

MINUTES  
FOR THE MEETING OF  
THE COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: May 16, 2023  
TIME: 9:00 am  
PLACE: Online via Zoom and In person  
Meeting ID: 824 3640 0223

Chairperson Chang called the meeting of the Commission on Water Resource Management to order at 9:06 a.m. and stated it is a hybrid meeting being held in the Kalanimoku Building boardroom, remotely via Zoom and live-streamed via YouTube. It was noted that people may testify via the information provided online. Chairperson Chang reminded the public not to use the chat feature for any comments as it presents a Sunshine Law issue. Chairperson Chang read the standard contested case statement and took a roll call of Commissioners as well as introduced the Commission staff.

**MEMBERS:** Chairperson Dawn Chang, Ms. Joanna Seto, Ms. Kathleen Ho, Mr. Michael Buck, Mr. Neil Hannahs, Dr. Aurora Kagawa-Viviani, Mr. Wayne Katayama, Mr. Paul Meyer

**COUNSEL:** Mr. Julie China

**STAFF:** Deputy M. Kaleo Manuel, Ms. Nadine Pomroy, Dr. Ayron Strauch, Mr. Dean Uyeno, Ms. Katie Roth, Mr. Ryan Imata, Mr. Barrett Won

**OTHERS:** Ken Kawahara Akinaka & Associates, Roy Hardy Akinaka & Associates, Mr. Mark Vaught, East Maui Irrigation,

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

**051623:00:6:39**

**A. APPROVAL OF MINUTES**

April 18, 2023

PUBLIC TESTIMONY – None

Commissioner Kagawa-Viviani minor edits (technical)

**MOTION: (HANNAHS/BUCK)**

**To approve April 18, 2023, minutes subject to the proposed amendments by  
Commissioner Kagawa-Viviani**

**UNANIMOUSLY APPROVED**

**(BUCK/HANNAHS/KAGAWA-VIVIANI/KATAYAMA/MEYER/SETO/CHANG)**

**051623 00:08:22**

**B. ACTION ITEMS**

**1. Approval of Stream Diversion Works Permit Application (SDWP.5990.6) and Special Conditions, East Maui Irrigation Company, LLC, Modification of Diversion Nos. 215, 185, 308, 196, 194 to Fix Leaks and Provide Habitat Connectivity; Ho‘olawa, Kailua, ‘O‘opuola, and Ka‘aiea Streams, Maui; Tax Map Key(s): (2) 1-1-001:042; 2-9-014:035; and 2-9-014:007; and**

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**Declare that Project is Exempt from Environmental Assessment Requirements under Hawaii Revised Statutes Chapter 343, and Hawaii Administrative Rules Chapter 11-200.1**

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

Mr. Uyeno read the summary of request as submitted and stated that staff stands on its submittal. Mr. Uyeno then read the staff’s recommendations.

QUESTIONS/COMMENTS:

Chair Chang: When was the letter to SHPD sent?

Mr. Uyeno: once we receive the application, deem that it's complete, we will forward an acknowledgment letter to the applicant stating that the application has been received and that initiates the review process by the agencies along with that we send a letter back to the applicant regarding our findings on the SHPD finding that no historic sites would be impacted. That letter went out on March 3rd, 2023.

Chair Chang: Are they the only agency that did not submit a response?

Mr. Uyeno: starting on page 9. When we send that acknowledgment letter that also initiates the agency review processes. All the agencies that are listed there also received letters notifying them of the availability of the application on our website. No comments were received from DHHL, Division of Forestry and Wildlife, Land Division, State Parks, Office Hawaiian Affairs, and Army Corps of Engineers, and no public comments were received.

Chair Chang: SHPD is required to provide a concurrence.

Mr. Uyeno: Yes, typically because of their backlog in responding we will receive their comments after the fact or concurrence after the commission’s decision.

Chair Chang: This is almost 2 months to 10 weeks, that’s a long time. I would like them to be more timely because others are waiting for responses.

Mr. Uyeno: I believe they have been getting better. They switched over to a new system. Both agencies and the general public has been getting accustomed on how to use it I think the response times have been gradually increasing

Chair Chang: that is my sense to ask that one week before our meetings if we do not receive a response or a concurrence letter from SHPD. Could you please send them a reminder and ask them if

they could please appear at our commission meeting to explain to us why they haven't provided a timely response.

Commissioner Buck: thank you, Dean, there are some substantial comments from the Sierra Club. Do you care to address any of those now or wait till after their presentation?

Mr. Uyeno: wait till after their presentation.

Commissioner Seto: on page two of the submittal, gallons per day versus million gallons per day bottom of the page. And then on page three. Is there also precipitation for the Ka'aiea stream? And the last one is the Clean Water Branch does have updated standard comments and maybe in the future can refer to that one. We're looking at the possibility of a water quality certification requirement for these diversions and work in streams.

Mr. Uyeno: and if I'm not mistaken that is subject to Army Corps?

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Commissioner Seto: yes

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Mr. Uyeno: I believe EMI can answer that better. Whether in that process of getting determination from the Army Corps.

Ken Kawahara, Akinaka & Associates:##

- Representing EMI, the applicant for items B1 and B2 seeking approval of stream diversion works permit for compliance with the Huelo Stream interim in-stream flow standards.
- EMI understands the importance of the Commission's decision and has complied with all permit application deadlines.
- The initial 13 priority permit applications are under staff review, and there are 14 additional modifications not covered in the current hearing.
- EMI's written testimony addresses major policy issues, including the recommendation for the complete removal of some diversions.
- EMI argues that permanent removal is unnecessary since interim in-stream flow standards can change in the future.
- EMI agrees to abandon the use of diversions but opposes the permanent removal of structures, citing unnecessary environmental impacts and potential future reinstatements.
- EMI believes the policy of removing diversion structures should be applied on a case-by-case basis and limited to permanent abandonments.
- The environmental costs of removal, identification of alternatives, and impact on the water system's structural integrity should be assessed.
- EMI suggests a non-uniform policy for every interim in-stream flow standard decision across the state.
- The permits, if approved, are subject to further reviews and potential conditions from other regulatory agencies.
- Additional studies and permitting requirements from county, state, and federal agencies could impact and delay the timeline.

- EMI appreciates the opportunity to comment and is available for questions from the Commission.

Chair Chang: so, are you suggesting that the removal of the stream diversions triggers a Chapter 343 review?#

Ken Kawahara, Akinaka & Associates:#

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- The necessity of permanent removal of the diversion depends on the decision of the commission.
- Suggests that permanent removal is not required to comply with the IIFS.
- Future changes are unpredictable, as exemplified by the repair of the damaged Kohala ditch and potential modifications to water usage standards.
- The legislature has appropriated a large sum of money to try to repair the ditch.
- The University of Hawai'i's initiative to advance local food production emphasizes the importance of water resources for both domestic and agricultural purposes.
- Caution is advised to the commission, emphasizing understanding and compliance with the established IIFS, but questioning the need for permanent removal of the diversion to meet those standards.

Commissioner Buck: this is more a comment from the actual words from our East Maui decision. Our decision will necessitate significant reductions in off-stream diversions in many streams. We are recommending no diversions of either base or total flow. Our order specifically identifies the desired streamflow expected. We recognize that a universal remedy to modify or remove diversions is not practical at this time. The commission's overall guidance is not to remove diversion instructions if modifications from achieved desired results. I just want to provide that for context for subsequent discussions.

Commissioner Hannahs: as I look at the photos in the submittal, I'm looking at some infrastructure that may not last forever and if we don't remove them now do they continue to deteriorate? Ultimately, the use for which you're holding them at some unknown future date; they're really not prepared to meet those needs, so I guess Ken what I'm looking for is what's your rating of the life of this infrastructure? I mean it's served us well for a century how much more do you think it's going to last?

Ken Kawahara, Akinaka & Associates: it just depends, some by age and some by condition. I wouldn't say that there's a rating scale that we have but in working with the staff of the Water Commission for example, there was a diversion where the staff recommended removing all pipes but not demolishing the dam or the embankment. To be frank we're a little bit surprised seeing the submittal that it kind of changed. I think further discussion is necessary. Certain things like removal of pipes would do less damage than going there with heavy equipment and trying to hammer out that embankment where water can flow over it now.

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Commissioner Hannahs: in terms of your surprise Ken. Isn't it fairly standard in leases that the improvements that you put upon the land during the term of your use have to be removed when you return it?

Ken Kawahara, Akinaka & Associates: it depends. I'm not an expert on the land side but in DLNR I've seen where the land division has that option. If the lessee does not want to remove the improvements, sometimes they value their improvements and would like to keep it.

Commissioner Hannahs Dean, I surmised that this is not the first time this discussion is occurring and that their feeling is that these have no use of future value for us.

Mr. Dean Uyeno: it's hard to say right again, as they did note in their comments that this is an interim in stream flow standard. Understandably I think we went through the same thing in the East Maui contested case hearing; whereas commissioner Buck noted should these diversions be removed or not. I think there may have been an oversight on our part being that one submittal was for modification and one submittal was for diversion and noting Division of aquatic resources comments about the two diversions.

