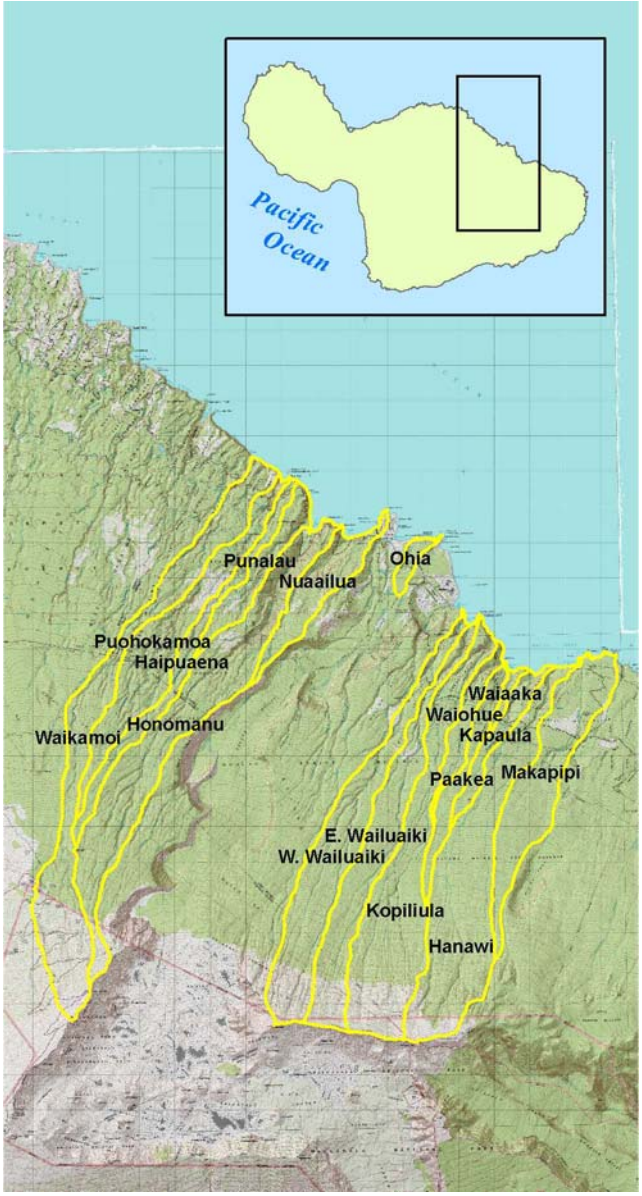
Compilation of Public Review Comments

Hydrologic Units:

- Waikamoi (6047)
- Puohokamoa (6048)
- Haipuaena (6049)
- Punalau (6050)
- Honomanu (6051)
- Nuaailua (6052)
- Ohia (6054)
- West Wailuaiki (6057)
- East Wailuaiki (6058)
- Kopiliula (6059)
- Waiohue (6060)
- Paakea (6061)
- Waiaaka (6062)
- Kapaula (6063)
- Hanawi (6064)
- Makapipi (6065)



Island of Maui

November 2009
PR-2009-18

State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management

- Notice of Public Fact Gathering Meeting -

INSTREAM FLOW STANDARD ASSESSMENT REPORTS
FOR THE HYDROLOGIC UNITS OF
WAIKAMOI (6047), PUOHOKAMOA (6048), HAIPUAENA (6049), PUNALAU (6050),
HONOMANU (6051), NUAAILUA (6052), OHIA (6054), WEST WAILUAIKI (6057)
EAST WAILUAIKI (6058), KOPILIULA (6059), WAIOHUE (6060), PAAKEA (6061)
WAIAAKA (6062), KAPAULA (6063), HANAWI (6064), MAKAPIPI (6065)

COMMISSION ON WATER RESOURCE MANAGEMENT

The staff of the Commission on Water Resource Management (Commission) will be holding a public fact gathering meeting to receive testimony and any additional information to be compiled as part of an Instream Flow Standard Assessment Report. These reports will serve as the primary reference of best available information for subsequent amendments to the interim instream flow standards for the surface water hydrologic units of Waikamoi, Puohokamoa, Haipuaena, Punalau, Honomanu, Nuaailua, Ohia, West Wailuaiki, East Wailuaiki, Kopiliula, Waiohue, Paakea, Waiaaka, Kapaula, Hanawi, and Makapipi, on the Island of Maui. One report has been prepared for each surface water hydrologic unit.

The public fact gathering meeting will be held on the Island of Maui, as follows:

October 15, 2009 (Thursday) Paia Community Center
5:00 p.m. to 9:00 p.m. Hana Highway, Paia, HI 96779

The public fact gathering meeting is being conducted in accordance with a modified interim instream flow standard process approved by the Commission at its December 13, 2006 meeting. The modified process includes an agency review/public fact gathering component not required by statute, and is consistent with Part VI (Instream Uses of Water) of the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Title 13, Chapter 169 (Protection of Instream Uses of Water), Hawaii Administrative Rules.

A public review draft of each of the Instream Flow Standard Assessment Reports for Waikamoi, Puohokamoa, Haipuaena, Punalau, Honomanu, Nuaailua, Ohia, West Wailuaiki, East Wailuaiki, Kopiliula, Waiohue, Paakea, Waiaaka, Kapaula, Hanawi, and Makapipi, will be available online after September 25, 2009 on the CWRM website: http//hawaii.gov/dlnr/cwrm/. The public review drafts may also be reviewed after September 25, 2009 at the CWRM office at the Kalanimoku Building, Room 227, 1151 Punchbowl Street, Honolulu, Hawaii 96813.

All interested persons are urged to attend the public fact gathering meeting and submit comments, orally or in writing. The Commission will continue to accept written testimony until October 30, 2009. Testimony can be submitted in the following ways:

Mail: Commission on Water Resource Management
State Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809.
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Also, disabled individuals planning to attend the public hearing are asked to contact the Commission at the above address or phone (808) 587-0214 at least three days in advance of the public hearing to indicate if they have special needs that require accommodation.

COMMISSION ON WATER RESOURCE MANAGEMENT

Ken C. Kawah

LAURA H. THIELEN, Chairperson
KEN C. KAWAHARA, Deputy Director

Dated: September 23, 2009

Publish in: Maui News issues of **September 25, 2009 and October 2, 2009.**

INTRODUCTION

This document is a compilation of all comments submitted to the Commission on Water Resource Management (Commission) on the Instream Flow Standard Assessment Reports for the Hydrologic Units of Waikamoi (6047), Puohokamoa (6048), Haipuaena (6049), Punalau (6050), Honomanu (6051), Nuaailua (6052), Ohia (6054), West Wailuaiki (6057), East Wailuaiki (6058), Kopiliula (6059), Waiohue (6060), Paakea (6061), Waiaaka (6062), Kapaula (6063), Hanawi (6064), and Makapipi (6065), Island of Maui.

All comments have been separated into individual sections according to the submitting organization or individual, and the date of submission. Page numbers have also been applied to each original page. Comments were subsequently reduced to 2-per-page to save space and paper. Please contact the Commission to request full-size copies of any documents. Copying charges may apply.

Comments referred to within the Instream Flow Standard Assessment Reports will identify both the section and page number. For example, a reference to "8.0-3" indicates the 3rd page of comments in Section 8.0 (i.e., Department of Health, Environmental Planning Office). Multiple documents submitted by a single organization may be further separated into sub-sections.

Starting from Section 2.0 (following Section 1.0, Oral Testimony from October 15, 2009 Public Fact Gathering Meeting), comments are listed in the order they were received by the Commission.

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1.0 Oral Testimony from October 15, 2009 Public Fact Gathering Meeting

Transcript of Oral Testimony
Public Fact Gathering Meeting
Paia Community Center, Paia, Maui
October 15, 2009

NAME:	Governor Linda Lingle	TIME:	10:08

To Members of the Commission Staff and Members of the Community:
I'm here tonight to address an issue of far-ranging importance to the people of Maui and the people of the State of Hawai'i. It is the fundamental issue of whether we will enable agriculture to survive in our state by ensuring that farmers have access to adequate water to grow their crops. I'm not here tonight to talk about the technical and scientific aspects of in-stream flow levels. There are many able people in this audience who can provide that information. I am here to talk about achieving a meaningful, reasonable, and balanced decision by the Water Commission, and to offer caution that the decisions the Commission makes will have profound consequences for the future of Maui and our state as a whole. The Commission will determine the allocation of stream water to meet a public trust. Included in that deliberation is the examination of the beneficial uses for the water. I believe because of its importance, water for agricultural operations should be given the same level of protection as that given to domestic consumption, the protection of traditional and customary Hawaiian rights, and the protection of fish and wildlife to achieve a proper ecological balance. Our state Constitution specifically calls for the conservation and protection of agricultural lands, promotion of diversified agriculture, and assuring agricultural self sufficiency. Agriculture depends on water. Agriculture, and the water it needs for sustainability, is a part of the public trust.

Water is a natural resource that is essential for life and when used with care and understanding, is a benefit to the community. Maui has a long history of depending on water from streams to meet the needs of its population – for growing crops, drinking, and for the preservation of habitat and ecological resources. Of all of the islands, Maui has the greatest dependence on surface water to meet these needs. Under these conditions water that is returned or retained in streams on Maui is done at the expense of those who depend on this water on a daily basis. This is fundamentally different from the situation that occurred on O'ahu involving the Waiahole Ditch where the closure of a plantation meant the return of excess water that was no longer needed for agriculture. This matter before us is about water to meet the public interest. It is about Hawaiian Commercial and Sugar Company (HC&S) and upcountry farmers in Kula who rely on this water. This is about whether we will be able to preserve almost 35,000 acres of agriculturally productive land on Maui and protect the jobs of more than 800 workers and their families who depend on water for their livelihoods. This matter is about the residents of Maui who must

depend on these streams for their drinking water and part of their electric power from the HC&S bio feedstock. It is also about providing for in-stream species and habitat conservation. It is about Hawaiian traditional and customary uses. And it is about the preservation of vast green open spaces and their contribution to our environment and our way of life. This is a matter that impacts our core value that Hawai'i should remain a viable agricultural state in the midst of continued urbanization.

The Commission will answer these questions by the decision they make in December. That decision will have consequences far beyond the streams we are discussing now. As Governor of Hawai'i, it is my responsibility to advocate for the decision that brings the most good to our community. I believe that decision must allow current users of these streams to continue to receive water in amounts that permit them to thrive – and that allow agriculture in our islands to survive. Thank you for this opportunity to speak to you all of you tonight.

TESTIMONY PROVIDED IN SECTION 12.0

NAME:	Kenneth Okamura	TIME:	15:45

Chair Thielen, and members of the Commission on Water Resources Management and staff. My name is Kenneth Okamura, I am a third generation vegetable farmer in Upcountry Maui. My main crop right now is head cabbage, I'm also a member of the Maui Farmers' Cooperative Exchange which is the last and only vegetable marketing cooperative in the State right now. The Upcountry Maui area is a very important agricultural region in the State. Before Oahu farming got big, we were one of two major produce growing regions in the State; the other being Waimea on the Big Island. We are blessed with the natural resources to be able to grow many different types of crops. We grow tropicals and orchids in one area and protea and carnations in another. We are known for our Maui onions and Kula cabbage. We grow persimmons, cherimoya, and Kula strawberries. We have a vineyard and a winery, and Christmas tree farms. This is truly a rich resource for the State. We have been growing vegetables since my grandfather's day and I now grow mainly head cabbage as well as some other vegetables for the organic market. I get my water from the upper Kula system. Droughts have been an ongoing problem for farmers in the Upcountry Maui area for generations. I remember my father hauling water from the lower system to water his tomatoes. The water system has had many improvements over the years but there has also been a lot of growth and development. As the current Upcountry water system cannot meet the needs of the community when there is little rain as the reserves are quickly dried up because of the growing population. For example, we have been on voluntary restrictions for about three of the last five years. Pumping water from the lower elevations wells is also very expensive and it has been estimated to cost about over $4.00 per thousand gallons as stated in the latest water use development plan draft, to pump water from the lower elevations to the higher upper Kula system. I ask that you please seriously consider the economic impacts of any decisions that you make. For we cannot farm with an inconsistent water supply. Thank you.

TESTIMONY PROVIDED IN SECTION 13.0

NAME:	Mayor Charmaine Tavares	TIME:	18:55

I am very proud to be here in Paia today. Good afternoon Director Thielen and members of the staff. I'm Charmaine Tavares, Mayor of the County of Maui and I just wanted to share some

thoughts with you all. This is really a time for all of us to come and work together on this. Our community is very passionate about what they think their needs for water are and that's the thing that everyone has in common in this room, is that they are passionate. We need to build on these values that we have in Maui County to work together and to try to solve our problems together. We have the needs of the entire agricultural community from the kalo growers of generations to sugar, pineapple, vegetable, flowers, lavender and kula onions, all are important and vital to our way of life. Crops grown by our local farmers and the kalo grown in the loi by families and the sugar cane grown by Hawaii's last plantation are products of the community with roots connected to agriculture. But beyond agricultural needs we have a domestic water supply that serves the Upcountry residents and farmers that depend on the East Maui water flow. Without sufficient surface water from East Maui, our local Upcountry residents and farmers cannot survive. I respectfully ask the Commission to act carefully and take incremental steps so that impacts can be measured by all of us. Whatever effort is put in to find the solution, no matter how small it is, that effort, it will be well worth it. Science and data, technologies, modeling, those are all tools. They're tools to help us make decisions. But really the decisions are about the lives of people, the lives of people in our community, the lives of all of us here in this room. Thank you for the opportunity to testify.

NAME:	Roland Perreira	TIME:	21:07

Aloha, my name is Roland Perreira, I was born on Maui in 1961, I am 48 years old. I'd like to take everybody in this room back 40 years; 40 years ago back in Keanae, there was lots of taro, lots of water, watercress. Now let's come out to this side, HC&S was a bigger farm; we had Pioneer Mill, we had Puunene Mill, Wailuku Sugar Mill and Maui Pine Cannery and including the crops in Maui Pine. Now, this is 2009; HC&S has less acreage, one mill; Keanae, way less taro. You know, I went into Keanae this past weekend and it broke my heart to see the streams barely running. The taro farmers, they are struggling out there. I work for HC&S and I know truthfully we are struggling. Why? The City keeps developing more and more and more. It's time to stop. We have to fix this before it goes on. We need more reservoirs, we need more ? in the dam. Something has to be done, you know, if HC&S goes under, so will EMI. Who's going to take over the mountain; who's going to run the streams? The State? They cannot keep our kids in school. It's about time we stop and think. It's time we all stick together. It's not farmers against farmers. It's all of us together and we need to make the right decisions and I'm sure you will. Aloha and thank you for giving me this time.

NAME:	Alan Murakami	TIME:	22:50

Thank you, I'm Alan Murakami and I'm the attorney for the Petitioners that triggered this hearing tonight. We submitted applications some years ago, eight years ago to be exact to do this establishment of interim instream flow standards. Now my clients are basically the Hawaiian taro farmers and cultural practitioners in East Maui who are basically the descendants of those that were initially impacted by the decisions of 130 years ago to commit this water to a private company for sugar cane cultivation for this irrigation system. At that time, I want to take you back briefly, people protested, much as you'll hear tonight. As a result of that concern, the Minister of Interior inserted this provision, in that original 1876 lease, "Existing rights of present tense of said lands or occupiers along said streams shall in no eyes be lessened or infected injuriously by reason of anything herein before granted or covenanted. In other words, the Kingdom wished to protect the farmers, the Hawaiian farmers and cultural practitioners in East

Maui in spite of the decision to go ahead. Unfortunately, for a variety of reasons, this clause, which was repeated over and over subsequent conveyances to EMI, A&B and HC&S was largely ignored and has led to the situation here we have tonight where there's this huge dependence on a system that is taking as much water as Oahu drinks, 160 million gallons a day. It is causing all of this turmoil and conflict. But I wanted to raise this because this provision is reflective of what the law is and that is basically that the person who is diverting the water, has the burden, the whole burden of showing that there is no injury by that out of watershed transfer and they have not been forced to do that. Tonight instead of trying to establish whether or not people are being hurt, that is the people that are living in East Maui, if the burden were to be shifted around, to demand from East Maui Irrigation, HC&S and A&B they must show that there is no injury to the people that live in East Maui and they have never done that, instead they have presumed to use the water and they have been presumed to use it effectively and efficiently which has never been shown. I want to raise at this point that we have a pending complaint of waste against A&B and HC&S from testimony that was deduced under oath during the DLNR hearings two years ago in which there was testimony that they were using 17,000 gallons per day per acre during the wet season and 34,000 gallons per day per acre during the dry season and even with some miraculous math, they admit that they are using 5,000 gallons per day per acre, which is far in excess of any typical diversified crop farmer today. So, that has not been resolved. I point that out simply because I think it's one of the issues that need to be resolved before we do this balancing and I have to take exception frankly to your approach that this is simply a balancing approach. The law protected the people that live in East Maui in performing their traditional practices in growing taro that was incorporated in the original lease, incorporated in subsequent leases and is put into the Water Code and in fact, it was put into the Constitution that the State has a duty to protect traditional and customary practices. And so basically, what the Supreme Court found, like in the Waiahole decision, which is analogous to this situation, is that, basically this is a quote, the Public Trust is to read, "it is a Public Trust is to retain any meaning and effect, it must recognize enduring public rights in trust resources separate from, and superior to, the prevailing private interests in the resources at any given time." So in addition to the need to keep the faith with what was traditionally intended to be protections of East Maui in spite of the decision to go ahead with the irrigation system, our Constitutional system today protects those superior public interests in customary practices and the protection of habitats as a matter of Constitutional law and we have to start from there. Private commercial interests are secondary even though there's this balancing language in there, these laws require that we start from that premise and it is the burden on this diverter to show that there is no injury as a result of their planned diversion. Now, unfortunately, the reality of the world is different than what the law has demanded. We have a situation now where, in fact, if you would now try to determine from people that testify whether there is injury, you're turning that burden on its head. It's an entirely different thing to demand the people to show that they've been hurt as opposed to asking the diverter to show and justify that diversion because no one, in fact, is being injured. It is their burden to show and they have not done so. I just want to bring up one last point, at that is, there has been much talk about the economic impact and I looked at the financial statements for HC&S, Alexander & Baldwin for the last two years, in 2007 they made $207,000, in 2008 they lost $13 million and this is during a period when you guys haven't even required restoration of the streams, so as you proceed with this, I think you must be conscious of the fact that HC&S has a much harder road to hold because they have much bigger problems than getting the water committed to their HC&S operations and they're losing money and their losing a handle at this as of last year. So I urge

you to remember one, follow the legal burden that has been established that is reflected in the various provisions in the leases and permits that allow this transfer of water from 33,000 acres of crown lands, public water, and the Constitution, and to take into consideration these other factors that may be more relevant to your decision on whether to allow the private interests to take a superior position over public rights. Thank you.

