

MINUTES
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: November 20, 2018
TIME: 10:00 am
PLACE: West Maui Veterans Hall
198 Fleming Road
Lahaina, HI

Chairperson Suzanne D. Case called the meeting of the Commission on Water Resource Management to order at 10:01 a.m.

The following were in attendance and/or excused:

MEMBERS: Ms. Suzanne Case, Mr. Michael Buck, Mr. Neil Hannahs, Mr. Paul Meyer

STAFF: Jeffrey Pearson, Dean Uyeno, Ayrton Strauch, Rebecca Alakai

EXCUSED: DOH Representation, Dr. Kamana Beamer, Mr. William Balfour, Jr.

COUNSEL: Ms. Linda Chow

OTHERS: Lynn Kahoohalahala, Keola Rogat, Bruce Moore, Hokiao Pellegrino, James Simpliciano, Craig Murakami, Roz Baker, Napahi, Kaili Laau, Skippy Hau, John Duey, Diane Pure, Ralph Yanagawa, Caleb Rowe, Yolanda Dizon, Kathy Corcoran, Damon Gill, Frank Kalepa, Keith Chang, Sommerset Wong, Kaena Keahi, Dylan Payne, Penny Wakida, Lani Kane, Naomi Guth, Keith Keahi, Zane Kekoa Schweitzer, Charlie Palakiko, Nathan Pallett, Letitia Ii, Don Gerbig, Tiara Ueki, Mike T__?, Warren Watanabe, Mae Nakahata, Kristi Ono, Kamana Ng, Erik McLellan, Boi Crichton, Brian Haia, Sione, Christine Keahi, Moke Keahi, Nori Tihada, Susan Yap, Kekai Keahi, Julie Strong, Brad Paulson, Kamuela, Goth, Emili Janchevis, Tom Blackburn Rodrigues, Michele Napuunoa, Archie Kalepa, Kelli Keahi, Steve Keahi, Louella Haia, Lawrence Cananilla, Michael Kains, Alberto Nobu, Albert Perez, Malihini Keahi Heath, Kawika Freitas, Haunani Teruya, Rick Davis, Peter Martin, Lopaka Wilson, Kawehiwahi Pundyke, Kala Tanaka, Keeaumoku Kapu, Raihau Puletu, Tiare Lawrence, Autumn Ness

All written testimonies submitted at the meeting are filed in the Commission office and are available for review by interested parties.

Approved by the Commission on Water
Resource Management at the meeting
held on January 15, 2019.

A. APPROVAL OF MINUTES

October 16, 2018

Commissioner Hannahs made corrections to the minutes. On page 4, 5th paragraph, second sentence should read: There is surface water there but I get the problem that it needs to be treated for anyone to use it because of what it's carrying.

MOTION: (BUCK/HANNAHS)**To approve the minutes as amended.****UNANIMOUSLY APPROVED AS AMENDED.**

Chair Case read the standard statement on contested case hearings: The commission may go into executive session pursuant to 92-5(a)(4), Hawaii Revised Statutes, in order to consult with its attorney on questions and issues pertaining to the Commission's powers, duties, privileges, immunities and liabilities.

Any person may testify or present information on any meeting agenda item. In addition, if you have a legal interest that may be adversely affected by the proposed action, you may have a right to an administrative contested case hearing. An oral or written request for a contested case hearing must be made by the close of the public hearing or prior to the vote on the merits at the commission meeting at which the matter is scheduled for disposition. In either situation, the person or agency requesting the contested case hearing must file (or mail and postmark) a written petition with the commission not later than ten days after the close of the public hearing or the commission meeting, whichever is applicable. Petition forms are available from the Commission.

If you request a contested case hearing, you will have the opportunity to present to the Commission oral or written evidence or testimony or both to establish your standing. You may present your testimony or evidence on standing at this meeting or alternatively, at another meeting scheduled by the Commission at a later date.

If you do not make such a request or fail to file a timely written petition with the Commission, you may be precluded from later obtaining a contested case hearing and seeking judicial review of any adverse decision.

B. ACTION ITEMS

- 1. Federal Highway Administration, Central Federal Lands Highway Division, Application for a Stream Channel Alteration Permit (SCAP.4910.2), Wainiha Stream Bridge Replacement, Wainiha, Kaua'i, TMK: various**

PRESENTATION OF SUBMITTAL: Rebecca Alakai

Mr. Tim Tam, U.S. Federal Highway Administration representing the applicant, was available to answer any engineering questions.

Commissioner Meyer asked if the timber bridge material is made of wood.

Mr. Tam answered that the current one is.

Commissioner Meyer – scheduled a picture of a visual rhetoric of the modified timber bridge that might lapse between the boards, to my eye may be an inch, three quarters, to an inch wide. Isn't that dangerous for bicycles? Is there going to be any provision for maybe on the shoulder to continue a smooth area so bicycles don't get caught and people fall if their tire gets caught in the cracks?

Mr. Tam answered I think the rendering right now might have gaps but in the design, we will fill in those gaps for bicycle traffic.

Commissioner Buck asked is the use of timber just for the historic aspect of this bridge or is that something that you are doing in other places.

Mr. Tam answered when we went through the EA process, we wanted to keep the cultural aspects of the bridge and that has a timber deck. The timber deck is mainly for wearing surface and cultural aesthetics. The bridge is concrete and it can handle all your traffic weight as needed. The timber bridge is mainly for aesthetics and wearing surface.

Since there were no testimonies or questions, Chair Case for a motion.

MOTION: (BUCK/HANNAHS)

To approve the submittal.

UNANIMOUSLY APPROVED.

2. Amended Interim Instream Flow Standards for the Surface Water Hydrologic Unit of Kahoma (6008): Kahoma and Kanahā Streams

PRESENTATION OF SUBMITTAL: Dr. Ayron Strauch

Commissioner Buck – seems like the Hawaii water systems are increasing while the counties are staying the same or going down. What is the reason?

Dr. Strauch – more homes are being built; not sure. They run at least 7 wells in the Honokowai aquifer. They feed most of the Kaanapali area.

Commissioner Hannahs – the loi used in Kahoma, does it return the water to the stream?

Dr. Strauch – yes, there are 5 active and the water returns.

46.37

Meyer – how did you reach the period of 3 years as a condition or increase in IIFS in Kanaha in given that most.

Dr. Strauch – I believe the question is how do we come up with 3 years as a deadline to develop additional water sources in Lahaina water system.

The three-year deadline was based on conversations with people who understand Maui County bureaucracy and funding constraints.

Commissioner Meyer – but you didn't talk to Maui Department of Water Supply (Maui DWS) staff on that?

Dr. Strauch – not with the deadline issue.

Commissioner Meyer – did you consider at all establishing a deadline based upon the development of the potential loi as opposed to other criteria. I understand that loi, the 3,488 acres which you target is not developed in its potential at this point, but the water is being provided for it.

Dr. Strauch – actually, the .8 mgd recommendation was based on what was necessary from Mauka to Makai stream flow and it was assumed that the traditional customary practices could also use that .8 for whatever they needed as they develop loi.

Commissioner Meyer – correct, but that wasn't considered in the development of the loi wasn't considered as a potential condition like the developmental wells that seem to take 3 years.

Dr. Strauch – no because we want to make sure there was Mauka to Makai flow immediately or as close to immediately as possible. We understand that it's a losing reach and it might take some time.

Commissioner Meyer – but at this point the loi is not developed at its potential in terms of customary use.

Dr. Strauch – correct.

Commissioner Hannahs – on page 10 of the submittal. You have Honokohau mean annual flow over century we're seeing cfs decline significantly by quarter. Have you projected going forward. Is this a function of managing watershed or climate change?

Dr. Strauch – it's all climate change related. One of the reasons why I included in the submittal projection for rainfall in Maui (the previous page) you can see where rainfall is projected to decline significantly and non-significantly across the island and so that will play a role and availability in certain groundwater recharge.

Commissioner Hannahs – in general that argues for more conservative use of the water in terms of leaving more in the stream or is there a general rule of thumb that we should follow up?