Deputy Manuel: Let's take them one at a time. The first item is specifically about modifications. So, in those recommendations, there is no recommendation for complete removal unless I'm missing it. What his testimony is referring to is item number two and maybe we should address B2 when we get there. Because it's co-mingling the issues. Before you are recommendations to modify which doesn't say the removal of the diversion it just says to modify to meet the IIFS. I think that would be helpful if we just take them item by item because the issues that are raised in Akinaka or EMI's testimony is more reflected in item B2.

Chair Chang: You would agree Ken?

Ken Kawahara, Akinaka & Associates: yes, and thank you for clarifying Kaleo.

**041823:00:30:26**

## PUBLIC TESTIMONY

David Kimo Frankel, Sierra Club:#

- David Frankel representing the Sierra Club and *submitted written testimony*.
- Concerned about not receiving information in a timely manner.
- Requesting the timeline for system modifications from EMI, which is not posted on the CWRM's website.
- Requesting notification to residents prior to impounding streams for their safety.
- Objecting to the proposed berms and lips as aesthetically unappealing and potentially ineffective during high rainfall.
- Supporting Dr. Strauch's proposal from the November testimony and expressing alarm at EMI's change in course.
- Raising concerns about the Ho'olawa stream diversion and the need for a permit before installing a new sluice gate.
- Highlighting the drowning hazard near the concrete dam and advocating for its removal to create a safer channel.
- Noting that provided photos do not show the quantity of leftover pipes and debris that need removal.

- Expressing the need for these issues to be discussed in quarterly meetings to address them before reaching the commission.

Ken Kawahara, Akinaka & Associates: I'm sorry, I'd just like to note for the record. I just realized that the EMI written testimony was mislabeled. B2 should be B1 and B1 should be B2. I apologize.

Commissioner Meyer: question please for EMI. It sounds like EMI is ready to proceed with this work immediately and I saw in the submittals that it was an estimate of about six months to have the majority of these things completed. Does that still hold? That sounds pretty quick which is just great because get these interim in-stream flows up and running and have this situation restored. But what is the timing right now assuming there are no further delays?

Ken Kawahara, Akinaka & Associates: I would have to defer to the EMI folks, and I think they're also available but maybe if I could just reiterate it kind of depends on what the decision is and what kind of permitting is necessary. As we know a lot of times permitting is the thing that takes quite a while. But the actual work may not be that long. We have Mark Vaught also on the call so he could answer that question.

Mr. Mark Vaught, East Maui Irrigation: I think the timeline for executing the construction of this would be six months to a year. I think that was what we had originally put down, but you know permitting time and weather is always the toss-up just depending on how soon you can get permits and weather permitting. Again, I think it's important to note that those are obstructions to the construction.

Commissioner Meyer: I guess it's good we are heading into a drier season at this point.

Commissioner Kagawa-Viviani: I have a question for Dr. Strauch or stream protection and management. It's a lot of technical information. I was wondering about a couple of things given the testimony from the Sierra Club and some of the comments from East Maui. When is the next meeting? It sounds like this was not brought up in the existing structures for dialogue. I've seen the diversions for three minutes and we don't want to be micromanaging it from Honolulu. So, what happened at the last meeting and when is the next opportunity for hashing out some of these understandings?

Mr. Dean Uyeno: I apologize for not providing the exact date of the last meeting. Since it was our first meeting after the responsibility of hosting quarterly meetings was transferred from the Land Division to the commission, the focus was on understanding the participating agencies and the general public. On March 3<sup>rd</sup>, we sent an acknowledgment letter to East Maui Irrigation Company regarding their two diversions. Two weeks later, during the East Maui company meeting, we mentioned that the applications were available on our website, but we didn't specifically discuss the nature of the applications. The meeting was more of an orientation and an opportunity to get to know each other. I apologize for any oversight in not addressing the application details at that time.

Commissioner Kagawa-Viviani: so, when is the next one?

Mr. Dean Uyeno: the plan right now is to hold it every three months. So, the next one is on June 16<sup>th</sup> and if it helps too Ayron does have some photos of each of the diversions and he can kind of walk through each of the proposed modifications for each one.

Commissioner Kagawa-Viviani: given the feedback from testimony; it would be helpful to understand how the November decisions are tied to the recommendations, the logical flow, and understanding of the rationales because I think you've given a lot of thought to all of this, and ~~you~~we've worked a lot and

have spent a lot of time on this, but I think we're not there with you, and the more everybody understands, the more people ~~see~~feel themselves in the solution.

Mr. Dean Uyeno: if I can, call on Dr. Ayron Strauch to provide some photos and walk through that connection.

Deputy Manuel:#also, just to note in the submittal we tried to put the logic there above the diversion, so it shows what was discussed in November in the first box and then the proposed modification to show this is what we meant this is what's being proposed. If there is more cross-walking or further clarification, then let's go through that. Let's take some time to walk through it and make sure you feel comfortable with what's being recommended.

Dr. Ayron Strauch: I will do my best to walk through the recommendations, although I apologize for not knowing every detail since I am not the author of the document. Here are the key points.

- Recommendation H7 or Division 215 focuses on the Ho‘olawa Stream at Ha‘ikū ditch.
- The management goal is to increase flows in the stream for recreational and downstream aquatic habitat purposes.
- The stream has an estuary that enhances recruitment in the lower reaches.
- However, there are substantial overhanging bedrock lips following the rejuvenation phase of the Hāna volcanics that flowed downhill.
- Recommendations have been made to increase the base flow in the Wailoa, New Hāmākua, and Lowry ditches.
- The base flow should be maintained in the stream beyond the Ha‘ikū ditch.
- All the restored upstream flow should remain in the stream for riparian, recreational, and aquatic ecosystem values.
- To achieve this, the design of the diversion needs to be understood.
- The intake is on the right bank, and there is a gravel or trash rack in front of it.
- The stream acts as a gravel trap to keep debris out of the tunnel.
- There used to be a sluice gate that has been removed for the last five years.
- Lowering the invert of the dam in the stream and sealing the low-flow openings in the trash rack would ensure that the base flow remains in the stream and continue downstream.
- The proposed design includes a notch to allow the flow to continue.
- Releasing water through the sluice gate could pose a potential hazard for people recreating in the pool.
- If the sluice gate is returned and functions as designed, all the restored slow will continue through the proposed notch and not present a hazard.
- The dam is built into the bridge structure.
- The Ho‘olawa captures significant high-flow events, resulting in greater flows in the section, which may continue to be diverted.
- However, low flows will remain in the stream and pass through the proposed notch. Please let me know if you have any questions.

QUESTIONS/COMMENTS:

Commissioner Kagawa-Viviani:# on the submittal it should be “construct 45 inch wide or notch?” The submittal seems a little incomplete or I'm not understanding the terminology.

Deputy Manuel: Ayrton if you can refer to the submittal page proposed action number four, the yellow hatched lines is what would be cut out of the wall to create that invert. Correct?

Dr. Ayrton Strauch: yes, so that yellow hatching is the window with which all of the low flows will continue downstream. The lowest point in that window is the invert of the stream if we seal all of the pukas in the trash rack.

Commissioner Kagawa-Viviani: got it. It helps to have you walk us through this.

Commissioner Hannahs: so, Ayrton. As submitted having heard the concerns of Earth Justice and Ken, Akinaka on behalf of EMI. You're satisfied that what we presented here in the submittal is still recommended notwithstanding the concerns that may have been raised.

Dr. Ayrton Strauch: correct. I believe that in order to retain all of the restored flow in the stream. We need to notch out the dam and allow that flow downstream. This allows EMI to divert some of those higher flows. But obviously, they will never be able to take all the high flows because those high flow events exceed the maximum capacity of intake, so just a small portion of those high flow events will be able to be diverted and all of those low flows will remain in the stream.

Commissioner Hannahs: and in this case, we are allowing infrastructure to remain in place. Where you are adapting it to our multiple purposes.

Dr. Ayrton Strauch: yes

Deputy Manuel: I think we should just walk through each of them, so the commissioners know exactly what's being proposed.

Chair Chang: Kaleo, I do appreciate the presentation of the logic. It does refer to the CWRM recommendation, specifically the November one, and what was recommended and how this action is consistent.

Deputy Manuel: we want to make sure that we are in alignment with the parts the commission gave in November. And if we're not, then this is a time to make any modifications or recommendations, so we are consistent with that intent.

Dr. Ayrton Strauch:#

- The Wailua Ditch intake 15 or diversion 185 is located at Kailua stream.
- Apologies for not reviewing EMI's drawings properly, as I was more focused on the language.
- The proposed drawings do not accurately represent our intentions.
- The diversion captures all low flows, and the objective is to create a bridge or plate to retain the base flow across the intake.



- The proposed mechanism includes a metal grate, but filling the gaps with concrete and rebar may also serve the purpose.
- The primary need is to create a small berm on the upstream side to ensure the continuation of low flows across the bridge.
- The current depiction of the berm as a large structure is not accurate. My recommendation is to have a minor concrete lip, around two to three inches in height.
- This design would allow water to flow over the intake downstream.
- Apologies again for the staff submittal that fails to represent the design accurately.
- The use of concrete would be minimal and would not negatively affect the visual aesthetics.
- Properly designed concrete structures can withstand damage over the years, similar to other elements in the stream.
- The proposed berm would be a small structure, ensuring the uninterrupted flow of low flows across the intake downstream.

