

MINUTES  
FOR THE MEETING OF  
THE COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: April 19, 2022  
TIME: 9:00 am  
PLACE: Online via Zoom /Meeting ID: 862 6556 9051  
and DLNR Boardroom  
1151 Punchbowl Street, 1<sup>st</sup> Floor

Chairperson Suzanne D. Case called the meeting of the Commission on Water Resource Management to order at 9:02 a.m. and stated it is live and also being held remotely and being live streamed via YouTube for public viewing. It was noted the meeting was set to take live oral testimony and written testimony received would be acknowledged upon the submittal item. Chairperson Case read the standard contested case statement and took a roll call of Commissioners.

**MEMBERS:** Chairperson Suzanne Case, Mr. Michael Buck, Mr. Neil Hannahs, Dr. Aurora Kagawa-Viviani, Mr. Wayne Katayama, Mr. Paul Meyer, Ms. Joanna Seto  
**COUNSEL:** Ms. Linda Chow  
**STAFF:** Deputy M. Kaleo Manuel, Mr. Neal Fujii, Mr. Ryan Imata, Mr. Dean Uyeno, Dr. Ayron Strauch, Ms. Rae Ann Hyatt  
**OTHERS:** Mr. Scot Izuka (USGS); Ms. Sara Rosa (USGS); Ms. Heidi Kane (USGS); Mr. Ernie Lau (Board of Water Supply); Mr. Barry Usagawa (BWS); Mr. Avery Chumbley (Wailuku Water Co.), Mr. Jim Geiger (Counsel for WWC); Mr. Hokua Pellegrino (Hui O Nā Wai ‘Ehā); Ms. Stacey Aldrich (Wailuku Library); Ms. Stacie Kaneshige (Wailuku Library); Dr. Jonathan Scheuer (DHHL); Ms. Darene Matsuoka (Counsel for MPL); Mr. Cal Chipchase (Counsel for MPL); Mr. Mahesh Cleveland (Earthjustice); Mr. Glenn Tremble (LIC); Ms. Mahana Keakealani (KSBE); Mr. Jason Jeremiah (KSBE); Ms. Fenix Grange (DOH); Mr. Dennis Lopez (DOH); Ms. Kathy Mitchell (BWS).76

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

**041922 00:02:25**

**A. APPROVAL OF MINUTES**

February 15, 2022

PUBLIC TESTIMONY – None

Commissioner Seto noted minor grammatical edits to be made.

**MOTION: (BUCK/HANNAHS)**

**To approve February 15, 2022 minutes as amended.**

**UNANIMOUSLY APPROVED**

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

March 15, 2022

PUBLIC TESTIMONY – None

Commissioner Seto noted minor grammatical edits to be made.

**MOTION: (BUCK/MEYER)**

**To approve March 15, 2022 minutes as amended.**

**UNANIMOUSLY APPROVED**

*041922 00:06:15*

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

**1. Preliminary Results from the USGS of Groundwater-Streamflow Interactions Studies in the He'eia Watershed and the Waihe'e-Kahalu'u Watershed**

Mr. Dean Uyeno of CWRM Stream Protection & Management Branch introduced Mr. Scot Izuka of the U.S. Geological Survey.

PRESENTATION GIVEN BY: Mr. Scot Izuka, U.S. Geological Survey

Mr. Izuka gave the presentation on the preliminary results from the USGS of Groundwater-Streamflow Interactions Studies in the He'eia Watershed and the Waihe'e-Kahalu'u Watershed areas. Noting the study is ongoing and results may vary. The He'eia Watershed study is also in collaboration with the Honolulu Board of Water Supply (BWS). The Waihe'e-Kahalu'u Watershed study is in collaboration with the Commission on Water Resource Management (CWRM). Mr. Izuka noted the presentation overview and provided graphs, maps and pictures highlighting discharge to springs, ocean, streams, and wetland areas. Graphing of the base flows (noting the stream gages) of Kahalu'u, Waihe'e, He'eia, and 'Ioleka'a Streams were noted, along with the flow-duration of each stream.

The groundwater models for Ha'ikū, Kahalu'u and Waihe'e Tunnels were explained and noting the effects of the Ha'ikū and Kahalu'u Wells. The seepage runs for He'eia and 'Ioleka'a Streams were graphed and explained noting that seepage runs are discharge measurements that are made at selected points along the stream.

Two new stream gauges will be installed which will be temporary and currently in operation. It will be maintained just for the two-year period of this study. There is the existing

permanent gauge which has been in operation since 1914 and is the source of all the data used. A new permanent gage will be installed below the confluence of 'Ioleka'a and He'eia Streams. The stream study periods for He'eia goes to 2024 and the Waihe'e-Kahalu'u study is until 2023.

**041922 00:35:54**

#### QUESTIONS/COMMENTS

Commissioner Buck – noted that his take-away was that the tunnels and wells placed, reduces streamflow.

Mr. Izuka – agreed; and it was known since the tunnels were built that it would affect streamflow.

Commissioner Buck – asked, if possible, to use the same data/models to quantify and fine-tune the IIFS.

Mr. Izuka – the models show some limitations but it's up to you (Commission) to make that management decision. The information will be published once it gets peer reviewed (*and further explained the model simulations*).

Commissioner Buck – noted that as commissioners we must use the best scientific probability there is to make a best determination.

Commissioner Kagawa-Viviani – ask to describe how the model was calibrated to count for the dense dike zones.

Mr. Izuka – (*shared screen*) and further explained the graph relating to the model dike zones relating to permeability while adjusting the hydraulic properties until we feel the correct base flow for those conditions have been met. Part of it is topography and how deep incised these streams are. The conclusion is that the withdrawals are not only affecting the streams in the watershed, but also streams outside of the watershed but it's consistent with other studies.

Commissioner Kagawa-Viviani – you're adjusting the model based on the stream.

Mr. Izuka – the model calibration effort is during model construction to make sure the hydraulic properties and of the rocks are representative of what they really are (*and further explained the pumpage rates*).

Commissioner Kagawa-Viviani – what is the confidence level or how much shall we read into the simulated drops in stream flow on the leeward streams.

Mr. Izuka – the geologic information that we have indicates the dike impounded groundwater setting on the Ko'olau mountains extend into the Leeward side. Groundwater will go where the hydraulic properties of the rocks will allow and it's not surprising that those effects have gone on to the leeward side to the leeward watersheds.

Commissioner Kagawa-Viviani – do you see that in the stream data for other distant streams?

Mr. Izuka – didn't look that closely at it.

Commissioner Hannahs – thanked Scot for his long-service and studies and asked (CWRM staff or BWS) what will be things that we should be consider at the Commission level in regard to instream flow standards or water development permits?

Mr. Uyeno – as we see the results from the study, we'll definitely have to re-look at the data. A lot of the work that Ayron has done looked at the groundwater data closely, the pumpage and correlation between streamflow and groundwater in the area. The work that USGS is doing supports a lot of the work Ayron did.

Dr. Strauch – we'll be developing instream flow standards, understanding that it's a one-to-one relationship but using this information as we move forward across Windward O'ahu.

041922 00:48:55

### PUBLIC TESTIMONY

#### Mr. Barry Usagawa, HBWS

- Not much of a comment on the management decisions based on the model.
- Confidence level in a basal formation groundwater model versus a model that does not account for individual dikes; not sure on the confidence level to make our management decision.
- Appreciated USGS work and working with farmers and CWRM on seepage runs.
- October 21, 2021, shut-down Ha'iku Tunnel to see how much water could build behind the bulkhead. Data shows (3) bulkheads instead of (2)
- seepage runs showed more flow in March than in September/November. If Scott can make any preliminary conclusions; is that just rainfall or water built-up behind the dike?
- there were measurable stream losses between the two diversions
- is there a way to put a drain pipe in the stream to prevent losses directly to the wetland directing them to the lower diversion to get more water into the lo'i?
- the conveyance system to be looked at for losses in addition to cutting us back more.
- If the Kahalu'u and Waihe'e study would look into water quality as you're evaluating IFS; the Kahalu'u estuary is one of the most cesspool polluted estuaries on the island. Based on Department of Health, it's a priority-1 significant risk to human health.
- the Food Safety Modernization Act - food safety conditions upon farmers; will it be mentioned in study?
- lo'i resoration project at Waihe'e Valley on hold due to unexploded ordinance found in area – referenced in final EA; contamination affects farming; public health issues; what's remediation timeline? These issues need to be dealt with before returning water back into stream for agricultural purposes.
- Water shortage issues due to Red Hill which could still affect Windward side
- Will continue to work with various groups and stakeholders in looking for a balanced solution
- Appreciated work that has progressed up till this point.

## QUESTIONS/COMMENTS

Commissioner Meyer – appreciated Barry’s comments and information. Asked if BWS could share results of the contaminated sampling arising from the military activities? As it would be beneficial to follow along in regard to agriculture/farming.

Chair Case – commented it’s not a water quality study. This is a flow analysis, historical data with other studies available through the Department of Health.

Mr. Usagawa – (BWS) didn’t test; I was referring to the Army Corps tests. Those studies are referenced in the Final EA on the Waihe‘e Riparian Learning Center. (*reference the shutdown of Ha ‘iku tunnel but due to lack of rains, opened it up again 0.3 MGD on April 11<sup>th</sup> with ongoing monitoring at the bulkhead*). Noted there was additional streamflow in He‘eia Stream and will continue to monitor that as well.

Chair Case – (to USGS) having drained the stream via the tunnels and wells, is it possible when the tunnels are closed, is there storage capability in those dikes? Have we the ability to regain some of that storage and increase the stream flows?

Mr. Izuka – theoretically, yes. Depends on what you do to close the tunnels; as mentioned there's bulkheads and each is built at a dike and if you were to restore it completely to its natural condition (plug up the dikes), then it would depend on climate conditions. There's lots of evidence that shows these tunnels and wells are not affecting just the streams in the same valleys but also streams far away. For example, if you were to plug up one of the tunnels and let the head build back up, that water would naturally go back to the streams from whence it came and restore some of the stream and also may flow/affect other streams.

Commissioner Hannahs – thanked Barry for your comments. Commented that as we allocate responsibilities in our governance model across Federal, State and County level, it’s heartening to see the level of interagency communication and collaboration on understanding data and implications at the various levels of government and commend our staff and representatives here for doing that.

Commissioner Kagawa-Viviani – (*referred to Commissioner Hannahs comment about what implications are for management*) and noted on the field of hydrology in general surface groundwater interactions which are complex. It’s a challenge, because of different types of hydrologists using different sets of tools and models; it's not just a governmental siloing; it's a disciplinary training silo where we often think about surface and groundwater separately and also think about water quantity and quality separately.