Dr. Strauch – we don't have a policy but we are basing recommendations on the amount of water that is available in the 1984 to 2013 climate period which we are in right now. We have seen a decline in rainfall since the early 70s. It provides for some level of being conservative and not taking the entirety of our rainfall record and using that. If we project out continued declines in rainfall we continue declines in water availability. We might have to address some of these water issues again.

Commissioner Hannahs – there has been a significant commitment to West Maui partnership to restore the vibrancy of the watershed. Have we seen that in data or is it too soon, the 25-year percolation?

Dr. Strauch – unfortunately we don't have long term stream gaging stations in West Maui which is one of the reasons why the Water Commission and Maui County are increasing our funding for real time surface water monitoring in West Maui. We have lost our gaging station in Iao Valley. We don't have the 2 records we can compare with are Waihee and Honokohau. Honokohau being somewhat a unique situation because it's on the windward side or the northern most watershed in West Maui. It's applicability to water availability here in Kahoma is somewhat subject.

Commissioner Buck – first I want to commend you and your staff for doing this incredible proactive work and setting the IFS for these West Maui streams. Going back to Kanaha, the water allocated for the loi, that is not considered in the IFS even though it would be a flow-through system and the water would be going back into the stream, into the ocean.

Dr. Strauch – to get water Mauka to Makai from the diversion down to Kahoma Stream would require about .72 give or take 5 or 10% mgd and the consumptive demand for loi would be somewhere around 13,000 gallons per acre per day so the .8 mgd IIFS should provide for some loi development but the flow through for whatever loi are developed would support the Mauka to Makai flow.

Commissioner Buck – so you are differentiating between the consumptive use of the loi and the flow.

Dr. Strauch – yes. Loi might need 200, 250, 300,000 gpa/pd or .2 or .3 mgd per acre per day. Some of that can be met or all of it will be met with water put back into the stream and that water will also support Mauka to Makai flow. It's not one or the other.

Commissioner Buck – adaptive management, we understand all streams at different times change. Kanaha is a big adaptive management and you have to, first time that we have done a different time table. Can you tell us about the things that you will be looking at in this adaptive management, the development of alternative water supply for the county would be

huge, but what are other things you are looking at and how that might impact the IIFS that we are adopting today.

Dr. Strauch – Mauka to Makai flow you put much water in the stream, you go down stream all the way to the ocean. Because it's a losing stream the .72 give or take, a drop of water might make it to Kahoma but not necessarily a flow of water, not 80% of the .72. It's going to be like 4-5% of .72. Understanding that there are complexities involved with all of the offstream uses, the actual flow necessary to provide for fish habitat, recreational uses for substantial, the actual protection for instream flows, instream values necessitates more like 1.55 mgd. Understanding that if we put all that back into the stream immediately, there would be substantial offstream consequences including DWS Water Supply which we don't want to impact. We decided in a phased approach so the current IIFS proposed would be for some Mauka to Makai flow, provide for whatever water is necessary to develop loi and once that additional water source comes online to offset the loss of water diverted by the county, then the IIFS would ramp up to 1.55.

Commissioner Buck – so 3 years from now 1.55 might change?

Dr. Strauch – yes, so in 3 years we might look at how much habitat is currently being supplied by the .8. We might do a trial run of 1.55 and think that is still not enough. There are other things to look at as well. We could look at stream temperature, for example. If the 1.5 does not supply enough cold water for loi development, that's an issue we would have to address.

Commissioner Buck – in accepting 1.55 in 3-year delay, we are putting our line in the sand for all the offstream users that this is what is on our mind and you need to try to deal with that.

Dr. Strauch – yes.

Chair Case moved to public testimony.

TESTIMONIES:

Lynn Kahooalahala – graduate of Lahainaluna High School, teacher, parent and currently the principal. Spoke on behalf of Lahainaluna. As a steward of Lahainaluna, said that today Lahainaluna School has a vibrant 21st century educational program and a growing revitalizing agricultural program. In 2016 the Commission staff started meeting with the community stakeholders related to water in both Kahoma and Kanaha Streams but never met with Lahainaluna. For 2 years the staff held meetings but Lahainaluna was never included in any of those meetings. I was only contacted a month ago by a staff member and no mutual time was available for a meeting. I was only made aware of the October 9 meeting from a community member. Lahainaluna is the first distribution priority and has held water rights for 187 years. For 2 years no meeting was held with Lahainaluna. If meetings had been held maybe more accurate estimates of Lahainaluna's water use could have been made in your report. Referred to page 13 of the submittal, last paragraph. You

failed to take into consideration that Lahainaluna is unique and different from any other public school in Hawaii due to the fact that we have a boarding program. Lahainaluna has students living on campus 24/7 as well as families living on campus year-round. This increases the need for daily potable water use in Lahainaluna beyond the school standard and should be included in the estimate. This needs to be revised in your report because the process is based on best available information when weighing the potential instream and non-instream uses. Another example that could have been discussed is also on page 13 where the report talks about the current active diversion 954 Kanaha Stream. She referred to page 18 of the submittal. There is a list of owners and land along Kanaha Stream but failed to mention Lahainaluna lands. Currently Lahainaluna uses 295,000 gpd of non-potable water. Lahainaluna respectfully disagrees with staff recommendations on page 21 where it concludes that Lahainaluna only needs 10,000 gallons of non-potable water per day.

Commissioner Buck – clarified – what we are doing today is setting the IIFS for what water needs to remain in the stream. We are not changing any sort of water agreements who has with any other entity. From what I get from your testimony is that the staff report underestimated the amount of water that you need and you are recommending that we lower the IIFS to lessen what the staff has recommended so more water would be available for whatever agreements you have with Maui County. We are not today at all addressing how much water Lahaina and the agreements that you have. All we are doing is what we think needs to remain in the stream.

Ms. Kahoohalahala – totally understands that. I just wanted 1) I don't think Lahainaluna was ever consulted officially with the report so people are giving input on what we have based on "I don't know what". I'm just trying to clarify today that I have some facts and figures that hopefully the staff would take into consideration because 10,000 gallons of non-potable water per day is the recommendation at the end of the report vs. 295,000 gallons that we currently use, is a huge discrepancy. I just wanted to make that clear.

Commissioner Hannahs – so you're not recommending a change in the IFS? You just want the record to be clear on your uses?

Ms. Kahoohalahala – I just want to be clear that Lahainaluna's water rights and what are current use is.

Commissioner Hannahs – If you set it at .8 and you apply 17.7% right that comes out to .17. It's not going to hit your 295. You are aware of that?

James Simpliciano – Living on Maui as a chef. Volunteer time and thinks about the sustainability of food. As a farmer, I was given the opportunity to steward and help others to grow food and provide food for families and provide business the opportunity to bring food to our island. If we provide Mauka to Makai flow it would bring in fishes, limus. Thank you for letting me speak about the value of wai and the value of organic soil throughout our State.

Craig Murakami – President of Lahainaluna Boarders Association. Student and boarder at Lahainaluna High School in the late 60s and early 70s. As a student, we worked on campus. The stream provided water to irrigate our orchards, our garden area of corn, peas, green beans and all kinds of vegetables. It also helped us wash down the swine and dairy area. On behalf of the school they want to bring back programs and water is needed for that.