Deputy Manuel: before we continue, the proposed modification is a three-inch by 30-inch-wide metal plate. Would you recommend that the berms also be three inches high? We should add that clarification statement, three-inch berms.

Dr. Ayrton Strauch: as long as it meets the intent of the amount of water flowing downstream. The amount of water that the plate can carry is dependent on how wide the channel is. I'm confident they have the engineers to do the design and as long as the interim instream stream flow standard is met by the design; we can verify that in the field.

Commissioner Hannahs: Ayrton those grates look like they've been there a while. Do they factor into any of our goals or objectives for that stream?

Dr. Ayrton Strauch: I don't understand that question.

Commissioner Hannahs: I get where low flow is going to go through that recruiting system where the low flow will stay in the stream, which is unobjective. But during high flow, those big grates like that pretty much dump into the diversion right.?

Dr. Ayrton Strauch: a portion of the higher flows can be diverted. Kailua watershed goes up eight thousand feet in maximum elevation on Haleakalā. There are some big storm events that flow through this stream channel and in no way does this intake capture all of those high-flow events, but it will capture those medium-flow events.

Commissioner Hannahs: I think you've addressed the point that I raised. I didn't quite raise the point as well as I wanted. That doesn't look like best practice; it doesn't look like the kind of stuff we want in our Stream long term. Aren't there better grading systems now that allow water to flow over as well as into diversions? This stuff is just going to break apart over time as it continues to deteriorate. Is this the moment that we see an upgrade or is that irrelevant to the purposes of the action?

Dr. Ayrton Strauch: the question of whether this current design is going to deteriorate over time. I can defer to EMI in terms of the age which is the longevity of the structure. I don't know when this was last replaced, but I would assume many decades. Maybe EMI can comment on the age at which these structures are at this point.

Mark Vaught, Mahi Pono: I apologize but I don't know the exact age of these. They are long before I started, which was roughly 30 years ago. These are 50-plus years old if not more.

Commissioner Hannahs: so, our recommendation would be to just leave them as is at this point.

Dr. Ayrton Strauch: the structure outside of the flow channel EMI repairs as needed. We don't micromanage repairs like this.

Commissioner Hannahs: so, the feeling is it's a bit of an overreach for our interest. The in-stream flows standard, which is kind of the focus of our action to kind of leverage some improvements. That would make this a more modern system.

Dr. Ayrton Strauch: I don't know what you mean by modern. This intake in particular has a control mechanism. When the Wailoa ditch flows exceed a certain capacity, it automatically closes a radial gate that discharges the water into the new Hamakua ditch. It's a pretty cool design.

Commissioner Hannahs: thank you very much Chair.

Dr. Ayrton Strauch:

- The 'O'opuola stream at Spreckles ditch. The photograph in the submittal is somewhat misleading, and the concrete lip is positioned on the wrong side.
- From a downstream view, the right bank is covered in hau bush, with small wing walls and a grate where water drops through. Looking upstream, the goal is to restore flow in both directions.
- To achieve this, a metal plate or sealant across the intake is envisioned, similar to the Kailua ditch, along with a small berm on the upstream side.
- The existing wing walls have been there for many decades, and properly designed small concrete structures can endure in this environment.
- The stream management objective is to enhance aquatic habitat availability downstream, especially downstream of the center ditch and Spreckles ditch.

Deputy Manuel: is there any language that needs to be amended based on your review?

Dr. Ayrton Strauch: it says construct three inches high by 30-inch-wide concrete metal plate channel across the grate to pass 1.8 CFS. I think the three-inch high refers to the sides not necessarily the height of the plate itself. Maybe that's an oversight, then install a concrete lip across an upstream-sided diversion. On page six of the submittal, the photograph and location of the lip is not correct.

Deputy Manuel: but the language is correct. It is still upstream where the berm is. And the plate will accomplish the goal of connectivity and habitat restoration.

Dr. Ayrton Strauch: yes

Commissioner Katayama: thank you chair. I have two questions, one for Mark and one for Ken. Mark, could you address some of these safety issues that were raised by the Sierra Club in terms of notification of work? I think Ayrton addressed the siphoning effect in the damming of the one diversion, but Mark would you address the safety precautions that will be in place?

Mark Vaught, Mahi Pono: I'm sure we can work out some sort of notification with a point of contact. The downstream residents of each particular stream; we've gone over this before. If there's enough water in there impounded that we release it that would put our employees in jeopardy that would put everyone in jeopardy so we don't plan to work in those conditions if the water is that high. I respect the Sierra Club's mentioning that but I'm just saying that we wouldn't want to put ourselves in jeopardy as well as anyone else so those are precautions we would take.

Commissioner Katayama: Okay, thank you, Mark. The second is really a clarification of the intent of the designs of the berms that were mentioned. What is the structural integrity that's built into these designs? There was engineering to these submittals. You're planning on having structures withstand a certain flow over a period of time. So, as you went through the engineering specs for the berms and the grates, what were the design criteria that were used?

Mark Vaught, Mahi Pono: I wanted to clarify that when we talked with Akinaka about the criteria for the project, one of the things they mentioned was the size of the channel. If the channel is 30 inches high, that's the entire height of the berm. We don't want to put anything intrusive in the berm, so it will just be used to channelize the water into a certain location so that it can bypass the intake. Any flows that are consistently higher than that will have access to the grates themselves. Anything at a low flow will be channeled into the bypass channel and run through the link sets. I think the berm is designed to be just the same height as the channel itself.

Commissioner Katayama: and that has withstood high flow events over time.

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Mark Vaught, Mahi Pono: thus far, yes, we've had situations like that. We've used metal in the past and they have. But mother nature changes our minds daily, and she decides today's the day and then today's the day.

Commissioner Katayama: Okay, thanks, Mark.

Dr. Ayron Strauch: at the next location, which is the same stream 'O'opuola but a little bit further downstream at Center ditch, the goal is to continue to retain all of that restored flow at the higher elevations downstream past the ditch. The intake is quite a wide structure and the upstream part of it has some pukas in it. The first step would be to fill in those pukas so that water doesn't drain into the ditch inadvertently. The next step would be to build a similar channel across the concrete, which is the ditch itself, and over the intake structure. There would be a lip, which is very similar to the previous design. Then, a bridge or a plate would be used to convey the water downstream so that all of the base flows are retained in the stream.

Deputy Manuel: So, Ayron just really quick, similar in the proposed action. If we were clearer to say, install three-inch berms to direct flow in to channel that would make it more explicit about not being these huge walls as maybe the submittal originally depicted via image.

Dr. Ayron Strauch: yeah, unfortunately the scale of the design looks like they are quite substantial structures, but they are going to be non-intrusive visually. I don't think relative to the rest of the concrete that's already there.

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Deputy Manuel: that's just to make it explicit about what the intent is correct okay.

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Dr. Ayron Strauch: yes

Deputy Manuel: and then the last one. I think we have one more on this modification.

Dr. Ayron Strauch: At the center ditch, the Ka'aiea stream runs underneath the ditch. On the left bank, there is a wing wall with a bunch of pukas that are designed to divert all the low flows into the ditch. Higher flows are diverted along the right bank over a little berm into an area with gravel, and then it spills into the ditch. The goal is to ensure that all of the low flows stay in the stream. The design is to notch out the upstream lip, create a channel across the intake, seal up all of the low-flow pukas, notch a section of the downstream wall lip, and then convey all of the low flows from upstream in the intake downstream without them being diverted. The low-flow channel is to be located at or near the lowest elevation intake so that all of the low flows remain in the channel and don't get diverted.

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Chair Chang: again, Ken. Ayron's descriptions are consistent with what you are proposing.

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Ken Kawahara, Akinaka & Associates: I believe so, Roy worked on a lot of the details with the EMI folks. Roy are you able to answer that question just to make sure that I'm not misspeaking.

Roy Hardy, Akinaka & Associates: Yeah, it's consistent.

Chair Chang: any other questions commissioners?

Commissioner Kagawa-Viviani: Ayron, it sounds like it's just a flat metal plate that you're looking to put across; and I guess is it going to be a little concave to ensure that the water gets past the grates? I don't want to micromanage. I'm just trying to visualize what's happening.

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Dr. Ayron Strauch: there are basically little walls; that's the three-inch-high reference. We don't want it concave in the sense that it would force all the water to flow into a somewhat narrow channel. Our amphidromous species are good at migrating small rivulets of water. They don't need a big flow, so the more spread out it is actually better for recruitment.

Commissioner Kagawa-Viviani: but we don't have any spilling and over into--

Dr. Ayron Strauch: the wing walls keep it from spilling into the intake.

Commissioner Kagawa-Viviani: sorry I don't know the terms, if this were to be revised little diagrams that help people who need pictures would be really helpful.

Dr. Ayron Strauch: see these little walls?