There's an opportunity for the Commission through these specific cases to learn a lot and be more integrated in communication to solve our problems and if we can overcome those, we'll probably do a lot better.

*Chairperson Case thanked USGS for their work and presentation as it is also helpful in the Commissions efforts.*

RECESS: 10:10 AM

RECONVENE: 10:16 AM

**041922 01:16:33**

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

**2. South Waikapū Kuleana ‘Auwai System Update by Hui o Nā Wai ‘Ehā**

Mr. Dean Uyeno of CWRM Stream Protection & Management Branch introduced Mr. Hokuao Pellegrino, President, Hui o Nā Wai ‘Ehā.

PRESENTATION GIVEN BY: Mr. Hokuao Pellegrino, Hui o Nā Wai ‘Ehā

Mr. Pellegrino gave a presentation on the South Waikapū Kuleana ‘Auwai System of the historical overview, current state and of its future plans. Traditionally, the South Waikapū Kuleana ‘Auwai is referred to as Malau. Historical maps were shown of the area dating back to 1850, 1888 and 1910 which notes (5) documented, pre-western contact ‘auwai systems in Waikapū. The ‘auwai use timeline dating 1910 to March 2022 were highlighted and the Waikapū Stream WUPA schematic map was briefed on that was submitted for review to commission staff which show the new pipeline of the delivery points for the end users/offstream users for the South Waikapū Kuleana ‘Auwai. A table of the users along with their permitted allocated amounts were noted, which is roughly 267,026 GPD of use.

Photos of the installation of the new 4” (short-term) pipeline were shown and explained noting also the challenges of receiving allocated amounts of water, upper gauge inoperable, and expensive maintenance.

The future needs and plans (longer-term solutions) were highlighted: a) complete independence from Wailuku Water Co.; b) better access to kuleana lands and ‘auwai system for complete restoration; c) continued CWRM support; d) management and maintenance of system by kuleana kalo farmers. The benefits of a kuleana-based ‘auwai management system were also noted on. The Hui notes the recommendations highlighted are the most efficient while honoring the historical value and traditional practices of this historic ‘auwai.

*Chairperson Case appreciated the presentation noting this is an ongoing discussion and delighted for the update including the photos and videos that were helpful.*

**041922 01:34:00**

**PUBLIC TESTIMONY**

**Mr. Avery Chumbley, Wailuku Water Co.**

- Request the Hui provide a copy of the presentation for data purposes; saw new data presented that wasn’t aware of.
- February 2022, Mr. Atherton of Waikapū Properties made the commitment to do the

conversion of the South Waikapū ‘Auwai to pipe the system including acquiring and installing all of the necessary piping and apparatus.

- March 2022, they started to deliver water through the conversion system.
- The Commission adopted that and made it a part of the D&O
- Based on data provided today, possible that not the full 265,000 gallons per day is being dropped through that pipe.
- Wailuku Water Company has made that water of 265,000 gallons a day available as required by the D&O.
- 8-inch main line from Reservoir 1 remains full; access to that water is due to calibrating the new delivery system to deliver the water at the lower ‘auwai new location. Waikapū Properties has yet to install the new required meter at the distribution point below the filer.

#### QUESTIONS/COMMENTS

Commissioner Buck – asked (Mr. Chumbley) on input on the process to move forward.

Mr. Chumbley – been trying to research the historical information that may be in the files of Wailuku Water Company but have no additional comments at this point.

**041922 01:39:00**

#### C. ACTION ITEMS

1. **Request to Approve Extension of Interim Water Use Permits to Mary Ann Velez (Higa) (SWUPAs 2241/2242N), Jordanella Ciotti (SWUPAs 2247/2248N), and Greg Ibara (SWUPAs 2245/2246N) on the Wailuku Town Kuleana ‘Auwai and Order to Wailuku Water Company to Implement Certain Actions for Commission Staff to Assess Water Loss, Nā Wai ‘Ehā Surface Water Management Area, Wailuku, Maui**

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

Mr. Uyeno stated the summary of request and noted over the last 60-days staff has conducted 5 site visits, installed a flume on the lower section of the Wailuku Town kuleana ‘auwai, conducted multiple seepage runs and flow measurements along the system, worked with Imua Family Services regarding their irrigation and the data is provided in the submittal. Staff stands on its submittal and recommendations.

#### QUESTIONS/COMMENTS

Deputy Manuel – highlighted that one of the delegations to the Chair that was made 60-days ago is in regard to modifications to the original implementation recommendations on the system (can be made); which is also noted in the submittal.

#### PUBLIC TESTIMONY

**041922 01:46:00**

Mr. Robert Street, Kuleana Town ‘Auwai User/Kalo farmer

- 2471 Main Street – Wailuku Water Company (WWC) to supply Imua Family Services with water.
- 2-hr water shut-off from 7:30a-9:30a created silt problem and dead kalo.
- The flow meter did not work at the midpoint level of the Wailuku town ‘auwai system. Went up there approximately 10:50am everyday to check meter.
- Feels it’s a contractual problem between WWC and Imua Family Services.
- Contacted by Stacey Kaneshige of Wailuku Library who requested a liability waiver be signed because part of the ‘auwai runs on the Waikapū side of the library.
- Request BOE (Board of Education) and CWRM acknowledge that as an end user, kuleana water rights/appurtenant rights have a right to access the ‘auwai system.
- Asked AG Linda Chow on legal opinion of appurtenant water rights in regard to “access”.
- Request DAGS (Department of Accounting and General Services) clean-up debris and bamboo-to get a better assessment of the condition of the ‘auwai system and prevent clogging.
- Frustrated over conditions and maintenance of ‘auwai system.
- Maintains the system works and is functional; however, need system accuracy of water flows (flow metering); don’t mind CWRM taking more measurements.
- Feels Spreckles Ditch is okay.
- Request a better plan from CWRM in rectifying problem and need a better communication line between CWRM and the end users.
- Appreciated Commissioners Katayama and Hannahs for their understanding and support.

Mr. Avery Chumbley, Wailuku Water Co.

- After the February 2022 commission meeting, WWC complied to what was ordered by CWRM.
- Explained about the valve at Waihee Ditch which is “open” 100% of the time (since February 15, 2022) which would only be closed in an extreme event/situation and would require a special tool for it to “close”; demonstrated that with Mr. Uyeno on a prior site visit.
- Another control valve is at the rock wall on the Imua Family Services property which is also “open” 100% of the time along with the other valve after the “U” shape elbow release control.
- A modified order approved with the Deputy Director and Chair which Imua Family Services would be able to shut down that 3-inch valve for a two-hour period every day – were given explicit instructions on use – noting that once Imua Family Services did their irrigation and got roughly 4,600 gallons of water per day, the valve was to be reopened all the way.
- confused with Mr. Street’s comments about the silt buildup in the system as for years the system operated on a 3-day schedule-M/W/F.



- commented on Mr. Streets comment of the inoperable meter and not receiving water as water continues to be distributed in the system. Noted (this morning) an email received from Deputy Manuel to follow-up regarding “no water”; sent workers to check and flushed the system.
- Request to also hear from the AG regarding Mr. Streets claim of unfettered and implied rights to access private property; - warned Mr. Street that he is not permitted to go on to Wailuku Water Company property and make any alterations or changes to any portion of the system; if issue arises to contact WWC who will then go in the field and investigate claims.

PUBLIC TESTIMONY (CONT'D)

Ms. Stacey Kaneshige, Wailuku Library

- Provides update to the Commission on the status of the Wailuku Public Library and concerns of Mr. Street.
- Working with a landscaping company to do the initial cleanout.
- Long-term plan is to gravel the area and reduce greenery.
- Working on securing that the access to ensure the water flow.
- Working with Mr. Street in regard to access and will work together cooperatively.

*(end of public testimony)*

Commissioner Hannahs – considered going into executive session to consider questions relating to ‘auwai and access for their care and maintenance.

**041922 02:05:18**

**MOTION: (HANNAHS/KATAYAMA)**

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

**UNANIMOUSLY APPROVED**

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

RECESS: 11:08 AM

RECONVENE: 11:32 AM

Chairperson Case noted questions have been raised about the ability of kuleana users to access private property to access the ‘auwai and parts of the system for maintenance purposes. It’s not a question for the commission because the commission doesn’t have jurisdiction over those issues. The Nā Wai ‘Ehā decision is being appealed and parties are free to raise this issue in the appeal and won’t be addressing it in today’s meeting.

Commissioner Buck – motion to accept item C-1 as submitted by staff

**041922 02:34:32**

**MOTION: (HANNAHS/KAGAWA-VIVIANI)**  
**To approve Item C-1 as submitted.**  
**UNANIMOUSLY APPROVED**

**041922 02:35:53**

**C. ACTION ITEMS**

- 2. Address Portions of Complaint Against Waste by Molokai Ranch, filed by Moloka‘i No Ka Heke (CDR.5310.4), by Amending Interim Instream Flow Standards for the Surface Water Hydrologic Units of Kawela (4037), Kaunakakai (4039), and Manawainui (4041), Moloka‘i**

PRESENTATION GIVEN BY: Dr. Ayron Strauch, CWRM Stream Protection & Management Branch

Dr. Strauch stated the summary of request and gave a presentation on the submittal item. The timeline was given from May 2015 to March 2022. The graph of the non-instream uses from the MWS system were noted with 171,000 gpd of proposed future use and 150,000 gpd of proposed future use for DHHL. The system consists of the Dole and Ranch lines with various intakes in the system. The low-flow characteristics of the intakes for the MWS were briefed. The alternative management proposals (table) noted by Commissioners were explained. A graph of the high-flow characteristics at the East Kawela intake were explained and photos shown. The system needs to utilize the storage capacity of the reservoirs to make the IFS work for any off-stream use.

Dr. Strauch proposed that a concrete box be built to raise the invert of the intake such that the first flows up to the Q50 remain in the stream and a lip would have to be also built up and bolted into the dam so the flow over the dam could be monitored. Another proposal is for full base flow at Lualohe intake, abandonment of the diversion on West Kawela and on East Kawela tributary with a 180-day timeline to evaluate the feasibility reconnecting currently unused stream intakes at Kamoku, Lualohe and Kalihi; then address IFSs at Kamoku and Kalihi sites at a later Commission meeting.

**COMMENTS**

Commissioner Buck – commented on the overwhelming public testimony in support of full restoration of Kawela and noted efficient storage and reservoirs noting MPLs opportunities to achieve that.