TESTIMONY PROVIDED IN SECTION 14.0

NAME:	Ed Wendt	TIME:	29:50

Aloha, thank you for letting me speak, Commissioner Thielen. I'm going to keep this short, my manao is that there must be in instream flow standard conducted for all streams and rivers. Not only the twenty-seven streams and rivers in East Maui, all of Maui and all the island. This should set precedence. We should do it now. When I hear about economics, growing up on Maui, there was only 30,000 people when I was around. Upcountry got 30,000 today so this is not only about Alexander & Baldwin, HC&S, it's like our Mayor stated, domestic. That if we speak about perpetuating for the future generation, now is the time to do it and create the instream flow. Mahalo.

NAME:	Carol Reimann	TIME:	30:58

Good evening, my name is Carol Reimann, and I represent the Maui Hotel & Lodging Association, also know as MHLA. Our membership is comprised of approximately 40 properties and 80 various businesses. Collectively, we employ over 10,000 Maui County residents. MHLA would like to commend the State Commission on Water Resource Management for their hard work in considering the unique water issues we face on Maui. We would like to request that the Commission examine the community needs on Maui; and come up with a fair and balanced decision that embraces the consideration of "people first" and includes water for community use. Maui is the most dependent upon stream water than any other County in the State. We rely on these streams for agriculture, drinking water for our homes and businesses, and for the last sugar business in Hawaii - HC&S. If instream flows are allowed to flow "mauka to makai" to the extent currently recommended by the Commission, all of our existing uses could all be at risk. Additionally, it could trigger HC&S to go out of business which could cause: 800 HC&S workers to be unemployed; our beautiful "Valley Isle" to become fallow fields of dust & dirt; Maui Electric to lose the 7% of power that HC&S contributes to our grid; the water systems that HC&S currently maintains and the Maui Water Department depends upon to be at-risk — who would incur the cost to build out and/or maintain this infrastructure? Certainly, the drinking water and agricultural ramifications are immense for our residents. But also consider the run-off issues and fire hazards if our cane fields were to disappear. From a Visitor Industry perspective if our verdant cane fields turn fallow, it would change the entire look and appeal of our island paradise forever. Maui's strength as a top tourist destination depends on our ability to showcase our island as a lush, green tropical paradise. Can you imagine flying in to Kahului Airport over a field of dust? The Visitor Industry is the economic engine of Maui. We directly provide 40% of all the jobs on Maui. This is a direct figure, indirectly, the numbers multiply. These are quality jobs with meaningful careers. We currently generate 75% of our County's economy (this is per the Mayor's State of the County Address this year). We also contribute 40% of the total collections of real property tax and contribute to Maui's economy, via TAT, increased tipping fees & fuel tax. The visitor industry doesn't only sell rooms. The

lushness of our verdant "Valley Isle" is what attracts visitors to our paradise and ultimately what drives our local economy. We think it's imperative that the Commission come up with a fair and balanced decision that includes consideration and support of water for community use which will also maintain the attractive lushness of our island. We are not asking that no water to be allowed to flow, but we seek a more balanced decision that will continue to provide sufficient water for our residents and businesses. This is an important decision. We encourage the Commission to ensure that the majority of Maui residents' voices are heard on this issue. Thank you for the opportunity to testify.

TESTIMONY PROVIDED IN SECTION 15.0

NAME:	Charles Villalon	TIME:	34:26

Thank you for the opportunity, Charles Villalon. I'm a descendent from Keanae and Hana, grandparents, full Hawaiian. Our lands, the family name is Kekumu and Kailipoohilo. Our lands have been granted for us for the second Kamehameha reign. So place yourselves in my seat and the degradation of our properties that I've seen before I was born and it is no longer the same. But the issue is not allowing agriculture, the issue is cost benefit, because HC&S sits on enough water but they don't want to pump it, they don't want to reservoir it. Wind-turbine, solar-photovoltaic, whatever it's going to take to extract that water in its deeper fields, it's easier to take it from country. That in itself is egregious. In the old days, we would settle it with a battle. And that's what we're battling, just because I gotta throw the pohaku. I gotta let you guys know, this is wrong. This is wrong. Now I know there's a lot of HC&S guys in here. I'm talking to you workers, no let them dangle the carrot. Because a catastrophic occurrence happens on Maui, and I'm not being racist, but some Island strike, North Korean strike, no oil, no flights, no boats, the makaainana going survive. And we going see you guys in the mountain and along the shorelines trying to feed your families. And how is it going to be then? Who is going to take care of you guys? But you know what, take care of us now and tell your bosses invest in turbine, invest in photovoltaic, pump the water out, create reservoirs and don't take it from the motherland. I want enforcement, I got 28 years of enforcement, for police DLNR to county codes right now. The violators, they issue, they get arrested, they gotta go see the judge. So what's happening with the violators? It's not giving me trust in the commissions, come on man. Everybody pays if you break the law. Review all the old leases and documents; you going find egregious violations and how you going expect the young ones to follow the law which you trying to enforce now when they can see all the egregious violations of law now? Well ma, how come? How come the river no more water? How come the kalo all dry? How come the limu not growing, no more manini anymore. But I tell you what, ualo, pohole, manini, venison, sound ono to me, brah, and the makaainana going survive. We going be here. We always going be here, was here, and we always going be here. Thank you.

NAME:	Mahealani Wendt	TIME:	37:45

Aloha, Chair Thielen, Ken Kawahara and everyone here, my name is Mahealani Wendt, I'm the Executive Director of Native Hawaiian Legal Corporation, I'll be retiring after nearly thirty-two years at the end of this year. I'll be moving here, to Wailuanui, to join my husband Ed. I just have a few comments. The first is I want to thank, Ken, and his staff, for the last two years of really attentive concern and in my opinion, exercising professional analysis and just a level of balance. I also want to thank Chair Thielen, because you have overseen this process really and

it's been, I know it's been very difficult, to balance the competing interests. I do want to ask Governor, if you could release funds required to gage the streams, it's true that eight streams have been, decisions have been made, regarding allocation and determining the instream flow. But it's difficult to have quantitative data because of the shortness, lack of funding, and so it is difficult to come up with a data to show whether or not the releases have been advantageous or not advantageous except on an anecdotal experiential level. We don't have quantitative data. We really need that. So, if at all possible, if you could please release funds so that the necessary gage work can go forward. Other than that, I just want to say, I'm the person who actually filed these petitions to restore instream flow and those petitions languished for many years. My personal experience with the farmers is that they really, really struggled. I have seen the back breaking work, I've been in the loi myself, if our Upcountry farmers are suffering, let me tell you that then you have brothers and sisters in East Maui who are suffering as well. It's not a balancing of agriculture versus Hawaiian rights; it's really agriculture and agriculture in two different places. You have farmers in East Maui they're earnest, if you go and look at Keanae, you will see all the taro, all the loi are coming back. All the taro patches in Wailuanui are coming back and that is because of the water releases. So please let's not cast this as a agriculture versus Hawaiian rights, it's really agriculture, Upcountry agriculture, HC&S agriculture in East Maui and you also have a large number of declarations for our East Maui farmers and residents who have also talked about the food that comes from the stream and is the subsistence for the family. So it is very important to them that there be balance. Thank you for this opportunity to testify.

NAME:	Clark Hashimoto	TIME:	41:34

Good evening Chair Thielen, staff members of the Committee on Water Resource Management. My name is Clark Hashimoto, I'm the Agriculture Specialist for the Office of Economic Development, County of Maui. My interest in this instream flow standard assessment is for all of agriculture here on Maui. Enough water should be given to the taro growers to grow their crops and we want them to succeed because there's a shortage of taro. By the same token we need to be sure that enough water is given to other ventures in agriculture. Sugar, pineapple, diversified agriculture and the residents of Maui need ample water to survive. We always hear the word sustainable. How can agriculture be sustainable when over 80% of our food is imported? How can we be sustainable if we don't have enough water to grow our crops? I oversee the Kula Agricultural Park in Pulehu which gets water from HC&S and EMI. There are 435 acres, 31 agriculture lots and 26 farmers. Their water needs can reach up to 500,000 gallons a day. Their economic value is over $5 million annually. But this is only one small part of agriculture here on Maui. Conservatively, the economic value of agriculture here on Maui is in excess of $154 million. Weather forecasters are suggesting that the recent dry climate may become the norm. Without ample water for all, Maui will never be the same. Therefore we need to look at the entire system and its impact on the entire community, taro growers, other agriculture and the domestic water supply for existing residents and be slow and careful about how we return water to the streams until we gather more data on the workings of this very complex system. Thank you very much.

TESTIMONY PROVIDED IN SECTION 16.0

NAME:	Kelly Ruidas	TIME:	44:03

Madam Chair Thielen, Deputy and staff, my name is Kelly Ruidas from HC&S. Firstly, I want to go back to last year's hearing and I want to clear up something. As we recall, those that attended this hearing last year, our workers who came to support HC&S wore their red shirt and so it was just to, the intention was to show support, however, somebody took it as we were being pitted against the taro farmers and that was not our intentions. But nobody made the defense of the HC&S workers, therefore, it was accepted that, yeah, they was here to be pitted against, and that I have to clarify. We do support the taro farmers. That is just one thing I have to make clear. Secondly, after that hearing it was said that HC&S workers wasn't concerned about their jobs. I'm here to tell you, we are deeply concerned about our jobs and also we are concerned about the kalo farmers. Well, between last year and up to today, the workers of HC&S have been working very hard to persuade, to make it known, that we are concerned about everyone and it is not just to say about us because when we learn about the people that will be affected, not just us, it is farmers, ranchers, the County, I think that's the most alarming, is the County, I think everyone should know that the County will be deprived of water as well. Also, in the newspaper, I don't know if you guys read it this morning, but we had a rally, just to show how many people it would be, that would be directly affected, not just the HC&S employees, but also the vendors, small businesses, as you previously, the speaker before, us was from hotel, lodging, they will be affected and they're also concerned. It is a community concern. Let me move on to the petitions, just to show you how serious we were in making an impression, we started our own petitions and this is just to implore the Commission that sufficient and adequate amount of water will be left in the streams, we are not asking for everything. Again, we are in support of the kalo farmers, a lot of our workers are actually related to the kalo farmers and actually this whole issue is breaking them apart. We cannot be broken apart over this. However, some people would like to see us cancel each other out and fight over this and like to instigate, and I just would like to say straight out that it is only the lawyers that come out on top when this is all said and done. I'd just like to make that clear. Our petitions, we have currently 3,462 petitions and it is still being circulated throughout the State. We wanted to make it known throughout the State that this is an issue that will affect everyone throughout the State when this ripple effect, if it does happen. That's about it, it's not scripted, I don't have anything to read, I just wanted to tell you a story, in a time when jobs are scarce, HC&S is currently and is continually taking in displaced workers because as everyone knows, everybody is being laid off. Just to mention, we've been taking in a couple from Maui Toyota, Goodfellow Construction because construction, everybody knows is slow, also Caterpillar, the guys who works on tractors, they're taking in people as well, so as I said, in a time where jobs are scarce, HC&S are taking in more and more people. Just to give you a story, this guy from Caterpillar, his name is Jeff, I was like Jeff, where were you working before? He was like, "well you know, I was at Caterpillar I got laid off." He said, "you know, I was off for like five months," and then, you know, the thing went on further and he said, "you know, I so grateful for this job." I mean you listen to the tone of his voice, I mean, you could tell, wholeheartedly he was genuinely grateful for this job. I think people need to understand this and that HC&S is not just, I know opposition tries to pin us as a corporation, but we're just 800 workers, 800 workers trying to survive and provide for their family, just as the kalo farmers, I do not want to overlook the kalo farmers, they are important, as I watch Akaku, I feel very sorry for them. I see brother Steven, I know he stay out there, but, I like brother Steven get his water also. It's just been an emotional time and emotionally driven issue and we should not fight, I think that's the main point I wanted to make, is just make sure no fight, some people, among our workers just said, tired fight over this, he'll be speaking later on in his testimony. That's all I

wanted to say is please consider the people that you will be impacting and we are just a company of 800 workers trying to provide for their families. Thank you.

NAME:	Sandra Kunimoto	TIME:	50:37

Aloha. Chair Thielen, other members of the Commission and members of the community. I'm Sandra Kunimoto, Chair for the Department of Agriculture and thank you for this opportunity to offer our comments on this very important process. Article XI, Section 3 of the Hawaii Constitution state: "The State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands." The issue before the Commission speaks directly to this constitutional mandate as agriculture is dependent on having adequate and reliable irrigation water. If we are to increase our agricultural self-sufficiency in accordance with the Constitution, there must be assurance that sufficient quantities of irrigation water be available to continue operation of existing farms and for new farms. Reduction in the quantity of irrigation water or uncertainty about its future will threaten the viability of farming operations. This uncertainty can result in undermining initiatives to increase food and bioenergy production in Hawaii. We are deeply concerned about the impact of a reduction in the quantity of water that would be diverted for irrigation for the 27,000 acres that has recently been designated as important agricultural lands by Alexander & Baldwin. A&B voluntarily sought and received IAL designation for much of the HC&S plantation which depends on irrigation water supplied by these 16 hydrologic units. It took almost 30 years since the Constitutional amendment for IAL laws to be passed and for the first lands to be so designated. Reducing irrigation water allocated for farming on these lands could reverse those advances made after so many years. We strongly believe that the ability to produce food is an undeniable public interest and that the ability to produce bioenergy crops to alleviate dependence on imported fossil fuels is also in the public interest. Agriculture serves the needs of the community for food, employment, open green space, and all of this is essential to both Maui and to the State. Being in the public interest and the Constitutional mandate to increase agricultural self-sufficiency, agriculture should be regarded as important as the other public trust uses that are often quoted; being domestic use, exercise of the traditional and customary Hawaiian rights, and resource protection. We have a few comments regarding the reports themselves, and I'm just going to point out one of them at this time. And that is that the Department is concerned that the submittal of our information back in May to the Commission was not included in these reports. And so, we are concerned about that because our information was about Upcountry Maui irrigation system that is under construction now and included information for future demands, service area, economic impact, and water use efficiency. We believe that this information should be provided because the Commission's decision will impact whether or not there is water to flow in that system. I will leave the other comments regarding the reports, and I'll hand it to you in writing. But again, thank you again for this opportunity to offer our comments and we urge you to think carefully, and please give consideration to agriculture in this balance decision.

TESTIMONY PROVIDED IN SECTION 17.0

NAME:	Eliza Goodhue	TIME:	55:07

Aloha kakou. Thank you for the opportunity to speak, I'll keep it short. I'm the granddaughter of a woman named Glidia Goodhue who fought for water rights in the Charles River Watershed

in Boston, which is where I was born and raised. When she was raising my father and my uncles, people wouldn't bat an eye when entire cities would dump their raw sewage right into the Charles River and have it go out to sea. Of course, these days we wouldn't think ever to do something like that and so I guess my point right now is that we're going through a consciousness change about water and so I would ask you to think about this consciousness change and what are we as a people going to do to grow things of benefit for our families and our communities. We're talking about sugar, I drive back past the sugar fields everyday, we talk about taro, I've been in some of the taro patches as a guest and thanks to those who've allowed me to work there, I see that the taro actually is still quite sick because of not enough water flow, when the water gets too hot it doesn't grow well. I'm basically here to say that I think that thirty years from now, our children will look back and say, well, we're glad that water was restored to the streams because it is respectful of the inherent balance of how water flows and just as our grandparents, we look back at our grandparents and we say thank you for cleaning the waters and making sure that we have clean water to drink, that our future generations will look back and say thank you for allowing the water to flow where it most naturally should and allowing us to grow things of benefit for our families. Thank you.

NAME:	Wesley Bisson	TIME:	57:30

My name is Wesley Bisson, I work for HC&S, 29 years. I'm a third generation of machinists, my dad worked for HC&S too, and my grandfather worked on the railroad. Because of HC&S, I got to raise my four boys and I see what's going on between the taro growers, I'm Hawaiian and I feel, when I see them on Akaku, I feel. My cousins all grow taro over there, my cousin Steven stay outside. I wish you guys give them water. They need it for their taro. We need water. I just hope with your decision, we can come up, a happy medium with everybody over here. We always together on this island, we got no place else to go. I love kula onions, I love eating the poi from Hana and I will be using our sugar, I pretty sure they drinking soda and stuff, it's all our sugar in there. I just want a happy medium, I don't want to fight nobody, Charlie, I sorry for whatever I did to you, you know you blaming me, I don't know. It's not the carrot, brah, it's the family. If I was single, I probably be growing taro, but I not, I married, I'm in an economical system and I gotta live. So I work for HC&S, like my dad and his dad. Thank you.