Commissioner Kagawa-Viviani: okay, that's the three-inch thing, got it. Sorry, I was thinking the wing walls were part of the ditch.

Dr. Ayron Strauch: well, they do exist on the ditch. I just meant the walls on the plate.

Commissioner Kagawa-Viviani: mini wing walls okay. If just the simplified diagram so that it's in the record. So that we are all talking about the same thing and understanding and have the same picture in our head that would be really helpful.

Deputy Manuel: So, these images will be amended or appended to the decision that are presented here and will be part of the minutes. So, what we're discussing hopefully, if recommended and amended; will all be recorded here with the intent. So, if it's not clear then let's make that clear before any action is taken.

Chair Chang: any other questions or comments commissioners?

Commissioner Hannahs: I just want to go back to Ken's concerns. So, with regard to B1, your testimony regarding kind of resisting removing infrastructure doesn't apply. Am I correct Ken, because you're being allowed to leverage a lot of the existing infrastructure just to make a minimal adaptation to solve our purposes. But also have that infrastructure there for your needs as well.

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Ken Kawahara, Akinaka & Associates: that is correct commissioner Hannahs.

Commissioner Hannahs: Okay, thank you.

Commissioner Kagawa-Viviani: I would like to hear from David Kimo Frankel. Just thoughts and after hearing this discussion. Are there still the same concerns? I understand that the big thing is the notification and the quarterly meetings. But if you can kind of reflect back.

David Kimo Frankel, Sierra Club: this has been really helpful, and I think in terms of language. What I now understand is that the three-inch berm is essentially three inches higher than the metal plate or concrete. The way it's written in A and B submittal and as well as CWRM submittal is that the metal sheet and concrete would be three inches high which would defeat the purpose of the lip or berm because it has to be lower. Ayron has clarified this, but it would be good if that was more reflective in the decision. I appreciate Mark Vaught saying they never impound the water when they do these fixes. This provides a lot of assurance but it's not clear if this is always the case. If the commission is on the same page that there will be no impoundment, then that's great. This should take care of everything.

Chair Chang: Mark did you want to clarify that?

Mark Vaught, Mahi Pono: just confirming. Mr. Franco is correct; the general idea is not to impound a larger amount of water and then have a sudden release because that jeopardizes not just downstream but our employees as well.

#

Chair Chang: do you anticipate that there may be times when you might have to impound water that would affect downstream?

Mark Vaught, Mahi Pono: no, what we generally try to do is create a bypass with some pipes and things so that the water can continue to flow downstream.

Chair Chang: that's excellent.

#

Commissioner Hannahs: Mark as I look at this picture on our screen and see those old-style grates. Are you familiar with the Kamehameha school's Punalu'u stream diversion,

Mark Vaught, Mahi Pono: no, I'm not.

Commissioner Hannahs: Ken I'm sure is. They're more modern aluminum systems that allow flow over as well as flow in and self-cleaning.

**051623:1:16:06**

**RECESS: 10:20 AM**

**RECONVEYED: 10:30 AM**

Chair Chang: Neil we'll continue with your questioning. I also want to note that Kathy Ho with the Department of Health just stepped in as well, but Joanna is going to complete item B1.

Commissioner Hannahs: I just want to encourage EMI and Akinaka to look at some of the modern technologies available for in-stream diversion. The old grates were very inefficient and kind of greedy in terms of the water they took. And as part of the commission's record on the EMI decision we were encouraging modern investment to kind of make these systems more efficient and modern and safe.

Chair Chang: any other questions from the commissioners? Do we have a motion?

#

**051623:01:27:18**

Commissioner Kagawa-Viviani: I just want to make sure the corrections are incorporated, and they were somewhat really detailed. I mean they're factual sort of language issues in the submittal. I don't think it makes sense to step through all of them so what options do we have?

Deputy Manuel: in taking notes while the discussion was going out while Ayron was presenting the only thing that wasn't consistent was the three-inch berms, the size of the berm was what we wanted to provide clarity on. I would just recommend for diversions w15 and C7 where those berms are being proposed; that we just amend the proposed action to say install three-inch berms.

Commissioner Katayama: I mean in terms of intent of what we're trying to do that's more of an engineering question. I think all the parties understand the purpose of that berm and it's not going to be something that is intrusive. So, I think the language as submitted I think we flushed it out through our discussions with all parties. I don't think it matters if it's three and a half inches or two and a half inches, but that berm would be put in place and serve the purpose of controlling the IIFS.

Deputy Manuel: maybe just to recommend if the modifications do not meet the IIFS obviously the commission set IIFS to be enforced. So, if the modifications as implemented do not sufficiently meet the IIFS based on our own monitoring then we'll come back to the commission and recommend further.

#

Commissioner Katayama: I agree that's a different issue I agree with that.

#

Commissioner Kagawa-Viviani: can I recommend a revision that inclusion or clarification because when people are going to read this document as a public record, they may misinterpret it or interpret it as suggested but that is not the intent. B2 presentation will be attached but making sure that it's

connected more meaningfully to the submittal would be helpful to reflect the clarifications that were made today.

Deputy Manuel: and the minutes will reflect the clarifications.

#

Commissioner Kagawa-Viviani: I'm just thinking the public is not going to look at three different documents. They're going to look at one so help me out sorry. I'm not very experienced in this. What would that recommendation for revisions look like?

Chair Chang: what I'm hearing from Commissioner Katayama is he wants the staff's recommendation to reflect the discussion and Kaleo's clarification. If there is further clarification, we can refer to the minutes. I am concerned that if we are too detailed, it may be assumed that anything we don't include was intentionally excluded. I think Ken, Roy, and Mark were all given an opportunity to confirm their understanding of Ayrton's clarification. I'm not sure I want to get into too much detail unless the Commissioners feel otherwise. I understand that this can be modified right Kaleo.

Deputy Manuel: yeah, these are modifications. We're not abandoning it, there's still a relationship between the commission and EMI as a diverter.

Chair Chang: I'm also optimistic that there will be more quarterly meetings where the community will have an opportunity to be included in some of these discussions before they get to the commission. so, some of this can be worked out at that level as Dean described the first meeting. It was more of a meet-and-greet introduction setting. Parameters and then as they get into more regular quarterly meetings there will be more specific discussions on proposed changes. Okay Aurora, do you want to make something more specific?

#

Commissioner Kagawa-Viviani: can I make a motion to approve? But there are some factual text errors in this so with the staff correcting and clarifying those proposed actions if reflecting the discussions that had and also including in the recommendations that this will also be presented at the June 16<sup>5</sup><sup>th</sup> quarterly meeting but that's up for discussion.

Commissioner Hannahs: Chair that would be the second motion so either we're going to revise the first motion at the agreement of the person who made it and seconded. Then we can move on or dispense with the first motion and now deal with the second so, you have a motion on the floor.

Chair Chang: I had a motion from Commissioner Katayama. I thought it was seconded to approve staff's recommendation, but Aurora are you proposing a new motion?

#

Commissioner Kagawa-Viviani: an amendment that the staff corrects the submittal reflecting the discussion on B1 with the explanations given.

Chair Chang: so, Commissioners Hannahs and Katayama do you agree to the amendment? A motion has been made and seconded with amendments all in favor since this is our first motion. oh no we so all in favor say aye. The motion was approved unanimously very good. Shall we move on to item B2?

**MOTION: (KATAYAMA, HANNAHS)**

**To approve the staff's recommendation with an amendment that the staff correct the submittal reflecting the discussion on B1 with explanations given.**

**UNANIMOUSLY APPROVED**

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

Chair Chang: moving on to item B2

**051623:01:35:55**

**B.#**

**2. Approval of Stream Diversion Works Permit Application (SDWP.5991.6) and Special Conditions, East Maui Irrigation Company, LLC, Abandon Registration of Stream Diversion Works Nos. 234, 254, 238, 273, 260, 150, 262, and 173; Remove Pipes and Seal Intakes; Ho‘olawa, Waipi‘o, Oanui, West ‘O‘opuola Tributary, ‘O‘opuola, ‘O‘opuola Tributary, and Makanali Streams, Maui; Tax Map Key(s): (2) 1-1-001:042; 2-9-014:001-002, 007, and 009; and**

**Declare that Project is Exempt from Environmental Assessment Requirements under Hawaii Revised Statutes Chapter 343, and Hawaii Administrative Rules Chapter 11-200.1**

PRESENTATION GIVEN BY: Dean Uyeno, Stream Protection and Management Branch

*Commission staff stands on its submittal. See Presentation.*

QUESTIONS/COMMENTS

Dr. Ayrton Strauch:

- The NH diversion 234 is the Ho‘olawa nui intake on the new Hamakua ditch.
- The ditch runs under the stream and there is a dam across the stream channel that pools up water.
- The water would spill into a trash rack and then flow into the new Hamakua ditch.
- The abandonment proposal is to seal the intake so that no water can be diverted.
- It is not clear if anything can be done to the wall, but to the extent practicable, they will remove a part of it so that no water pools up.
- Under existing low flow conditions, there is no flow.
- However, proposed additional modifications to Ho‘olawa nui at Wailoa ditch, which is upstream of here, will increase the base flow to the stream.
- Therefore, there is expected to be some flow here.
- The idea is to prevent the diversion of any flow, low or high, at this location and allow it to continue downstream.
- This is an abandonment of the stream diversion works, so no water will ever be diverted at this location.