**041922 02:54:26**

**PUBLIC TESTIMONY**

Dr. Jonathan Scheuer, for Dept. of Hawaiian Home Lands

- available for questions Commissioners may have regarding DHHL needs

Ms. Darene Matsuoka and Mr. Cal Chipchase, Counsel for Moloka‘i Properties, Ltd.

- Lots of opportunities to meet with CWRM staff and DHHL to review the different alternatives that CWRM staff has put forth
- Nonperfect, but alternative 4 tries to achieve balance between the different competing needs and uses with public trust; thus, support alternative 4 without objection.
- Available for further questions.

Ms. Momi Afelin

- Visited Kamoku, Lualohe and Kawela Streams over the past 2-months.
- Learned from Kupuna and people of Kawela on protecting the stream and community organization
- hosted an informational community meeting, publish information in the local paper, and spend hours talking with community and getting signatures for our petition
- collected 350 resident signatures and more than 600 from the broader Hawai‘i and assisted 116 submit written testimony supporting full restoration of Kawela Stream and the IIFS for Kamoku, Lualohe and abandonment of unused stream intakes
- community is coming together for full support of protecting wai to see Moloka‘i reforested
- climate change impacts it’s time to act now to protect the resiliency of the island and community.
- This is a 100-year-old problem that continues to persist.
- Urge Commission to protect wai for future generations.

*(shared an informational video which showed the Kawela ‘ahupua‘a and streams area)*

Mr. Mahesh Cleveland, Earthjustice for Moloka‘i No Ka Heke

- Petition filed in 2019 regarding waste complaint
- Mahalo Commission in moving forward
- issues that the Commission needs to deal with regarding Moloka‘i water supplies and management
- appreciate staff’s attempt to set IFS for Kawela; however Moloka‘i No Ka Heke is only willing to accept full restoration of Kawela Stream.
- exhibits 18 and 19 of staff’s recommendation – allowing full restoration of Kawela will allow for MPL current uses.
- Encourage MPL for more efficiency of their existing diversions and reservoirs.
- Resource and community need to be placed first to meet public trust purposes before addressing private commercial needs.

Mr. Timmy Leong

- Issues with alternative 4 on implementation and monitoring
- Consider fully restoring Kawela Stream
- Drought conditions and climate changes persists
- Mahalo for support

Ms. Lana Corpuz

- Protect wai – next generation inherited battle to fight
- 100-year diversion needs to end; too much waste
- Forests and water resources need to be restored and protected
- Support full restoration of Kawela Stream and set IIFS for Lualohe, Kalihi, Hanalilolilo, and Kamoku

Mr. Kahekili Pa-Kala

- Homestead resident
- There should be no compromise (by community) on water issues
- Eliminate the (3) diversions and set IIFS for the (4) streams
- With proper management, all MPL needs can be met.
- Most of the land areas in Kawela and surrounding (ahupua‘a) remains dry
- Natural springs are currently feeding the shorelines and reefs
- Lots of community effort involved to help support wai and restoration of Kawela Stream
- Support full restoration of Kawela Stream and setting IIFS

Ms. Leelan Corpuz

- full support of restoration of Kawela Stream and setting IIFS
- Moloka‘i Ranch can no longer exploit these streams; 100-yr of misuse and water mismanagement
- Ranch needs to use their storage systems efficiently
- Lots of community support for full restoration of Kawela Stream

Ms. Hiwa Ritte

- Moloka‘i Ranch 100-yr of misuse and water mismanagement
- Kawela and surrounding (ahupua‘a) remains dry
- Limited resources on Moloka‘i
- Ranch needs to properly manage their systems and eliminate diversions
- full support of restoration of Kawela Stream and setting IIFS

Ms. Karen Holt

- Also submitted written testimony
- In agreement with all testifiers
- full support of restoration of Kawela Stream and setting IIFS
- this area has been extensively studied by archaeologists and it also has a federal wildlife refuge which has been compromised by a dam
- Commission has a responsibility to bring back the wai to the area and uphold the State motto: ua mau ke ‘ea o ka ‘āina i ka pono

Mr. Lohiao Paoa

- Support alternative 2 submitted by staff
- MPL mismanagement
- Table 7 in submittal regarding MPL planned use of non-potable water
- 70% of water will be used for Kaluakoi landscaping
- Need full restoration of Kawela including abandonment of diversions
- Reactivate Kamoku, Lualohe and Kalihi to provide for MPL planned uses
- DHHL can get their reservation from Hanalilolilo – cannot create battle between DHHL and community
- Fully restore Kawela and set IIFS on the remaining intakes.

Ms. Teave Heen

- MPL be held accountable for actions of mismanagement of water and provide full restoration to Kawela Stream
- MPL owners are not island-based and show no community interests
- Community and the National Wildlife Refuge as well as other natural resources like limu, fish and other native species are at risk due to the lack of water.
- MPL needs to properly manage their infrastructure and reservoirs, abandon their diversions and clean-up structures in the mountains.
- Support full restoration of Kawela Stream and set IIFS
- Agree with Mr. Chipchase regarding “balance”

Mr. Walter Ritte

- Proud of the younger generation in speaking up on these matters
- Gave a brief background of Moloka‘i Ranch
- Lessons from Kupuna on compromise
- Reforestation needs to happen
- Kawela district is the fastest growing; also has a county well
- Support full restoration of Kawela Stream, remove dam/diversions

*(end of public testimony)*

**041922 03:36:35**

#### QUESTIONS/COMMENTS

Commissioner Kagawa-Viviani – asked DHHL for comment on how these factors interact and if they should be considered together.

Dr. Scheuer – this presents a series of complex legal issues as well as hydrological issues. the factual disagreements that exist on the interpretation of whether DHHLs needs can be met as well as MPL under a scenario where Kawela gets fully restored. There’s some disagreement from Earthjustice possibly based on limited data from the smaller streams which are capable of being diverted for additional uses.

The Department (DHHL) and its water policy plan has a fiduciary duty to assert the needs of its beneficiaries recognizing it's one of four public trust uses of water which includes domestic use and we're also two of the off stream public trust uses and have alternatives streams do not have. If an incremental approach is taken, we will get to the point of full restoration of Kawela, provision of DHHL reservation and MPL actual needs. I don't know how to get there today.

Commissioner Katayama – asked Ayrton to explain table 7 relating to planned uses.

Dr. Strauch – the planned uses are a theoretical future use and are basing the decision on current usage. No water use permits are being issued for surface water, so nothing is locked in. Total water use was based on the Well 17 water use application (yet to be accepted) and there are various potable and non-potable needs identified within the well. The policy is that the use of water should match the quality of the water.

Commissioner Katayama – asked on the water storage-if it's usable water and its total capacity.

Dr. Strauch – did not know.

Commissioner Katayama – in your modeling, are you using the 50,000,000 gallons as a usable total?

Dr. Strauch – the 50,000,000 gallons would meet somewhere around 300 days of use current use.

Commissioner Katayama – asked if item C-3 (DHHL reservation of 6 mgd) would impact Kawela?

Dr. Strauch – There is an overlap in the system that's being utilized. The 6,000,000 gallons per day reservation of non-potable water is identified from the Waikolu hydrologic unit and diverted water from the MWS from Waikolu, blends the water with all the other sources in the reservoir; same infrastructure but a different source.

Commissioner Katayama – in your analysis, how did you treat that 6,000,000 gallons?

Dr. Strauch – the Hanalilolilo intake is taking water out of Waikolu that would've served DHHL. The entirety of the water from Hanalilolilo would be reserved via the Mountain Water System for DHHL.

Commissioner Hannahs – there's a desire to fully restore Kawela and also to fulfill our public trust duties, supply DHHL as well as the real existing uses of MPL, less the 45% of waste. What scenario could all that be achieved with reasonable best practice measures by MPL?

Dr. Strauch – yet to be determined; but the problem the smaller streams maximum capacity at the intakes is either 100,000 -150,000 gallons per day and we know very little about higher flow events. The likelihood we're going to get the same estimated peak runoff events that would contribute to topping off the reservoirs is unlikely. This area is also likely going to get

drier over time. We are investing in monitoring the hydrology in the system with a real-time USGS continuous monitoring station next year and will have better information about higher flow events in this area. Alternatively, we could recommend a larger transmission line from these streams but there's just not much water in the streams to begin with, even during peak flow events. I'm trying to crunch the numbers, but I just don't see it working out at the moment with the limited data that we have.

Commissioner Hannahs – (to Mr. Chipchase) commented on the practicality of the situation which still needs to be done within the principles of The Water Code. Do you see any misalignment between full restoration of Kawela and the principles of the Water Code?

Mr. Chipchase – Inflow stream is as practical it's not the defining value under the code or end of the public trust doctrine; it's to be restored and maintained as practical. We don't have sufficient data to say that MPL and DHHL needs could be met with that full restoration. MPL will use the commission's analysis as we think it's the best data for us.

Looking at the different trust purposes and value that's placed on inflow stream as practical value and at the existing uses today, not talking about future uses, based on current uses and needs, I do believe that option 2 and 3 are not consistent with the different considerations. I believe (option) 1 & 4 are and that option 4 best balances those different considerations and values.

Commissioner Hannahs – the notion of wastage and system loss is something the Commission has opined on in other decisions and orders. Open systems that are highly wasteful of the past have served their purpose for over 100 years but need to be renovated. With the amount of loss, you have in this system, what's your plans and timetable to reduce those losses?

Mr. Chipchase – most of the loss is estimated of evaporative loss and the six-month period that we have to evaluate the reactivation of the other intakes and the feasibility but evaluating the system loss over that time period would be appropriate and willing to do. We also need to come back before the Commission to discuss a reactivation of those intakes and also discuss abilities to control evaporative loss as well.

Commissioner Hannahs – but there's no estimate at this point even with your long-term ownership of the system and reviews over decades.

Mr. Chipchase – I'm happy to ask our project manager or MPLs manager to join the Commission and see if he has anything thing to add but it's not something that we understood would be part of this evaluation

Commissioner Hannahs – reiterated the system loss and asked how do we allow our modern day and agriculture business investors the time to make the improvements that will bring this up to current and best practice?

(asked Dr. Scheuer) allowing the 6-months' time for MPL and honoring our reservation to DHHL, would you have time for you to explore other ways to fully meet your (DHHL) needs?

Dr. Scheuer – were you thinking of a particular alternative?

Commissioner Hannahs – in looking at the resources, is there a way to meet your need that creates some relief in the streams identified and allows us to fully restore Kawela?