Caleb Rowe, Deputy Corporation Counsel on behalf of Maui DWS, submitted written testimony but also summarized that the County fully supported of restoring Mauka to Makai flow for the propagation of instream purposes and especially appreciate the fact that the Commission is willing to do this kind of managed practice where it changes over time. Have concerns on the way the adaptive management is going and we would like to have adjustments made to that. This is largely based upon the fact that in the presentation that was submitted by the staff, the county's actual use was fairly significantly below of what we actually use. The figures that you were given 1.7 mgd was based upon a long-term average. Recently we have been using 2.05 mgd. The reason is we have 2 wells that back up the Lahaina system. However, we significantly reduced the amount of well water that we pump from those 2 sources because of salinity. We reduce the amount of water that we are using there and we are also using more stream water to mix with that because of the salinity concerns. The County is planning to construct more wells and is aware that it will need to construct more wells in order to meet any IFS that supports Mauka to Makai flow. The current adaptive management strategy puts that period for developing new ground water sources at 3 years. The county's experience is that it's going to take closer to 5. We do have a recommendation so this could be adjusted that I think would address everyone's concerns. On page 3 of our testimony, the gist of it would be that instead of having .8 mgd restored immediately, have that be .55 mgd. The effect of that would be that the county's use of 2.1 mgd would be met 90% of the time and Mauka to Makai flow would be met 70% of the time. With the adaptive management strategy, instead of having it be 3 years where the IFS increase, move that to 2024 and 5 years so we can actually develop these well sources. At that point, we will know how much water we are going to need to develop in ground water sources. We can adjust to whatever that is but we are asking for time in a matter that doesn't jeopardize public water supply. We have a recommendation for the adjustment to it. Again, we really appreciate the fact that the Commission is considering this method of going about it where it increases over time and we are extremely supportive of that. We just would like a few tweaks to make sure that we can fully appreciate that goal without compromising public access to water.

Commissioner Meyer – in the testimony, the county has 2100 connections in the Lahaina serving area. How many people? About 10,000 people?

Mr. Rowe – I have to look that up. Not sure off the top of my head. I have someone from the Dept. of Water Supply to answer that question.

Eva Blumenstein – about 10,000 is for domestic purposes as well as for fire. Majority of that water is for residential uses and a small portion for commercial.

Commissioner Meyer – there was an implication by staff that the wells in the Napili areas, Kahului area and other sources in or near a water treatment plant. Is it true the County can also supply Lahaina.

Mr. Rowe – Lahaina is largely dependent on it. We currently don't have the infrastructure to connect those 2 systems. I believe that we are developing new wells in those systems that will support so the capacity is there but there is no infrastructure. What we would prefer to do is drill new wells in a scattered manner that won't affect the salinity over time, given about a 5-year period to do a full development. That is specifically connected and reserved for the people of Lahaina.

Commissioner Meyer – that was my understanding, but I wanted to clarify that because it does appear that the 2100 connection in Lahaina and the 10,000 people who depend on water. They are pretty much isolated and 100% dependent on the Kanaha Stream flows and the production at the water treatment plant.

Mr. Rowe – that is correct and the important note that you made is that these are domestic connections, unlike some other systems where the DWS does, for example, serve water to the resort areas. The DWS from that system is not doing that. It's 95% residential so it's 95% domestic which is a recognized public trust purpose.

Chair Case to Mr. Rowe – Do you know how many gpd per person does that work out to?

Ms. Blumenstein – didn't make the calculation in this case but it varies. Approximately based on empirical data water use in Lahaina is little below the system standard. The system standard is 600 gpd. Water consumption per service (meter) has decreased over the years thanks to conservation efforts.

Chair Case – can you describe water conservation practices for the users.

Ms. Blumenstein – a lot of what we do is public outreach, workshops, community events. We provide local fixtures to our customers. Some recent campaigns we have done is auto low flow toilet replacement where we address older buildings to retrofit with the low plumbing codes, .8 gallons per flush. Now their target is outdoor use. We have rain barrel give away. We are also working in piloting the first rain water recycling project for Launiupoko park which will directly benefit the Lahaina system. That system is currently using potable water shower, toilets and sink. We are working with the county parks department to retrofit the showers and sink system for fully integrated grey water system. Those are some examples; there are many other things that we do.

Commissioner Hannahs – are you experiencing any decline in water quality; salt water infiltration caused by sea level rise?

Mr. Rowe – I'm not sure if it's caused by sea level rise. We have experienced an increase in salinity from the 2 wells that service Lahaina. In order to combat that, we have been mixing that with stream water to keep salinity levels low enough for it to continue to be potable and

for people that want to drink it. The answer is yes from the source but no from the distribution. We make sure that the water we are distributing.....

Commissioner Hannahs – In general if the water is in the stream, in a losing stream, is that helping to protect the quality of your water?

Mr. Rowe – as far as recharging the aquifer, if that’s what you are asking, I would imagine, yes.

Ms. Blumenstein – added so we are looking at exploring alternative well sites to distribute pumpage throughout Launiupoko aquifer and we prefer to do that in smaller wells to mitigate the impact on the aquifer rather than have one large well replacing the surface water flow. We are basing that on the USGS model. The study was completed in 2012 and specifically different impacts from redistribution of pumpage vs. stream restoration. And it found that positive impact on chlorides from pumpage distribution was greater than stream restoration. We hope that will be positive impacts.

Commissioner Buck – commended the county on the leadership and supporting the West Maui watershed partnership. You were the first county; we appreciate that. Without our forest, we don’t have water that we use. The current staff recommendation, your amended recommendation, how would that impact your relationship in supplying water to Lahainaluna School?

Ms. Blumenstein – the Department serves potable water only to Lahainaluna School. We are the only surface water treatment plant. Any other use from Kanaha School is from non-potable agricultural needs. The would school just as all the other customers impacted if we have a shortfall that would result immediately in our reliable capacity and not being able to meet current existing customers prior flow and of course taking on new demand. So, as we state in our testimony, we foresee dry season coming up. If we have a shortfall of the proposed magnitude we would have to institute conservation measure. Worse case would be moratorium as well. That would impact the school just as all the other existing customers of Lahaina.

Commissioner Buck – I know they have first priority. On page 4, is that potable or non-potable, their historic prior agreement that they have with you in 1982.

Ms. Blumenstein – I’m referring just to the potable purposes that we are serving through our system, water meter. I think what you are referring to is separate, non-potable demand.

Commissioner Buck – which is upstream from the water that you would use for potable. Is this correct?

Ms. Blumenstein – I believe so.

Commissioner Buck – so it would impact because they are taking water before you treat your water?

Mr. Rowe – I'd have to look at a map of the system. I'm not 100% sure where that comes from. However, with our amended recommendation, we did, in making that amended recommendation consider the values the staff had assigned to Lahainaluna and I believe Mr. Hans, the other party who is taking off the stream. The amended recommendation that we are giving does take that into account, at those levels.

Commissioner Buck asked Dr. Strauch – I'm trying to clarify the non-potable water use from Lahainaluna School, their priority versus the potable water needs and demands of the county. Lahainaluna is first on top.

Dr. Strauch – there is a concrete distribution box and there is a physical structure that divides the water to the different end users. Everything happens as the flow of water increases in the pipeline.

Commissioner Buck – so even that Lahainaluna has a priority; it still all going in at one time.

Dr. Strauch – the priority is met simultaneously with all users.

Mr. Rowe – Made note that an earlier testimony was submitted. He provided testimony that was submitted yesterday, Nov. 19. This one has an amended recommendation, the last paragraph on page 3.

Teacher of Puna Na Leo O Lahaina – preschoolers spoke in Hawaiian – in support of restoration of Kanaha and Kahoma Streams. Preschoolers are descendants of Lahaina; they work the loi. Restoration means more than anything. Put the water back. Restoring our water is so much more than life, it's connecting our families and our keikis to Lahaina and giving them a sense of self. There is so much for your soul, mind. We want to come here today to tell you that we are in support and strongly encourage 100%, not 10% not 5% not 50% but 100% of restoration of the wai into our streams Kanaha and Kahoma and all our streams on the west side.

Teacher - These children you look at are the descendants and future of Lahaina. We are the descendants of Lahaina. I hope you guys understand that. A lot of you guys not from here. A lot of these people in this room is not from here. Not pilikoku to this aina. (pili) To cling, stick, adhere, touch, join, adjoin, cleave to, associate with, be with, be close to or adjacent; clinging, sticking; close relationship, relative; thing belonging to. No entries found for koku.

When we take these kids up in to Kahoma and work the taro patch, this is the future, not water for rich houses and more development. This is our future so our kids can eat pono food, good food. So, we're not bringing food from outside. These are the descendants of Lahaina, whether there were fishermen, farmers, everything have to do with the wai. Everything that happens out there made everything down there pono. Think about these children when you guys make decisions and not money hungry rich guys.