NAME:	Edwin Young	TIME:	59:18

Hello, my name is Edwin Young and I live in Hana, right around lower Nahiku and I'm going to testify about Makapipi Stream. Makapipi Stream is defined by the U.S. Geological Survey as a perennial stream. It's been dry since about June of last year, the thing never have any water, for about four to six months and but there's a lot of water flowing from the top to the bottom. I had the DLNR go out there and look at it and they went out there and saw it and they saw that the gate, which is on a dam that's 15 feet high and 20 feet long and a lot of water coming down from the mountain but none of the water goes below the dam, because it's all being diverted this way. According to the State Water Code, HRS 174C-101, the State Water Code reads, that the traditional and customary rights of ahupuaa tenants who are descendants of native Hawaiians who inherited the Hawaiian Islands prior to 1971, in other words, all the Hawaiians, shall not be denied by this chapter. Such traditional and customary rights shall include but not limited to the cultivation of taro on one's own kuleana the gathering of hihiwai, oopu, limu, thatch, ti, cord, aho cord, medicinal plants, and so on. There's no oopu, no hihiwai, no nothing in Makapipi Stream because it's been bone dry. Last year we had a big meeting down in lower Nahiku and

we had Dr. Lorrin Pang come and because we were concerned about the dengue in the river, all the pools are black, and he went up and saw Garret Hew and told Garret Hew to release some water from East Maui Irrigation to flush the river out and Garret Hew said no. This year the DLNR went and talked to Mark Vaught and he said that he wouldn't, you know there's a big sluice gate on the bottom of the dam and he wouldn't lift it up. There's a report that was filed with the DLNR and anybody that wants to read the report, can go and request it from the DLNR. Another law, these are like State Water Code laws, and another law, the State Water Code, 174C-3 paragraph C says, however, adequate provision shall be made for protection of traditional customary Hawaiian rights, the procreation and fish and wildlife and the maintenance of proper ecological balance and scenic beauty in the river and these laws are not being followed by East Maui Irrigation even though it said you gotta let go the water inside the river, you can share the water, you can take water to feed your sugar cane and everything but still gotta leave enough water in the river to protect all the opae, hihiwai, stuff that we depend to live on. And now, you know, get plenty HC&S guys over here and they need the water for the sugar cane, and I agree, you know, I rather see sugar cane growing in the valley than see subdivision and houses growing, so I on your guys side, you know, even though we fighting for our water, there's enough water to feed all the sugar cane and all the people, you know, but twenty, thirty, fifty years ago, they had twice as much sugar cane in production as they do today and they didn't need to leave, use all that water because when I came back in 1969, you know, they, all the rivers was still flowing, and still had enough water to feed all the sugar cane, now they only got 33,000 acres and they need 160 million gallons a day. I ask you folks over here on the Commission, did you ever do the numbers, 160 million gallons a day to water 33,000 acres of sugar? You guys went ever figure out how much water that is? No, nobody does that because the thing is so big and so immense and everything, 160 million gallons a day to water. Well, you know what, I went go divide it down to one square foot. How much water, you divide 160 million gallons a day, you divide it by how many, 33,000 acres, all the way down to one square foot. I came up with anywhere from 70 to 100 gallons a day of water to water one square foot of sugar cane. Now this is one gallon of water right here and one square foot of land is almost this size right here. Now can you imagine a 100 gallons of water to water one square foot of land? You stack a 100 of these on top of each other, how high the stuff going reach? We reach that many feet, the tidal wave that went destroy Samoa was only 20 feet, so if they water 160 million gallons a day on 33,000 acres of sugar, how Kahului Harbor still stay in place and Kahului community and Kaahumanu Center still over there? Because you talking about one giant wave of water that's going to wash away all Kahului. I want to close my statement right now, and I want to leave you folks this gallon of water, so you can go back and stack this up, 100 gallons of water to water one square foot of land. I tell you what, you HC&S guys, your bosses stay lying to you guys that no more enough water. I don't know how they stay figuring it out, but we on your guys side too, like I said I rather see sugar cane than subdivisions, but something not jiving, they lying to us, they lying to you guys and they even laying you guys off and say get drought and everything? There's a lot of water. So, thank you very much.

SUBMISSION PROVIDED IN SECTION 18.0

NAME:	Michael Nobriga	TIME:	1:06:11

My name is Michael Nobriga. I felt compelled to come tonight, so before I came, I asked my Dad, my Dad is David "Buddy" Nobriga. Dad said that in the seventies, he was Chairman of

then semi-autonomous Board of Water Supply. I too had the opportunity to serve on the Board of Water Supply in the late nineties. During that time, the Board took the first plantation water away from the rivers to service the upcountry people - 12 million gallons that could carry us through droughts. For 10 years they had plans to build wells close to the EMI ditches where we could supplement what we took. But the people of Maui in 1978 voted to turn the water over to elected officials who they felt could do better. In Dad's words, "I don't think so." Most of all water development on Maui that we all enjoy today was through a semi-autonomous Board of Water Supply. The Waikamoi system was developed by US Department of Agriculture and the Soil & Water Conservation Districts. The Piiholo Agriculture line was built with agricultural appropriations for agriculture, but got changed to a domestic line in the 1980's to continue development. The Wailuku system in his time was good for 40 million GPD. Before the Joint Venture line that serviced Kihei, South Maui, five (5) geologists in our State agreed that figure was about 40 million. Well, that all changed in the State Constitutional Convention in 1978 that created a Water Commission that should be "semi-autonomous" body but nothing happened for 10 years till 1987-88. A Commission was formed to write the rules on more or less what the Convention wanted — which was to hold public hearings, etc. My Dad would tell me that one of the first things they did was instigate this IIFS. But Heritage Streams (those that have not been yet diverted) was immediately protected, the Water Commission ended with DLNR Chair chairing the Commission with the Department of Health Chair to serve on the Commission. But when I attended a Commission hearing back in 1988, Fred Trotter was Chair. The amount of work assigned to the Commission would probably need 150 people to work on. Yet the Commission may still have only 60 people, probably less now, was never funded to the fullest. In 1991, Dad was asked to serve on the Commission and accepted. He ended up serving on the first largest contested hearing as one of four Hearing Officers. They found that water tables that contributed by sugar, one million gallons per acre year used in furrow irrigation, contributed to 35 to 40% of recharged ground water. Lake Wilson, with raw sewage from Schofield was used at Wailua Sugar Co. They never drilled for water because of that contamination. A few years ago Oahu's Board of Water Supply drilled there and Lord behold! Good clean water. We always took care of instream water flows for agriculture and taro. But everyone was not satisfied — they said not enough. But they added the "NOT TO BE WASTED", clause. And that seemed to appease everyone. We believe that agriculture has never used the allotted amount — neither did taro. We could use water for fish and other purposes. As far as our County, development continues without water. Ag water keeps getting taken away for people. There's over 40 million gallons of pristine ground water sitting along the road to Hana in the Waikamoi area that needs to be developed for people. Yet we drilled in an old pineapple fields that are contaminated water. We asked that our elected officials of Maui — do something and not kill agriculture. We need sustainability for our State. With a catastrophe, like the old gentleman was saying, we cannot eat houses. We need jobs and we do not need greed. Mahalo.

TESTIMONY PROVIDED IN SECTION 19.0

NAME:	Jeffrey Eng	TIME:	1:11:17

Good evening, Chair Thielen, Commissioners and Commission staff. My name is Jeff Eng, I'm the Director of the Department of Water Supply. The subject instream flow standard assessment reports, in general, correctly illustrate upcountry Maui's current and future reliance on surface water. As the reports state, the county's Upper Kula water system relies on water from the

Waikamoi, Puohokamoa and Haipuaena streams. Our Lower Kula water system relies on those same streams and the Honomanu stream as well. The Makawao water system draws from EMI's Wailoa ditch, which relies on water from all sixteen hydrologic units under this current consideration. Approximately 90% of upcountry Maui's domestic and agricultural water supplies are derived from surface water. Surface water has always been and will continue to be the primary source of water for upcountry Maui. It is also important to keep in mind that upcountry Maui's agricultural and livestock industries are dependent on the county having adequate water to sustain those industries. The county has a duty to provide water to support its residents and its economy. As the Commission deliberates on the instream flow standards, we ask that they strongly support the current and future needs of our upcountry Maui community. Thank you.

TESTIMONY PROVIDED IN SECTION 20.0

NAME:	Dorothy Lena Kamalu Kahookele Sili	TIME:	1:13:25

I'm Lena Kamalu Kahookele Sili, President of the Royal Nahiku Community Association, representing my village or community of Lower Nahiku, which sits in between Makapipi Stream and Kuhiwa Stream and being a keiki o ka aina ma Nahiku, I would like to know why our stream, Makapipi, and many others, which is a perennial running stream, is in lack of this. Is this due to too much diversions of our streams? Even with heavy, heavy rains, which we are born with and live with, in the original Lower Nahiku, because of being in the rain forest area, are getting only the overflow, or the leftovers, to sustain our kahawai until the rains subside and our kahawai has water for fleeting moments. Like half a day, if we're lucky. One day or two days. When this occurs, there is something very wrong with this picture, don't you think? We want our perennial streams to flow the way it always was, always has been, and always should be. On page 88, in the Water Commission palapala, it stated that in 1954, there was only ten houses in Lower Nahiku and one school house. I was eleven years old at that time and the last graduate of the Lower Nahiku school and there were more than ten houses present. I can also name all the residences that was living there at that time. There were much farming, wetland and dryland kalo growing abundantly and uala, sweet potato patches, there were much animal raising of puaa, moa, pipi, etc. Our laundry days were done at our kahawais, our kaheka ponds. There was no County water lines at that time. Water was taken from the kahawai and carried by hand buckets and put on the sides of the mule to use for bathing and cooking. Our kahawai was never dry. Why is it so dry now? Perhaps, the bottom line to this question is over devleopment of all sorts of things. To name a few, hotels, resorts, condos, businesses, housing, etc. Shall I add golf courses? Like the four great waters, Na Wai Eha, which is Iao, Waihee, Waikapu and Waiehu, and all to our HC&S employees, who are striving to keep their jobs, we of the East side of Maui of all the mighty streams, without our streams flowing, freely, 365 days a year, if because of economy impact, where do we go to survive if we cannot afford to buy rice anymore? Simple, our kahawais will supply us with our edible needs and so will our kahakai. Our kahawai and kahakai, also need each other to survive. I'd like to also add to my manao in regards to me, to Mr. Garret Hew, Mr. Garret Hew, where are you? Aloha. I read that Maui News clipping on Friday, October 9, 2009 edition, and I must tell you that I was very appalled. I quote, "With that much water going into the streams, they should flow mauka to makai, Hew said. Why sacrifice 800 good jobs especially in this time of economy for a little more fish and fauna, he asked. Hew says simply, Without water Alexander & Baldwin, the godfathers, will survive. But sugar in

Hawaii won't." I would like to have that clarified a little bit better, Mr. Hew, if you don't mind? For the simple fact that the fauna and the fish is very, very important. What do you mean for a little more fish and fauna? May I remind you this is our Safeway, our Foodland, etc. When there is no jobs or money, this is our means of survival. Mr. Hew, we don't live five minutes away from the stores. Don't talk the walk, walk the talk. My comment in number one, was yes, our water should always go from mountain to sea, freely, with no obstructions involved. Of course, A&B will survive, they'll survive mainly on developments. And everybody will wonder, wela no hoi ka wai? Also, who is responsible for the cleaning? I hear a lot about wai, water, water. What about the cleaning and maintaining of our streams? Why is the areas where water is diverted, seem to be the only areas looked into and maintained? To survive, we need clean debris free, dirt free, running water to keep healthy. There are people who can use those jobs in clearing, cleaning and maintaining our kahawai. From all ahupuaa, stream cleaners are important to keep our kahawai pono. And, in as much as a sugar go, which I love sugar, during my period of time growing up, we had honeybee trees, we called them. Honeybees will be able to give us honey for sugar, we survived with that while I was growing up and we had sugar cane fields on the east side of Maui, too. My grandfather raised lots of sugar cane, the purple ko was our toothpaste and our toothbrush and also, my grandfather worked for East Maui Irrigation Company and so did many of my uncles, cousins and family. And with that I would like to say, Mahalo, mahalo nui.

And with your permission, may I read Edward Johnson's testimony? This is another testimony from Edward P. Kalama Johnson, he is also with the Nahiku Community Association, he was my former Board of Director and now he is our present secretary. He was not able to be here this evening due to being ill. It says, ola wai, water is life. Water is wealth, water is to be shared, water is growth. My name is Edward P. Kalama Johnson I reside on the east side of Maui in Lower Nahiku. At present, I am the Secretary of the Nahiku Community Association. My testimony on the diversion of our rivers and stream is simple and clear. Stop. Our ecosystem is literally drying out. No more opae to feed the families. Along with oopu, hihiwai, opae kalaole, opae kuahiwa,, opae kalo, the plant life along these rivers also plays a big part in our way of life. I lived in Lower Nahiku from the late eighties and I swam and harvested from Makapipi Stream almost everyday till recently. Now Makapipi is dry most of the year along with most of the streams on the east side. Why are we denied our God given rights to our natural waterways? Is developing outweighs people's lives? Surely it's not agriculture, for we coexisted for tens of year. Our voices will not go away, we will be heard and we will prevail over power, greed and money. Edward P. Johnson, Jr. Mahalo.

TESTIMONY PROVIDED IN SECTION 21.0 AND 22.0

NAME:	Warren Watanabe	TIME:	1:24:46

Hi, my name is Warren Watanabe, Executive Director of The Maui County Farm Bureau. I come before you today on behalf of our commercial farmers and ranchers and ranch families on the island. I also have a small specialty vegetable operation dependent upon water from the upper Kula line provided by the County and originating in East Maui. We appreciate the inclusion of the economic impacts associated with these East Maui streams. Without water, our industry cannot exist. While many tend to take commercial agriculture for granted, we are the people who put food on the table and other products to sustain society. The result of this hearing

can decide whether agriculture will remain on Maui or fade into the sunset. Leaving Maui dependent upon imports. However, there is additional considerations that must be taken. Many of our farmers are testifying before you today and have submitted written testimonies about their personal experiences to add to the information in the draft. What we found lacking in the draft was addressing mitigative actions. The IIFS section of the Water Code requires the identification of mitigative actions during the process. The draft takes a passive role in this area by reporting on activities that are currently being pursued by the Maui Department of Water Supply or actions that HC&S could take. It does not proactively seek to recommend additional actions that could be taken to mitigate the impacts of returning additional water to the streams. Throughout this State's history, agriculture has actively developed sources of water to carry on its business. In addition to the extensive infrastructure at EMI, many of the County infrastructure, the lower Kula line, Kahakapao reservoirs and the Upcountry dual line were built with federal dollars, origining agriculture, USDA. However, we continuously find ourselves at the forefront to find new sources of water. We do not believe it was the intent of the authors of the IIFS law to place agriculture or the community in this position. We believe that this is why the section on mitigation wasn't included. After years of work, the dual line is nearly complete, but today we face the possibility that even if it is completed, there may be no water for it. As Chair Kunimoto referenced, this new transmission system and its source associated with the Kahakapao reservoirs is missing. Significant federal resources have been spent in its construction thus far. There also may be implications to the State if IIFS decisions result in a dual line becoming unusable. We strongly urge the Commission actively consider possible mitigative actions before requiring stream restorations. If the estimated impacts to agriculture and the community are underestimated, the cost to Maui may be unbearable. In a recent survey of over 800 Maui County Fair attendees, 95% said agriculture was either very or extremely important to Maui. Our farmers and ranchers are struggling. Good planning decides what businesses and developments we desire and identifies the ways to secure resources, including water to accomplish the vision. Water should not be dictated whether we have agriculture or businesses. We need to develop water so we can realize the visions we have for the Maui we love. In the same survey mentioned earlier, 91% of the respondents said water decisions need to balance various needs or make decisions on a case-by-case basis. We respectfully urge the Commission to recognize that we are not Waiahole. Returning water to the streams will take water away from someone and comes with a cost. Focusing on mitigative measures so restoration can occur at a later date is in the best interests of the people of Maui. Thank you.

NAME:	Kahu Charles Maxwell Sr.	TIME:	1:29:01

Thank you Laura. Aloha ahiahi kakou. Hawaiians came here about 3,000 years ago, at a time when European man thought that the world was flat, that if you sailed off the edge you fall into space. Hawaiians traversed the Polynesian Triangle and they populated these islands from Na Wai Eha to East Maui because they were naturalists. They were conservative, they knew that the water that came down from the mountain replenished the spirit of the aina so they did not stop it completely. They used it for their taro and then it continued down to the ocean because all the fish in the ocean, majority of the fish, has to come up the stream and touch fresh water to complete their cycle of life. Hawaiians knew this; that was a normal thing that happened. Taro is just not taro; it's kalo. It's the staff of life for the Hawaiian people. The Commission has to bear in mind that this is not only a lifestyle, it's a cultural and spiritual devotion to the land that

these people have. We can share water, we have shared water, but not at the expense of the taro farmers. They should be number one when you make any regulations, they should be number one. We should go back to 165 years ago when the treaty that they signed, when they made that ditch to leave, make sure that the taro has enough water, and that the water goes down to the ocean. That is totally important. HC&S has 16 wells dug, but they not using it because it's more simple to get water from the stream. The stream, they diverted everything, they're really selfish. It is not the Hawaiian way, it is not a pono way and I tell you something, to the workers of HC&S, I used to work from 18 years old, with a Filipino friend of mine, cutting cane, and I know, I worked for HC&S and at that time, they were trying to get alternate crops of macadamia nut up in Piiholo, above that, and agriculture is the greatest thing. We should find an alternate crop. But there is a plan that has happened and we're the ones paying for it. Where is the agriculture uses for Lahaina? It's all with twinkling little lights on the mountain. That's your agricultural ventures, because that's where the water is going. Wailuku Sugar, who wanted to be a water company, they don't have nothing to produce. Sugar cane is a dinosaur, it's a dinosaur. Somebody has to tell them to find alternate agricultural crops, if not, we're all in trouble, but, I live in Pukalani, and I pray that I be dead already when there's condominiums and homes from Pukalani down to Kahului because that is what the water is being kept for. And any lolo can tell you that, that's why they're keeping their quota and they're gonna use it. And the poor plantation workers, they call you together and you just nod your head, but tell them the facts of life. That's your livelihood. For years I heard one guy say his father, grandfather and now he's working, that's the protection that we all gotta look for. We gotta malama each other and not fight each other. But always remember the kalo is the sacred fruit of the Hawaiian people. Mahalo nui loa.