Dr. Scheuer – the staff submittal discuss this in C-3 rather than C-2; our ultimate needs on Moloka‘i based on the State Water Projects plan of non-potable water is 38,000,000 gallons a day. Congress set aside plans and gave us a firm obligation to fulfill the act, and set aside lands that were dry and remote, it’s the dilemma. The pipeline for the mountain water system reaches our lands at a more mauka point than the Moloka‘i Irrigation System or other water sources which will allow reforestation and homesteading in places otherwise will be difficult and expensive to do, so there’s a value of that source.

We’re (DHHL) are willing to look at redirecting where we get our water from noting we’re a public trust use and recognize we’re an off-stream use. If you include in this discussion whether uses, end uses are reasonable beneficial and the opportunity to use diverted water to grow more water, whether we’re reaching that point yet and to talk about reducing or eliminating DHHLs needs as a way to reach the outcome of abundance, I believe every party is seeking.

Commissioner Meyer – move to approve alternative 4 as recommended by Commission staff as it seems the most practical and reasonable course of action. There’s room for future modification improvements which may enhance the efficiency of the system going forward. Entrust that CWRM staff spent the time in terms of hours and have the expertise on this matter.

**MOTION: (MEYER/KATAYAMA)**

**To approve alternative 4 as submitted and recommended by staff.**

DISCUSSION

Commissioner Kagawa-Viviani – noted the overwhelming support of fully restoring Kawela Stream as noted in written and public oral testimonies. The compromise has been on the part of the land of Kawela and the communities that dealt with the lack of water for decades and generations. Recognizing Commissioner Buck’s first comments and noting the Moloka‘i communities organization to rally in support and providing the details of its history.

Have concerns about table 9 that seem to prioritize MPL uses first whereas DHHL is considered a priority or public trust. MPL should justify its water use as such landscaping irrigation could come from water recycling of the potable water heading out from the unpermitted Well 17. There’s an opportunity to restore life to an area that reflects not only local, but state priorities for restoration and global priorities for ecosystem restoration.

Concerns of MPLs commitment to monitoring and implementation and decommissioning the diversions in Kawela would reduce the need for monitoring.

(asked MPL) What is your perception of your organizations kuleana to the island of Moloka‘i and reciprocity to the water source and ‘aina? Have you invested in studies of those



watersheds or restoration?

Mr. Chipchase – personally, we agree with the need to recognize the public trust purposes and support them as well as the reasonable and beneficial uses that maybe needed for or from a particular water source. We have consented to USGS installing a monitoring system. If there are other monitoring methods staff may recommend that may be useful as we enter into an IIFS, we're certainly open to that.

Commissioner Kagawa-Viviani – regards to monitoring, are you just providing access or funding as well?

Mr. Chipchase – access; USGS will install and conduct the monitoring.

Dr. Strauch – CWRM funded the East Kawela station and staff started measuring flows downstream of the East Kawela intake in anticipation of developing a rating curve to monitor the instream flow standard and prepared to install other devices on other streams as needed.

Commissioner Seto – regarding the reuse portion of the submittal, what information do you have on improving the wastewater treatment plants reuse production?

Dr. Strauch – when there was 100 to 200,000 gallons per day of wastewater, R2 was being produced at the wastewater facility in Kaluakoi which was used for golf course irrigation and landscaping and assumed to be used in any future plans. At the moment, very little wastewater is being produced because there's not enough human beings making it.

Commissioner Seto – asked in table 9, is that DHHLs current needs?

Dr. Strauch – in DHHLs SWP, DHHL planned for the development in Kalama'ula and Ho'olehua. CWRM is analyzing the sources that could meet those needs and the mountain water system is one of those sources.

Commissioner Seto – (to Dr. Scheuer) asked if those areas are developed?

Dr. Scheuer – there are existing homesteads but in the area that would be served by the reservation of water from the mountain water system, currently, there are no homestead lots. Over the last month, we came to an agreement with the Ranch over how we would work with them to get an opinion from Utilities Commission that was acceptable to them.

Commissioner Seto – referenced alternative 2 as an option as DHHL does not need the water (from that source) as of yet.

Commissioner Hannahs – noted Commissioner Meyer's motion as practical start point but the target should be full restoration of Kawela Stream. We could start at Q50 and reevaluate in 6-months noting to fully restore Kawela Stream and its commitment to DHHL and other beneficial uses. If we adopt alternative 4 as an interim step, it makes a declaration to the people of Moloka'i that we're committed and allows practical time to gather more needed information.

Commissioner Meyer – agree that alternative 4 will allow the system to function well and

efficiently. I think controlling the evaporation with more productive storage mechanisms and using the wastewater alternative that in which all branches of government are for. It seems that DHHL projects are further in the future and will allow additional time for the situation to evolve and as other alternatives develop, the system can improve.

Commissioner Buck – support the full restoration of Kawela Stream. The Water Code is positioned against a 100 years of water diversions. There are options from the landowner to be more efficient, using R1, and the reservoir.

(asked MPL) it's critical for you and your future plans to have some certainty of the water that you can expect to utilize both for public trust and non-public trust uses (last thing you want to do is defer this item again) if we assume that the Commission wants full restoration, what types of things would you be willing to agree and compromise with?

Mr. Chipchase – noted the GWUP process started while in the 8<sup>th</sup> grade. We don't want to defer again; the options before you were explored with all of those things in mind; what does the data currently say? What is in the near-term future, such as evaluating the reactivation of the additional diversions? What is the state of evaporation (under the law is not regarded as waste, but is nonetheless the loss of water)?

Those considerations all went into those 4 options before you and we believe were balanced and imposed the obligation to come back before the Commission or with staff, on a proposal to reactivate those additional intakes. In addition, look at the evaporative loss and whether there's a practical solution.

Although the items have been separated into C-2 and C-3, there's a number of testifiers and others have alluded some overlap between them, and if we look to C 3, you'll hear we did agree with DHHL in which we could provide the infrastructure for that water source for their reservation; but will only work if on C-2 the Commission adopts option 1 or 4. If we don't adopt those options, we aren't able to supply that diversion on that level. If we balance all of these things, we can have the most stream restoration that's based on what we know about current needs and uses.

We have the ability to provide the infrastructure for DHHL to receive 150,000 gpd through its reservation provided the PUC agrees that it doesn't make us a public utility; and have an obligation with respect to additional stream restoration and evaporative loss. I believe alternative 4 best accomplishes what the Commission wants.

Commissioner Buck – appreciated comment and noted it's a privilege to divert public trust resources; we cannot accept evaporative losses and ensure the most efficient use of the water. You have room and haven't made the investments you need to and just maintaining a historic water diversion established 100 years ago is not acceptable.

Commissioner Katayama – (to Ayron) what kind of horizon would you need to fully restore flows at Kawela?

Dr. Strauch – understand the flows, medium to high to make that decision; if we have staff on the ground monthly for 12-18 months would be able to determine low flow characteristics with a high degree of certainty. High flows are challenging logistically and physically.

Commissioner Katayama – noted the options of full restoration and option of starting at Q50 and managing it. The goal is to have full restoration and provide for both DHHL and MPL needs. What is the more prudent path?

Dr. Strauch – we could take the steps necessary to restore all flows below Q50 then develop the larger data set to evaluate the waters available on all the other tributaries and with that data, can make a recommendation for full restoration.

Deputy Manuel – amendments to staff’s recommendation to get to a place of balance based on testimony from all parties and Commission conversation.

Commissioner Kagawa-Viviani – asked on clarification from Earthjustice (Moloka‘i No Ka Heke)

Mr. Cleveland – noted on the action of CWRM in regard to DHHL water reservation approval the same time the interim instream flow standard was set in Honokōhau Valley, Maui. CWRM implemented a two-phase approach (briefly explained phase 1 & 2 in regard to the set IIFS) and Earthjustice included that in written testimony to note it’s not always “black and white” there are options. However, that phased approach will not work with Kawela as it seeks a full restoration.

The idea of multi-phased approach in order to ensure that we meet the needs of the resource, while also meeting off stream needs is better than nothing and nothing is what we've had for over 100 years. The evaporative loss amounts up to 33,000 gallons of water lost per day. Over the last 2-3 years, 370,000 gallons a day have been diverted, while 42,000 have been used. It’s completely unacceptable and should be addressed.

We need to end the practice of diverting nine times as much water as you need and end evaporative loss, it’s not reasonable. The smaller intakes are currently disconnected and the supply of water to the reservoirs is from Hanalilolilo in Waikolu and East Kawela. Until such time as the DHHL reservation is implemented, there’s up to 150,000 gallons a day coming out of Hanalilolilo and the Ranch could use that to fill its reservoirs when the reservoir is repaired.

Commissioner Hannahs – (to MPL) asked if that data correspond with their data on diverted and how much is used?

Mr. Chipchase – no

Mr. Cleveland – it's based on the information they (MPL) provided to commission staff and stemming from CWRM staff submittals.

Commissioner Hannahs – added recommendations (amended) language to C-2 staff submittal (page 36). First bullet on item 1 after the word recommends, insert the following clause “full restoration on a phased basis that will commence with interim...”

The second bullet “Moloka‘i Ranch is coming back in 90 days”... insert sentence at that point “The commission will consider the time frame for achieving full restoration”...

These builds on this phased discussion and sets a bar and accepts the fact of what we're prepared to do.

Deputy Manuel – that's consistent with the conversation today (shared a word doc) and noted its tied to proposed recommendation number 5 and this modification which highlights all the conversations of commitments that the ranch has made. (*read the following amended recommendation*)

Recommendation 5 is amended as follows:

Staff recommends that Molokai Properties evaluate the feasibility of reconnecting currently unused stream diversion 865 on Kamoku Stream, diversion 863 at Lualohe intake, and diversion 868 at Kalihi intake, including system modifications, to make up for the reduced availability of water from East Kawela Stream. MPL shall conduct a water system audit or other investigation to determine more accurately evaporative or system loss and identify ways to reduce that to provide for additional source. MPL will analyze whether wastewater reuse is a potential additional water source to meet its non-potable needs. Molokai Properties will return to the Commission within 180 days to update the Commission on progress of this evaluation. ~~If Molokai Properties determines that it is not feasible to reconnect currently unused stream diversions to the Mountain Water System, then~~ The Commission may request that some or all of those diversions be formally abandoned and modified.

Recommendation 1 is amended as follows:

The Commission recommends a goal of full restoration and a phased approach to gather sufficient information to evaluate ways to accomplish that goal. Staff recommends an interim...

Implementation added bullet 3:

“In 180 days, the Commission will consider the timeframe to achieve full restoration. Staff has the discretion to allow additional flow to East Kawela Stream within the next 180 days.”