Chair Chang: what I'd like to do is Ayrton, you do your overview for each of these and any questions from the Commissioners. Then I'd like to make sure that either Ken or Roy confirms that Ayrton's

description is consistent with your understanding. So, any questions from the Commissioners on Ayrton's overviewD#

#



Commissioner Hannahs: we know that the issue is going to arise as to how much you have the applicant remove so in this case, they're not removing everything.

Dr Ayrton Strauch: no because you can see the concrete structure that the ditch flowing in right here, so this is the ditch is flowing right here.

Commissioner Hannahs: we'll break that wall and create a gap and capture flow, but the applicant will be allowed to leave in place all that other infrastructure.

Dr Ayrton Strauch: yeah, like this wing wall here it keeps debris out of the ditch. There are parts of the concrete specifically protecting the ditch. I believe some of these walls can be removed but I don't know to the extent how much.

Deputy Manuel: so, Ayrton, the current recommendation is just to remove the grate and seal the hole in a ditch and there's been no recommendations to modify that wall at this time.

Chair Chang: that's not what I heard.

Deputy Manuel: correct so that's why I'm speaking to them across the box, and this is also internal coordination. So, we have a permit branch and Dean is in charge of both the current side as well as the in-stream side. So, we're cross walking the recommendation which is primarily focused on the IIFS. And then the permitting or abandonment of the diversions that's handled by another branch in surface water. So, what's being proposed or recommended in the application is to remove the grate and seal the hole, so the intake no longer functions. But there's been no recommended modifications of that wall that's basically holding up the ditch. Ayrton said he thinks it could be done, that's not what's in the application. I just want to make that clear.

Dr Ayrton Strauch: there might be modifications to the wall that are permissible without damaging the structural integrity of it. These modifications could include notching the wall, putting pukas through it, or concrete over the intake. The primary purpose is to remove the diversion from its function by sealing it. Concrete over the intake would ensure that no water could be diverted.

Ken Kuwahara, Akinaka and Associates: Roy actually has the applications up which I think is not visible by the Commissioners. But Roy can look at the applications on what was submitted and clarify any differences.

Roy Hardy, Akinaka and Associates: thank you Ken, generally what Deputy Manuel clarified is correct. There was nothing about the removal of the wall that Ayrton is talking about. It is just sealing the intake to allow all the flows to bypass.

Dr Ayrton Strauch: I would maybe recommend that the submittal request that EMI evaluate how much of the wall can be removed, without damaging the integrity of the ditch and proceed with that.

Deputy Manuel: Ayrton maybe to help facilitate the conversation. With a re-establishment of the IIFS or modifications upstream of this diversion, what is the flow that's anticipated below that upper diversion or is this the losing part of the stream or is it a gaining part of the stream?

Dr. Ayrton Strauch: it's a gaining stream. There is a large lava tube at the base of a waterfall just below the Wailoa ditch on Ho'olawa nui. The goal is to get all of these low flows downstream to the in-stream values such as recreational needs, repairing uses, and aquatic habitat. To the extent that we

don't want the water pooling up behind the dam, pukas can be put into it if a notch can be cut out of it to convey the water downstream more effectively.

Chair Chang: I am wondering if it would be better for staff to go back and work with the applicant and then resubmit the application when there has been some internal discussion. I am concerned about Ken's HRS 343 question, and do you think it might be more productive to have an internal discussion with the applicant before proceeding?

Dr. Ayron Strauch: I think we can work through it today. I don't think many of the recommendations are substantial. I'm busy on the in-stream use section side of things as you will find out later and finding time to meet to discuss regulatory issues is challenging.

Chair Chang: Kaleo, do you have a recommendation?

Deputy Manuel: yeah, I'm open. The goal is to give the commission a timeline to modify and abandon in order to meet the IIFS. There was a similar recommendation in November, an application that came in and the proposed modifications. If we could potentially defer and have this conversation in the June quarterly meeting as it relates to abandonments and then come back in July or August if you feel more comfortable.

Chair Chang: because based on hearing Ken's opening remarks; and just my own concern part of your submittal isn't 343 exemption and if indeed we are going to be doing work that may trigger 343. I would rather have that internally discussed before it comes back to the commission.

Dr Ayron Strauch: can we walk through the submittal however. I don't believe that we're that far off with what Ken had an issue with. Many of these modifications are going to be full stream diversion abandonments which the applicant knows wasn't up for discussion.

Deputy Manuel: yeah, Ayron let's table for now because I'd rather make sure we are in alignment before we continue the conversation so we can just defer for now.

Chair Chang: We don't need a motion on that.

Deputy Manuel: no, we'll defer for now.

Commissioner Meyer: they still have the right to testify.

Chair Chang: yes. Commissioners, do you have any questions about the deferral and what's being proposed? We'll take public comments.

**051623:01:51:36**

PUBLIC TESTIMONY:

David Kimo Frankel, Sierra Club:##

- Thank you for bringing this up. It seems that Mr. Kawahara may have provided some misleading information. I want to clarify the importance of the distinction between temporary and permanent abandonment. According to Black's Law Dictionary, "abandon:" means to give up, cease to use, forsake, entirely, or renounce utterly. When a structure is abandoned but

left in place, it implies that the structure will remain there permanently.

- If the proposed structures are abandoned in place within the stream, it could lead to legal challenges in the future if you decide to remove them after two, ten, or twenty years. By expressing their intention to abandon the structures, they are essentially indicating a desire for permanent abandonment. This highlights the significance of the recommendations from the Division of Aquatic Resources, which your staff has agreed to. These recommendations aim for a balanced approach and advocate for the removal of structures where feasible instead of leaving them abandoned in place.
  - It's worth noting that the Sierra Club doesn't request the removal of every single structure in every stream being proposed for abandonment. The focus is on areas where it is possible and appropriate to remove the entire structure, rather than abandoning it in place. The financial responsibility for these structures should not be shifted onto the Sierra Club or washed away. They should not be left in the stream as it goes against the objective of preserving the stream's integrity.
  - Additionally, the amount of water proposed to be left in these streams is minimal. The diversions being discussed do not aim for full restoration, and it is doubtful that any of them achieve 64 percent of the base flow. These streams require more water to sustain their health. When considering Mr. Kawahara's suggestion that these structures may be needed for future water requirements, implies that all the water from these streams will eventually need to be removed. This is a path we should not venture down. We should no longer deplete streams entirely, and that's why the permanent removal of the proposed abandoned structures is crucial.
  - If they express a need for more water from these streams in the future, they should be required to go through the process of justifying their request, as outlined in a 343 document. They should apply and provide a case for whether all the water should be taken from these streams. This process is necessary and should be followed, just as it was historically more than 100 years ago. It's important to support the permanent removal of abandoned structures and engage in productive conversations that align with this approach.
  - Lastly, if this matter is to be discussed further, it would be helpful to have additional and improved photographs that present a more comprehensive picture, particularly concerning the abandoned PVC and other pipes that are not adequately depicted in the existing photographs.
- Thank you.

*Chair Chang: Commissioner's any questions on this item? We are going to defer this item and staff will resubmit when it's complete. Let's move to item C1.*

**051623:01:56:51**

## **C. NON-ACTION ITEMS / INFORMATIONAL BRIEFINGS**

1. Summary on Current Fieldwork Activities in the Stream Protection and Management Branch, Statewide

PRESENTATION GIVEN BY: Dr. Ayrton Strauch, Stream Protection and Management Branch

*See PowerPoint presentation.*

**051623:2:12:29**

QUESTIONS/COMMENTS:

Chair Chang: Ayron, are other providers or entities also measuring, and do you all share information?

Dr. Ayron Strauch: we are the largest cooperator of the USGS hydrological data collection network, but we're not the only funder. A lot of our stations are cost-shared with other entities. Outside of the USGS, I know of a few, the University of Hawai'i or federal organizations that measure flow or maintain any monitoring sites. There is the Department of Health when they do some of their field work, they also measure flow at the location, but in many circumstances, the county just pays for the USGS to maintain a station or monitor for particular measurements, that sort of thing. There are a few non-profits that make flow measurements but I'm not aware of where they store that data.

Deputy Manuel: Chair, we do come every August to renew and get approval from the commission to renew that cooperative agreement. We've asked USGS to do a similar presentation for this body, to go over their monitoring program and the details of their fieldwork that we're ultimately paying for in order to provide that data to us so, that's coming in August.

Commissioner Kagawa-Viviani: does DOT do any kind of monitoring?

Dr. Ayron Strauch: they cost share. Most of their funding goes to crest-stage gauges. So, across the state, they fund hundreds of crest-stage gauges and where there's synergy with water commission's efforts or USGS's needs, we cost share stations; like in Waikapū, we added a natural flow USGS station to the cooperative agreement in the last couple of years. And it's being cost-shared with the Department of Transportation. So, they fund the peak flow estimates which involve a lot of modeling, a lot of work to measure stream channel contours, and that sort of thing. In order to expand the network with our limited funds we look for opportunities to cost share where possible.