NAME:	Harold Kekahuna	TIME:	1:33:51

My name is Harold Kekahuna, Board of Director, Chairperson for the Environmental Management, which includes Public Works, streams, hazardous waste, road bridges, storm drains, culverts, debris, discharge and I have ten questions. The first question is what is the latest USGS gage station status from gage number 5060, which is the development tunnel, 5065 Makapipi Stream, 5070 Makapipi Stream, and I stand corrected, 5065 is Makapipi Spring. On the flow and what is the flow-duration characteristics based on the complete water years for 2000 to 2009. The next question is what was the main purpose of diverting the Makapipi Stream and was the village or community notified in any way for this action. If so, by whom, with whom. My third question is what are the streams in question not being maintained to ensure good, clean, healthy quality water. Examples, invasive alien plants, dead animal carcasses, debris, all sorts, etc. This includes humans using our streams as bathrooms, also showers, etc. Cause I get the privilege to go clean those areas myself. And my fourth question is who authorized the two diversions, or more, to take place at Makapipi and why. Number five, USGS report on page 34, station, get two station diversions, one is below a thousand feet, and one is above a thousand feet. The two numbers is 16506000 and 16506500. 16507000 USGS station, what is their known water between these gage stations and are they active or inactive, cause the latest report that I got was they're all inactive. My sixth question is, is there any money being made for this Makapipi flow, if so, how much and who gets the bulk of it. My seventh question is, is there anything that the Commission can do to help or can do to keep Makapipi and other streams in question alive and yet flowing as it should be so that all can be served equally of this valuable source. My eighth question, two major diversions, CWRM registration number 983.6 below

thousand feet level, CWRM registration number 298.6 above the thousand foot level, on the west branch of Makapipi, two minor diversions, EMI code K1A and K1B above, they're both above the thousand foot level, what are the latest reports, meaning is it active or inactive again. Wouldn't this help better understand the streamflow of Makapipi. My ninth question is the community of Nahiku also have a request of having the Kuhiwa Stream data, if available, so can better understand the instream flow number. This would on the East side of our Makapipi Stream. Makapipi Stream has the right to live, each of the residents that live there, plants and animals, and all of Maui and each ahpuaa have the right to have water for all which should always be shared accordingly and equally and I conclude my questions. Mahalo.

TESTIMONY PROVIDED IN SECTION 23.0

NAME:	John Blumer-Buell	TIME:	1:39:45

Aloha, Chairperson Thielen, Members of the Commission and staff and Maui Community Members. I'm John Blumer-Buell testifying for myself, but the late Parley Kanakaole and I were representatives for the Hana Community Association in the contested case hearing before the Commission on Water Resource Management which was in 1991 regarding the application for pump installation and Kuhiwa Well in Nahiku for thirty-seven page Findings of Fact, Conclusions of Law and Decision and Order is attached as an important reference, I've given it to your staff. Impacts upon Hanawi Streams and Makapipi Stream and the unnamed stream between Hanawi and Makapipi Streams for the Court issues a case. This is to Chair Thielen, I request a meeting in Nahiku or can I with the Commission and/or staff members to review Maui Land and Pineapple Company compliance or non-compliance with the Decision and Order dated October 2, 1991. I would like the meeting to include the Hana Community Association, Ned Goodness of Nahiku Community Association, Maui Land and Pineapple, Na Moku Aupuni O Koolua Hui and all other interested parties. The agenda should include review of the Decision and Order for compliance or non-compliance, review of the 1991 baseline aquatics survey of Kuhiwa Stream, Makapipi Stream and Hanawi Stream and the 1993 aquatic monitoring and survey of the Hanawi Stream, Makapipi Stream and Palauhulu Stream. Discussion of a methodology to include the community in future monitoring of the stream conditions and improvements of the watershed. Discussion of restoring Kuhiwa, Makapipi, and Hanawi streams to their natural state. The Betsill Brothers well. The use of this well has not been properly monitored. The well may be in the same perched aquifer as Kuhiwa well and could certainly add to the threat of Kuhiwa well on Big Springs, along Hanawi. I've been told this well is a source of water for at least one subdivision that has not been disclosed to the Commission. And lastly, land titles on the agenda. The Hawaii Stream Assessment accepted by the Commission on Water Resource Management identified 7 streams in the State with the most outstanding aquatic and riparian values which should receive full watershed protection from the mountains to the ocean as kapu streams. Discussion of full protection of Makapipi, Hanawi stream, and the unnamed stream would be a constructive way to explore the kapu issues. It appears the watershed is dying and losing its capacity to sustain itself at historic levels. And this is true for all of east Maui, I think, at this point. Finally, I would like to, I've been thinking about what are the solutions for the Upcountry water problems, the Upcountry problems for our farmers Upcountry and so forth. And this led me to think about some of the financial issues of the water that's being taken. Potentially, you already have the financial resources available to finance reservoirs for water shortage, repair leaks in the system, and repair the watershed. Water storage would solve some

of the issues before you, and we've been talking roughly about $300 million dollars for a 300 million gallon reservoir. I stand to be corrected by Warren Watanabe or the mayor, but that's a ballpark figure. A little background information for your review and confirmation to the facts. The system of ditches in the license areas divert, on average, 160 million gallons a day, or 58 billion gallons of water per year. A&B and EMI pay about 1/5 of a cent per 1000 gallons. I recently checked with the Department of Water Supply and was told the rate charge for agricultural water is one dollar per 1000 gallons after the initial base charges. I have no problem doing this at a corrected rate, if documented, and I support lower rates for farmers. But 160 million gallons per day time 365 days equals 58,400,000,000 gallons per year. Divide 58,400,000,000 by 1000 to get the number of thousands of gallons. That number is 58,400,000. Multiply 58,400,000 by one dollar per each thousand gallons. That number is $58,400,000. So, what I'm saying is, the public trust, which we're all part of, we are not receiving, uh, what are the benefits we're receiving for that. I think that the sugar company should be paying a fair market rate for the water. There is enough money there to very easily amortize the building of a 300 million gallon, or whatever number of gallons we need Upcountry. So they're paying less than a penny per thousand. I'm suggesting the water department's is a dollar, you can do a computation at 50 cents or whatever. I support less shortages for the farmers and we also need to, in figuring out the expenses which should part of the public discussion. It costs money to keep that ditch open. And, anyway, I would just throw that to people to think about, you know, how can we get to these solutions. I think the solutions are in front of us. I've worked a lot with people that are on the other side of the water issue, there's so much in common, and what's lacking is just sitting down and really hashing it out. I think there's solutions and this is why, in closing, Chair Thielen, I'm asking for this meeting in Keanae or Lower Nahiku, because the issues of Kuhiwa, Makapipi, and Hanawi are going to be very instructive for this whole water issue. I sincerely believe that. Thank you.

TESTIMONY PROVIDED IN SECTION 24.0

NAME:	Lyn Scott	TIME:	1:47:48

Aloha, Chair. Hi Ken, hi Ed, Dean and Chui. My name is Lyn I come from Honopou, last year we had our stream, interim instream flow standard, IIFS set on our stream. I just want to thank the staff here for all that they did. You cannot believe how they climbed waterfalls, and up mountains and just went through streams, ripped pants, lunches, everything, to get to this point to find all the information that we need here. Thank you guys, we really appreciate your help it was fun hanging out with you guys. We live on Honopou Stream and I'd like just to say that even in this time we are still not getting enough water for our taro. We still are having a hard time growing it. The water is so warm, we have gages in our streams, which seems pretty ridiculous because our stream monitor says that, they should really take into account what the taro farmers say because we live it, we work it, we know what it's like. But still they're going to come in and put in all of these gages, just to find out that what we're saying is true. Our water is warm, our flow is slow and it is injuring the taro farmers and people in East Maui. I feel that the other streams really need to have that water in it. Without that, where would we be? No fish, no nothing. Why do the tourists come here? They don't come here to go see cane growing there. They come here, they go to Hana. How many complaints with people saying, "Where the waterfalls?" No more, it's gone. And they don't understand it but we need to educate them. I'm glad that we're doing this now. I wish that there were more young people involved in this

because this may take a long time and people in East Maui really need to stand up for their water. It's our water, it came from our streams, from our mountains. Before, they didn't have water down there, they didn't, Hawaiians didn't bring nothing on the planes. We live on the East side, we grow our taro there, we live off the water and off the plants and the streams. What's going on nowadays, is you hear all in the newspapers and everything, 800 employed members of their force on HC&S. Well, you know, if they're not going to take any water from the streams, can he, can Garret Hew ensure that all those people are going to have their jobs if they don't take away our water? No, I don't think so because water is becoming less and less here on Maui and more and more of a commodity. And to the people who deserve that water first, where it came from, deserve to have that water left in the streams. I went to a Planning Commission meeting up in Pukalani, on September 2 and I testified to the fact that before HC&S, and they approved all these new subdivisions that they have to consider our superior water rights first. If you went to that meeting or if you heard about it, you know the Kuau expansion, 200 new homes, A&B Newtown, 68 acres, on the Hamakua Coast with a 122 new homes. Haliimaile, 350 acres of prime agriculture land to put in 1,200 new homes. Maui Land & Pine in Haliimaile, 372 acres with agriculture land with 1,450 new homes; 217 units at the Pukalani Triangle, across from the Pukalani Superette and formerly Maui Land & Pine Lands 98 rural lots on 163 acres above King K School. Now that's a lot of homes. That's about 3,000 homes there coming up in the future. So if we don't stand up for our water now, and tell the Commission to leave the water in those streams to protect us Hawaiians on the East side to protect the streams and the kalo farmers who are struggling right now and I know that Dean and Ed and Ken and Chui they've seen it all and they know it and they told Laura and I can assure you that they know it and we just need to reinforce the fact to keep the water in the streams. Thank you everybody.

NAME:	Chris Benjamin	TIME:	1:52:10

Thank you Chair Thielen and thank you Commissioners and Commission staff. I want to especially thank the Commission staff for all the work they've done putting together the stream reports and this is obviously a very important process and the timing is very important to HC&S. I'm sorry, I didn't introduce myself, I'm Chris Benjamin, I'm General Manager, HC&S. I've got a script here, but I'm going to try to skip through a lot of it just in the interest of time. I do want to address a couple things that have been talked about tonight. One is our losses, it's even worse than what was described with our $13 million loss last year; we're going to lose $25 million this year. That is obviously very compelling. Our business is in jeopardy. But what those losses are caused by is the lack of water because of the drought of the last couple of years. And what it points to is the absolute importance of water to us, just as it is important to everybody. What we are doing as a team, and there are a lot of our team members here tonight, a lot of the HC&S folks are here. We are working this year to try to determine and prove whether or not we can turn this business around. I am very optimistic that we can. But one of the things that we have looked at is we've had to prove that we can produce more sugar to survive as a business. We cannot lose $25 million every year and the reason we're losing that much money, of course, again, is because of sugar production. We have developed sugar models and we have looked at the relationship between water and sugar and I'm very confident that if we get back to normal weather patterns and if we can retain access to the water that we will be able to turn this business around and survive. But at the same time, by the way, also in response to something that was said earlier, we are working very hard to look at alternatives. We have test plots of all different kinds of crops, we've looked at alternative energy; we've looked at various forms of energy from

algae to different crops. I hope some day, because the commodity sugar model is not going to be viable forever, we know that; I hope that 10 years from now or even maybe sooner, we can be growing different crops, we can be using less water. But the reality is, that is, not possible today. I can assure you that we have looked very hard at that. We've spent a lot of money. If the sugar business goes down, we will never have the opportunity to convert to another crop down the road because we'll never be able to get these farm lands back into cultivation. The irrigation systems will be gone, the fields will be filled with weeds; we won't get them back. That's why we have to keep sugar going for now until we can transition to an alternative. I would just like to say that, as I said before, the most important thing to us in understanding whether we can turn this business around is confidence that we will have access to water in the long term. We have made a commitment to our shareholders that we will determine by the end of the year whether or not we can keep HC&S going. As you can imagine, they're not very tolerant of these kinds of losses. Unless we can say with confidence that we'll be able to turn that around, we can't keep going. If the Water Commission does not decide before the end of the year on these streams and if we do not get good news and affirmation that we will still be able to access the water we're going to have to go on the basis of what we know so far, which is last year's decision, some of the comments that were made around that decision that connote very much a streams-first policy and if that's what we have to go on, I can say that HC&S will not survive. That's why this decision is very important and I guess in closing what I'd like to say is that I believe that the Commission is directed by the Water Code to maximize the economic and social benefits of the waters of Hawaii. In making your IIFS decision, I certainly hope that you'll take into account the economic impacts that the loss of HC&S would have, not only directly on the 800 employees that have been mentioned but also on the farmers that depend on our services and the services we provide to deliver water and also the County of Maui, the domestic uses. All of these things are tied together and water is very critical to our future so thank you.

NAME:	Michael Howden	TIME:	1:57:21

Thank you Chair Thielen and members of the Water Commission and staff, thank you so much for being here. My name is Michael Howden, I'm the present Chair of the Maui County Board of Water Supply. I'm speaking on my own account and although I have all these notes that can't read, I would like to say that there was a by-invitation meeting a few months ago that Sol Kahoohalahala put together, the Councilmember, where we discussed sustainability and agriculture. Mayor Tavares was there, sitting right next to her, Mrs. Kunimoto was there from the Agriculture Department and when Mr. Benjamin was asked point blank by some of the agriculturists there, "Are you considering any other crops besides sugar?" And he said, "Absolutely not." So, I mean there were 30 people there and that's what you said. So, you know, it becomes kind of unbelievable how you're presenting this. I mean obviously HC&S is in jeopardy. It's very difficult to grow a water hungry tropical grass in sand dunes in Central Maui and expect to really be that profitable at the expense of Na Kuaaina of traditional agriculture, of native Hawaiian tenants with riparian and appurtenant rights that are very well delineated in the State Water Code. That's just truthful, Mr. Benjamin, you know we were all there and we know what happened. I don't understand these different faces of this thing. Of course, we're dealing with 800 jobs. But we're dealing with generations of people who've been deprived of their subsistence rights and agriculture, traditional rights and tens of thousands people. And now, it's like this water for all thing, which is kind of interesting, you know, because really the pressure is on the one corporate entity that controls a 160 million gallons a day

taken out of the East Maui watershed. And as John Buell pointed out, that watershed is gone. I mean one thing I would suggest to the Commission is that if you close the intake from Makapipi, and the Nahiku ahupuaa began to rewater itself, I mean USGS says that that ahupuaa is fed by the stream water. When the stream water is cut off, everything dies. Skippy Young pointed out that there are springs in Ulaino that are dry that have never been dry before in his lifetime. The effects of this are really creating a public health hazard throughout East Maui. I don't mean to blame HC&S, it's a corporation, you do what you can and there are very many well intentioned people associated with it. What you need to look at perhaps as well, is the County and the County administration and County Council and the Department of Water Supply, of course, what are we doing to help bring forward solutions. NRCS in the last few months was in the Waikamoi area looking for a reservoir site. They reported to me that the Waikamoi flume system was totally falling apart and that all that water just, I mean when you're concerned with waste as a Water Commission, that's where a lot of waste is. That water at 4200 foot elevation is the most valuable water on Maui in terms of supplying Upcountry agriculture. But we just let it go. We just let it go. I've been with the Water Board a little less than four years and from the beginning we were talking about, okay, let's redesign, we can figure the Waikamoi flume system with the Kamole weir for instance, we have an agreement, a memorandum of understanding with HC&S where we can draw several million, two, three, four million more gallons a day from the Wailoa Ditch than we presently do and on top of that another four million. What we need are high-lift pumps at Kamole Weir and a better filtration system. That's really straight forward stuff. It's not rocket science and it serves everybody and it would really help secure some sense of sustainability in our agriculture rather than agriculture,e that in many ways, I mean, you got a basically industrial monoculture that's poisoning the aquifer, that's poisoning the soil and it's poisoning our air; it's a public health hazard. When you burn those chemicals, toxic carcinogenic chemicals, which just look at Hamakuapoko and the County was warned about Hamakuapoko, that was dealt when David Craddick was water Director and Maui Land & Pine warned Craddick that their wells in that area were contaminated by agriculture chemicals and now we're thinking about using that for human consumption. So, it's not a sense of blame, and I agree with Mayor Tavares and other people who've spoken that we need to come together, but you need to come together with open eyes. Don't fool yourself. There's a tremendous amount of work to be done and for me, like, it's really hard to watch this and we just go on as usual and pretend it's okay? Thank you.

NAME:	Mae Nakahata	TIME:	2:04:12

Good evening, my name is Mae Nakahata and I'm an agronomist at Hawaiian Commercial & Sugar Company. However, I'm here before you tonight as the Vice-President for Hawaii Farm Bureau, the State Hawaii Agricultural Advocacy Organization representing commercial farmers and ranchers. HFBF is here to support Maui farmers and ranchers to address agriculturists' water needs and to recognize that these proceedings here have a statewide significance in the precedences it can have on future IIFS proceedings. At the same time we implore that decisions can be made about ands and not ors. We appreciate all the efforts staff has done to further understand agriculturists' water needs and hope to work with you in the future. There have been a lot of comments about agriculturists' water needs so instead, tonight I'd like to focus on an area that we think has not been adequately addressed in the IFSAR reports and that is, the important agricultural lands. IAL was born during the 1978 Con Con, just like the Water Commission. It took us 30 years as Chair Kunimoto mentioned to get it implemented. Our concern is that the

IFSAR does not seem to understand the significance of the IALs. It was to provide for Hawaii's long term sustainability and increase self sufficiency. While there is passive reference of IALs, there is no clear emphasis of the implications of IIFS decisions on these lands. I really apologize if I missed it in the voluminous papers that were in the IFSARs. While the IAL classification is a land use category, unlike other mapping operations, such as ALISH and LISA it is not mapping. It is an agricultural viability effort. The reason why it took us 30 years to get this implemented was because people tried to map IALs for many years and everybody fought it. But in 2005, we turned it into an agricultural viability exercise. What we said was, if you have viable farmers and ranchers, they will keep their lands in agriculture. By doing that, the legislature passed this standards and criteria in 2005 and later the incentives. It is an incentive based system to get farmers and ranchers to farm. There was a historic event in May 2009 that on Maui actually passed by with a little ripple and that was the designation of 27,000 acres by Alexander & Baldwin as important agriculture lands. Those were the majority of HC&S lands that are privately owned. There have been a lot of insinuations about water banking by the Company, but by designating these lands as IAL, A&B committed to try to keep these lands in agriculture into the future. What they did for themselves was make it very difficult for them to reclassify these lands. So if A&B decides to go out of agriculture, that water goes back to the Commission for reconsideration of how it's going to release it to other uses. A&B does not have the liberty to redirect it to development. But more importantly, within the IAL law, it states that the County reviews these IAL maps on a regular basis and "that if a sufficient supply of water is no longer available to allow profitable farming of the lands due to governmental actions, acts of God or other causes beyond the farmers' or landowners' reasonable control" these lands must be removed from IAL classification. So this is why, as Farm Bureau, we are very concerned. We got a landowner to designate a huge parcel of land that really can help to provide to Hawaii's self sufficiency and it is at risk. Seriously, the IAL is to intend to protect and preserve agriculture for future generations. We're hoping A&B set the ground work and we're hoping the County would look at possibly designating County park lands and other landowners also step up to the plate. But it will mean that the resources to do agriculture is also there. The other point I'd like to make is, people talk about conservation, if you guys remember in the recent past, a lot of people have been touting jatropha as almost a miracle new biodiesel crop energy, it doesn't need a lot of water and so forth. But you look at the papers that have been released recently, they're finding that if you don't apply a lot of water the yields are very low. In other words, it's what all farmers know, you get what you put in. And therefore, water is important, it's important that the community look at farmers, not just as foul weather friends but as their friends on a continuous basis so that we will be here to provide the food on the table. As many of our farmers have emphasized, it's about all farmers, you don't want to see farmers pitted against farmers, we do see taro farmers as equal farmers. So we're asking as Maui County Executive Director mentioned, focus on source development; figure out ways to increase the pot so we can all share. Maui's agriculture is in a very fragile state and taking of increased risks will force some of our farmers out of business and we can already see the idle lands, I know you guys are going on field trips, you'll see a lot of fallow lands in Pulehu, which was our bread basket for the State. Why they went out, there were various economic reasons and having to not grow crops every summer because of fears of drought, does not increase viability of our farms and ranches. So we look forward to working with you and we respectfully request that the voices of all of our farmers and ranchers be heard. Thank you.

