**051722 04:41:48**

**D. RED HILL ITEMS****2. Update by NAVFAC Update on Red Hill Responses and Conservation Measures**

Capt. Randy Harmeyer, Public Works Officer, Joint Base Pearl Harbor-Hickam introduced Commander Rob Kleinman and Mr. Jeremy Mitchell, Deputy Operations Officer.

PRESENTATION GIVEN BY: Capt. Randy Harmeyer

Capt. Harmeyer shared a PowerPoint presentation and noted the agenda relating to the subject matter. The 12-month water pumpage average graph were shown for the Red Hill and Aiea-Hālawa Shaft noting its water allocations and highlighting that the Red Hill Shaft has been secured 11/29/21 to 01/29/22 and has not been connected to a public water system but, are still pumping from there. The Aiea- Hālawa Shaft has been secured from 12/3/21.

The Waiawa Shaft remains the sole source of water use for the PWS system therefore has been over its allocated use. The water monitoring and reporting information were shared regarding the Waipahu-Waiawa aquifer noting increased water conservation measures during high demands, weekly chloride sampling and weekly reporting of chlorides and pumpage to CWRM. Total user consumption has been down 20% since the shutdowns.

The Water Conservation measures have been highlighted and explained noting: reduced irrigation, residential voluntary reductions, leak reporting and detection, and long-term system improvement operations such as: advanced metering, smart irrigation, using xeriscape concepts, and water resource management study.

PRESENTATION GIVEN BY: Commander Rob Kleinman

CDR Kleinman presented on the Red Hill environmental updates with regards to the recovery and remediation, monitoring, and groundwater modeling. Fuel recovery through skimming and the use of absorbents continues. Groundwater and soil vapor monitoring continues on a weekly basis. The well monitoring network is being expanded and groundwater flow models are being negotiated with regulators. Data continues to be the biggest thing needed to make informed decisions.

Plans to install 10 wells throughout the Red Hill Shaft with (4) currently being drilled and the first (2) expected to be completed in early June with initial data likely to be available late July. Navy continues to work with appropriate landholders regarding access easements.

**QUESTIONS/COMMENTS**

Commissioner Buck – wanted clarification of pumping at the Red Hill Shaft which is part of the cleanup and leads to the stream and over pumping at Waiawa Shaft

Capt. Harmeyer – it's correct; and stems from April data.

Commissioner Buck – you're actually in violation of that water use permit.

Capt. Harmeyer – because Waiawa is the only sole source; we've taken conservation efforts and reduced our normal usage by approximately 3 mgd.

Commissioner Buck – any opportunity of water reuse from the Red Hill Shaft that can be used for irrigation or other non-potable needs?

Capt. Harmeyer – yes; but the challenge is getting that water to where it's needed as currently it cannot be reconnected to the potable water distribution.

Commissioner Buck – it sounds easy enough; and asked about the smart irrigation that's utilized for non-potable and what would happen if the Commission said “no, you can't over pump at Waiawa” especially in an emergency water shortage?

Capt. Harmeyer – it will be a decision for our leadership. As the Public Works Officer, I respond to direction from Navy region leadership and it's technically possible to secure any water use that we have but couldn't speak to that.

Commissioner Buck – would recommend to the other Commissioners regarding the over pumping as there may be alternatives for your non-potable uses.

Commissioner Hannahs – suggested a plan to reduce your current needs; appreciated current conservation efforts and noted to not want to exceed our sustainable yield over a long period of time. What are your monitoring protocols for the water going into Hālawā Stream as we want to assure the safety of that ecological system?

Cdr. Kleinman – the system itself, the effluent and affluent is being monitored at different tiers and under Department of Health permits and have compliance sampling associated with it, doing real-time analysis for the hydrocarbons for gas, diesel, oil every 4 hrs. At this time, all discharge into Hālawā stream has been in accordance with the NP DES permits, with samples being done via a third-party laboratory.

Commissioner Hannahs – what type of community outreach is being done?

Cdr. Kleinman – we had a series of outreach initiatives involving community leaders of the area and when the system came online, we showed the actual system itself. From a scientific approach, we partnered with UH on the baseline ecological for training on potential impact associated on the matter.

Commissioner Hannahs – you may take notice of those who testify at these meetings and may want to do a targeted outreach based on their concerns; and further asked on the remediation efforts relating to contaminants radiating within Hālawā system aquifer.

Cdr. Kleinman – it's the same data; and with the visual data as we're pulling water up, we're seeing it to be clearer. Navy is also working with the Dept. of Health for the interpretation and data from the different groundwater locations to help us understand a data perspective of the overall conditions.