Commissioner Kagawa-Viviani: does NOAA also participate in that, I ask because right now, there's a big nNational push with Cairo-CIROH, and they're very flooding focused, so they want to have advanced warning and it just seems like everybody should hang out together.

Dr. Ayron Strauch: #from what I understand, NOAA only funds rainfall stations. They have their own network of rainfall stations and then, from what I've seen on their website; all their flood warning stations are all USGS stations that we fund.

#

Commissioner Katayama: you do a lot of work on quantity who does work on quality?

Dr. Ayron Strauch: that falls under the Department of Health.

Commissioner Katayama: is there a way that you can cooperate in sort of cost-sharing some of that or these reach way beyond what they would need?

Dr. Ayron Strauch: Well, we don't have regulatory authority over quality, so we don't fund quality monitoring.

Commissioner Katayama: #but you're providing the data. I mean you're there in the stream looking at flows.

Dr. Ayron Strauch: are you suggesting that staff support the Department of Health with the collection of samples for analysis of water quality? Is that what you're suggesting?

Commissioner Katayama: well can they help you provide money? I mean they must be spending money on doing that.

Dr. Ayron Strauch: I'm not going to speak for DOH, but I do know that they have limited funds. There was an article about beach water quality monitoring, for example, on Maui they don't have the ability to monitor remote streams in the middle of the forest.

Commissioner Katayama: well, I mean the question will come up. If you look at sustainability long term is that a quantity and quality issue? And if we're going to start using surface water for potable needs, when do we start understanding what's contributing to the quality of that water? At the end of your presentation, what is a balance that you need in terms of gauging stations or measurement capacity to get to a point where we understand where we can strike a balance in providing you know sustainable water sources for all the needs?

Dr. Ayron Strauch: so, the commission supported the USGS study, looking at our Water Resource monitoring needs and there was a publication two years ago; now it's three years ago on where we need groundwater monitoring, where do we need streamflow monitoring, where do we need rainfall monitoring, and especially going into this period of climate uncertainty. We know where we need to monitor, we just don't have the funding to do it.

Commissioner Katayama: well, is there sort of a dream sheet where you kind of pencil out the funding requirements given the pressure or the interest in climate change?

Dr. Ayron Strauch: definitely, and I presented that to the commission either last year or the year before that; given the constraints of USGS's, ability to add stream gauges for example we could probably realistically add three to five USGS gauging stations each year to the cooperative agreement for the next 10 years. And then we would be at a much better place monitoring surface water resources across the state. And that's not to take anything away from what we do as staff. We would continue but we're at capacity. I'm hoping that we get to hire more staff in the near term, and I believe we do have funding to do that, but we are staff time and budget limited.

#

Deputy Manuel: no touch on the Department of Health conversation both myself and Kathy the Deputy with DOH have talked about how we better coordinate and manage our resources and share data so that we both can effectively do our kuleana as it relates to us as well as Department of Health's Clean Water Act and Safe Drinking Water Act responsibilities. So, I think the goal of this Administration will work to kind of tighten up that relationship; understand that data sharing more clearly, and then how we can work better together across agencies on water quality and quantity.

Commissioner Kagawa-Viviani: quick question, so I was just thinking about the workload and what you guys are crucial for; all of it. But what can you potentially outsource--if have you thought about that--because your skills are valuable as a hydrologist. Are there other activities that could potentially be outsourced?

Dr. Ayron Strauch: not really.

Chair Chang: you guys just need more staff.

Dr. Ayron Strauch: more money to hire USGS.

Commissioner Kagawa-Viviani: and the data processing; some of it's automated but it still requires a real human so, is there something that takes most of your time? Just curious.

Dr. Ayron Strauch: yeah QAQC. In terms of the amount of time that I'm not in the field. Obviously going in the field is a whole day. So usually, we're on the 5:45 or 6:15 a.m. flight and then we're back at seven or eight o'clock at night. And that's a standard field day. We had a team yesterday go to Kaa'i and they were on the 5:50 a.m. flight and back home at 8:00 p.m. flight landing at 8:40 p.m.. Then you have all the data that was gathered, you have to process that data, and so for every day I'm in the field, there's at least one day that you need to be in the office. I'm not available to do anything else during that period and it's not just me, it's a collective effort and we have a really solid team.

Deputy Manuel: I will highlight that that is why when we have him available, he's pushing to be fully present in this conversation for the review of the data and proposed management recommendations. It's one thing to collect the data, but then how is that data used for management recommendations is another part. Ayron is and his team is good at what they do. But it's shifting into item C2; so, we wanted to make sure we updated this body again and the public about what it takes to get the data. It does take time, money, and resources to do that.

Chair Chang: when we have lawsuits, do we make that part of mitigation a requirement that they have to pay for monitoring and staff to monitor?

Deputy Manuel: I mean this is an AG question potentially. But what we've been trying to do where somebody's diverting water we've made sure that they're one reporting their diverted amount of water that they're using. They either have to comply and meet the reporting requirements or we just recommend if you partner with us and USGS pays for the gages then it's an install; that's kind of an upfront cost. But in the long term, you get this data that ensures that you're in compliance with the IIFS. So, there has been more focused effort I would say in the past four or five years to push, to have this sharing, this partnership in a regulatory compliance kind of perspective. We all benefit from good data. So, there's been that shift to try to see where we can partner and it's not a hundred percent Water Commission funding for this resource. We try to get those private partners on board. I'll touch on this a little bit in item C2 focusing on where we can leverage other federal funding and programs to support the data collection needs of our staff and agency.

Chair Chang: when you get others collecting data is there a quality assurance issue?

Deputy Manuel: that is a big issue and one of the challenges on both sides. Whenever we've had enforcement actions brought before the commission, we try our best to use our data. We provide the opportunity for those bringing the complaint against to provide alternative data. Oftentimes they don't have that and so they've also seen the benefit of investing in their own data collection; to have an alternative to our data sets. We also like USGS, they collect data with no management recommendations, and we rely on them oftentimes for some of that core data in our management decisions and even enforcement compliance recommendations.

Chair Chang: and maybe we can make this administratively or have to get legislation. We perhaps should be looking at passing on some of those costs through our permitting process. There's a fee associated with the permits that goes into a fund to pay for data.

Deputy Manuel: so, that is coming forward in potentially our administrative rules and recommendations, which our regulatory fees that we authority to do, so that way portions of those fees like if you're benefiting from the use of diverting water, you're also contributing into cost sharing. Understanding what the low flow is and what it takes to monitor and engage so that's one way to kind of offset the stop cost potentially in the future.

Dr. Ayron Strauch: I also want to add that in a situation where there's a lawsuit or a settlement is achieved; say with Kamehameha schools in the Lalakea issue. It's a fixed amount and USGS gauges, while there is an upfront cost, there's also an operation and maintenance costs that we pay for every year. That's where we see the benefit of a particular gauge that was funded temporarily. It gets funded through a cooperative agreement with Kamehameha schools and then six years down the road the money dries up and then we don't have that data coming in. So, we add it to our cooperative agreement. I apologize for adding to the cost of our cooperative agreement, but I see the benefit of increased data collection, so we just keep adding stations.

Commissioner Meyer: Ayron and thank you for your work you and your crew are really at the heart of our ability to make quality decisions on the part of the commission.

Dr. Ayron Strauch: they are wonderful. We appreciate them every day.

Commissioner Buck: yeah, Ayron how do you cooperate with DAR and DOFAW and the Water Commission, three separate agencies that really have differing responsibilities and managing streams, especially on state-owned land. Is that just kind of informal cooperation or do you have something written that kind of spells that up?

Dr. Ayron Strauch:

- We appreciate the help we receive from the DOFAW base yards.
- They have assisted us on numerous occasions, whether it's getting unstuck in the mud, delivering items, or signing off on deliveries.
- They have also been helpful in storing equipment for us.
- We cooperate with them on DLNR issues involving water, especially when jurisdictions overlap.
- DAR has a smaller footprint and focuses primarily on marine ecosystems.
- While they have jurisdiction over freshwater biota, their capacity for work is limited.
- Pooling our resources with DAR has been instrumental, particularly in conducting biota surveys.
- During the pandemic, DAR staff couldn't travel, so our commission staff's approval to assist with biota surveys on Maui was beneficial.
- Thorough habitat analysis and biota surveys require four or five staff, while DAR had only two available on the island.
- CWRM coordinating and providing access to locations has been helpful, especially on Maui.

Commissioner Buck: yeah, and I'm not surprised I mean DOFAW has a good history. And one other quick question. Do you prioritize dissemination and acquisition of data on state-owned streams, manage streams, or privately owned? Is there any sort of significance?

#

Dr. Ayron Strauch: we don't prioritize anything. Anywhere we have data need we try and figure out a way to collect the data. With the constraints that we have; a budget that is limiting.