Teacher from Puna Na Leo O Lahaina added being born and raised here in Lahaina I didn't even know water existed over here. I never went to Kahoma, Kanaha and to think that this can be a living thriving environment classroom for our children to learn in, it just means more than anything.

Passed the microphone – children spoke in Hawaiian.

Teacher translated – they basically all said to put the water back. Thank you.

Yolanda Dizon – Put back the water. On the radio, tv, people talk about eating healthy. Eating fruits, vegetables that are shipped in on the boat. Everything has pesticides, germicides. Everything that comes in off that barge, that barge shut down, we are done. Self-sustainability has always been said. How do we do that. Put the wai back in the river. Lahainaluna at one time was self-sustainable. Everything grown, raised was put in the cafeteria for our people to eat, our students. Everything was healthy. No such thing as cancer, kidney problem. Ever since the water stopped flowing like it used to. No more agriculture; they are struggling up there. We have to go buy toxic tubes that you throw in the microwave or oven. That's what our babies are eating. That's killing them. So please, put the wai back in the river. As far as the county is concerned, nothing personal, it will never happen. 5 years, I don't think so. It takes so long for the county to do an assessment, a study, but yet we still allow people to come in. We still allow more buildings. We are on an island. We are overcrowded, over populated. So, there will never be enough. Put the water back in the river; let it flow. Let life come back. What recreation is up at Kahoma that needs all that water. Lahainaluna needs it more. Kanaha has hardly any water. You have the facts from Ayrton. Study the facts.

Keith Chang – Land Assessment Manager for Kamehameha Schools (KS). KS supports the proposal by CWRM to establish IIFS for Kahoma Stream. appreciative of the field work and community engagement efforts by CWRM staff, especially Ayrton. We are also grateful for the community members here today who have a shared interest in caring for our water resource. Traditional uses of water are important to us in sustaining the practices and cultural identity of our lahui and in promoting a healthy habitat of native aquatic species. We are particularly proud of the loi restoration efforts being led by the community member in Kahoma. KS proactively returned water to Kahoma Stream years ago ahead of IIFS being established. We thank CWRM for validating our actions today. KS remains excited and committed to working with the state and community members in managing this precious trust resource for the benefit of generations to come.

Kanekoa Switzer – speaking on behalf of the kids of Hawaii. Still a young kid, a lot of these people have taken me under their wings. Coming from the water background, professional surfer, travelling the world. Been to over 50 countries and seen a lot of communities' struggle with similar things that we struggle with. A lot of people are being affected about the water that is being diverted. I know it's a big thing to work around, sustainability. I'd like to think that sustainability as something more like eco innovated. I'd like to think of not only how we can get the water back in but how we can get the people, hotel, all the

community to conserve their water usage. If all water was flowing and can provide for ourselves.

Nathan Pallet – natural resource teacher at Lahainaluna High School. Spoke on behalf of the students at LHS. He read a written statement. On behalf of LHS agriculture department regarding the Commission's plan and possibly limit stream water from Kanaha Stream for agriculture use at LHS. Students have signed letter addressed to the Commission not to stifle the torch of excellence here at LHS but to help stoke its flame with water allowance we have enjoyed for generations.

Commissioner Buck – you are an educator. You've heard testimony mostly about restoring all the water in the streams. From LHS, county of Maui, they are saying we should not put as much water back into the stream and increase the offstream use. If we do accept less water in the stream, there is a possibility that loi downstream will not have water available. There would be no balance. As an educator, how would you approach your students when potentially you are used to water is not going to allow some people water downstream for loi production.

Mr. Pallet – it is a balancing act. Not really sure but there are large tracts of land that are completely barren. There is nothing growing on it. Before it used to be forest, irrigated. Evapotranspiration contributes to the lack of water in our streams. Looking at the water cycle if you don't have anything green and just bare soil, there is no connection. The water cycle ceases to exist. So, what you are relying on is what is trapped through trade winds. The moisture that is trapped through trade winds up in the high mountains, you need to educate students on how to use water effectively; how to manage resources; how to reforest areas. My opinion about the report that has been written is that Lahainaluna should reduce its use to 10,000 gpd which would effectively eliminate this study. Their effective ability to study resource management at that point would be in a text book. They wouldn't be able to irrigate fields of real crops or participate in that kind. We would have to totally rely on rain water and to do that, in my opinion, we would have to reforest all the acres that are left barren. Reforest the mountains above; bring back that broken water cycle. That would take several generations.

Chair Case – can you talk about the water conservation methods you have in place?

Mr. Pallet – hard to explain; right now, there isn't a teacher. I have a blank canvas. What we have been doing is for our row crops. Instead of using overhead irrigation which has water efficiency rate between 40 and 60%. We employ drip system which greatly increases efficiency depending on what you are growing. The way you grow it, we can get it as high as 97%. That's one way. The reforestation effort is also something that is going to be real big. All the slopes that are on Lahainaluna land near our agriculture department will hopefully be reforested and as the years go on. Eventually they will no longer need their own irrigated source of water because they will have their roots to grow deep enough they can supply their own water. This leads into certain education standards I have to teach with livestock. You can't keep livestock against a water source because it taints the water and keeps other things from growing. The idea is that it's a holistic approach. We work with

the most cutting-edge technology we can which is drip irrigation, measuring our flows more effectively, looking at our soil density to insure proper water infiltration, times of watering to reduce run off which again a soil erosion management practice.

Chair Case – what in your loi kalo, now or as planned, what happens to your water?

Mr. Pallet – the area that it would put in would be initially cost prohibitive, to bring water back to the river. It would be used to irrigate crops. Whether we use a silt catchment and filter out some of the large particular to irrigate crops or to run it through using a channel system to irrigate more culturally significant tree crops.

Commissioner Hannahs – Puna Na Leo teacher described the water in the stream as a living classroom. Do you share that philosophy? What is the extent of your program to capitalize on that classroom?

Mr. Pallet – Lahainaluna is right up against the river. Eventually, the idea is that we would start with the classroom building the nucleus of the program and slowly work our way out and eventually it would be my plan to have loi at the river. When I was in high school you would see old areas that were either formerly loi or could be turned into alongside the stream. I wear a couple of hats on campus, one of them is substitute dorm attendant and it seems to be something that eventually we may have orders working closer to the river, doing projects that are much larger than what I can do in one hour period with students 3-4 times per week during day school.

Commissioner Hannahs – so the fact that waters in the rivers or waters that are irrigating crops upstream and upstream uses?

Mr. Pallet – sure and while we are planting, I don't plan on using any kind of My no till policy that I'm going to try to implement is using a roller crimper to make sure there is always either green vegetation or dead organic matter on top of the soil to reduce the amount of evaporation off the soil. I don't ever intend to turn the soil which increases carbon in the atmosphere and releases a lot of moisture. That's a water conservation method I plan on using. In the pastures where we are going to have animals, it's going to be indigenous trees hopefully endemic as much as possible and later part of the legacy I hope to instill is that once I retire those trees will be large enough to turn or use for anything, whether it's just to make a fancy bowl or something. On every slope is going to be something grown for a specific purpose. It's my hope that every square inch of my area of responsibility has production value, whether there is lei flowers or other important crop to be grown or something, it will be holding the soil, adding to the amount of moisture that is released back into the water cycle.

10-minute break.