Noted: There's a lot of additional system evaluations that need to be addressed before we take that leap to full restoration

*(discussion of the noted amendments made)*

Commissioner Meyer – noted its appropriate modifications to the motion and to make sure that the flexibility exists with respect to each of those items is practical in terms of their installation and completion to encourage this gets done.

*(Chair Case asked Commissioner Katayama if the new language is acceptable. Commissioner Katayama agreed)*

Commissioner Buck – thanked Commissioner Hannahs and Deputy Manuel; supports recommended amendments.

Mr. Chipchase – I certainly can support the additions to the recommended work that the Commission wants to see from MPL; that's consistent with what I offer and what our intent is. I'm insecure about the revision that states that the recommendation is full restoration

because I don't know whether that is possible, phased or otherwise in a way that meets both our needs and DHHL's reservation. With respect, that portion of revised recommendation is not something to which we could agree today. In any event there may be a way to phrase it that would be less concerning to me, based on what we don't know, but as drafted, it's not a revision that at least we could accept.

Chair Case – informed Mr. Chipchase that it's not intended as an action today, intended as a statement of intent for the future. We're trying to get the information that will support it.

Commissioner Hannahs – added if in 180 days if Moloka'i Properties feels it can't be done, you have that opportunity to make your case.

Chair Case – were talking about is as a goal, but not a current action.

Mr. Chipchase – yes, something that that makes it effectively inevitable. Whether there's sufficient water available for it or not, it's practical and all other things that the Commission needs to consider or not. Maybe to state it in aspirational basis in language that is consistent with the Water Code, then we could probably support the revised recommendation.

Chair Case – noted in recommendation 1, ...“the Commission recommends a goal of full restoration with a phased approach to gather sufficient information...”

Mr. Chipchase – it's close to addressing my concern. The phrase, “if practical” be inserted after “goal”, then I believe we could support the recommendation.

Commissioner Kagawa-Viviani – I object.

Commissioner Buck – that clause which makes the statement... doesn't have any certain finding at all.

Commissioner Kagawa-Viviani – questioned staff's ability to collect that data; we definitely want full participation and to know our staff have the capacity to collect that data in collaboration with MPL.

Deputy Manuel – there's an urgency to commend a commitment to get things done; but have tons of priorities throughout the state. I'm trying to help support staff and prevent them from burning out. I am committed to move this, and I think 180 days is something we can commit to working with all parties, including community, the Ranch, and DHHL to evaluate what full restoration could look like. We can reassess in 180 days, and if we can't get there then and we need more time than we can revisit. The reality is we are limited with resources.

Chair Case – (for recommendation 1)“...to gather sufficient information to evaluate ways to accomplish the goal...” further asked Commissioners and Mr. Chipchase if this language works.

*Commissioner Kagawa-Viviani and Commissioner Meyer agreed*

Commissioner Meyer – suggested to move the implementation to a review in 180 days and have the timeframe for achievement of a solution be one year

Chair Case – asked Mr. Chipchase if he’s in agreement.

Mr. Chipchase – agreed.

Deputy Manuel – asked on bullet point 3

Chair Case – agreed with the edited language of bullet point 3 and noted on gathering as much information as possible and then see where we are in 180 days.

Dr. Strauch – added it might take a few months to a year to for DHHL’s needs to come to fruition; there is an easy way to put the water back that is diverted into the stream immediately, which we could do for 180 days without any consequences. Why don't we start with restoring temporarily East Kawela, while we evaluate the rest of the system and stop at 180 days? We're not making any modifications to the system; it's already designed to return flow from the pipeline. I don't think it will affect any end use.

Commissioner Kagawa-Viviani – asked for clarification on “putting water back into the stream” – full flow or at Q50?

Dr. Strauch – there is a valve on the pipeline that takes the water from the dam to into the transmission line, opening up the valve and letting all the water back into the stream. It's temporary, no structural modifications necessary, very simple short-term solution to restore flow while we evaluate the rest of the system.

Commissioner Kagawa-Viviani – asked if there’s any more comment from Moloka‘i No Ka Heke?

Mr. Cleveland – heartened by the fact that the Commission is seriously considering what we believe to be the most reasonable solution. Acknowledging there isn't as much data as would be preferred and understand the desire to collect more data. Numbers pointed out earlier, were numbers of what MPL provided to CWRM staff.

Certainly, we would prefer to get this done as soon as practicable so, the Commission needs to consider that as a practical alternative. We would prefer not to have an entire year be required to do this and if the next 6 months all of MPL needs can be met with the water from Hanalilolilo and that DHHL doesn't need yet and open the gates on Kawela for 6 months, we would support that, come back in 6-months and continue to push for full restoration and removal of the dam.

Commissioner Kagawa-Viviani – asked if its consistent with DHHL’s understanding.

Dr. Scheuer – yes

Commissioner Buck – thanked Ayrton and suggested a sentence to implementation “...that staff has the discretion to allow increased flow to Kawela Stream during this 180-day review period...”

*Chairperson Case asked Commissioner Meyer on the agreement of the language*

Commissioner Meyer – agreed and noted we want to establish restoration within a year.

*Commissioner Buck noted that the 180 days will have the ability to evaluate data collected and make that determination.*

*Chairperson Case asked Commissioner Katayama if the language is agreeable. Commissioner Katayama agreed it is.*

*Deputy Manuel re-read and confirmed amended language on the recommendations. Being there were no objections, Chair Case called for a motion.*

**041922 04:51:01**

**MOTION: (MEYER/KATAYAMA)  
To approve C-2 with recommended amendments.  
UNANIMOUSLY APPROVED**

RECESS: 2:02 PM

RECONVENE: 2:07 PM

**041922 05:07:24**

**C. ACTION ITEMS**

**3. Approval of Surface Water Reservation of 6.0914 Million Gallons per Day for the Department of Hawaiian Home Lands and Amend the Interim Instream Flow Standards for Waikolu Stream for the Surface Water Hydrologic Unit of Waikolu (4003), Moloka'i**

PRESENTATION GIVEN BY: Dr. Ayron Strauch, CWRM Stream Protection & Management Branch

Dr. Strauch stated the summary of request and gave a presentation. The reservation is based on the State Water Projects Plan appropriated by the Commission back in 2017 and the amended Interim Instream Flow Standard as proposed in the March meeting remains the same. We're recommending that the modifications to the water use permit for Department of Agriculture (DOA) be addressed at a later commission date.

The proposed action is that the water for DHHL non-potable water will be reserved by one action and then a portion of that reservation will be met by the Mountain Water System by a second action. There's specific language in the submittal where DHHL and Moloka'i Properties have agreed upon to work through what that agreement would look like.

*(shared screen of page 23 (map) of submittal and briefly noted the gaging monitoring stations).*

## QUESTIONS/COMMENTS

Commissioner Buck – asked if we're locked in for the IIFS for Waikolu Stream or is there flexibility?

Dr. Strauch – Waikolu is operated by the DOA and the primary source is dam 1 (*showed pic of dam 1 and its continuous wetted path noting native species that continues to migrate because of the wetted path*). The DOA manages the MIS system to keep the reservoir full so there's sufficient water to meet all of the metered end uses off of their system.

Legally, 2/3 of the water is delivered to DHHL. There's no way to extract more surface water out of Waikolu. I'd be very concerned about trying to pump more from Wells 23 and 24 because they have a direct effect on this stream but Wells 5 and 6 are not utilized as much and haven't been pumped since 2016. The gravity fed portions of the system meet the existing needs. Wells 5 and 6 could meet DHHL end uses but dependent on agreement between DOA and DHHL. There's potentially additional groundwater that could be utilized especially during drier periods.

Commissioner Buck – we just want to be as comprehensive and holistic for the whole system.

**041922 05:14:34**

## PUBLIC TESTIMONY

Dr. Jonathan Scheuer, for Dept. of Hawaiian Home Lands

- available for questions Commissioners may have regarding DHHL needs
- supportive of staff's recommendations

Mr. Mahesh Cleveland, Earthjustice for Moloka'i No Ka Heke

- stand on written testimony submitted
- available for questions Commissioners may have

Mr. Cal Chipchase, Counsel for Moloka'i Properties, Ltd.

- Agree with staff's recommendation as it reflects language that was worked out with staff (MPL & DHHL)

*(end of public testimony)*

Deputy Manuel – thanked all parties for their commitment and working collaboratively to reach an agreement in moving forward; also thanked CWRM staff for their hard work.

Chair Case – also thanked everyone for their commitment and work on this.



041922 05:16:37

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

041922 05:17:38

**C. ACTION ITEMS**

- 4. Approve Temporary Relief for a Period of 60 days from the Interim Instream Flow Standard for Kaua‘ula Stream, Kaua‘ula Stream, Lahaina, Maui, to Provide for the Continued Diversion of 300,000 Gallons Per Day During Low-Flow Conditions to Kuleana Users and Kamehameha School Tenants Whose Sole Source of Water is Kaua‘ula Stream**

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

Mr. Uyeno stated the summary of request and noted this stems from the March 31, 2022, issue of a Notice of Alleged Violation to Launiupoko Irrigation Company (LIC). A brief background of the timeline was noted and explained.

Staff stands on its submittal and recommendations.

**QUESTIONS/COMMENTS**

Chair Case – asked what happens to the instream flow with this recommendation. -Is there water in the stream?

Mr. Uyeno – our goal is to set the IIFS less than 300,000 gpd; dependent on the natural stream flows that are being currently measured by the USGS gage

Chair Case – what happens if there’s not much water?

Mr. Uyeno – there should be enough to meet the 300,000 gpd and the remainder should continue to flow downstream. There’s a gage below the diversion we can track as well.

Chair Case – is the 300,000 a diversion?

Mr. Uyeno – it’s going into the ditch to meet the needs of the kuleana tenants, the Kamehameha Schools lessee’s.

Chair Case – regarding stream life, under this proposed scenario is there a small amount of water that does not stay in the stream?

Dr. Strauch – The USGS has been monitoring Kaua‘ula Stream since June 2020, as part of

our statewide monitoring needs. We are confident there will be sufficient water to meet the 300,000 gallons of off stream needs while keeping at least a couple million gallons per day in the stream.