Commissioner Hannahs – that data seems to be of grave concern for the Board of Water supply; how will you address this growing concern?

Cdr. Kleinman – the Navy takes this effort extremely seriously and are using the data in partnership with DOH, EPA to inform remediation efforts.

Commissioner Meyer – appreciated the presentation.

Commissioner Kagawa Viviani – also appreciated the presentation and asked how much recovery of free product have you had in total recovery?

Cdr. Kleinman – it's been about 150 gallons

Commissioner Kagawa Viviani – asked if the TPH sampling data made available publicly?

Cdr. Kleinman – need to verify with Dept. of Health

Commissioner Kagawa Viviani – what is your method limit of detection relative to the DOH EAL?

Cdr. Kleinman – need to verify with the laboratory but typically in the D range, its below 100 PPB.

Commissioner Kagawa Viviani – given the anticipated defueling process, are there (well) locations where we could potentially monitor for pipeline releases during the defueling process?

Cdr. Kleinman – the sighting of the wells that we are currently planning on installing are focused on the recent spills and the defueling plan option process is a separate effort of that.

Commissioner Kagawa Viviani – are there investigations of what seems like new household (contamination) appearances?

Capt. Harmeyer – there is no fuel in our potable water system; we test every request from a resident and made 260 tests since February. There's been no detection of fuel contaminant in the existing system. We're doing our long-term monitoring which hasn't found any indication of hydrocarbons in our distribution system since the November incident and don't see any risk of fuel entering the Waiawa shaft and are monitoring that closely.

Commissioner Kagawa Viviani – are those the same EPA methods for the TPH analysis?

Cdr. Kleinman – we've done over 1,600 samples using mainland certified laboratories from DOH perspective and have not had any indications of Jp5 (fuel) in the system in the last couple months. We have a portable analyzer for a rapid evaluation that can do same day analysis which have not detected contaminants. We're aware of the resident's concerns and potential medical concerns raised and are evaluating each one.

Commissioner Kagawa Viviani – it's good to eliminate that.

Cdr. Kleinman – we are testing Waiawa Shaft as well and shown no indications or concern.



Commissioner Kagawa Viviani – are you folks exploring different types of technologies?

Cdr. Kleinman – we are exploring other ideas from a drinking water perspective.

Commissioner Katayama – is the Waiawa graphs in slides 4 & 5 the same data for the monthly pumping?

Mr. Mitchell – slide 4 was the Waiawa Shaft and slide 5 shows the total water delivered in the system; from April until December, it included Red Hill and Aiea- Hālawā.

Commissioner Katayama – for the Sentinel wells what is the timeline in getting coverage?

Cdr. Kleinman – 4 are under construction, with initial results for the first two in July or August. The sentinel wells are complicated as they are not on government property and are working heavily with them to address concerns to get to a real estate agreement.

Commissioner Katayama – any expected date and are these fully funded?

Cdr. Kleinman – no expected date at the moment and it is fully funded.

Commissioner Katayama – what is the issue with negotiating access for the sites?

Cdr. Kleinman – identify potential concerns associated to access and part negotiation process.

Commissioner Kagawa Viviani – regarding the Aiea- Hālawā Shaft, is it a concern about transport or contamination and what is the Navy's plan for Aiea-Halwa?

Capt. Harmeyer – it may not move much in terms of capacity and no high priority to bring it back online and need to understand fully the way potential contaminants are moving and don't want to pose a risk by turning it on. We know that the nearby Board of Water Supply wells are off

Commissioner Kagawa Viviani – is there a status of progress of flow and transport models?

Cdr. Kleinman – working on a revised schedule with Department of Health and EPA to revise our groundwater flow models to include transport models.

Commissioner Kagawa Viviani – the metering of this navy system will be important in terms of managing conservation.

*Chair Case thanked NAVFAC for their continued updates and participation and thanked everyone for their time.*

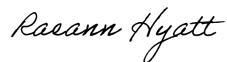
**E. NEXT COMMISSION MEETINGS (TENTATIVE)**

June 14, 2022 (Tuesday)

July 19, 2022 (Tuesday)

This meeting adjourned at 4:38 p.m.

Respectfully submitted,



RAE ANN HYATT  
Commission Secretary

OLA I KA WAI:



M. KALEO MANUEL  
Deputy Director

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**Written Testimonies Received:**

**Please refer to the Commission's website at:**  
**<https://dlnr.hawaii.gov/cwrn/newsevents/meetings/>**  
**to read and view written testimonies received.**