Kekai Keahi – graduate of Lahainaluna High School and part of the agriculture program. During my intermediate school years, we were raising taro in Kanaha. Aunties, uncles, cousins lived and raise in that valley. He never knew what he had until there were none

because the water was taken away. He stated that what Nate Pallet and Lynn testified, he feels they are misleading the Commission. In April or May we had a meeting with KS and asked them to send notes. Met with Lahainaluna High School discussing having water go towards Kuia to help the leasees at Kuia. We couldn't do that. They knew from earlier this year that this was coming down line and people taking a look at restoration. This was not a surprise to them; they knew. A lot of the fish tank water gets dumped out into the fields for years. Pallet told him he wanted to use the water somehow to make taro patches. He feels a lot of water is being wasted (i.e. broken sprinklers and water running down the road). Water is streaming down the hill to the road. You, the Commission are the stewards and deny kuleana the right to the water and the stream. They claim that they have priority but they don't. Who has priority in the stream? Kuleana, not Lahainaluna High School. We have priority. The 17% that they are talking about that was allocated to them, was allocated by Pioneer Mill. They have no jurisdiction to allocate water. The only reason why Pioneer Mill allocated water to Lahainaluna is because they took Kahoma water, tunneled through Halona and put it in the auwai that went through mixed with Kanaha water and went through Lahainaluna and went through Kuhio. So now Kahoma is out of the equation when it comes to that water. so that 17% is gone. You cannot continue to say I have that right to 17% when you get it from someone who does not have the authority to issue out that water and now that part of that source of water is being removed from Kahoma because it's not coming through Halona anymore. Diversion 958 from Kahoma is out. That is the intake that fed Lahainaluna High School through the auwai coming across. I was disappointed. A lot of Lahaina people here supporting Lahainaluna, they don't even know what is going on. We come from the valley. My tutu lived on Lahainaluna campus and made sure that Lahainaluna always had water because the water came from up above our property. He made sure Lahainaluna had water. that was part of our family heritage, making sure Lahainaluna had water. He feels that he got stabbed in the back. He is ashamed to say he is from Lahainaluna. If you are the oldest school and deny kuleana their right, shame on Lahainaluna. I am in full support of some amendments to the recommendations that was offered. Instead of 800,000 I would like 1 million mgd initially returned to the stream. After that, .55 million. We, 10 years ago started the push to restore water back into Kahoma. We were going back and forth with KS and West Maui Lands. In the valley, we were denied water while in Kahoma, tourists were going up there riding down slides. They were herding water from Kahoma to the reservoir and they built slides going down a 6 million-gallon reservoir. We then push to get water back. Then, KS made an agreement with West Maui Land without us. WML asked for 100-150 thousand gallons water for agriculture; they were going to put together that would take 3 years. We were unaware of this. When 3 years came up and we found out about it then WML was going to renew the agreement and increase to 300,000 gpd. This time we were at the table and told them KS and WML had a meeting and an agreement worked out between them that actually belonged to us, kuleana. At that meeting, we have pictures. They are not honest people. We saw them a few months prior to the expiration of the contract. They wanted more water. they started planting lychee trees, mango trees, citrus and claiming that they are farming. When this was brought to the attention of KS, the person in charge agreed that they had just planted. They were pushing to make the deadline. Deceiving while us in the valley are still suffering. We are not the ones that are taking water from people. We are the victims; water is being taken away from us. I disagree with the back-door dealings. These entities have no

jurisdiction of the water. We, on kuleana lands looking at dry loi. We had our first harvest a few months ago. About 10 years ago, we did a survey with Skippy; dead stream, no fish, zero. Now, it is littered with fish. It's because Kahoma is running 100% of the time. People were overharvesting oopu. He agrees on a 100% restoration of Kahoma Stream. West Maui Land is bad at telling the truth about what this water is for. Kanaha initially put 1 million put back over 3 years for the county to find a source. After graduating from Lahainaluna High School and feeling that it was such a prestigious school, to think that they are ripping me off.

Michelle Napuulua – Here to speak for her grandma who is in very poor health. She only eats poi and water. After hearing testimonies, she believes the importance for stream to flow. Water is life. We have to share life; we have to share with one another. It is important for the water to flow. She is proud of Lahainaluna. She is grateful for the opportunity to speak today from her and her grandma and kupunas. She is hoping that the Commission can figure out to let the water flow, let life flow, let the community of people who have lived here for hundreds of years figure out how they can continue to thrive with the community of people who have settled here since their ancestors.

Archie Kalepa – Thanked the Commission for taking the time to come out and listen to everyone's testimony. Thanked Ayron and CWRM for their efforts and studies and bring awareness to what is happening to West Maui. He asked, what is our role model and template we should use? I think there is the beginning stage of a new template. We need to look at new ideas. We need to look at the way things were done in the past and templates they were using. I'm talking about the recent past. What Kahoma has for you as the Commission and the rest of the State of Hawaii is a fresh template and we are almost there. We had 85% flow in Kahoma. My question to you is how many streams in Hawaii is 100% flow. I think there are very few; some on the big island but when you look at Oahu, Maui, Kauai, we can only name a few and when we look at how many streams were diverted there is way too many. I think what we need to realize is for too long we have put people ahead or place. That's why we are in the situation we are in. We are in this situation because we have done that for too long. One of the Commission's mission is to protect the place. I think Hawaiian for generations understood the importance of place and how to co-exist in place. Part of the restoration efforts in Kahoma that I've seen firsthand from day 1 when there was no water in that stream to today where there is clean, cold fresh water with marine life (not invasive but native marine life) that exist in that stream. If you can to see and realize that we can do this, has meaning; this can be done. Not only in Kahoma but many more places. You have a tough decision. You have to thread the needle between westernization, native practices and everything else that comes with that. I think there is a paradigm shift that is beginning to take place. That is taking place because of what people are learning about place. We are on an island and today there are all these concerns about global warming and all these things that are happening. It's going to happen to us first. We know this because we live on an island. Part of every stream that flows from that mountain to the ocean is so important to, it's like the vein of the earth and because so many veins have been cut off on every island, places die. You see it firsthand. Marine life dies. This is living proof. This is visualizing proof of the things we have seen that has come back from the spawning fish to the oopu that live in the stream to the taro patches that are there today.

Hawaii is in a time of change. We have come to realize that more of the past is important to the future than what have been done in recent years. I'm asking you on behalf of the Hawaiian people and all of the people of Hawaii. Just because the Hawaiians are in there, everybody has a right to the taro patch to come and visit and to work in that taro patch. When you get your hands dirty, you begin to understand, you begin to see the importance of why we are doing what we are doing. Those little kids, Puna Na Leo kids, I told them this is your place. This is your future. You need to start understanding what that is so you can begin to protect that. It is not until you know who you are, where you come from do you begin to fight the fight. I know there are a lot of emotion and a lot of people say emotional things, I just hope that when you guys make the decisions, you make the decisions for long term. I'm not saying 100 years. I'm saying that you make a decision for the next 500 years. It is only in that period we can begin to right the wrongs. Not talking about human right or human wrong. I'm talking about human mankind. Thank you for taking the time. Aloha.

Albert Perez, Executive Director of Maui Tomorrow support restoration for loi taro farming in West Maui by insuring that sufficient water is allocated to these farmers. We also support the implementation of after the fact permits for loi taro farming and urge the Commission to insure this process is as efficient as possible so as to not penalize those people who are practicing their culture. He commended the Commission for prioritizing the needs for cultural practitioners and stream biota and recreation over non-instream uses. I urge you to verify non-instream uses. I heard that West Maui Land is using their water for dust control on roads used by vehicles. That to me is a tourism use and shouldn't be given the same priority as loi. I find it interesting that the County said they are using more surface water than is in the staff report because of the salinity in their wells. I'm wondering if it's because they are over pumping those wells. Kanaha Stream below diversion 954 is losing water to the aquifer. So, if you divert more stream water the aquifer will receive less. Is the county actually making their wells saltier? They should be aggressively pursuing conservation by paying for the retrofitting of inefficient water fixtures, by paying for low water use landscaping and other measures. Why are they issuing building permits? Instead of paying \$4 million in attorney's fees to defend these injection wells, they should be aggressively pursuing wastewater reclamation. We ask you to consider the West Maui area is seeing a resurgence of loi taro farming. Although this IIFS seem sufficient to meet the needs of existing taro farming. This area has a potential to see significantly more. As more and more kanaka mauoli return to the land to reclaim their kuleana. We urge the Commission to set the stream flow standards high enough to enable more taro farmers on both Kahoma and Kanaha Streams to reclaim loi kalo that have been idle for decades. If you look at the second page that testimony that I provided this is a picture that was taken on the first day of kalo planting on Kahoma Stream. This was a time of joy and is what can happen when you restore water to people who never should have lost it. Finally, stream flow standards are only effective if they are monitored and we urge you to install stream gages upstream and downstream of each diversion and to allow access by responsible members of the public without notice to insure compliance by these diverters. Submitted written testimony.