NAME:	Michael Ribao	TIME:	2:11:16

Good evening, Chair Thielen and the members of the Commission and to the Community. My name is Michael Ribao and I'm the Manager of the Parts Supply Department at Maui Electric Company. MECO is very interested in the continued viability of HC&S. HC&S has been long, firm and reliable power producer, providing up to 16 mega watts of electricity on Maui, which constitutes about 70% of the total energy produced on Maui. Continued power production by HC&S from the burning of bagasse is an important part of MECO's plan to reduce the dependence on fossil fuels to meet the State Renewable Portfolio Standards of 25% of electricity sales generated from renewable resources by the year 2020 through the Hawaii Clean Energy Agreement. Power produced by HC&S is critical to MECO because it is considered a firm, renewable power source that is available twenty-four hours a day, seven days a week. Other forms of alternative energy, such as solar or wind, while also important, are considered as available power sources. That is, it's only available when the wind is blowing or the sun is shining. As available renewable energy cannot be consistently relied upon and requires us to have stand-by generation, capacity to adjust for the fluctuations of these resources. HC&S asserts that its economic well-being is dependent upon the integrated ditch system. We support that view. It doesn't make sense to make decisions about an integrated system, or just considering a small portion of it. At MECO we also operate a complex integrated system and we know first hand that we cannot make either technical economical decisions about the whole system based on facts related to just a portion of the system. The importance of HC&S to the well-being on Maui is a job that provides the direct and indirect positive impacts on Maui's economic economy in keeping agriculture shining and producing a reliable source of renewable energy. It requires that the Commission exercise utmost caution and deliberate the potential impacts its decisions will have on HC&S. The stakes are too high to risk piecemeal approach without the full understanding of the impact of the entire comprehensive picture. Let's keep Maui, Central Maui beautiful with the water it needs. MECO therefore supports HC&S's motion to consolidate and consider interim instream flow standards in the context of the entire East Maui irrigation system and respectfully request the Commission to do the same. Thank you.

TESTIMONY PROVIDED IN SECTION 25.0

NAME:	Kai Nishiki	TIME:	2:14:58

Aloha everyone, my name is Kai Nishiki. Thank you Commissioners for your decision to restore some streamflow for a portion of East Maui. Please continue the good work that has begun and allow water to once again flow from mauka to makai. I believe that it is unfair and an outright lie for HC&S to say that it will close down if they don't get the water that they want. I have friends who work for HC&S and they are good people who don't deserve to have their jobs threatened by a corporation in order to further its business interests. The quality jobs with great benefits that HC&S is threatening to eliminate were not always available. The benefits and pay scale we now enjoy were fought for by early union organizers. HC&S did not want to have to pay its workers a living wage and provide benefits. HC&S controlled their employees, our land and our water. Unions fought hard to wrestle away the control the plantation had over every aspect of the workers' lives. Their employees now have jobs with benefits and the right to self determination that they didn't have before. But our aina and water remain under their control. It is now time to take back what is rightfully a public resource and share it equitably. We must do what is right. Today, we fight for the same thing the sugar plantation workers wanted. Freedom

and equality. Water is the basis for all life. This issue should not divide our community. It should bring us together to find the best way to manage our water, a public trust resource. I stand here today with my friends from HC&S and my taro farming friends and we should be united in this common goal. Imua.

NAME:	Mike Spalding	TIME:	2:17:04

Commission members, staff, members of the community, one thing we have in common, we all love Maui with the greatest extent of our hearts. I want to just make a statement here, I think that the significance of this decision is going to be far reaching and long lasting. I'd like to invite you to be thinking about 3010, 4010, a hundred years from now, the decision you make is going to last. This is not about HC&S. I think this is about sustainability of the island. If you take 80 million gallons of water and put it back in the streams, and you try to replace, you're going to have to replace that water at some point in the future with pumped water. If you use $2 per thousand to pump it, you're talking $58 million of a burden on our community. I think the taro farmers, you gotta respect them, you gotta take care of them. But I just hope that when you guys make decisions that affect our future generations, that you take into consideration the future economic impacts that you burden us with on your decision for my grandchildren, their children and on down the line. Please have a balanced perspective. Thank you.

NAME:	Erin Fowler Cisneros	TIME:	2:18:24

Aloha, thank you and thanks to everyone, this is my first meeting I've been to of any sorts and I've been educated by so many people here about the issues that are going on. I was born and raised here on Maui and I speak for probably all of us that we just love Maui so much and every time I come back from visiting my nieces on Oahu, I just pray that Maui doesn't turn into Oahu. That's my biggest fear and I've seen this happen on the island where the sugar cane is gone. Once it's gone seems like development just starts encroaching, we've seen that in Lahaina and every time I go there I'm shocked to see how much more building there is. So I think the Water Commission has one of the toughest jobs for the rest of the history of Maui, it's going to be a tough battle because there's so many different issues here, that I've learned about tonight. I can't imagine a Maui without beautiful agriculture and looking down and seeing this beautiful fields of sugar cane. I hope that there can be some sort of solution. I wish you all the best and good luck.

NAME:	Gerry Ross	TIME:	2:20:21

Aloha Commission Members, thank you for the opportunity to speak to you this evening about the setting IIFS. I sent my testimony in by email so that'll be sitting your inbox. As we all know water will the defining issue of our time as our population spirals ever upwards against the background of constant and locally decreasing water supply. We support, we being Kapaa farms, a balanced approach to water that includes restoration of instream water flow and balancing this with offstream water uses. We are small farm in lower Kula, we grow about 40 different crops on 40 acres and we feed about 20 Maui families with our produce every week. We grow many kinds of vegetables, pineapples, taro, sweet potato and an award winning coffee, all on drip irrigation and all organically. We do our utmost to stretch every drop of water that we get. We are in a particularly dry area of Kula, with only 20 inches of rain in an average year, so irrigation is critical to our existence. We make extensive use of drip irrigation, windbreaks, covered crops, perennial cover crops, vegetative banks. In our coffee orchards we use managed

shade trees and living ground covers. All of these contribute to efficient water use. And we do not take lightly the fact that much, if not all, of our water is diverted from the streams in East Maui. In the winter we use less than 500 gallons per acre per day and in the summer which this is where we're at right now, pretty dry, we use 2500 gallons per acre per day. That comes out to about six ounces per square foot, relative to an earlier calculation of how many gallons that was. Anyway, we're just one of many offstream agricultural users in Kula, the opening statement by Kenneth Okamura, he's one of us, upcountry farmer, and we will become increasingly essential for the self-sufficiency of Maui, which will become an issue if the cost for transportation continues to go in only one direction, and that is, up. As an organic farmer, we take the view that we must work to collaborate with ecosystems, rather than overwhelm them with the human perception of what is healthy and what is pono. Water is part of that in terms of finding a balance between instream water flow to maintain local ecosystem health and the amount of water that goes into diversions. As a farmer, I need to know what kinds of changes to stream flow are being proposed, how will it affect ditch diversion flow numbers and how will this impact us. It's a straight forward issue for our farm, no irrigation, no farm. That's a fact. I tried to educate myself by reading one of the reports on the website for the Piinaau Stream, it is very well written and informative document, I learned an awful lot about everything from planet to geology of biologies, you guys did a great job at that. I was trying to find out how much water there is, what are the suggestive changes to inflow standards, how will this impact upcountry users, etc. I never really got that answer. It took me a while to figure out some of the graphs. One in particular, I'm just a regular person and I'm trying to figure out something about water flow, and there's a figure in there that plots years on the bottom, from 1913 to 2006, I think it's Figure 3.12, and I can understand that, but the other one on the left hand side was the cumulative departures of monthly flow from the median of the monthly flows, and the numbers of standard deviation. That just didn't make any sense to me. So, I don't know if you guys have a translation service or something like that, but it needs to get into sort of common language. Ultimately, I need to know how much water can be diverted and still maintain the health of the stream system in the watershed and satisfy offstream users. In the meantime, I've talked with many friends about water issues facing Maui and several things appear to be clear, we've witnessed decreased rainfall in the last forty years and our water transportation systems, flumes, ditches and reservoirs are in disrepair and inefficient. For example, the ditches in Na Wai Eha lose millions of gallons a day from leaks and needed repair. And similar reservoir losses are also known, anecdotally, I suppose, no such numbers exist for East Maui, although they should, but anecdotal and observed problems along the EMI ditch system are considerable. So, given that our farm is efficient as possible with water, why can't East Maui ditch system be similarly efficient? Maybe a lot of the difference between establishing instream flow standards, that negative impact here can be soaked up by increased deficiencies of water transportation. But given the specter of increased rainfall, increased offstream demands and the negative impacts of ongoing water diversion on ecosystems, shouldn't we be looking at improving the efficiencies of our water collection and transportation system? I believe that ultimately a collaborative effort is needed to resolve this problem. As a friend has always commented to me in areas of conflict, it's a race to the middle ground. And I look to the Commission for finding the middle ground. Mahalo.

TESTIMONY PROVIDED IN SECTION 26.0

NAME:	Charles Jennings	TIME:	2:26:01

Good evening ladies and gentlemen. My name is Charles Jennings, I was born and raised in Swains Island and I moved this island in '65. So I pretty sure I the first Samoan in this community. I born in, I moved over here in '65 to Honolulu. Same problem over here in Maui. In those days, '65 every single day, put the tv on, the sign on, no airport, no highway. Look, Honolulu is a big city so if all you people remember, same like in the '80s or '70s, people struggle over here; say no highway or no airport over here. So, you gotta remember, you guys get stuck on highway for four hours, two hours, especially Christmas, I live, I bought my house over here, by your village, so first of all I want to say, thank you Mayor for staying for my speech. I really appreciate that, thank you very much. She was going to leave but I go from behind, I say, listen will you just wait. So I appreciate it very much, thank you very much. Anyway, I moved here in 1973, no family here, just only myself, so I walked from the airport to the State employment, find one job, they send me to HC&S in Puunene. So I went walk there, Wailuku to Puunene and look for job. They say no hire, my job is; I'm a truck driver, so. Then, I told the lady in the office, listen, no need pay me for one week, hire me, if I don't do a good job then take me out. So, in 1973, the same day they hire me. So I work for this company for 23 years before I retire. I'm 66 now, I'm going to be 66, so and I heard about this one yesterday, fight about the water. You gotta remember, community, please remember this, nobody owns the water, it's shared. The Lord give us the water for share among us. The people with the money problem the water bill, that grass makes us green, you know, make 'em green and the poor table no more nothing. Don't let them fool you because they get the money they can talk, where to me, excuse the language. If to me get that much money stuffing their ass----, they give the money for support the people, the community who need the money. HC&S, I work for this company, if anybody complain of water, we share the water. Give the water to HC&S for the sugar, we need the sugar because if those people cannot support, so if those people get the money they complain about the water, if they can support without the County help for support, 5,000 members of HC&S, the community, then it's fine, they can talk. But this case is not, they only for themselves. The water for themselves. So, I not a very, very, very, very good speech but in my heart and soul, that's what the Lord send me here for to my explain to you guys people what it's all about. The water is not for a particular one person, or two persons, or three persons, that's the community, every single human being on this island. So, I suggest if you guys go in the morning, I mean wake up in the morning for brush their teeth, look at the mirror and point your finger, you a tourist. So, we all tourists on this island. So, make this island a beautiful place for live for every human being for the children of future generation. So the generation can move on and move on. So for the water situation, don't argue about the water because you don't own the water. Quite simple, A&B and I may not understand English, but I don't know because like I said, excuse my, I just find I need the water, talking about the water from Wailuku. HC&S in those days, 150 years or so, they spend a lot of money send the water for support the people. So if you think you just come over yesterday, and you start talking about, we can pay tax, alright, it's fine but. Anyway, I'm very appreciate, I'm here for say, please conserve the water. It's for every human being. It's no particular for one group. I'm just farming, I'm sorry, I'm all dirty because I farm. See, my idea is farming for support the community, I want to support the whole, the Kaunoa School, the old folks, I no support, make money for myself. I'm not that kind of person. No, my father teach me, you share the water with everybody. So we ever complain about the water, please, you don't own the water, every human being on this earth gotta share the water from the Lord. The Lord give us the rain for support everybody. We need the water for

drink, we need the water for farm. Farm is very important. You don't need the water to water the garden. You don't eat the garden, you eat the fruit. So I appreciate, thank you very much.

NAME:	Wes Nohara	TIME:	2:32:29

Aloha, my name is Wes Nohara, I'll keep it brief. I'm the General Manager of agriculture for Maui Land and Pine. I'm here tonight to testify on behalf of Maui Land and Pine as well as myself. I'd like to share with you that the EMI ditch water is very important to our pineapple operations. Previously we had made statements that we're moving to West Maui our pineapple operations and that's inaccurate, we have no plans to plant in West Maui and our planting's currently is all in Haliimaile. The EMI ditch along with the Kuahiwa Well and Nahiku pump is a very important part of our water system and it supplies most of our ag water in Central Maui. I also want to mention that the EMI ditch is very, very important to all of Maui in our domestic drinking water. At Kamole, I think the number I heard is in drought for summer time the County of Maui will pull in excess a 50% of the total water at Kamole weir, which I think is the real problem, is when water, when we go into drought situations everybody needs water and that's when we don't have water. It's a real tough decision that has to be made. I know that if you look back at history, I was born and raised in West Maui and I do not know the East Maui systems as well as the West Maui system, however, even at the Honolua ditch, we go through droughts and that system will drop down to about eight million gallons a day, it averages 25, its peak is about 60-65 and everybody says, well 25 million gallons, you have enough for agriculture and that is true. But when it gets down to eight, it's not enough. We've had issues with sharing water with other interests in Honokohau Valley since the early 1900s and it continues. One thing that has changed is the growth and population, and I think we're fooling ourselves if we think that it's going to get better in the future. If you really look at demand for water, what has changed is the need for supporting resource and, I'm not saying that it's not good, I'm just saying that is probably the biggest stress in our water balance and you're fighting amongst ourselves so we really need to work together. There's a lot of good information shared by all sides. I respect everyone's opinions as well as their position. I think we need to find a balance. It's a tough task for you, I support your endeavors. I just ask that you keep in mind the total balance and the needs of the whole community at large. Thank you.

TESTIMONY PROVIDED IN SECTION 27.0

NAME:	Kolea Schonwalter	TIME:	2:35:37

Aloha, my name is Kolea. I am an educator, a naturalist and a journalist and I've been following this issue since I moved here ten years ago. I think sometimes we need a person who is an educator to get the big picture and to point out what we're all seeing in bits and pieces but we need to get a global picture. I'm going to cover four points briefly because there have been experts who covered them better than I and like I said, I'd like to put it all together. The first is, when I was part of the Na Wai Eha march, mauka to makai the other day, my banner said this, "what logic, hydrologic" and Uncle Charlie Maxwell said it well in his pule that we pray that we have the wisdom to talk about this issue intelligently so we do things to me the most salient, the most outstanding issues one is the hydrologic cycle. I'd like to read very quickly, for everyone, for those of us who don't know these facts, naturally, Hawaii's native stream animals represent the unique assembly of fish, shrimp and mollusks, most found nowhere else in the world. Their dependence upon the ocean is seen in their life cycles. Newly hatched larvae drift out to sea and

subsequently return to fresh water, maintaining the integrity of this bridge from mauka to makai is the key to preserving these animals for future generations. I was glad to find out from an East Maui taro farmer that indeed the streams that have had the water restored are seeing the return of hihiwai, oopu, and others which I will probably stumble on their pronunciation. Nature knows what to do when the water is returned, the animals will return. That is very simple for us to understand. The second point I'd like to make is we've talked about Hawaiians and we have every right, every reason to applaud them for their knowledge when Captain Cook arrived after having been to many South Pacific Islands, he and his botanist both commented on the highly sophisticated and efficient system of farming, not just taro framing, but farming here on the Hawaiian Islands. One of the things that's outstanding about the Hawaiian system of farming which we need to remember and another speaker who brought it up is filtration. After the water went through the taro fields, they, when the water was actually filtered and cleaned before it would return to the stream. Therefore, when it went to that mixing area, the area where fresh water meets the ocean, it was bringing in cleaner water than would have come down otherwise. I think I mentioned that I'm a naturalist, and as a naturalist I've been working on a number of projects up in, particularly West Maui where we're studying what's going on on the reef and we know that the reef is suffering tremendously because of sedimentation and because it's not getting the fresh water that it needs. That's among the many things that's causing that problem. But even more importantly when I cover this article back in 2003, I wrote in the Haleakala Times using information from the U.S. Geological Survey. At that time, the data is from 1913 to 2001, the mean annual rainfall per year is dropping precipitously. We are getting a one percent per year in areas which you can google this online and we're getting .25 percent per year in a number of areas. So for those of us who are seeing this drought and are living with this drought I'm glad we're having this fact finding opportunity tonight and to separate fact from fiction. The facts are we are in a drought and this is not going to get better. This is where the hydrologic logic comes in. We have to be putting the water in the streams, it evaporates, it goes through the cycle and it has the opportunity to gather again as clouds and return to the streams as rainfall. We learned that in the 8th grade so I'm asking that we remember the most simple and most basic is the logic of the hydrologic cycle. I have two more quick points to make. I have had to retrain myself here in Maui, my income producing has always been very challenged here, I love Maui and I continue to stay here despite challenges to my economic well being, so of course, I feel very deeply for the HC&S people, however, it's never really written in stone that we would be growing, you must grow sugar. The fact is, it's been said by Michael Howden, many other biologists, sugar cane is not a viable crop right now. I love seeing the sugar cane, too it's beautiful but it's a water thirsty crop, growing in a dry dusty area and I beg to differ with the speaker from HC&S or I might say I'm collaborating, sorry I'm corroborating what was said earlier, we don't have to let the sugar cane fields become fallow, dry, dirt blown fields if we have the knowledge and we've seen speakers who have the knowledge the Kupaa farm people. Sustainability Institute of Maui, we have many sources here on Maui that can now, not wait til ten years that can now convert those sugar canes into sustainable organically grown food crops. We need to grow food to eat, sugar cannot be eaten as a source of life. So we need to do that now. Not wait ten years. There's also the rurally developmental project on Maui campus. Many people can be retrained from HC&S people to be growing other viable crops. They don't have to lose their job. Now lastly, and it appears where sometimes they do have the blame, I'm going to give the Commission a handout that I downloaded today from Isaac Moriwake, who's working with Earthjustice for the East Maui, I mean Na Wai Eha group. It's called Fact and Fiction.