Deputy Manuel: I think you folks have prioritized IIFSs and the balancing of in-stream and off-stream needs based on a lot of those streams that were heavily diverted historically. We've prioritized those streams that have this tension or the need for balance of off-stream and in-stream. And there are other streams that are purely not being diverted. So, I think a lot of the focus is where there are in-stream and off-stream needs that need to be balanced. That's where the commission spent the majority of its time since 2012 when you guys started really ramping up IIFSs. So, I think we're almost there and there are a couple more areas that we're going to focus and shift to; Southeast Kaua'i is one of them. But other than that, a lot of those historic plantation systems had diverted a lot of water out of watershed. Ayron and his team have really kind of just re-established more of a balanced approach to protect streams where they need in-stream values to be protected as well as balancing off stream needs in that process. So, there are some prioritizations in that context.

Commissioner Buck: one more quick comment. Chair, I know as DLNR Chair you have many priorities everyone needs more resources, but investing in Ayron and his team right now is probably one of the best investments you could make at this time.

Chair Chang: I appreciate that, Mike. I'm trying to figure out how I can save them time by having staff on the other Island. How can we empower DOFAW to be multitasked? I am really trying to break down silos within DLNR so that there's better cooperation where we can cross over. A lot of this is being done informally, but I think we have a really good opportunity this legislative session is going to provide us with a lot more needed tool. I've personally really appreciated Ayron's presentation. I knew how valuable they were, I didn't know how invaluable they really are to this department and the commission's ability to make informed decisions. We could not operate without them.

Commissioner Kagawa-Viviani: yeah, just a quick one Ayron. I noticed you flashed up and said the data was available.

#

Dr. Ayron Strauch: we have an online data portal, it's cwrn.aquaticinformatics.net. It is publicly available, it doesn't require login. The caveat is that there are some quirks to it that we haven't quite ironed out, including not all the stations that are real-time are reporting in real-time.

Commissioner Kagawa-Viviani: like the batteries are at-out, the tTelemetry is out. It's just because USGS has their data, and they have their disclaimers. Even if just a link were available, I could see it being very valuable for the public.

Dr. Ayron Strauch: So I'll go to Molokai - so this is the Kamoku intake station. Some of these statistics aren't really valid because we haven't been there in three months so it's like you have to take it with a grain of salt a little bit.

Deputy Manuel: Ayron, with those communities that you've been helping to support collect data or Department of Ag or other agencies, they access this now currently for data, so we do more direct data sharing versus larger public dissemination. Because we can control the messaging and the limits of that data sharing, it is something that again hopefully with more staff, we will be able to get up to a point where it can be made available to the larger public in real-time.

Chair Chang: are we doing data collection for climate change?



Dr. Ayron Strauch: we've prioritized maintaining USGS gauging stations with really long records, particularly in locations with climate change impacts. This allows us to better understand changes in rainfall patterns, including increased or decreased rainfall, more intense storm events but fewer of them, and extended drought periods. Whether it's more rainfall, less rainfall, or more intense storm events, but fewer of them more drought periods. By preserving a continuous record, we can analyze trends over time. In the past few years, we have successfully re-established three or four USGS stations with discontinued long-term records from the 50s, 60s, or 70s. so that we can do a deep dive into what is happening now relative to what happened 100 years ago.

Chair Chang: that helps us with predictions for the future, right?

Deputy Manuel: well in addition, one of our focuses last month, we had PDKE come and present, but we also work very closely with Water Resource Research Center and really building up the Mesonet program, which is the establishment of these climate stations that'll collect a myriad of different data sets that will help to hopefully inform some climate predictions. I don't want to jump into the technicalities of it but that's how we've been really focusing our climate efforts is to support Dr. Giambelluca with the establishment once that's built out, we should have that's one of the focal points of the data collection.

Chair Chang: well, that should hopefully help us too on drought.

Deputy Manuel: drought, flooding, a better understanding of climate impacts.

Commissioner Hannahs: Ayron, I join the other Commissioners and thank you for your work and long been impressed by both the volume of it as well as the value of it. So, you've got four staff what would be optimal?

Dr. Ayron Strauch: obviously, if we were to maintain monitoring stations at the level which USGS maintains them; they assign about eight to ten stations per staff, so we have about 50 or 60 stations, just for data hydrological data collection. We would need five to six staff just for that, not including biota, not including what we need for meetings, or community engagement, just to maintain stations.

Deputy Manuel: and that's existing right?

Dr. Ayron Strauch: existing not adding new ones.

Commissioner Hannahs: so, let's just say double what we have as a round number. So, is there any prospects for that possibility, Kaleo? Let me ask one last thing of Ayron. You've talked about the scope of the data, just highlight the substance. What's the most alarming thing you're finding? What's the most gratifying thing you're finding?

Dr. Ayron Strauch:

- On the stream flow side, we faced extreme drought conditions in East Maui during 2020, 2021, and 2022. In some streams like Ho'olawa nui and 'O'opuola, the measured low flows were even lower than the entire period of record for the USGS gauges, which have been in place for 50 to 60 years. This is a concerning situation. Despite the challenges, we were able to rapidly quantify these low flow conditions under the current climate conditions. We conducted a three-year study in about 18 months with the help of conversations with the USGS.
- Turning to the biota side, we observed a lack of expected recruitment in streams like Waiāhole

on Windward O‘ahu, despite significant flow restoration efforts. One contributing factor seems to be vegetation management issues in the estuary. Large sections of the stream are clogged with hau bush, similar to the situation in Kahana where overgrowth of invasive vegetation has impacted the stream channel and native species recruitment. It’s disheartening to note that at the 400-foot elevation, we didn’t find a single ‘alamo‘o or an nōpili in a stream that should ideally support their presence due to significant base flow restoration.

- It’s worth mentioning that the watershed where these issues arise is not directly managed by DOFAW. While they manage for myconia and other factors, the overall dominance of non-native invasive vegetation in the watershed plays a role in the challenges we observe. We are still in the process of quantifying the impact of this vegetation, and that’s why we are gathering data-to better understand its role. In a recent survey of a higher elevation reach in Waikāne, we were amazed to find four different native species, including naniha, nākea, and nōpili. Waikāne doesn’t face the same estuary clogging issues as Waiāhole, but it does have water quality challenges due to the presence of junk cars and cesspools in the watershed. Despite these factors, witnessing the presence of native species at a higher elevation than expected was enlightening.

Chair Chang: thank you so much Ayron to you and your team. Mahalo for all of your good work.

Dr. Ayron Strauch: I have to say thank you to the Deputy and my supervisor Dean because they let me spend the money that I get to spend.

Chair Chang: but hopefully, you'll get more we're working on it. But thank you so much for your presentation. We've got one more item, C2. What I'd like to suggest is rather than taking a lunch break let's just take a really quick bathroom break.

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RECONVEYED: 12:18 PM

## **C. NON-ACTION ITEMS / INFORMATIONAL BRIEFINGS**

2. Legislative update presented by Deputy Manuel on legislative bills, budget, and CIP

PRESENTATION GIVEN BY: Deputy Kaleo Manuel

*See PowerPoint Presentation.*

### QUESTION/COMMENTS:

Commissioner Hannahs: Kaleo, where are we on commissioner tenure? Any vacancies and do we need resolutions? Is somebody going off soon.

Deputy Manuel: yes, Commissioner Buck’s term ends next month. Next month will be his last commission meeting. His position has been filled by Dr. Larry Miike; he will be rejoining the

commission in July 2023. He has been selected by the Governor and confirmed by the Senate and will serve another four-year term.##

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Commissioner Buck: this is Michael with comments. The Board of Water Supply really just focused on consultation or were they more deeper than that?

Deputy Manuel:

- There were concerns raised about the bill potentially circumventing the authority of the Governor under 127a regarding the declaration of emergencies. In our testimony, we explained that our goal is not to bypass the Governor's authority but to have the ability, similar to the Department of Health's regulation of water quality, to address water quantity issues. Even during a declared emergency, we would work collaboratively with the Governor as a state agency and develop specific orders to address the emergency.
- The commission, with its expertise in water resources, would provide guidance on these orders. It's important to note that there can be confusion between the Board of Water Supply and the commission, but we have an obligation to all water users in the state and take a comprehensive view of the situation.
- Concerns were also raised about the lack of criteria for issuing an emergency, but the definition in the code explicitly states that an emergency can be declared when there is insufficient quantity or quality that affects public health and safety.
- The decision to declare an emergency would be made by the Commission as a whole, and the process would include transparency and public input. This is how we intended to propose and draft the bill, ensuring due process and inclusivity for all stakeholders.

**051623:03:50:38**

QUESTIONS/COMMENTS:

Commissioner Hannahs: well done Kaleo and team. Do we have the capacity to accept philanthropy?

Deputy Manuel: yes

Commissioner Hannahs so, have we thought about that at all. Is there any bandwidth, to think about some of the sources we might tap to give a significant gift to take care of a precious resource.