Malihini Keahi from Mala. Living in Kanaha Valley we needed to reopen the patches in 1980. We opened 21 patches. It was not to open patches but to restore stream flow. One

thing that she learned no matter how far you divert water, it will go back to what it knows. Puamana is a prime place. Even though they diverted water, then ended up with 2 cars in their streams from Kauula. Water needs to go back into the stream. Because there was a constant flow of water to Mala village, we were able to know what kind of fish we would catch. Requested to put the flow back into the water.

Kala Tanaka – She is from the Kalepa ohana, one of the descendants of Kahoma Valley. She supports 100% stream flow into Kahoma and Kanaha Valley. At one time the water was stagnant, mosquitoes; there was nothing, no fish. Need to put water back. Lahaina should be the example. Should invest and put everything into Lahaina. Water is important. To talk about sustainable living, being able to see water flowing. That is important. For us, the wai is important. This can happen.

Keeaumoku Kapu lives in Kauula Valley. Mahalo to the Commission for having this meeting here today. This Commission and its fiduciary duties to protect what is right and follow the law. Showed maps and said kuleana that still owns property in this area. Based on a non-divided interest. Clarified kuleana water rights. There are missing components. What rightfully is owned by family. Commission needs to realize your basis on the discussion today is only based upon what you think these guys own. My kuleana here is to point you in the direction to say that they don't own everything. Just because the Bureau of Conveyance can show you what they have, 5,000 acres with the warranty title deeds. That is not enough to deprive or look at what is the rights of the tenants within that area. The Commission needs to oversee these processes on how these kuleanas have appurtenant water right to those waters to bring back the eco sustainability of these areas.

Keith Keahi – from Mala and Kanaha – (talking to Ayron verifying statements). Important of allowing stream to flow for everyone. It's not the people along the stream that will benefit, it's the people that are taking for their wells. If you let the stream flow, it will benefit everyone.

Autumn Ness – county council – Housing Department. The only way the county will approve permits is if a deadline is established, otherwise they will take their time. Not extending requirements to extend IIFS is the only thing that will disallow more development in that area. Right now, if the development is called affordable, which is actually not, doesn't have to prove there is water availability. The only thing stopping the county continuing to approve development in that area and issue building permits is requiring them to restore stream flow within certain amount of time. That is the only way they will ever act on it.

Napahi – lineal descendant of Napahi. Thanked the CWRM and stated that we do need stream flow. Born and raised in Kahalawai. One of children who grew up in the plantation. Thanked Ayron and Jeff while working alongside. Do need our streams, not only from Mauka to Makai but also to the hale. We do have families there that are surviving. They are also planning to extend because of what was given to us. The "ha" in the family does not only survive because of its children. The little parcel you give us,

we want it all because development will take the rest. The streams are not only the life of natural, cultural, partial of it has survived. Most of it has not. Thank you for the decision to let our streams flow and testify to that effect. Please do not divert because of what private entity wants.

Toni Dizon – needs stream for home. Need to bring life back. Help to make sure it survives the future. With decision, gives us life. Put consideration. Do not divert because of what private entity wants.

Michelle Lincoln – lives in lower Kahoma. In 1979 an Army archaeological survey report diverted stream where Kahoma used to be. When they did the archaeological survey report there was an inland fish pond that provided water and food. The Alanii fish pond was at the bottom of the watershed and food was growing up on the side. They did divert water in that section. In order to make it a 100% flow you will need the whole watershed to make it healthy. Might need to divert water to have trees growing on the higher slopes. Might need to divert water in the meantime to help the watershed grow. Once the trees start growing will create a healthy ecosystem. I am for restoring the watershed, but might have to divert water just to replenish and restore what was there and keep the whole ahupuaa healthy.

Hans Michael – Lahaina – Kanaha Valley – put water first in Lahaina for people. Appreciate Commission's work. Have 4 wells; 2 are not in use and 2 are on its way out because of over pumping. There is no extra water because there is no rain every day. Thanked the Commission for coming and appreciate the work they have been doing.

Tiare Lawrence – community organizer for Hawaii Alliance for Progressive Action – Showed 1919 photos of Kanaha Valley. Kanaha and Kahoma and Kauula were documented of how abundant they were and known as the food basket of Lahaina. Photo of 2016 showed invasive tree removals and loi restorations. She is in support of loi restoration. Kahoma is a template of resilience and supports restoration of Kahoma. Abundant harvesting oopu nakea. Pictures showed what is taking place in the valley so you know there is loi kalo production. There are 5 loi that have been restored, 3 more on the verge of being open. Once we finalize our right of entry with KS, we are hoping that by the end of next year we will have about 10 loi restored. About 10 years ago they started negotiating with KS for reasonable water at Kahoma Stream with the goal to restore Mauka to Makai connectivity. Back in the 80s when EIS was done for the flood channel it was stated that native aquatic life being restored would be highly unlikely because of the development taking place in Kaanapali and because Kahoma was a dead stream for 100+ years. That is far from untrue because I can attest today that Kahoma is the template of resilience. Many of the communities statewide can benefit from. From the time KS did first release of water, it took us roughly 5 years for us to establish Mauka to Makai connectivity. Consistent connectivity to the point where we could go into the next phase which was loi restoration and Paupohaku restoration. Since that initial release, a template of resilience, native aquatic species have been restored and our traditional customary practices have also been restored in many ways in the valley. When we talk about food security, talk about meeting Governor Ige's goal about

doubling food production by 2020, we need to have a conversation about restoration. I believe that is a missing topic within that ambitious goal. If we talk about restoration, we should talk about the restoration of the infrastructure that had existed in these valleys for over 1,000 years. Much of that infrastructure still exists today. It exists in Kanaha and Kahoma Valley. If there is any legacy I would leave behind, it is the restoration of Kahoma Valley, but I cannot do that without water. I come here today in support of staff recommendation, however, I do recommend that you consider the following: 1) full restoration of Kahoma of only 15% or 50% flow away from a full restoration. It would be the only stream on the west side that has full restoration. Urge you to give Kahoma that chance and let us continue gathering data and let's see what happens when we restore the stream to 100%. That is a tough decision for the Commission to make today, but I can tell you that if you do consider that I can only imagine the benefits that will come from that. It would be the first of its kind on the west side; all the other streams are highly unlikely to be fully restored. Kahoma is the only one that technically could be. If you decide not to restore it, you continue to allow West Maui Land Company usage, then I would require them to upgrade the infrastructure from ditch system to piping and to repair the reservoir because there has been a history of leakage in that area. If we are going to be stewards of a very valuable public trust resource we need to upgrade a lot of the plantation infrastructure that exists. I would recommend that this Commission consider recommending to the county that they place a moratorium on building permits unless, with the exception if the development is for work force housing that serves the 80% AMI (Area Median Income) and below. I don't think they should be allowing building permits until they can source adequate groundwater supply. I heard testimony earlier about there being enough water in Launiupoko and the county would possibly explore building wells in Launiupoko. Until we can get domestic use under control for Lahaina town, I would urge the Commission to get behind. What we see a lot of times in these county meetings is a disconnect between the state and county. I would like to see if possible the state be a little more vocal on how these permits are issued at the county level. Also, request that a USGS gage be installed above our loi so that we as a community can also help with monitoring the instream flow because where the intake ends is very dangerous for people to access the trail. It would make it safe for the Commission to access as well as the community. In closing, one of our long-term goal for Kahoma is: to have the flood channel removed because they are realizing many years later the detrimental harm that it has had to the environment. When that time comes, when we start talking to the Army Corps of Engineers that the Commission would consider working with us, the community as well as stakeholders and partners, removal of the flood channel so that we can create a beautiful habitat for our native aquatic species.