Tonight I heard very contradictory bits of information, so obviously we need some real fact finding, not only data, hard data related to volume of water, etc. But we need to find things like if HC&S on the one hand is getting water very cheaply, that we know, that is a fact, and we don't know for a fact some of the other things they said when we do the research we know we have to look at the source and we have to perhaps, sometimes discredit the source, but let's say that it is true that they're getting water cheaply, they're getting a double benefit then because then their byproduct of the sugar cane production, which is bagasse, is then, what is their source of energy, which they sell to MECO, so they're making money from as a result of getting the water cheaply. So in other words, what I'm getting at is, perhaps I just blamed, but what we need to do is separate the fact and the fiction, we need to get the global picture, we need the big picture, when you do research, you can't just throw out evidence you don't like because it doesn't support what you're promoting, we need to make the changes now, regarding agriculture, and yes agriculture includes the taro farmers. We're not taking one against the other and we're also talking about the health of our reef and our fishes, another food source. Mahalo for listening.

SUBMISSION PROVIDED IN SECTION 28.0

NAME:	Dick Mayer	TIME:	2:44:42

My name is Dick Mayer. I was Vice-Chair of the Maui County GPAC, the group that was putting together the Maui Island Plan, something that we worked on for several years. And I would urge the Commission to take a look at that plan there are many water policies in there, a lot of actions that are recommended in there and you may find some useful material, a group of citizens selected by the Council and Mayor was recommending to the, to be established as Maui Island's blueprint to the future. I also want to complement the staff on the technical reports that were done. Before I came here tonight I wanted to write some questions that I wanted to see answered and I went through the report and found many, many answers to those questions and I applaud you for gathering a lot of useful information. I'd like to give a couple of examples of some information that was in there that may not be known by the general public. One thing in the report it says, is the ditch system has already been paid for by the public through the use of concessional rates. In other words, over the years, back in the last century, when the ditch system was built, the State gave lower, rental rates to use that water to the companies building the ditch system and the roads and the infrastructure, so essentially, that system now belongs to the public and that's important. There are also easements along all of those ditch routes which are in perpetuity belonging to the State and to the East Maui Irrigation Company and they can be used by the public in the future. There's also problems in the report, for example, it mentions mistakenly that the dual line upcountry at the top of Olinda will supply water and allow there to be more water supply. It doesn't increase the water supply, rather it just means that the diversion of water from potable water to agricultural water and the terminology in the report needs to be changed in that respect. Another interesting element in the report, EMI now pays based on the lease rents, about three cents per thousand gallons for the water and sells it to the County at the Kameole weir for six cents per gallon. My main point in reading that report, in conclusion was that there really is need for a summary table to help decision makers, to help the Commissioners make a decision because right now you have all these reports written out with loads and loads of information about all the uses in the streams and this and that. But there's no summary put together. I'm urging the staff to go ahead and take all that information so that the decision makers can make a good decision and integrate the 16 or so reports that are out there together so

we get an overall picture of East Maui and I think that will help the public as well as the decision-makers. And finally, as for the reports go themselves, I would urge you to make a distinction between the EMI system, so often called the EMI system. It's not the EMI system anymore, it belongs to the public, EMI is using that system right now on a month-to-month basis to get the water and it really should be retitled to something like East Maui water diversion system. When I went through the report it became apparent to me that there really many users, whom many are here today, agriculture groups and others arguing for their use of water and others use of water and I came up with ten separate groups, some of which have come up tonight, some haven't, I just want to get comments on each of these ten that are users, asking to use the system. One is the restoration of a natural stream flows and transported the very nutrients in those stream out into the ocean. After all, we all recognize that the environment is critical to Maui and we want to make sure that environment stays pure and appealing to tourists and residents. We'd like to know exactly how many gallons a day would be needed in those streams to maintain adequate streamflow. Number two, provide dependable water supply to East Maui's taro farming historical agricultural activity with appurtenant and riparian rights, that's been well spoken of today already. Number three, there's a need to hold and reserve adequate water for the growing Hawaiian home lands community up in Keokea. Right now there are around 300 homes up there but the Maui Island Plan calls for additional 2800 units to be developed over the next 10-20 years, that' in the near future, that's not decades and decades away. Right now they're only allocated a half million gallons a day which will be inadequate for that development and I think the Hawaiian Home Lands have definite rights to that water, much like people living near the streams have rights. Number four, continue providing dependable water supply for upcountry's many diversified farmers. We heard from many of them tonight and we need to do it. One of the problems is that so often we're using average water flows. What's the average water flow? But we really should be talking about is what is the flow of water during drought season because that will determine whether we can operate farms, you can give the water for domestic use for streams, etc. We have to know what the minimum levels, not at the average, which doesn't tell us what's really happening at the critical stages. Number five, continue providing for the domestic needs of all the upcountry residents, right now your reports give a very good summary of various systems upcountry and I would urge you to really take a look at those residing from the upper Kula to the lower Kula, Olinda, Makawao, Pukalani, Haiku, Haliimaile, all of those communities have water needs and we should get a look at it during the drought season. Number six, continue providing irrigation water for HC&S sugar plantation, the 29,000 acres in the report that are dependent on EMI system. I would encourage you to consider what are the alternatives for them. I would like to see an evaluation done so that, and that would include everything from less intensive water, less intensive crops that would allow for a higher employment. For example, if we could have diversified farming instead of sugar we would have a lot more than 800 jobs, not just 800. And we're also potentially giving higher revenues rather than losing operation as we have now. I would urge you to consider the use of windmills and urging A&B to establish windmills in the valleys to pump the water that they now pump that is not being pumped up from the lands in Central Maui. There are many alternatives that should be discusses so that we can relieve the pressure on the East Maui system. Number seven, determine accurate needs for Maui Land and Pine's operations. Previous speaker, Mr. Nohara, mentioned that they are planning to use Haliimaile area, but we have to remember that the company has just been selling off many thousands of acres, probably, at least 3,000 acres, maybe more in the upcountry region that they've been selling off recently and it does not look like they will be

continuing upcountry operations. Number eight, reserve water supplies for future upcountry residents. There are 1300 names on the water meter lists upcountry and there are many other lands that people are not on the list who are looking for water. Do you want to give them water, or do you not want to give them water? At least that should be calculated. Number nine, begin delivering potable water to Maui Island's major towns and Central Maui. The Maui Island Plan calls for the major growth on Maui be taking place in Central Maui. And I know that there are people, I'm not arguing for, or against this, but there are people arguing that water from East Maui should be shifted into Central Maui for all this planned growth. And finally, number ten, the more far out one, should water be delivered to the golf courses and the resort developments in South Maui? That's something that they've been asking for, again, something the report has not looked at, at all. Finally, I would urge you to put all of these recommendations into a matrix that would help decision-makers make proper decisions and differentiate between the wet season and the drought season and include water delivery cost estimates. In other words, if the public, the County water department were to take away that system, what are the costs going to be to deliver that water, assuming that the water supply would then be available, since we know cost, to the public, or at a very minimum cost, to the public directly. Thank you very much.

TESTIMONY PROVIDED IN SECTION 29.0

NAME:	Elaine Wender	TIME:	2:53:44

Good evening, my name is Elaine Wender. Thank you all for being here tonight and many thanks to the Commission and the staff for your hard work. I regret that I was unable to attend your meetings last year as I was off-island. I appreciate that you sent me a CD of the draft reports as I was unable to download the files from the internet, but I found it very difficult to review them. The largest is 245 pages long. Trying to read the documents on my little laptop makes me weary. Much of the information in the various reports is the same but there's no way t ascertain that without reading each one. It would be very helpful if you published the common material in one document and then the information particular to the individual streams in separate reports. Also, hard copies should be made available at least in the libraries. I will be submitting written comments later on some of the reports. For too many years, the pleas of East Maui residents to restore streamflow have gone unheeded. Ancestors of current residents of Keanae, Wailuanui protested the taking of stream water 130 years ago. Those empowered ignored them. That has been the pattern for over a century. For over 25 years, I testified along with many others at countless hearings, asking for restoration of stream flow. Recently, finally, we have seen the beginning of change and I hope that the staff and the Commission will continue to listen and act in accordance with your legal mandate. Twenty-two years ago, in November 1987, the Keanae-Wailuanui Community Association submitted comments signed unanimously by all 11 Directors on the original proposed Interim Instream Flow Standards. Specifically recommending that a continuous flow from the mountains to the sea be reestablished in area streams including the streams being considered today. Similar comments were submitted to the Commission in April 1988 as reported in the Maui News. Since that time, five of the eleven Directors who signed, have died. President Harry Kunihi Mitchell, Vice-President, Ruth Hanson, Harry K. Pahukoa , Jr., Samuel E Kaauamo, and Harry O. Mitchell, Jr. Sarah Kuamoo who earlier was the Director has also passed away. The community's input was rejected and the Commission set the Interim Instream Flow Standards for over a hundred streams in East Maui which were diverted by EMI at zero. Since EMI takes everything in the ditch, the flow

immediately below, except during times of big water, when the ditch cannot accommodate all the flow is, zero. And that is what we have received. As you know, the stream species which are gathered in our community need continuous fresh water to complete their life cycles. Often this does not exist because the stream water is taken. They often too-warm water which is in the stream, provides breeding grounds for the apple snail, a terrible pest for taro as well as various diseases. The EMI system removes over 60 billion gallons a year from East Maui. It is the largest private water delivery system in the U.S. More than 90% of this water goes to sugar cane. Over 20 years ago, A&B completed conversion to drip irrigation. They acknowledge that this saves them at least one-third on water needs, yet they continue to take every drop. Commissioner Sumner Erdman rightfully admonished us this morning that the health of the watershed is paramount for all of us. If the watershed continues to be degraded, there will be little or no water to argue about. There is an East Maui Water Partnership which EMI belongs. I'm aware that they assist in facilitating access to the watershed area and made the Foundation as listed as a contributor to the partnership efforts. However, in reading the Foundation's review of the giving for 2008, I find no mention of the partnership and believe that no monetary contribution is made. The extensive withdrawal of water from the streams to graze the watershed hindering the percolation of water. Invasive alien species grow rampant. If you hike in East Maui, you will see banyans, whose roots eventually sink deep into the water table, growing out of native ohia trees. Clidemia is everywhere, every year it gets worse. I ask you to imagine for a moment, what East Maui would like if the streams flowed free. Then, imagine a company coming in to try to build the system that now exists. I do not believe that anyone in this room would allow it to happen. It's only because it's existed for so long, that some are numb to the devastation it creates. This community has been waiting too long for justice. In just the time that I have been involved, a whole generation has passed. Looking through the lists of petitioners in this proceeding, I see the names of several who are no longer with us, including Mary Kaauamo, Puanani Holokai, and William Kaipo Kimokea who died last month. The inaction of the Commission in the past for so many years is shameful and contrary to the requirements of the law. The Commission has the power, the obligation and all the necessary information to amend the interim instream flow standards and put water back into these streams. I hope that I live long enough to see it happen. Thank you.

TESTIMONY PROVIDED IN SECTION 30.0

NAME:	Stephen West	TIME:	2:59:18

Thank you Commissioners. My name is Stephen West and I'm a division representative with the ILWU Local 142. I brought my two little girls here tonight because it's very important what we're talking about. At home, we talk about conservation. We talk about lowering our water bill. It's very important but at the same point, we also talk about jobs in water and we talk about protecting those jobs and quality of life of people. My wife's family is working the sugar cane fields for many, many years. The Mendozas, the Dagdags. It's very important. The workers of HC&S are extremely concerned about their jobs and I think, last year's meeting a lot of people took that very lightly and I'm here to tell you that if those jobs go away, we're not talking about 800 people, we're talking about thousands of people because those 800 people provide for their families. They provide for their children and in some cases, their grandparents. So the impact on our community is huge, huge. We need to find a common ground, we need to work towards that common ground. I believe we can do it. But, you know, the first thing that my kids ate was

poi. I mean that was the first thing that my kids ate was poi. We go to Hana every chance we get. We love it. We shouldn't be pitted against each other. We need to work towards the common goal. Thank you very much.

NAME:	Keeaumoku Kapu	TIME:	3:01:07

Aloha everyone. Keeaumoku Kapu from Lahaina. I acknowledge and thank and honor the elders of Maui. Today we need to retrieve and understand our source of authority and power to govern to assist us to strengthen our resolve to follow a strategic plan. We need to institute traditional linguistics and spiritual elements back into our roles as leaders. Our island that we love so dear, our home, our mother, our provider. It has been a slow and painful process of moving forward to ensure that we no longer accept status quo in our efforts to achieve self-reliance good governance, cultural integrity, economic viability and organizational reliability. However, I am confident that we now have the necessary leadership and human resource capacity to make measures progress to fulfill our vision for tomorrow. I can say that we have a dedicated society that demonstrates their commitment to serve all and not just a few. That is gaining a positive momentum and good direction I sense a changing perspective of governance industry and the academic community under the growing unity of Maui and the quality of new leadership. What we need now is for us to demonstrate our resolve through the unity and clarity of purpose in serving the interests of our people. I call upon all the leaders and the people of Maui to join hands so that we journey towards our destiny, proud, happy and united. When I came here earlier, the room was packed and it's common for us to, because we're always on a time clock, that we can only give this much of our time to come to this place for something that we care about so much. I came straight from the taro patch to come over here, all the way down here, all the way from Lahaina. I don't live directly in Lahaina, I live in the valley, so that's another 45-minute drive from the main road all the way up. I came here literally, not to beckon the Commission to let me speak so I can go home to my family, I came here literally to support our common peril of what everybody is hoping to achieve here. I also came here as a reminder that when it comes to traditional management, to not allow, or support, and this is one of the core things, because it's based upon our Constitution, Article XII, Section 7. Our elected officials of States cannot support the customs based on taro cultivation is a sign of genocide. If I cannot pass the knowledge on down on to my kamalii, my moopuna, that's a human right's violation. That's serious. So we hear a lot about different cultures around the road and how much they're thriving to exist based upon the politics and rhetoric that is happening behind closed doors. Not taking the seriousness based upon what is happening within the ohana which is happening within the home which is happening within the aina. We always try to find some kind of resolution to solve the bigger problems, but at the same time we get distracted by the corporate mentality, that tires to coerce, but a majority of our population to think one sided versus the other. When we talk about leader and pono, leadership and pono, we always talk about pono, pono is misused in today's concept. Especially in this island, especially as well in the State of Hawaii and leadership as well. When you look at pono in leadership and put that together, how do we fix those kinds of things when everybody looking for good leadership based upon people who when make pono decisions. One perfect example, we get fifty-fifty split right now, we get two people up over here that basically has a perfect idea. Some people like the idea so they go that side, the other people like the other ideas of self-sustainability, we divide ourselves in half. As a leader to try to create good governance and ponoship is trying to bring everybody to one common peril to think about an idea that we can all live with together. I live in the mountains, my water

conditions are different, it's run by a private developer, and the difference with me, is because I get one big little ditch that I would like to address to the Water Commission that it was because the Water Commission allowed this private developer to determine the 17 kuleana families that live within my valley. We have a bigger scope over here that is going on, what I'm dealing with is civil, criminal proceedings that has no place for this kind of forum. So if I need water as a kuleana and as I understand my fiduciary duties or I understand what is right under Artice XII, Section 7 under HRS 7-1-1 and all these kinds of things I know that's my water so I'm going to take 'em. If I gotta cut the pipe, I going cut the pipe. But I need to make sure that I pass the traditions on to my children and if I don't, then I failed as a makua. And the State also fails by genociding me and my children to progress of a cultural tradition that has been acknowledged in the State of Hawaii and almost around the world. I love everybody here, especially HC&S because I have a lot of family that work for them. If we can come together without dealing with the political rhetoric and everything and just come together and see how we can work things out, I think it will be for the betterment of the people of Hawaii and not being determined behind closed doors from a political entity; 1988, when the Water Commission asked for the instream flow standards, the big companies came inside and said this is our land mass and this is how much water we need. Nobody told the kuleanas they had to go inside there based upon the instream standards so they all got left out. Our kupuna knew that they had laws that protected them but when the laws changed, it created a drastic shift. The drastic shift had a lot to do with nobody informed our kupuna that they had to go down and file their application on water use. So we never did. Our life was e ke akua, aina and the kanaka. That's all we was based on. And we allowed the State to make better judgment for us. Now we need new leadership, we need people out there who know what they going do, what they going talk about and how we going provide pono leadership. Mahalo no kakou. Aloha.