Will the modification to the IIFS temporarily affect biota? The IIFS has not been met much of the last 2 years, but we are working on developing an IIFS that protects all public trust uses, including the stream. We know that stream life has a priority and are ensuring there's sufficient flow

**041922 05:23:29**

### PUBLIC TESTIMONY

#### Mr. Glenn Tremble, Launiupoko Irrigation Co.

- LIC is a public utility that provides and serves about 400 agricultural users with non-potable water in West Maui.
- Submitted written testimony which supports a temporary relief action proposed for the IIFS.
- Challenges to implementing the IIFS: complexity and challenges of the terrain combined with the original design adapted and modified to function as a pressurized distribution system; plantation era system over 100-yrs old which incorporates a hydroelectric plant that supplied the first electrical power to Lahaina.
- Diverted water supplied reservoirs which then supplied hundreds of acres of water,
- System could divert 100% of stream flow from 2-30 million gallons without daily adjustments at the intake – important as it's a remote location with difficulty to make minor adjustments to the daily flows. The excursion to the intake requires a 3-hour round trip in rugged terrain.
- After sugar cane ended, modifications were made by tapping into the pipes that were utilized for the hydro plant which now adapted to serve (3) kuleana and Kamehameha Schools' (KS) tenants on the north side of the stream.
- Kuleanas and KS rely on 100% of constant flow; there's no reservoirs to hold future water supply during low flows; they have priority over the other 400 users that's located on the south side of the valley.
- Part of this system functions very poorly when the diverted flows are low; it's challenging to balance small, precise amounts to meet the IIFS flows.
- Daily monitoring for 2-1/2 weeks; rained often during this period and still barely received water into the reservoirs.
- Cannot afford the burden of this effort without any beneficial amounts, making it to the reservoirs.
- Propose a revision to approve the temporary relief for a period in next 60 days; allow to again look at the adaptive management strategy that was originally offered by CWRM; it will allow a stakeholder meeting and revisit the system to see any challenges in operating and delivering water.
- Propose temporary suspension of IIFS and would continue to release at the intake a minimum of 1,000,000 gallons a day, and another 1.2 at the siphon release below the hydro.
- If not enough water to meet the kuleana and tenants needs, can divert and release

more water at the siphon. Allowing all parties including the remaining 400 customers to receive water.

- Dire situation with competing uses; (2) recent incidents of tampering created water loss; proposed relief period would also allow time for PUC rate case.
- Encourage Commission support to LIC's revision.

## QUESTIONS

Commissioner Buck – asked how long Mr. Tremble has been in operation at LIC.

Mr. Tremble – 19 years.

Commissioner Buck – asked during this time if he was aware of the State Water Code and IIFS requirements.

Mr. Tremble – aware of the Water Code but no standard set (IIFS) at the time.

Commissioner Buck – understands situation however inherited a system with presumed assumptions of how the water might be used. It's an ongoing issue with delivery systems and now the law requires you to fulfill certain obligations. Are you in support of the recommendations?

Mr. Tremble – no; not as its written. We need the modification to make it worthwhile to endure the burden of going up to the intake periodically to make the adjustments necessary to get water to all users.

Commissioner Buck – asked for a brief description of experience in working with the PUC as well as satisfying the Water Code.

Mr. Tremble – it's been a frustrating and very lengthy, expensive process to get a rate. We hadn't gone for a rate change in the 18 years. Applied for an emergency rate to allow to pump water because the costs are 3 to 4 times the amount just to pump to these elevations on the West Maui Mountains. In our efforts, we're told to treat all our customers equally and fairly.

We can't focus all our energy on 4 customers, 3 of which don't pay anything, and the other is the only bulk user in our system that pays a reduced fee. Financially it doesn't make sense for us to work to where we get no water that can be used and sold to the people that need it on the South.

We have it as a business operation and we're reliant on using our resources as best we can, which is the manpower and would appreciate the time that would be needed. We're hoping the PUC approves the rate so we can pump and be less reliant on the stream water and hope for the Commission's support for this PUC request.

Commissioner Buck – is all your costs the delivery and storage of water? You are not being charged for the water at all?

Mr. Tremble – correct.

Commissioner Meyer – is there any solution given that you need a sustainable volume within a high elevation – would tanks help?

Mr. Tremble – haven't looked into that as the system was designed to drop water for a hydro plant. This would allow other people to understand the system if we had a stakeholders meeting as we do have high-level reservoirs that provide pressurized water for 98% of the customers, it's a few on the north side that do not.

Commissioner Katayama – in figure 1, looking at the forebay and the penstock, what's the current flows in the stream?

Mr. Tremble – 7.3 cfs above the diversion

Commissioner Katayama – clarified 4.5 mgd

Mr. Tremble – yes

Commissioner Katayama – is there a tunnel near the KS diversified Ag project?

Mr. Tremble – no; there is a siphon pipe that hasn't been used in the 20 years we've been involved with the property, that services KS. Once it gets to KS, the piping is in disrepair. They currently receive their water after the hydro plant through a smaller tunnel system that has a concrete channel with a pipe.

Commissioner Katayama – whatever is not piped to them is returned back to the stream?

Mr. Tremble – *(further explained the system from the point of delivery to KS and kuleanas – there's a second release which Mr. Charlie Palakiko receives his water, which also enables water to get to the reservoirs on the South side through the same siphon)*

Commissioner Katayama – what is the power from the hydro plant used for?

Mr. Tremble – taken out of service once the IIFS established; prior to the ruling, that kept the water in the stream. It was retrofitted with \$2 million worth of modifications for the green energy initiative of the State but, without base flow it can't function. It was powering the grid for Maui Electric and had its own PUC tariff and powered potable water pumps at night to keep costs low and keep the hydro running.

Commissioner Katayama – is the power plant still active?

Mr. Tremble – inactive.

Commissioner Katayama – asked on the siphon water amount.

Mr. Tremble – the intake release is 3.6, the siphon release 0.5 mgd but supposed to make 4.1 below and that eliminates all the water.

Commissioner Hannahs – acknowledged and disclosed KS is a former employer in which the relationship terminated over 6 years ago. Prepared to act without conflict on these issues. And asked (Mr. Tremble) is there a relationship between Launiupoko Irrigation and the company that is developing the lots you serve?

Mr. Tremble – there was 3 different partnerships involved in the establishment of the agricultural subdivisions on the south side of the stream, with related parties in the same entity but not all the same partners. When Makila Land setup the Irrigation Company, the land was purchased around 2000.

Commissioner Hannahs – so your resources are straining given the demands of your market.

Mr. Tremble – with the implementation of the IIFS, yes; and the PUC not allowing us to recover rates for pumping.

Commissioner Hannahs – are those lots still in development?

Mr. Tremble – no, those lots were finalized five or six years ago

Commissioner Hannahs – it is it fully developed and now you need to meet those demands?

Mr. Tremble – there's sold lots that are undeveloped; so, we do expect more demand. There is a permit for a second irrigation well on the South side. Also installed pumps on the north side of the stream, the A&B facility that was once used to irrigate those same lands.

Commissioner Hannahs – I understand the stresses upon the resource, but as you're building those lots, we're put in a position where we want to meet those needs but it's the stream that makes the sacrifice. Trying to understand how well thought out the water needs for those lots were created when you decided to place them on the system when the resource is quite limited. It seems like a problem of your own creation.

Mr. Peter Martin, Launiupoko Irrigation Co. – that is incorrect; we have a system that was well thought through. We were using the water from the stream and we have plenty of source for all the users through pumping. We'd prefer that with all these rules, we don't use any water from the stream but just use pumped water.

The A&B skimming well that's almost at sea level which pumped roughly 9 mgd to provide water to the sugar crops and were able to handle it well. We could too if PUC grants us the rate and have awaited two-years on that and don't know what else to do. I received a letter from Dominic Pistillo, a farmer of 19-years (*read a portion of a letter from Mr. Pistillo stating the farmers are in need of non-potable water*)

As Glenn (Mr. Tremble) suggested, that we meet and study the system. Currently, it does not make sense under these rules. We have a hydro plant and once the IIFS standard was set, we threw our \$2 million out, which is not very "green" (not utilizing the hydro). We just need the PUC to grant us rate for the pumping, then everything works fine.

Commissioner Hannahs – thanks for the clarification. Do you have any estimate from PUC?

Mr. Martin – no, and it's exhausting.

Mr. Tremble – we did receive an order yesterday from the PUC. We have till May 2<sup>nd</sup> to reply but haven't looked at it thoroughly because of the Commission meeting today. We're hoping for an action soon; for the benefit of all the users, if you could approve this action for us to have adaptive management, we would gladly report more to CWRM more frequently. I've communicated with Deputy Manuel regularly and want to see the success of keeping the streamflow in the stream and the ability to deliver water to the customers as we wait to get approval from PUC.

PUBLIC TESTIMONY (CONT'D)

Mr. Ke'eaumoku Kapu

- Kuleana farmer of Kaua'ula; 1 of 3 individual representatives of Kuleana Paepae LLC: self, Ku'ulei Palakiko, Yolanda Dizon that petitioned to hear plea.
- Request for immediate remedy in the misuse of our water; verge of being cut-off and see intent to harm 'ohana.
- Demand CWRM to stop LIC with tampering of water line.
- In 2003, Kuleana families and landowner/companies mitigated process in the spirit of cooperation and agree to resolve access and water issues; setup a joint working group to resolve standing issues; temporarily suspend pending legal actions while issues are resolved.
- June 5, 2003, agreement made between Kuleana Paepae LLC, Makila Land Company, Kaua'ula Land Company, and Launiupoko Associates; noting that Makila Land will upgrade the existing non-potable system and continue to deliver water diverted from Kaua'ula Stream for use by Kuleanas. – agreement signed by Mr. Peter Martin, owner of all (3) companies with witness signatories.
- The settlement agreement has been breached; request the suggested amount of 300,000 gpd be placed back in the system until agreement of an actual amount by a separate system for the Kuleanas and KS properties.
- CWRM's responsibility is to regulate the water's use.
- LIC shows incompetence of its own system; should be stripped of their utility license
- 'Ohana and crops are solely dependent on the water delivery and source; waterways controlled by private interests for too long.
- Issue is long overdue to be resolved.
- 'Ohana supports the IIFS and the ground and surface water designation.
- LIC spent millions on dysfunctional system; abuse of natural resource; LIC trying to recover costs through PUC rate; insufficient gaging, monitoring reporting, and regulation of its system; resource will be depleted sooner than expected.
- Kuleana users and Kamehameha Schools has perpetual easement rights.

Mr. Gunars Valkirs, Maui Kuia Estate Chocolate

- *(read his written testimony submitted)*
- Hope when well is operational will still have a farm to use the water.
- Support the proposed action to temporarily suspend the IIFS for Kaua'ula Stream.

Ms. Mahana Keakealani and Mr. Jason Jeremiah, Kamehameha Schools

- Supports good stewardship of water resources and beneficial use of agriculture.
- Working with all parties, including the staff, for a reasonable solution.
- Respect Kuleana owners (rights).
- Continue to work collaboratively on this issue.