Deputy Manuel: we're open to it. I haven't been able to strategize or come up with the time really to frame; what is the ask? We definitely know the budget needs. I think the closest we've focused on is the freshwater council with Hawaii Community Foundation. And it's not necessarily us accepting the philanthropic support, but it's really to support others in the community. Whether water purveyors or private agricultural just becoming better stewards. That sometimes is even better if it's given out that way rather than it come directly to the Water Commission as a state agency. We oftentimes have more strings than anything else to accomplish that ultimate goal. Before I continue, I want to mahalo staff and our Branch Chiefs and our legislative team Michael Yoshinaga, Neal Fujii, Alexa, our legal fellow, all our branches Ryan, Katie, and Dean as well as Ayrone really put in the time this session to kind of get us to where we're at. So, it takes a team to get there but Katie's been the lead now that she's been on the team to really help us look at Federal funding. We have a good chance we're going to get quite a substantial amount of federal funding from support from our entire Congressional Delegation this year. We are waiting for the final budget to kind of get through. But this will be

helping us, we'll be able to leverage our de monitoring well CIP with federal funds to basically double almost triple down on our resources. And then to help support us in other water audit and well abandonment programs. So that's really where I think our core is versus philanthropic funding.

Commissioner Hannahs: but on the philanthropic, there's a big push; migration from just funding-worthy activity to funding impact and transformation. You can't know your impact if you're not measuring. So, when we think about some of the gauging and the expense of putting in that system, maintaining it, getting the data, and analyzing it. There might be some room there so just a thought.

Deputy Manuel: I will welcome your expertise in the philanthropic center on how best maybe we could approach that.

Commissioner Hannahs: happy to chat with you and the team about it and connect with some other people who know.

### Chair Chang

- The Green fee introduced by the governor is aimed at creating a vehicle for philanthropic donations.
- Despite having exceeded expectations in many ways, the DLNR faced capacity limitations.
- The legislators showed increased understanding of DLNR's challenges and were generous in allocating funds to DLNR in the budget bill.
- The Water Commission has emphasized the need for better coordination between government agencies and entities.
- A unified statement of support for the cleanup of Red Hill and the assurance of clean, fresh water for the future was issued by the governor's office, legislative leadership, and the City and County of Honolulu.
- A collective body of government representatives has been formed to hold the Navy accountable and develop strategies for addressing cleanup and future water sustainability.
- The Governor's Water Council, consisting of representatives from various agencies, including the Department of Health, Department of Agriculture, and Department of Hawaiian Home Lands, is working on water-related issues statewide.
- The Hawai'i Community Foundation's Water alliance, with representation from Kaleo and myself, is involved in water-related initiatives.
- Monthly meetings with Ernie Lau and his team, facilitated by Kaleo and I, will focus on discussing water issues.
- There is a growing recognition among government stakeholders, including the legislature, governor's office, and City and County of Honolulu, about the need for better coordination and collaboration on water management.
- The vulnerability and fragility of Hawai'i's water resources, highlighted by the Red Hill incident, necessitate collective action and a departure from isolated approaches.
- The Water Commission's advocacy and the efforts of the staff have been instrumental in pushing for better control and coordination.
- The aim is to prevent incidents like Red Hill from occurring again and to be better prepared for natural disasters or storms that could expose vulnerabilities in the water system.
- Mahalo to the Water Commission and the CWRM staff for stepping up and shedding light on a lot of the issues.

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Commissioner Katayama: as presented in the workload of some of the legislative initiatives. As you increase your staffing to comprehend all the duties that need to be accomplished. Will you continue to be O‘ahu-centric? It seems that a lot of the work is outside of that.

Chair Chang: you're absolutely right. As a matter of just policy and leadership here at DLNR I am really trying to empower our Island staff. We are being criticized by the community for being O‘ahu-centric. I have told all our Island staff whether your land division, DOFAW, DOBAR, or DAR. I'm trying to get everybody out of silos. Whenever an issue comes up, we are triaging with all of the different divisions so that everybody is putting in their mana‘o. But at the same time trying to build capacity within our neighbor Islands as well. We learned that through covid we have to have capacity on each of these islands to support us. So, we are trying consciously to build that capacity on each of the islands so that we are supporting each other. I'm also trying to do multiple within the divisions. When an issue comes up how can we share information resources; knowledge to be much more effective?

Deputy Manuel: the Aquatic biologists that we talked about; two of them will be on Maui with the workload that Ayron shared and the amount of stream work that we do have on Maui, that'll be the first CWRM shift out of Honolulu. Which I will say is a culture shock for an institution that's only been O‘ahu Central. So, I am working with staff to make sure that we have the communication in place, the support system is built. But like other divisions that do have base yards outside of O‘ahu, is to really look outward. Another thing that we're looking at is as we start to onboard or look at options maybe even for some of the planners or compliance people if we can actually recruit from the outer islands where there is a need for more jobs and provide teleworking which is now kind of an option that's evolved in post-covid as an incentive. To get and recruit really good quality staff because some people don't want to be on O‘ahu they want to stay in Kauai or Maui or a big island, we're still working through the complexities of DHRD and our HR process to make that happen but yes, I am having coming from the neighbor Island we are looking at ways to provide a diverse kind of approach to our management and regulation. So, yes.

Chair Chang: we spend a significant amount of our time on litigation, which includes case hearings and court sessions. Our leadership team, Kaleo, Laura Ka‘akua, and I will be going out to each of the islands doing listening to sessions and really trying to engage with the community. We're trying to be more proactive and develop that trusting relationship. I know a lot of community members don't trust DLNR and I think the trust comes through physically being present by going into these communities and listening to what their issues are. I'm hoping that time that we spend will develop trusts and likewise, we'll have commensurate reaction. Response with lessening the amount of time doing litigation I'm hoping we will be able to channel some of that energy into something more productive.

Commissioner Buck: I'm happy to give you some free advice. I've worked with seven different DLNR chairs looked at a lot of organizations. But you have some divisions that have regional authority where their staff is at a level where they're both responsible to make decisions on the island; you have other divisions that are very Honolulu-centric, and things need to go back. So, I'm happy at any time to give you some structures of potential. And I know reorganizations are just horrible. I've been through in my share, but to really manage the island so you can break down the silos between the divisions. There are some personnel reorganizations in certain divisions that that's not how they're aligned, it's not their history, that's not how they make decisions, and I think there's some real opportunities there I'm happy to offer you some free advice on your request. Thank you.

Commissioner Hannahs: you were speaking from your larger broader DLNR perch but from the Water Commission standpoint. Do we have any active litigation right now?

Deputy Manuel: We have current contested cases that you've approved. We haven't started that process a lot of it is timing and working with AGs. The Land Board takes up a lot of the contested case capacity. We don't have much, and we've been really trying our best to walk through and walk with the community and applicant. And in the regulation and stewardship of resources so right now I think there are only two pending plus we have appeals of former contested cases<sup>3</sup>

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Deputy AG Julie China: two pending plus we have appeals of former contested cases that we are defending in the appellate courts. And there's the land division water RPS but those are not your kuleana.

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Deputy Manuel: just off the top of my head. The Wailuku water company, Pale'a'ahu waste that's in a contested case. There's the Kawela IIFS that is pending us coming back to the commission to either Grant or deny a contested case; there's a petition for that. And then there is technically the Ota Well, that was the Kona well, contested case petition. So, there are two petitions that we have to bring back to the commission with some kind of resolution or actions or next steps but that would be the only three at this point that are pending, and then the Nā Wāi 'Ehā appeal so that would be four judicial types of processes that we'll be engaging in.

Commissioner Hannahs: well, it feels like the nature of the issues that we're involved with, it could be a lot more. I really want to credit the staff and Chair Chang. You mentioned that people don't trust us; people trust Ayron. I mean we hear that all the time, he's out there in the field and so forth and we get a lot of good feedback on his work so I'm optimistic that as we have more neighbor island representation by our team, things will fall in line, and we'll avoid these contentious and expensive and delays of contested case and all this litigation and so forth.

Chair Chang: you guys have done a lot of really good work here to sort of address a lot of those community concerns. I think having a lot of the community engagement process has also helped with respect to the Water Commission lessen those numbers.

Deputy Manuel: Chair, item D's next meeting is June 20th so it's our standard third Tuesday, but July 26th is the next one so that's the last Wednesday in July. Then August 15th we're back on schedule to Tuesday.

Commissioner Hannahs: I did have one more on the government matters. When you mentioned Wailuku didn't the new mayor of Maui make a statement about wanting to buy them and is there any progress that we're aware of the county acquisition of the major purveyor for Nā Wai 'Ehā.

Deputy Manuel: I can provide an update on that one. We did hear from the Department of Water Supply staff that Mayor Bissen is interested and that they are going through their due diligence on that acquisition. Having heard that we already proactively reached out to the Department of Water Supply and their new leadership to kind of walk through the Nā Wai 'Ehā decision that the commission made and that the obligations that they would have to commit to if they were to take on that kuleana in lieu of Wailuku water company and then discuss some potential future opportunities.

Chair Chang: We are adjourned thank you.

May 16, 2023

Minutes

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

June 20, 2023 (Tuesday)

July 18, 2023 (Wednesday)

This meeting was adjourned at 1:17 p.m.

Respectfully Submitted,

*Nadine Pomroy*

NADINE HŌKŪLANI POMROY  
Commission Secretary

OLA I KA WAI:



M. KALEO MANUEL  
Deputy Director

**WRITTEN TESTIMONIES RECEIVED:**

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