Lawrence Kama Miller, resident of Lahaina for 75 years. Seen the growth and know what is negative and positive. Thanked the people who spoke of not only their rights but of the future of the children. The children are the future and without water there is no life. At the Honokohau valley stream, we could go get oopu, catch frogs to eat because of the constant flow of the river. That would be good if the water could flow down to Kahoma and Kauula Streams. The most part is for me to express the need of water to flow – Mauka to Makai. But it needs to be addressed also as how you are going to flow it

and what control you are going to take, for housing for agriculture use. Agriculture use today is one of the most important items that we should be looking for, self-sustainability. The number one thing in West Maui was agriculture, then it became tourism. Agriculture sustained a certain amount of people. There was a lot of water flow. As time went on tourism became part of it. We had to get different water sources. The water resources as I remember was Honokohau valley flowing almost to Olowalu. There was a lot of water flow. Launiupoko has a lot of water. Kauula has a lot of water. I used to work at the pumphouse; there was the hydroelectric plant. I know the system and I know how much water was coming out. With agriculture that was here at that time, it was enough to supply agriculture irrigation. Now that agriculture is out, where is the water going. That is the question. Can we bring that water back to where we can survive and what is going on now? Housing, people, sewer. That is the only thing I can see water and water returning from Mauka to Makai is very important because of the example I gave of Honokohau valley. The people of Kahoma have proven what kind of life there is that can be within that river. It is something that we should be looking and you, Commission have a hard task. Look at it as life itself first and people's life.

Kaa Puneohi – I know that there are different water systems in Lahaina, but trying to look at this holistically. My grandfather graduated from Lahainaluna High School, my family originated from this side. We come from Honokohau valley, have 2 loi there. I live on my ancestor's land and so fortunate that we don't have to go through this whole process. Thinking of these new places, 2 different rivers and people are having to fight for more water. My ancestors didn't have to do that. For that, I am very fortunate.

Kaipo Kekona – born and raised in Lahaina. He is a farmer and sources depend on Kauuula. Farming on 12-1/2 acres through KS. It is an educational farm designed to educate our community and youths on agricultural value. We are with the farmers union in collaboration with Lahainaluna program with KS. I understand the importance of stream flow restoration and supports that. Knowing that in order for our vision to be successful as a sustainable community, island and state knowing the necessity of diversion to specific areas for specific purposes. Also knowing that the current situation, we have been dependent on the stream today. Alternative sources will be needed to seek out. I was never in favor of wells being established but looking at the current situation that we have been put in, it would most likely consider wells being established. I also like to consider knowing that if we are drilling alternative sources which is unavoidable at this point, the capacity that is allowed within the aquifer known as Launiupoko which I believe Kahoma and Kanaha is somewhere in the 7mg which I would be cautioned to say that we should be keeping track of those numbers very carefully to not push us up against the maximum yielding out of the aquifer. Look into other ideas to make better effort in our resource management to restore or replenish our aquifer knowing that the majority of Kahoma Stream is concreted, might provide us opportunities to take sections of that out and build proper infrastructure put into place which would allow certain spots to seep in. Understanding that the county uses a certain amount of water and the grandfather clause of Lahainaluna's irrigations. Supports restoration of Kahoma and Kahana, allowing stream to flow where it benefits everyone. Not only people taking water from the stream but those that are taking for their wells. Important to let the stream flow to benefit

everyone. With all that was said, he supports the restoration of Kahoma and Kanaha and hope to see this done for the importance of our community and education for our people and the future generations.

Commissioner Hannahs moved that the Commission go into executive session pursuant to HRS §§ 92-4 and 92-5(a)(4), to consult with its attorney on questions and issues pertaining to the Commission's powers, duties, privileges, immunities, and liabilities.

**MOTION: (HANNAHS/MEYER)
UNANIMOUSLY AGREED TO MOVE TO EXECUTIVE SESSION**

At 1:59 pm the Commission convened into Executive Session.

At 2:53 pm the Commission reconvened from Executive Session.

Commissioner Buck – on Kahoma stream, I heard numbers where it is 85% restored right now. There is 15% difference from the natural flow?

Dr. Strauch -wanted Commissioner Buck to clarify on what is happening in the field or what is on paper.

Commissioner Buck – what is our recommendation. Some people want full restoration. If we accept your staff recommendation, what would it be?

Dr. Strauch – it's the 70% flow so only 30% of the time will there be not that much in the stream naturally. The difference between median flow and the 70% flow, 15 percent of the magnitude.

Commissioner Buck – for Kanaha – if you put more water in the stream, the wells that are currently using ground water in the stream, that shouldn't improve their ability as far as chlorides.

Dr. Strauch – theoretically over time there should be a noticeable improvement but that might take a while and it might be dependent on the pumpage rate.

Commissioner Buck – theoretically the more water you put in a stream is going to help the aquifer on the wells.

Commissioner Hannahs – there was characterization by one of the testifiers that depict what the county is doing is borderline over pumping the ground system and using streams to blend in to make it more palatable.

Dr. Strauch – so they have noticed over time, referred to a graph. The chlorides have gone up and down with pumping, especially in Kanaha Well 1 and Kanaha Well 2. The chloride content in previous years has also fluctuated and they were pumping more but stay within a

range of acceptability. They are purposely not pumping as much now to limit the chloride content in the water because they have to blend it.

Commissioner Hannahs – we understand we have no authority to; someone suggested moratorium on building permits. But as that continues to grow, will this be worse, unless they find other sources.

Dr. Strauch – so Kanaha Wells 1 and 2 are just 2 of their 8 wells in the Napili, Lahaina water system. That's not to say that they can rely on their other existing wells, but they do have existing wells that have potential pump capacity. Now whether they are salinity impacts remains to be seen. They also rely heavily on Mahinahina water treatment facility which gets water from Honokohau for drinking water supplies. They have other sources. By getting water south through their distribution system is harder than getting north. I believe they are connected but it's more challenging. The primary stream water supply for Lahaina town is what is in Kahoma.

Mr. Rowe – as far as just the Lahaina system, we only have those two. We have other wells that operate in other system and as far as the ability to transmit water, we talked about that in our written testimony. It is gravity-based. Water can go from Lahaina to other systems but not vice versa. We don't have pumps that will move the water from those system to Lahaina system. We can gravity that takes from Lahaina system to other parts of the west Maui water area.

Commissioner Hannahs – so if you have a salinity program with your ground wells there, rather than use stream water to blend, could you ship it somewhere else to blend, some of your other source?

Mr. Rowe – if we built infrastructure to connect this, yes. Our plan right now is to build additional wells that service specifically the Lahaina system. That will allow even further pumpage from those 2 wells because of salinity, if not completely get rid of it.

Chair Case – county opposing a lower threshold in the beginning and a longer period of time. Did you have any conversation with them?

Dr. Strauch – not on those numbers. Based on USGS seepage loss estimates that 0.72 would be the minimum available from Makai flow. Understanding that it was a one point in time estimate, there might be some needed flexibility even if it was off by 10%. One of the reasons why the IIFS proposed for present 0.8, that would also take into account whatever system losses or seepage losses would incur within the loi. The consumptive use of loi, even though there might be 200,000 gallons of flow through, there is still some loss in the loi systems. Trying to quantify that while also insuring that the instream use basically Mauka to Makai flow is met. That's where the 0.8 came from.

Chair Case – is there any capability in the diversion for diverters to adjust taking out less when the stream flow is less and more when it is more?

Dr. Strauch – the system is hand operated. It's old technology basically 100% of the water gets taken into the ditch and put into the pipeline. It would be challenging, unreasonably, you can with some work and some luck, drive up there. It would have to be upgraded to get more fine-tuned adjustments to release water.

Commissioner Hannahs – on page 13 you reference Kahoma Ranch offering outdoor recreation opportunities through ATV tours, zip lining and swimming in Kahoma Reservoir. But this is not what you are considering. It's a reference, but it's not what you are considering in calculating their need for water.

Dr. Strauch – their water needs are strictly based on their agriculture and silviculture development plans.

Commissioner Hannahs – the reforestation plan. Six-acre parcel of land will be transformed each year for 3 years.