Ms. Bianca Isaki, Counsel for Kuleana families

- ‘Auwai in disrepair and misuse.
- Kuleana families have a Supreme Court order recognizing their rights to water; 2003 agreement with LIC to Kuleanas.
- Separately representing Ke‘eaumoku Kapu, Kuleana Kuakahi’s in LIC water rate application with PUC.
- Unanswered questions pertaining to LIC’s operation, service to customers and LIC developments that it plans to service, also regarding landscaping and gentlemen farms.
- LIC to PUC motion for reconsideration of rate – already approved by PUC; but LIC refused order; PUC asked LIC for more information which currently hasn’t been provided.
- Supports the temporary allowance of 300,000 gpd to the kuleana families and KS solely for CWRM to reassess public trust uses; but not to redo adaptive management which further causes water “waste” by LIC.
- Kuleanas have a water waste complaint against LIC that’s submitted before the Commission.

Mr. Kaulana Kapu

- Individually has been monitoring system and LIC almost 20-years.
- Kalo farmer in Kaua‘ula Valley.
- Noticed mismanagement and has lack of confidence in LIC workers as witnessed worker mishaps in system.

## QUESTIONS/COMMENTS

Commissioner Hannahs – (to Mr. Valkirs) is your well ready to be online in July?

Mr. Valkirs – yes, as told by Alpha Inc., the driller. Started drilling yesterday and if no difficulties arise, it will be on schedule.

Commissioner Hannahs – do you support the (staff) recommendation?

Mr. Valkirs – yes, it’s better than nothing though 60-days may not be enough time.

Commissioner Hannahs – (to Dean) have you considered a 90-day timeframe as reasonable, and will the stream be adversely affected if so?

Mr. Uyeno – as Ayron mentioned, the instream flow standard hasn’t been met for several

years and we do hope that the water will continue to flow pass the diversion while providing some water to the Kuleana users and KS lessees. 90-days is reasonable but defer to the Commission's decision.

Mr. Valkirs – given the current drought and 2-years of data by CWRM, it appears 46% of the time the IIFS has not been met and predicting a dry summer. It's the reason I bring up adaptive management as we're in an extreme situation and since 2007, never experienced such a "dry" rainy season and it's reflected in the stream flows. So, when July comes and my well is not ready, and now require the full IIFS be met, however may not be as there won't be much water in the stream and little to no water in the diversion at that time which is a high concern for a number of years.

Commissioner Hannahs – appreciated Mr. Valkirs comments.

### PUBLIC TESTIMONY (CONT'D)

#### Ms. Uilani Kapu

- Resident of Kaua'ula Valley and farmer; lives at "top" of the valley; resided in valley way before LIC has stepped in.
- Was not aware how dire the situation was until there was "no water" at residence.
- In support of staff's recommendation.
- Motion should have been set a long time ago; still too many issues to resolve.
- LIC continue to pose a safety and health risk to those living in the valley because of the lack in receiving water.

#### Mr. Kaipo Kekona

- Affiliated and related to Kuleana 'ohana; user of LIC; wife is lineal descendant of Kaua'ula Valley.
- Farm a 12-acre parcel in Kuia ahupua'a and located adjacent to the chocolate farm.
- LIC system solely provides for the water that the valley depends on for basic needs and farming; Kuleana families are not attached to any well systems that LIC proposes.
- Process of exploring well options but is not a guarantee a well could sustain given the natural environment of the valley.
- USGS study reflects the aquifer area is at 70% of its sustainable yield capacity.
- Maintain that stream flow restoration is the best long-term approach to replenish the resource known to Lahaina.
- In favor of staff's recommendation.
- Continuously monitored system over the past 2-weeks.
- No confidence in LIC management of its system.
- Experiencing crop loss; need different solutions for its different users.

*(end of public testimony)*

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Commissioner Hannahs – motioned to adopt staff’s recommendation with an amendment to change the period from 60 to 90-days.

Commissioner Buck – support the motion and commented this is not first time we’ll see this issue especially due to a historic water delivery system, no level of investment, and over allocation of water. IIFS is real and law and adaptive management is not a simple solution but may support it at this point.

**MOTION: (HANNAHS/BUCK)  
To approve C-4 as with amendment.  
UNANIMOUSLY APPROVED**

RECESS: 3:25 PM

RECONVENE: 3:33 PM

**041922 06:33:45**

*(Chairperson Case exited meeting and Commissioner Hannahs presided as Chair)*

**D. RED HILL ITEMS**

**1. Presentation by Commission Staff on Status of Red Hill Groundwater Monitoring Well Construction Permits and Water Shortage Planning for Pearl Harbor and Honolulu Aquifer Sector Areas**

Deputy Manuel introduced the item and informed that item D-3 will be deferred.

*(Commissioner Hannahs apologized for the delay in start time of Red Hill items)*

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

Mr. Imata provided an update on the Red Hill monitoring Well Program. CWRM has participated in site selections for future wells in addition to formulating standard conditions for field contingencies. Also working with the Navy, DOH and EPA in regard to the future wells. There’s ongoing construction of Red Hill Monitor Well 17 (*shared screen of the map location of the well*). Roughly 3-weeks ago, (9) well permits were issued with the okay given by SHPD of FONSI concurrence for the final well permits which construction has begun. For the Navy, having smaller diameter Wells allowed them to have a broader range of contractors to do the work.

During this Commission meeting, Mr. Imata, and Mr. Dan Dennison, DLNR, PIO received approval to observe the construction of the wells. Once those are cleared by the Navy, a presentation at next month's meeting of the construction observations can be shared.

We are preparing for the Fuel Tank Advisory Committee [FTAC] meeting.

QUESTIONS/COMMENTS

Commissioner Hannahs – asked on the deadline for defueling and decommissioning

Mr. Imata – sorry, haven't heard the timeline yet.

Commissioner Kagawa-Viviani – are all those approved wells on Navy property?

Mr. Imata – yes

Commissioner Kagawa-Viviani – what's the progress on the other wells beyond the Navy property

Mr. Imata – the Navy and its consultants are in the process of talking to the landowners to get permission to drill on those properties but haven't heard of any approvals so far of permission to apply for permits outside their properties.

Commissioner Kagawa-Viviani – nothing landed on your desk?

Mr. Imata – certainly not the applications, but first thing is to be working with the landowners for their permission.

Commissioner Katayama – did UH get their grant from the Navy for the water quality testing?

Mr. Imata – deferred to Commissioner Kagawa-Viviani

Commissioner Kagawa-Viviani – asked for clarification.

Commissioner Katayama – there was a presentation by UH 2-months ago to do a water quality analysis.

Commissioner Kagawa-Viviani – from what I know, UH does have funding and equipment coming in this month or next. There has been existing screening, but in terms of protocols, that would be requested by DOH. The ability to do the EPA analyses is not there yet as awaiting on equipment.

Commissioner Katayama – for timing purposes it would be ideal as the test wells are now in place.

Commissioner Kagawa-Viviani – can share informally there are people who have expertise in optical methods that would allow for continuous in-situ monitoring; it's not specific and not a proven method.

Commissioner Katayama – and funded by the Navy?

Commissioner Kagawa-Viviani – yes

*(Commissioner Hannahs noted that BWS was present in the Boardroom at the meeting and invited BWS to chime in on the conversation)*

Commissioner Buck – noted that BWS is eager to have the monitoring wells around the Navy property; need confidence for the fuller aquifer remediation and that level of confidence the BWS needs to “open” up. The current onsite debate is the oil flowing north, south, east, or west? The East-West migration of oil is a big issue (asked Ryan) – is the Aquifer Remediation group still meeting?

Mr. Imata – the larger aquifer recovery group is not meeting; its being done in favor of a smaller working group to discuss selecting specific future monitor well sites. Patrick of CWRM has been representing your request to have a well between the facility and or between the fuel tank farm and Halawa Shaft give some confidence to BWS to open Halawa Shaft *(shared screen of the map locations of the monitor wells and explained the locations)*. The Commission’s request has been shared with the Advisory Group and CWRM has given it priority.

Commissioner Buck – is Patrick representing the smaller group?

Mr. Imata – it’s me, Patrick and Bob Chenet and also with subject-matter experts, Don Thomas and Bob Whittier of DOH in formulating strategies of where we want to see the monitor wells.

Commissioner Buck – is there a rep from Honolulu Board of Water Supply (BWS)?

Mr. Imata – Irwin of BWS.

Mr. Ernie Lau, BWS – acknowledged Irwin was not in meeting but he, Mr. Barry Usagawa and Ms. Kathy Mitchell were present (at the boardroom meeting location). Acknowledged BWS has been invited to participate in the smaller working group with EPA and DOH with the process in its early stages. They retained a facilitator and Joanna (Ms. Seto, DOH) can confer with what DOH is doing.

Regarding early discussions on monitoring wells outside of Navy property which we are pursuing that’s in Halawa Valley.

*Commissioner Hannahs asked for Ms. Seto’s comments*

Commissioner Seto – we are working with smaller group of people with our facilitator to get it moving quicker.

Commissioner Kagawa-Viviani – was not aware of the of the FTAC upcoming meeting. Attended that October 28, 2021, meeting and asked if someone from the P.I.G. would be able to attend?

Mr. Imata – met with the facilitator last Friday, on spoke on issues of what CWRM felt was of importance.

Commissioner Kagawa-Viviani – I needed to reschedule that.

Mr. Imata – the facilitator will reach out to you with an invite to attend. The priority for discussion is on FTAC members and I believe someone from the P.I.G. can attend.

Commissioner Seto – informed the next FTAC meeting was set for May 13<sup>th</sup>, 9a-Noon

**041922 06:50:52**

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

Mr. Fujii presented a PowerPoint on the Water Shortage Plan for the Pearl Harbor and Honolulu Aquifer Sector Areas to assess whether there's a water shortage in Pearl Harbor and on the development of a Honolulu Water Shortage Plan. The PHWSP was adopted by the Commission on August 18, 2020. It covers the Makaiwa, 'Ewa-Kunia, Waipahu-Waiawa and Waimalu aquifer system areas with (2) monitoring wells in each aquifer area.

The PHWSP consists of (3) stages of drought with defined triggers and specific actions to take at each stage level.

Commissioner Buck – asked in the plan and with the climate situation, some of those triggers are issues on water qualities impacting water quantity and the availability of safe water, are you comfortable with that?

Mr. Fujii – as it's written as it's approved by the Commission, we are lacking (triggers for) the water quality or the hazardous material release. We are dealing with the drought or precipitation related water shortage rather than a problem with the source of contamination.

Commissioner Buck – can the PHWSP be utilized for the current situation at Red Hill?