NAME:	Lucienne de Naie	TIME:	3:09:15

Thank you, my name is Lucienne de Naie, I'm here representing Sierra Club Maui Group, I'm also a 30 year resident of Pualua ahupuaa in Huelo, I live in an area that depends on its streams for life, we have no public water system. We know the truth that Mr. Erdman said earlier it's all about the watershed. Sierra Club is one of the groups that wrote in about setting the instream flow standards back in '87, '88, it was in our files, I'm standing tonight on the shoulders of some of my kupuna, like Mary Evenson, John Bowes and others who just deeply cared about these things and Sierra Club went to bat for the wells in Kuhiwa that we made sure that Hanawi was protected, the Big Springs and the streams there and we went to bat over the years for Wailuanui when the power plant was proposed and many of our members actually are employees of Maui Land and Pine, HC&S, I have a lot of friends that work for HC&S, this isn't about us against them, just like everybody's been saying. It is time, I really want to thank this Commission, this Commission is outstanding, I've worked with five Deputy Directors and I just think Ken, if you haven't worked with the Water Commission before, you can't imagine how it shifted, you know it's just so great, Ed and Dean and Chui, they're so dedicated and Laura's just given that calm guidance, she said we're heading in this direction and we're just going to move forward, rather than dragging and saying well, maybe ten more years we'll think about this. This is really a wonderful thing. However, it's a difficult thing too because we have a situation where we have entrenched users; now I heard the Governor said that we really have to make sure that our existing users have enough to thrive. Now that's a key word because I want all my friends that grow taro to thrive. I want all the folks in my neighborhood who would like to actually have

more water to do more agriculture on agricultural lands which we really need an agriculture and we are not gentlemen farmers, we're working people that have cows and horses and chickens and gardens and orchards and things that we want people to eat. We need water too, so how are we going to thrive? I think that it all comes down to answering some questions. I'm not sure if our reports get to these questions. These questions are, who has the real facts about how much water is really needed by HC&S? How much water is really used by HC&S? Because when you hike in the watershed, what you see is, this isn't about just the streams. This is about every possible seepage, and the photos in your guys reports are excellent; every little seepage has a pipe and that pipe goes into a ditch. It's like our watershed are just being bled, and I live on a stream that is so clogged with old dead trees and alien plants and stuff because it rarely has the kind of flows that streams have that keeps streams clean, what God intended, and because of that we've been going up and trying to clean our streams because we got some water released but it doesn't do us any good, I'm turning in some pictures, I'm gonna hold this up, this is a picture of one of our streams, Huelo Stream, and this is EMI land, they're the registered owners, I don't know if they're the real owners, but they're the registered owners and it's all choked up and this is the way it was just like last month and it's this way often and no one comes, they only clean the intakes. So I think we kind of need a different system. I think that everyone has asked us to come together and find common solutions and I think to do this, there needs to be a bridge built cause for years, all of us were going to these hearings and we were told there's not one extra drop of water that could ever come back to the streams. Well, now that's softened a little bit, now it's like, well, we think the taro growers should get some water. We're not saying how much, but we think they should get some water. So this is progress, 15 years I've been at this, so this is a little progress. But now, it's very disappointed to read in the HC&S brochure that this is all about a little flora and fauna, that the streams are essentially healthy and they hired Mr. Ford from SWCA to say that there's no problem with the stream life and they're all happy. Give us a break. This is not true. Anybody who lives in these streams can tell you that. But we're not going to come together if we're telling each other lies, we're going to start by telling each other the truth. We're going to start by going out together into our watershed and working to get it back. You have the partnerships up at the higher elevation, you have nobody between 3,000 feet and the ocean. And you know what? A lot of the water that's being taken by those ditches is originating because they take all water like at a 1,000 feet, well more water comes back in the stream below that, where's that water coming from? It's coming from that lower watershed that nobody takes care of but most of it, in certain sections, in Huelo, a lot of it is owned by EMI. It's not so much in the some of the other sections, Nahiku, it's more State and public land. But why can't we come together and work on our watersheds? I really think that it's not about who's right and who's wrong, it's about not wasting the water that God gave us and I really would like to urge that if A&B could use their foundation, I don't know if there's anyone here that could be listening, if A&B could use their foundation to make small grants, communities that want to go up and buy the supplies and stuff and clean out their streams, they would be much better respected in our communities. Thank you, Aloha.

SUBMISSIONS PROVIDED IN SECTION 31.0

NAME:	Irene Bowie	TIME:	3:15:54

Good evening, Chair and Commissioners, my name is Irene Bowie. I'm with Maui Tomorrow Foundation and I'd like to add my mahalo to the dedicated research efforts by staff and

consultants to produce this stream assessment reports. My remarks this evening pertain to the common elements in all the reports rather than any specific report. We've heard of the current HC&S business model but we've not seen any analysis of the viability of this current model or discussion of any alternative business model that may be on the horizon. As the economic sections of the report made clear, there are a number of competing uses for the stream waters, the Commission should have a clear idea if HC&S will realistically continue to employ 800 people and farm 34,000 acres, even if it gets every drop of water it can harvest from the East Maui watershed, what happens if rainfall levels drop even further? Can HC&S remain viable? Where is that discussed? What if in the future HC&S becomes a private water company or is sold to one? Also not discussed are the implications of HC&S only committing 27,000 acres of their 34,000 acres ag lands as important ag lands. There should've been a detailed analysis of exactly how much water that would require. We're told that currently 29,000 acres are irrigated by EMI system from East Maui Streams. Is less land intended to be farmed? If so, it should not be assumed that water use will remain the same. The reports should include this discussion especially in light of the evidence of unneeded water use presented during the Na Wai Eha Contested Case. While the nature of the various watershed areas is discussed and the work of the East Maui Watershed Partnership is described, there's no effort made to address strategies that could improve the ecological integrity of the watersheds below the 3,000 foot elevation. The plaintiffs in Maui Tomorrow's original challenge to the EMI, HC&S, BLNR leases depended upon flows generated below the upper diversions. These sections of the watershed are being neglected throughout East Maui and we'd like to see that topic addressed in these assessment reports with more than a cursory mention of the lower elevations of the hydrological units being predominantly alien vegetation. EMI actually claims ownership of most of the overgrown weed choked streambeds in these hydrological units. The last area of missing is in plain language the discussion of system losses, efficiency of the delivery systems, the ditches, the streams to ag fields and potential waste. This topic was well researched and disclosed in the Na Wai Eha proceedings and its implications to stream restoration decisions are significant. All of these topics are important because the Commission is being asked to look primarily at economic justifications to keep status quo instream standards on these 19 East Maui streams. Is this a sound basis on which to base decision-making of important public resources or is it the same litany that has been used for years. Today reasonable use of stream flow emphasizes the full and beneficial employment of the stream, not only for economic advantage but for social, cultural and other advantages that will ensure the streams living character, water law must continuously balance private property rights to scarce resources with public interests limitations on private use. Thank you.

TESTIMONY PROVIDED IN SECTION 32.0

NAME:	Thomas Koomoa	TIME:	3:19:54

Aloha, Water Commission Board Members and staff. My name is Thomas Kalani Koomoa. I have a wife and four children and I have four moopuna, or grandchildren and I live in Kailua, Maui. I raising my future. Thank you for your time and presence at tonight's meeting. Thank you for your decisions made a year ago to let the water flow from mauka to makai. Taking care of our aina for now and for the future generations should be our top priority and ensuring water to kalo growers is a priority. As a former employee of EMI, I have good knowledge of their complete water system. I had the privilege of being present for the releasing of water from few

of EMI's water diversions through the Koolaus near Keanae and Wailua. What an experience to release water diverted for over a hundred years to restore streams for kalo farmers and to restore life in the streams and the ocean. This knowledge caused me to be interested in the Honopou Stream and its diversions by EMI. It was great to see EMI was doing its part by building a temporary flume over its Haiku Ditch diversion, temporary because it's made of wood. Passing water over ditch to kalo farmers of Honopou, alright. One day back in June I hiked up to Honopou mauka, to see what the changes, if any, were made to the Wailua Ditch diversion and new Hamakua Ditch diversion. I wasn't surprised to see that no changes to these diversions were made to allow some kind of flow of water over EMI's diversions. And when I came to the meeting tonight, I was informed that they didn't have to pass the water over those ones, so I might have been mistaken. I thought the Commission's decision to allow the flow from mauka to makai as a complete flow without diversions was going to be measured for flow and temperature of the water. I've seen state workers doing tests in the flow of Honopou Stream below Haiku Ditch, that's the lowest ditch on EMI's diversions in Honopou Stream. What kind of reading is this? It's not a true reading of a complete flow from mauka to makai of Honopou Stream. I have a few pictures of these diversions to Wailua and new Hamakua Ditch, mauka for those pretty much everybody in here who can't get up there to see it, I'd like to show those pictures. I know the picture's small but they pictures, and this is Haiku Ditch, Honopou Stream and that's the flume that EMI made this past year to pass the water over to the kalo farmers. It's small little flume, it's a big stream, but when the water rises, it still falls into EMI's ditch. This is a picture furtherest up mauka on Honopou Stream, this is a government station, this is the flow of Honopou Stream before any diversions. It's being dammed, so that the government can take a reading on the flow in the stream. This is a picture below that, the water flowing down Honopou Stream. This is a picture of the first diversion, the highest diversion, the Wailoa Ditch everything falling into 'em. Nothing going by and it still has room to take a lot more. It's flowing down empty. Here's the next diversion a few feet maybe about, eight feet away, the new Hamakua Ditch diversion it's empty cause Wailua's taking everything, but when it overflows, new Hamakua takes everything and I'd like to say again I thought these things were going to be passing water over new Hamakua Ditch, here's the wall blocking the water so it makes sure it goes in. Empty streams below everything else, nothing flowing from mauka to makai, that's why Lyn and the farmers of Honopou, you not even getting water flow stream, the true flow. But I'd like to end now. I was going to ask if the Commission could clarify the decision they made on Honopou and I have a few questions, farthest of, this is for the County, farthest up mauka, where the first water diversions occur by the County is the Waikamoi wooden flume, it is in terrible shape with leaks everywhere for years. It feeds two 50 million gallons reservoirs in Makawao state forest and it also feeds Kahakapao reservoir in the ranch land. Why is the County not repairing this over all these years? The pipeline is also in disgrace. The third question is for HC&S, have you done anything in this past year since the Water Commission's decision to return flow to the stream on using your wells that you have and you might have done some things. Lastly, I'd like to say, that I inherited land from my tutu, to the passing of my dad, this land is in lower Nahiku in the area of Honolulu Nui, Makapipi Stream flows by it and touches our property. My tutu had kalo in it and she planted, she farmed everything. I hope the decision your Commission members make will be to return the flow to this Makapipi Stream fore sure, to ensure life to the aina, to the ocean, and to my family, to my future and I'd like to thank my Aunty Deena for showing up for the Nahiku Community Association and I thank the Water Commission and I hope you continue with good decisions. Thank you.

NAME:	Foster Ampong	TIME:	3:27:28

First, to the Board and the Committee, thank you for coming. I believe what is very important is for everyone to make sound decisions regarding the waters and our whole society in general. I think we need to understand the essence of the word sustainability. I'm going to go back to the ahupuaa tenants, not to put it into a regressive context, but to give everyone the true essence of sustainability and that is to be all inclusive. Anytime you try to make decisions and you exclude any part of our society, of our spirituality, of our beliefs and of the universe, you are not promoting sustainability. And so, I am very much in favor of the waters returning to the streams because they're not going to exclude HC&S, no, a lot of what you heard from them is plantation rhetoric. For hundred years, the plantation has come into the islands and told us, here on the islands, that oh, we need them to survive; we need them to attain better, a better life. We need them for work. No, that's plantation rhetoric. Just like what they're saying right now, about if the water is, if they're forced to put the water back into the streams, that people will lose their jobs. Well, you know what, if water's the issue, why is the State and County promoting more development? Especially in a time when our financial and economical livelihood is really at risk. It doesn't make sense. I can look all the way across the board and right now, nobody is promoting, or practicing sustainability. All I hear is, sustainability, and it's coming out at as a marketing ploy. But what needs to happen is the State, the businesses, the corporations, the County; everybody needs to get their foot off the gas pedal. The only one who's taken their foot off the gas pedal was the Hawaiians and again, now, I'm not trying to put us back into a regressive context, because no, that's condescending. We don't want to go back into the past, and where malos and live a primitive life. But we want to live a sustainable life. Sustainability which includes every one of you. Everyone in this building, on this island, in the world. So when you make your decision, please, keep in mind, the very essence of sustainability. And to help you do that, I'm going to give you an analogy. Keeaumoku brought up the word genocide. Water to the Hawaiian people, water to the human beings on these islands, which includes all of you, is equivalent to the buffalo to the Indians and the Americas in the 1800s. The white man came and took out the buffalo, why? That's how they were able to subjugate and enslave the Indian population. And when you take away the water, from the people, it's like killing off the buffalo to the Indians, so you guys, it is a form of genocide. There is merit and foundation for what he said. And just so you know, I'm gonna validate one of the things that Keeaumoku said, because I saw it with my own eyes. He has a two year old granddaughter that pounds poi with him on the board. She does that, everyday and if you take away the water from the people, be it on East Maui, Na Wai Eha, wherever, then the children will not learn. Thank you.

NAME:	Ernest Rezents	TIME:	3:31:32

Good evening, my name is Ernest Rezents, and this has been very enlightening to me, this is my first time here and I've really admired all those who've spoken for me. And, I'm a small farmer and I respect all farmers. We have a small cattle operation up in Haiku, we've raised only a few, head cattle each year, but my grandparents were on that property, in fact, the family has been there for like, a hundred years. And we have a small stream going to the pasture; you know the last five years the amount of water that has decreased about one-twentieths of what is was originally. So I figure that someday it'll dry up and I'm very concerned about that issue. Now, I respect all farmers and I'm sorry that the water issue has pitted farmer against farmer. This is not the way it should be. Some people spoke in support of all farmers and I think that's very

admirable. To me, water is available. It is how it is being used. We've heard about the flumes leaking, I've heard this many years and nothing is done about it. We've heard about the need for more storage of water and how it could be stored, nothing is done about it. We've heard about wells, and apparently there is underground water in the East Maui side. But wells are not being dug, but I understand electricity is very expensive, but today we have photovoltaic and windmills, it might be able to have the pumps operate more efficiently, and invasive species, at least a few speakers talked about invasive species, they do jeopardize the mosses and the other native plants that help our watershed to be efficient. Also, maybe the water usage can be done more efficiently. Agriculture, I'm sure has lot of spills and wastes, and they just don't have conservation in mind. Now, this Commission I feel, when you come out with your decision, it shouldn't be just, so many percent go here, and so many percent go there, but you could mandate for some kind of efficiency, and better irrigation system, and better storage over x number of years. And you can hold users to these recommendations that you make and I feel that this is going to cost money, and how do we pay for it? The users should pay for it. And the State when the budget is better and the Federal government should also help pay for these improvements. But I really feel that water is the life of the land, and we should develop and care for it and recycle it. And others have spoken about golf courses using water, most golf courses use saline water and some of them use grey water, so I don't think that the major causes for our shortage of water, I feel that it is maybe lack of efficiency and storage and sources. Thank you very much and I hope you luck in your decision making. I'm very happy not to be in your position. Good night.

NAME:	John Harrison	TIME:	3:34:40

Good evening, Chair, Deputy Director, Commission staff and community members, my name is John Harrison, I'm Project Director with the Maui Economic Development Board and as the Commission strives to balance the many needs before you, I'd like to briefly make the Commission aware of a couple of initiatives in which the Maui Economic Development Board is involved. Right now, the Board is working with the Millennium Institute, a non-profit organization, on developing an objective planning tool to support the debate on policy. The first phase of the process is focusing on water. We welcome the opportunity to share the model with the Commission to demonstrate how this approach would be useful for your purposes. Secondly, in the spirit of Focus Maui Nui, a visioning process for Maui, the Economic Development Board is convening a series of community conversations about different sectors on Maui and the first of which has to do with water. So, the Maui Economic Development Board stands ready to be of assistance in fostering this dialogue in the community. Thank you.

NAME:	Sheldon Biga	TIME:	3:36:07

Aloha staff, thank you again for coming over and listening to our statements. Aloha, everybody my name is Sheldon Biga, I had something written down tonight, but I decided not to use it. I learned a lot of things tonight, too. I just wanted to let you know that as far as HC&S and the employees, yeah, we were scared, especially having our manager come up here and tell us that they might close next year. But that won't stop me from reaching out to the kalo farmers, to hear their side, to see their side. We have a committee of employees that was put together to see what we can do as employees. So all of you can see our faces and know that we are regular people. We want to reach out, like my cousin said, mau kaku, we want to be pono. So Tommy, I reaching out to you, I like go check you guys loi, take me out there, I like go see. So you can see

me after for my phone number, I give you my phone number, I willing to go out see it, I asked my community to come out with me, to check it out and see all these things that's happening out there. I really want to reach out, we want to reach out, a medium ground, whatever happens to HC&S; we still want to reach a medium ground. Mahalo.

NAME:	Nick Casumpang Jr.	TIME:	3:37:48

Madam Chair, Members of the Commission and the staff, we thank you for the opportunity to speak before you and the community. My name is Nick Casumpang Jr. I'm an electrician for HC&S, I held that position for 24 years, and with that job I provided my three children to college and I believe it's true also with the rest of the 600 plus rank-and-file members or employees of HC&S. I'm here before you to ask you for consideration about the needs to sustain the viability of HC&S because I do believe that we have the right, all people have the right to use the water and also we believe that everybody has the rights to buy into it, including the fish. But we also realize that there is a State law, as a member of the Maui Planning Commission in 2006, this law is always comes every time that there is an issue with water. I believe it's Hawaii Revised Statutes 343, if I'm not mistaken, this requires that the Commission will maximize or prioritize the usage of water to the general public, the community and its people. I have to remind you that we and HC&S is part of the community, we are 800 strong, tax paying members of the community and also that, I also remind you that 15 or 20 years ago there are three major plantations in this island, on this side of the island we have Wailuku Ag, we have the Maui Pine and HC&S, HC&S is the only one standing, Maui Pine is only doing the fresh fruit. That is a lot of water use at that time and no one is talking about water. What is the problem now, why everybody's talking about water now? So, as a member of the Commission, I ask you to please, make your decision based on the facts, not compassion, compassion can give you too much trouble ahead and I also ask that you look at the history of other places like the Big Island. Twenty years ago, or more than that, there are 8,000 workers on the sugar plantation; today, we don't have 8,000 employees on the entire island. Where are those experts that say we can replace sugar cane, why I not working now, Kauai is going down, there's no plantation land. Wailuku Ag tried everything they could. Those experts say there is an alternative to sugar cane. We cannot plant sweet potato around Wailuku, because there is no market for that. So please realize that we, we're not asking for all the water for HC&S, we asking for enough water to make HC&S to continue in business and provide jobs for us, that's all we're asking. We also recognize the right of the taro workers and other farmers with the water, they have the rights to do that, we are not questioning that, but please, reconsider your position about making us, HC&S, continue to do business and provide jobs for us and the surrounding, our salary, we spend from food, buy from Foodland, Costco, Safeway, in return they are providing jobs for other people. So please continue the cycle. Thank you.