Dr. Strauch – yes. It's like a rotating schedule so they are going to convert 3 acres and plant native or hardwood species, irrigate them for 3 years. After year 1, they will convert another 3 acres.

Commissioner Hannahs – the amount is 113 gallons. Is that what you use? Did you use that number in calculating the Kahoma instream flow standard?

Dr. Strauch – yes. The instream flow standard is based on the Q70 flow and I estimated impact to their 113 thousand-gallon per day need based on the instream flow standard. It wasn't that we set aside 113. IFS came first.

Chair Case asked if anyone else want to testify. No one. Chair case asked for a motion.

Commissioner Buck – I propose that we accept staff's recommendation. I didn't hear any compelling testimony to change. Staff did an excellent job. There are some things we would like to control as a Commission, but here our only kuleana is the water that is in the stream. Staff did an excellent job in trying to make a balance. We somewhat have an adaptive management regime within 3 years. We will hear back from the county and their ability to develop other water resources. I would like to have the adaptive management on reforestation on Kahoma Ranch. If they are not reforesting to the schedule that they said, I believe we will have the ability to amend the IFS in Kahoma. My recommendation is in support of staff recommendation.

Commissioner Hannahs – seconded.

Discussion:

Commissioner Meyer – I feel that the calculated loss, in respect to Kanaha. It's like taking away water from people who are using it today for personal use and it's all spoken for. I think we have to be very careful portioning, rationing and curtailing use. I would like to

consider an amendment to staff recommendation. I would suggest we start with an IIFS of .55 mgd for Kanaha to be increased by .13 mgd the consumptive use of the loi kalo, below the diversion at such time the loi is ready to plant. Until that time, consumptive use for that loi kalo is not needed so again at such time by inspection loi kalo is ready to plant, the IIFS would be increased to accommodate that. Similarly, that the IIFS be increased 1 year from the initial establishment by an additional .12 mgd up to the staff recommendation level if we don't have continuous flow, realize that the confluence with the other branch in Kahoma Stream. in other words, put .55 mgd in if in fact we have continuous flow which is the goal and if not, it gets bumped in a year by an additional .12 to, staff's recommended level. Thirdly, the third level of accommodation which would be the IIFS would bump all the way up to 1.55 mgd which is the staff's highest recommendation. On the earlier of 2024, 5 years or when additional well capacity equivalent to 1 mgd is brought online. So that does provide the earlier. A little bit complicated but cascading upward of the IIFS so as to insure water available for that loi kalo in Kanaha Valley and that there is continuous flow all the way to the confluence to the 2 streams within a year. We are going to draw the stream, watch is for a year then continuous flow to facilitate wildlife and if not, it gets increased to staff recommended level. Lastly, we incentivize in the fact the county to produce additional well water to get to the 1-1/2 mgd. Realizing that take follow up in points and time, as Ayron pointed out, we have gages going into place that are suitable, it's not something that will require daily, weekly or monthly trips. It could be done by remote control.

Commissioner Buck – clarified – so we start out at .55, the first year.

Commissioner Hannahs – start now at .55. upon recognition of the loi coming online, you add .13. If in one year there is no continuous flow of confluence you add another .12. By 2024 add another .70 to bring the total up to 1.5 at the latest that is sooner if the county develops other sources and doesn't need.

Commissioner Buck – I'm struggling with year 3 to 5. The staff recommendation was looking at 1.55 by year 3. It sends a strong message. You guys can get your loi together and we are going to give you more water. It's the year 3-5. I work for government long enough and I'm a strong believer and explicit time tables. I think this new IIFS is changing a dynamic that it's not endless water and the current infrastructure for delivering water is just not adequate. I'm still struggling with year 3-5. I'm good till year 3. What happens to year 4 and year 5?

Commissioner Meyer – at any time the county provides additional well capacity of a million gallons a day, the IIFS jumps to 1.55.

Commissioner Buck – what happens if they don't in year 5.

Commissioner Meyer – it still jumps to 1.55. while it's true that government is slow and you have to go through a bid process and as a result is more time consuming in that process. Five years given the need to explore for a site for a well, to negotiate access and a lease or purchase or process a condemnation, to get a hold of the land, in hopes you have a right location and hope you have a chance of putting in a good well, then to go through the

acquisition process, then go through the drilling and go through bidding with drilling companies and all tests that pertain to the drilling. It's not a 3-year process. It's more like a 5-year process. The county process is unreasonable.

Commissioner Meyer – asked Jeff to verify.

Deputy Director Jeff Pearson – Paul is right. There are a lot of steps that need to be taken. On the other hand, Ayron came to me and we talk story prior to this submittal. I thought 3 years is a fast and hard effort, but I chose that number. I do agree there is a lot to it and it can be longer if land acquisition is an issue. There are a lot of variables in there. If the variables can be set aside quickly, it can be resolved faster. Land acquisition is a huge one. I didn't think of it as I should have. If the well fails, you need to start over. The Commission can look at that number and do what you are doing right now.

Chair Case – had questions about the loi coming online. Is the first one come online, all of it online?

Commissioner Meyer – Having seen the location, below the diversion works and not much improvement involved. It is not ready for planting. When you have plants ready to go, you need the water supply.

Chair Case – is there a description where if we were to certify that the plants are ready, if Jeff were to certify after meeting with the loi farmers, what would be the trigger.

Commissioner Meyer – if staff determines that its ready for planting, ready to receive new plants.

Chair Case asked if there were any questions, or comments?

Commissioner Hannahs – we need to act today. We have an opportunity to do good things and set some standards. We waited in some cases 150 years to do what is right. In staff amendment, it is being stretched another 2 years which is the best that we can do without creating other unintended adverse consequences. I support the friendly amendment.

Commissioner Buck – the only concern is as we set new IFS for the rest of the streams this assumption that there is always more water; just put another well and there is more water, has come to a point that we are not there yet. There comes a point where there is not more water. That's why I'm a little nervous about the 5 years. I understand we need to send a strong message to the taro farmers that the water is there and is going to be there and will be more in the future. They can start mobilizing their community. I'm not totally happy, but I am willing to support staff recommendation.

Commissioner Meyer agreed. This is a unique situation because as I see it every drop out of Kanaha is being used for public purpose, for priority use. I don't think every stream is like that. For other streams, there are water that are not being used for high priority use. I think we need to be more efficient in moving forward for this.

Commissioner Buck - I think it's critical that offstream users know where the water comes from. They become constituents and stakeholders for managing watersheds and insuring the water supply. It's important because it's part of the Water Code. It's not perfect but it's a good forward step.

Chair Case – I am supported of the recommendation as amended. One of the things we heard is about the question of waste. That is not our decision point right now. This is reminder to the water user that our laws constantly show require that you do not waste good water because it is a very precious resource. The other thing that important is that you have water right back into the stream. We are learning a lot; it's going to take a while for aquifer recharge to happen. We will notice different things. We want to hear from everyone what you are seeing. If it doesn't connect immediately, we want to know that. We want to keep tabs on it. This will give us the ability to monitor what happens over time. An amount of water goes in now and later at different stages up to the full amount recommended.

Commissioner Hannahs – if you remind us in the past, absent action. We revert back to the old action of 1987, what it was then, and we have to change sooner than later. As far as the .13 for loi kalo, once the loi kalo are in and seen what this community did in Kahoma, I have no doubt you might as well call it .68 because it's going to happen. It's a little incentive for them, it's a milestone and that much more water will be there when they do it.

MOTION: (MEYER/HANNAHS)
To approve the submittal as amended.
UNANIMOUSLY APPROVED AS AMENDED.

Chair Case asked for a motion to adjourn.

MOTION: (BUCK/MEYER)
UNANIMOUSLY APPROVED TO ADJOURN

C. NEXT COMMISSION MEETINGS (TENTATIVE)

December 18, 2018 (Tuesday)
January 15, 2019 (Tuesday)

Respectfully submitted,



FAITH CHING
Secretary

APPROVED AS SUBMITTED:



JEFFREY T. PEARSON, P.E.
Deputy Director