Mr. Fujii – yes

Commissioner Kagawa-Viviani – there's been dialogue during P.I.G. meetings which I've been in dialogue with Planning Branch on ways to understand and deal with this.

*(continued presentation)*

The table of the Water Use Permit Classification Systems were shown which notes the (3) priority levels with also the percentage of cutbacks to each priority. The PHWSP stage-1 drought triggers were highlighted and the graph table of the CWRM monitor wells with its water levels were noted on. The graph of the 12-month pumpage moving average of the Pearl Harbor Aquifer Sector withdrawals were briefed which also compares with the Honolulu Board of Water Supply's Index Wells data information.

The current US drought monitor conditions table were highlighted noting its current dry/drought conditions. Based on data and established PHWSP triggers, no water shortage exists in Pearl Harbor at this time however CWRM and HBWS are calling for water conservation due to the dry climate due to less rains. The Commission may modify permits to address a water shortage as necessary.

The PHWSP can be updated in conjunction with Department of Health. Commonly the Hazard Evaluation and Emergency Response (HEER) office and County/Hazmat Fire Department will determine if an emergency exists. In some cases, other jurisdictions may make that determination.

Commissioner Kagawa-Viviani – what conversations have you have with DOH on the inclusion of other triggers?

Mr. Fujii – none from our planning side.

Mr. Imata – none from groundwater either.

Commissioner Buck – the definition of emergency in the Water Code is very broad. In 174C--62 states authorities we can use in case of an emergency and working along with DOH. This is a narrow interpretation of the authority that the Commission has especially with Red Hill. I would encourage the Commissioners to look at the definition of emergency in the Water Code, declaration of a Water Shortage.

Commissioner Hannahs – it's one element and variable; then there's sustainable and available yield which is much less than sustainable yield as wells were taken offline. How do we start tracking that?

Mr. Fujii – we're tracking it; we receive pumping reports and monitor water levels and do coordination with BWS on sources, duration and stress levels of the aquifers. I believe the purpose of the Permitted Interaction Group is to look at different options, facts and analysis to figure out what's possible, necessary and legal.

Commissioner Kagawa-Viviani – as an unpaid Commissioner, we don't have access to the data that's required to make an informed decision and rely on staff to provide that. We can also help access that if it's reliant on other initial sources of information.

Commissioner Meyer – I feel the code gives us a lot of latitude. It may not specify penalties you normally see in a penal code, but it certainly provides the Commission certain power and authority to take action in emergency conditions but may need some legal interpretation and assistance. Certainly, with the Red Hill situation the code can give us some ammunition to protect the public and the drinking water resource.

Commissioner Kagawa-Viviani – you mentioned we don't have jurisdiction over federal areas, I'm not sure that's supported in the code or in law but know the EPA delegates responsibility for stewarding resources to the States.

Commissioner Meyer – flip side is if we don't exercise that authority, we're not doing our job.

Mr. Imata – it's our responsibility to give you the best information to help make your decisions. We have a good handle on what's happening in Pearl Harbor on data we have with respect to the midpoint of the transition zone water levels. We have a well next to Halawa Shaft which the Navy is increasing their reliance on especially as BWS shut down its Halawa Shaft source.

As for Honolulu, we're working with BWS to collect data from their deep monitor well as CWRM does not have DMW in Honolulu and believe there's going to be increased reliance on Honolulu and provide that data to you to implement certain parts of the code and maybe declare an emergency (*explained the deep monitor well data with respect to pumping, water levels and salinity*) Currently not actively monitoring water levels and salinity in Honolulu but have some data in the water use reporting.

Commissioner Hannahs – seems you're saying we don't have an emergency by virtue of drought. We're not seeing in the report is whether or not we can actually use all the water that you see. Where are we in seeing emergency declaration triggers if we're just looking at drought, we need another data point. That plan needs to be updated to include water quantity and contamination component

Commissioner Meyer – you're on point; what actions might be appropriate and necessary going forward?

Commissioner Hannahs – when do we start to see this data routinely reported so we can monitor and make decisions?

Mr. Imata – if you're asking us to provide water quality data that would drive a water shortage plan, we don't have the expertise to analyze water quality; that's with Department of Health but understands the Commission's position that you have jurisdiction over water quality but can't provide you the data to establish a shortage plan for Pearl Harbor. There are systems offline as a result of contamination.

The Waimalu sector has no available water as BWS doesn't want to migrate the plume toward Halawa Shaft. Is there a shortage? I'd say yes but BWS has shifted their pumpage to other areas. I'm not a 100% sure that the implementation of a shortage plan will solve any particular problems.

The Navy has pumped Red Hill to create a capture zone and areas, or concern should be looking at where the Navy and BWS increased their reliance on and ensuring good stewardship in groundwater to protect the aquifer. I see the problem as shifting reliance on other areas and should pay attention to those.

Deputy Manuel – appreciated the conversation and noted on DOH's upcoming presentation that'll be more on water quality and contamination and asked (Mr. Fujii) to wrap up on the next steps of the process.

Commissioner Hannahs – agreed.

Mr. Fujii – (to Commissioner Hannahs) I understand your concern and your need for more information and that it's not necessarily a sustainable yield, but available yield matter and more coordination is needed with the big water users as BWS and the military in regard to both Honolulu and Pearl Harbor. In a future meeting, we can provide updates on better coordinating and planning for meeting future demands due to the contamination.

*Chairperson Case called upon the next agenda item*

041922 07:26:43

**D. RED HILL ITEMS**

**2. Update by Department of Health on Red Hill Mitigation and Remediation Efforts**

Commissioner Seto of Dept. of Health introduced the item and noted as of today, due to pending litigation can only take written questions. If you could please type your questions and email them to Kaleo (Deputy Manuel) or Ryan (of CWRM) to send to DOH for response.

PRESENTATION GIVEN BY: Ms. Fenix Grange, Dept. of Health, Hazard Evaluation & Emergency Response

The DOH issue of various directives, orders and plans were briefed on relating to its Emergency Order, flushing requirements, Notice of Violation and Order, Administrative Order on Consent relating to remediation. The Navy led the effort in the implementation of the Red Hill Shaft Recovery and Monitoring Plan noting the importance of establishing a capture zone early on. A map of the Navy monitoring wells was noted as well as the proposed additional groundwater monitoring wells in the area working along with CWRM, BWS and USGS on issues with examining the water system areas and identify priorities.

DOH is doing a lot of data analysis of all samples received which is also posted upon DOH website. The Navy is providing weekly data to DOH. A big question posed is, what kind of data do we need going forward? CWRM, USGS and BWS helped to provide lots of technical perspectives we haven't considered before which turned to be very helpful in our decision making.

Moving forward with planning to figure out how we can accomplish additional work in the next few months as this is a really important time, while the contamination may still be contained.

PRESENTATION GIVEN BY: Commissioner Seto, for Dept. of Health

The Red Hill Shaft remediation efforts are listed in Section 6 of the Red Hill Shaft Recovery and Monitoring Plan. We've required the Navy to provide DOH with a beneficial use of water study as well as a Pearl Harbor Water Resources Management Plan. The Navy informed that the Beneficial Reuse Study for the GAC effluent is wrapping up but due to uncertain duration of the availability of the GAC effluent... a solution ... could not be found. The contractor is now preparing the draft summary report for the effort, detailing identified demand areas and potential users, evaluated on base non-potable demands, potential transmission corridors, aquifer recharge and cooperative opportunities with the Board of Water Supply non-potable line in the area and a stakeholder outreach meeting was held in early March as part of that effort. For the Pearl Harbor Water Resources Management Plan, an initial contractor award been made with the task to develop a scope of work and plan of

action with milestones for the overall project.

There are water resources impact offsets that were written into the plan to be developed respecting the Hawaii Water Plan and State Water Code which are reflected in the State Water Resource Protection Plan. The overall goal of the Pearl Harbor Water Resources Management Plan will be to find at least 20,000,000 gallons per day to implement water balance solutions in the areas of conservation, water reuse, enhanced recharge, source protection and production capacity expansion. Developed offset requirements with Commission input back in December.

For water reuse, the Navy is implementing wastewater reclamation projects at the Navy wastewater treatment plant or collection system lift stations as well as gray water systems. The Navy or other Department of Defense entity shall support and create efforts to begin meeting the goal of producing the 20,000,000 gallons per day and implement balance solutions with priority as restoration and increase future drinking water from the Red Hill Shaft through funding and implementation of drinking water creation projects.

The Navy agreed to submit Readiness and Environmental Protection Integration (REPI) program projects specific to addressing the water security for the aquifers in Pearl Harbor. Its drinking water, conservation, and efficiency efforts to reduce the stress on Waiawa Shaft, the Navy is looking to upgrade its wastewater treatment plant and distribution system to produce R-1 water, replace all irrigation and non-potable water uses with treated wastewater, expand water meter program to ensure conservation methods are effective, conduct annual water audit no later than March 31<sup>st</sup>, and submit all delinquent water audit reports.

*shared contact information page and continued presentation on the Navy drinking water system*

As of March 18, 2022, all zones including the Manana Housing had advisory amended but not lifted and note water in the 19 zones are safe to consume (*explained the zone areas and the current advisories for the surrounding Red Hill/Halawa areas*). The Department of Health is awaiting additional lines of evidence from the Navy regarding some non-residential areas of the distribution system as well as a long-term monitoring plan to be approved by the the public water systems for Joint Base Pearl Harbor Hickam and the Aliamanu Military Reservation as well as the EPA (*shared headlines posted from the Navy, contact information of DOH Safe Drinking Branch, and noted the number of complaints received through DOH and the Navy*).

## QUESTIONS/COMMENTS

Commissioner Buck – what would you recommend the role for the Water Commission for the future regarding enforceable mechanisms for long-term aquifer recovery and remediation?

Commissioner Seto – we're doing great in having the Permitted Interaction Group and CWRM joining in discussions with the Navy and EPA is helpful. We're gathering as much subject matter experts as possible to help develop and implement processes going forward in order to ensure that we have the safe drinking water and maintain our groundwater quality.



Commissioner Buck – noted the deferral of item D-3

Deputy Manuel – thanked and appreciated the commissioners for their work on the Red Hill matters and proud of their efforts to find balance with a very complicated water resource management issue in Hawai‘i, and for the community and everyone’s time and participation in today’s meeting.

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

May 17, 2022 (Tuesday)

June 14, 2022 (Tuesday)

This meeting adjourned at 4:51 p.m.

Respectfully submitted,



RAE ANN HYATT  
Commission Secretary

OLA IKA WAI:



M. KALEO MANUEL  
Deputy Director

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