NAME:	Josie Buck	TIME:	3:42:26

Thank you Commissioners, for the opportunity to testify. My name is Josie Buck. I live in Honopou and I promised my neighbor, over there, Bonnie Kekahuna, that I would come up here and testify and they have taro fields and they live on Honopou Stream and the rely on it. This is one of the eight streams where the stream flows is supposed to be restored and they don't have enough water. It's not enough. And for years, I've been watching the streams of East Maui go dry, one after the other. I used to live out at Skippy Young's property, who testified earlier, we had two waterfalls on that property, a perennial running stream; it has been dry for years now.

And the gentleman before me said base your decisions on the facts. So I do agree with him. Here are some of the facts here. A&B's real estate's sector makes up 22% of their revenue, 56% of their operating profit and 40% of their assets. Their agribusiness is only 6% of their revenue and 8% of their assets. On page 27 of their TMK, they state that the restoring of the streamflow on the eight East Maui streams may not significantly impair sugar growing. Well that streamflow hasn't been restored yet so if more is restored this is not going to impact it. Furthermore, their projects that are in the works right now, total approximately 2243 residences, over 560 acres, and this is only what's mentioned in their TMK. Where is all the water coming out from for this? They're in the process of rezoning Haliimaile right now, where's the water coming from? If they don't have enough water for sugar, where is the water coming out for the real estate? Another fact, they still have the same ditches, the same flows they had when they had a lot more cane in production. They still have the same amount of water with a lot less cane production. Where's it going? Is it going to real estate? Can these gentlemen with HC&S guarantee that if you make a decision to allow them the water in the 19 streams in question that that water will never go to real estate? Can you guarantee that? When you say it will only be for cane growing period. Because I don't think you'd be believed. If we were to be told that, not from what's been seen. In their TMK also, they state they're intending to continue to sell parcels, which may include the rezoning of ag lands to sell off, they're subdivisions of gentlemen's of states, where it's kept with ag zoning. Where's the water going to come from if they're selling off parcels? Less sugar cane, why do you need more water? Michael Howden and a few others brought up a very good point, and I myself have been up above the Waikamoi, and those ditches, miles of the ditches, are in complete in disrepair. They're losing millions and millions of gallons a day in water, miles of these ditches in disrepair. I think it would be the Commission's responsibility to hold them accountable for repairing those ditches before they take anymore water from these streams. So, that's about all I want to say and I just implore you, nobody wants to see jobs lost, but those ditches are repaired, HC&S will have all the water they need, jobs won't be lost, kalo farmers can have their water, everybody wins. So I ask you please, do not let the public trust be abused. Thank you.

NAME:	Joyclynn Costa	TIME:	3:46:57

I made my grandchildren and my daughter wait our turn, instead of jumping in front of the line. Just as our kupuna have waited, we too have that respect, so if I came in at a time to sign in to speak, I will wait my turn, and so will they. The Governor and Mayor says to do this in moderation, not to create possible future impacts. We are the future impact of the deceptive decisions made in the past year. So you're in the witness of the impacts now. There should be respect for the current users, we were the current users and still are. As I attended the Native Hawaiian Chamber of Commerce, the Governor said, "Don't say what you're against, advocate and say what you are for, what are you for?" she kept emphasizing, "What are you for?" I'm for transparency in the Government. I'm for the correctness and the righteousness. I'm for doing things according to the law and I bring my children here to witness the process of being within the law. You will be the example of what they do tomorrow. If you decide that you can circumvent, you can manipulate, you can justify not following the law then so can they. So you, not me, going give them permission to do that, by the decisions you make. There are legislatures that create the law, there are enforcement agents that uphold these laws, Hawaii is unique, unbeknownst to most, in that there are two separate laws, rules, codes, that are being enforced. You have the Constitution and Revised Statutes from the corporation of Hawaii, founded and

based on the laws of 1892, the Kingdom Laws. Then there is the kumu kanawai, civil codes of 1850 through 1859, Constitution of 1864, Superior. Recently County, Maui County Council recognized the Civil Code of 1850, by exempting land pacts, 100% for kuleana owners. For you people that are on the taro patches right now, did you know that the County recognized kuleana should not pay land tax? However, the Civil Code of 1850, exempted the kuleanas already. They just reiterated what already was your right. So echoing the Governor, I am for upholding the Superior Law of the land, the kumu kanawai, of which it had been properly, if it had been properly upheld in the Courts, we would not be in this situation. There would be water in abundance. Instead, we have a broken ecosystem and poor environmental health and health risks for the population. Dengue fever, lepto; we all know what that's about. Makapipi was where the dengue started. Why? No waterflow. Ask them, time and time again, let the water flow just to flush the streams out. Cannot. Took one act of congress for them to do that. By then, people was so sick, dying. This is not a population contest. You are mandated to enforce and uphold the laws, especially, the Superior Law of the land. Do not call them just taro farmers, they are the kuleanas, the kuleana is who has the superior right. It's been said time and time again, and I just want to leave you with this, economics, everybody talks about, and I appreciate you brah, for what you just did and what you just said, cause we gotta come back together, economics, how many of you buy sugar? How much about is one pound sugar? About one pound sugar. $2.50? Okay, that's on the high, $2.50. How much is one pound taro? One pound of poi, processed, so the sugar is processed. So when you get processed taro, you get poi. How much is one pound poi? But still, you go store, okay, economics. So, when you return, put the water back, so that we can have a healthy economy, with our kalo, you guys can all come and apply for job.

NAME:	Pamela Tumpap	TIME:	3:52:30

Aloha Chair Thielen, Commissioners, and members of the community who have stayed. Thank you. I know it's been a long evening for us all. I am Pamela Tumpap, President of the Maui Chamber of Commerce, and I'm here today on behalf of our organization representing diverse businesses from every sector throughout the island, to share our thoughts on stream water use. We appreciate the opportunity to testify of this issue as water is essential to life and our quality of life and the use of this precious resource requires careful consideration. We believe decisions related to water should be balanced and reflect the triple bottom line view of sustainability - economy, environment and social well being. They should incorporate a broad view, examining all possible water sources and resolutions (including new source development which we have long supported and continue to support), and take into account both current and future needs. The challenge is that the matter you are addressing today with both the West and East Maui streams impacts our entire community and many in the community do not fully understand how these issues will affect them. Through recent cooperative education efforts, more and more are recognizing the importance of stream water use and coming forward to speak out, with hundreds participating in a rally yesterday and thousands signing a petition to ask that we ensure that Interim Instream Flow Standards set for East and West Maui continues to provide water to sustain instream and off-stream uses – that we deal with this so that we can protect residents in their homes, businesses, County water systems, community facilities and agriculture. That would be all agriculture. This is not a "big business issue" as some would tout, it is a Maui issue and we are here because we are passionate about Maui. If there is a 50% reduction in water diverted from streams, it impacts us all. We care too much not to take a stand to help ensure the public is informed so that they can have their voice shared in this process, especially as this issue

is still moving very fast. Tonight, we too are here to talk about what we support. And what we support is providing water for existing and future uses that contribute to our economic well being; Water for community use for stream water that is used by the County for resident use; Water for agriculture providing needed water to not only sustain, but grow the industry and keep Maui green including of course taro farmers; Our visitor industry needs support and we rely on the beauty the Maui has because of our great agricultural community. It attracts visitors and this industry employs many as well. We support HC&S, a long-time Maui company who contributes to the community, helps support the ag industry, helps maintain our water infrastructure, continues to work on conservation methods, generates renewable power and employs 800 people here; We believe and support in aiding businesses and the economy, particularly during these times when no business—large or small—is immune from the looming recession; We believe in water for affordable housing; We believe in the adequate planning of water supply and reasonably priced water, taking a comprehensive view, and addressing all sources of water and new source development, to meeting those needs current and future; And we believe in fair and balanced decisions that put people first. We understand that it is the Commission's job to weigh the importance of the present and potential instream values with the importance of both instream issues and noninstream purposes, including economic impact of restricting such uses; And we request more consideration be given to the economic impact of eliminating 50% of the current water use.

Our message is not that no water should be returned to the streams, because we too want stream health. Our concern is with the hefty recommendation on the amount of water to be returnedThe community needs and relies on this water and the negative effects can be severe. Therefore, we request more regard be given to the economic and social benefits the use of this water provides. We ask you to hear the voices of residents, businesses, and farmers who come today and testify and come up with a more balanced, winning solution that protects Maui's agricultural industry and businesses, and provides needed resources for the community, to allow for current and future growth, while addressing stream biology and wise water use.

TESTIMONY PROVIDED IN SECTION 33.0

NAME:	Amanda Martin	TIME:	3:57:25

Aloha, Chair, Director, Elective Officials, Commission staff and members of the community, I am Amanda Martin. Every time I come up here, it is very difficult for me, cause most of you know, I wear a couple of hats. But tonight, I do represent Na Moku, I am their current President and first of all, I would like to say, my family does come from Keanae, from the great grandparent, to the grandparent, to my brother, Bush, who is currently farming taro out there. Mahalo, Ken and all of you, and thank you and I appreciate you all taking me up into the mountains and learning about the streams and about the streamflows. I'm not going to go into all of the history and facts because our attorney, a wonderful attorney, Alan Murakami, has done that. But I have to tell you, one thing I really need to tell you, is, that since the water has been released, and we all know how and why that happened, you know our farmers have been able to farm. You know with all the water that has been coming down, more of them have been able to open more patches. Balance, yes, I understand, we all need balance, we all want to live and thrive, and I'm sorry, I don't want to stir up hard feelings and anger, but I have to represent our taro farmers and we still healing, a lot of them are still healing from everything that has been

going on. With all the loss of crops and HC&S, and all my union friends and buddies, I'm sorry, but when our taro farmers were stating over and over and over again, we don't have water, nobody when listen, and all of sudden you're being affected and you want us to say, oh, okay, here, you can have your water. I'm sorry, that just cannot happen. So I want you to continue your work, doing the instream flows, but you have to remember, our taro farmers, and as Hawaiians, and as kalo farmers, we come first. Mahalo.

NAME:	Mapu Kekahuna	TIME:	3:59:46

I'll be short and sweet. I'm Mapu Kakahuna, Vice-Chairman for the Nahiku Community Association. Kupuna, aloha, cousins from Honopou. My concern, and I'm gonna drive back home a little on the east side and Nahiku, and like I said, we always concerned about the water, we just gonna do what's right and what's fair, put the waters back in the stream so that we can live. HC&S workers, corporations, it's that time, where is all this water going to? Stop the development. The private water wells that are being dug on the East side in my area, in my district needs to be monitored and looked at because you know we have Nahiku Water Company, besides the County water system. 475 feet deep, taking the surface water out of the streams. We need to look at all the private well digging as well. So whenever I see a drilling driving down to my area, I know they're not going to drill one cesspool. They drilling for water. Anyway, so hopefully we can come to a medium balance on this whole issue, you know, and stop the rhetoric and all that stuff. Thank you.

NAME:	Steve Slater	TIME:	4:01:08

Hi. My first notice of this meeting was reading the Maui News, four or five days ago. I wondered, was this a misprint, it said something about that HC&S normally grew 200,000 pounds of sugar a year, but because of the drought it was a 130,000 pounds. What? If it was a $1.00 a pound, that would be $200,000 a year. Of course, it turned out to be a typo, I went right on the HC&S website and the Maui news article didn't differentiate between pounds and tons. So, it turns out to be more like $60 million a year instead of $200,000 a year. I've lost everything I had in land in my house value, I've lost $200,000 in this economic thing, I'll never retire, I'm down to bottom, so what? It just struck me when it was 200,000 that none of my friends, my wife, nobody said, huh? They read the article and nobody seemed to notice. It's like, facts. How many of you noticed that, that read the article, the difference between pounds and you do the math real quick and you go, oh there's 800 jobs and somebody, the plantation only made 200,000 a year, it's like I think we're in an area where we just don't sit down and discuss facts. We're not, there's no website where we can look up and see exactly what percentage of water usage and all this is really going; how much are these jobs costing? I don't want to see these people out of work. What's going to happen if HC&S stops maintaining the water system? There's going to be a State or a County water system. Most of these people would be hired, of course, to work on the, it's a change of ownership, where's the money going for this HC&S part; it's not going to the 800 workers. Costco has 800 workers, it's like, who, the one's really pushing this, who I don't think have been here tonight, are the upper management who are drawing salaries of a million dollars a year. The poor workers who are out here just wanting to keep their jobs, but if things turned over, and the State and the County really stepped up to the plate, we'd still have a water system, but it would slowly phase out of being a corporation and who is this corporation? There's no more Alexanders. I was just going to say, there needs to be some more public information of who owns A&B these days, it's a public

traded company, you know, where exactly is the interest, how much of A&B, a lot of people here think A&B is still part of Maui, but it's an international company. How much of the interest is really here and separate that from the needs of the other things nobody seemed to mention was that besides the water usage and the streamflow and the lack on the effect on the environment, there's also the negative effects on health and cane burning, the dengue was mentioned, the coral wasn't mentioned. Thank you.

NAME:	Robert Roggash	TIME:	4:04:22

Hi I'm Robert Roggash and I'm here just to say that everything here is stolen. And these people up here have no say. The only say they have is the guns that brought them in here. In 1893, the United States overthrew the Government, overthrew it. And then these people became the Government, no, they're not the Government, they're the occupied force, you have to remember, when you look at the State of Hawaii, you look at the occupied force. The only thing they have is to steal. As a matter of fact, Cleveland said it very well, it was not a war by the United States. It was a citizen of the United States who created this stuff. It's still stated… it's a Church, this thing went from the time up to the bottom and the ditch road was the first after genocide to the kanaka maolis because it took out all that water all the way and all those people, when you go back up the ridge, you see all those -- coming down there. Thank you for letting me say that you're an occupier. I'm an occupier. The kanaka maoli are real. Thank you.

2.0 Michael S. Spalding

Michael S. Spalding

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT
2009 SEP-1 AM 9:24

August 25, 2009

Laura H. Thielen, Chairperson
Commission on Water Resource Management
P. O. Box 621
Honolulu, Hawaii 96809

Re: East Maui Water System

Dear Ms Thielen:

I am a farmer in Kula growing avocados, persimmons and citrus fruits. I rely on County water which is supplemented by ditch water from East Maui Irrigation Co. I am very concerned that any diminishing of the EMI water system will have an adverse affect on farmers, large and small, on Maui. To replace ditch water, well water would need to be pumped from the aquifer. This is extremely costly and also brings along contaminants and traces of salinity. Long term use of ground water that has even small amounts of chloride can build up in the soil and be adverse to long term farming operations.

In most parts of the United States, water rights are perfected over time and grandfathered in. I would encourage you to have a balanced view on how you treat the surface water systems on Maui.

Keep in mind that any water that is diverted out of the system will have to be replaced with well water that will require pumping. Pumping is costly -- in the $2.00 to $3.00 per 1,000 gallon range and higher in at the upper elevations. Any diversion of water out of the system requires sustained long term pumping for replacement water. This becomes an economic burden on future generations of Maui residents.

HC&S must also be kept in mind as they are a major economic force on Maui. Any reduction in EMI water will have an impact on their farming operations.

Please take into consideration the future generations of Maui that will benefit from low cost, gravity fed water for a multitude of different uses.

Cordially yours,

Michael S. Spalding

75B North Church Street | Wailuku, Maui, HI 96793 | (808) 242-5788 | Fax (808) 242-6912

3.0 Maliko Estate Coffee, Sydney Smith

Sydney Smith
<malikoestate@hawaii.rr.com>
10/02/2009 10:32 AM

To <dlnr.cwrm@hawaii.gov>
cc
bcc
Subject Restoring Maliko Stream

History: This message has been forwarded.

Aloha,

My farm is located along Maliko Stream at Kaluanui Road on the island of Maui. My neighbors and I would like to see Maliko added to the list of streams being restored. What is the process we need to undertake to make this happen. People from DLNR have been on our property in the past (years ago) and have measured stream flow, but we are not currently on the list.

Our farm is located makai of the one-lane bridge on Kaluanui Road. It was tradition for over 100 years to dump garbage off this bridge into the stream. When my husband and I bought this land about 25 years ago we spent 3 years cleaning the accumulated years of debris from the streambed. The resulting pollution from all this debris affected the water quality and the water had an oily appearance and often had brown or red foam on the surface. After prosecuting people we caught dumping, it occurred less and less often. Now the water appears quite clean and a lot of wild life has come back in and appears to be thriving. Stream flow however appears to be less every year, whether from years of drought or diversion we don't know.

Your help in guiding us through this process would be much appreciated.

Thank you,

Sydney Smith

Maliko Estate Coffee
365 Kaluanui Road
Makawao, Maui, HI 96768
808-572-0977
malikoestate@hawaii.rr.com

4.0 Bob Flint & Sunny Jordan

October 7, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809.

To Whom It May Concern:

I am writing to ask that Maliko Gulch Stream be added to the Instream Flow Standard Assessment Report. Please consider the following reasons for our request and add this testimony to the public fact gathering meeting.

Imagine the early Hawaiians in the central valley of Maui living near fresh water sources. This water gave them life as well as their livestock and vegetation. Now imagine these same ancestors escaping the heat of the central valley during the summer months by walking to the *nearest* water site on the slopes of Haleakala…..Maliko Gulch. A virtual paradise at only 1400 foot elevation.

This same Maliko Gulch Stream bed, that once flowed year-round though our property shows evidence that it might have been used by ancient Hawaiian women as a birthing area. The rock in one area are very large, flat and smooth – inviting one to recline along the waters edge. In this same area, the vertical cliff walls have pictographs (not petroglyphs) painted by these ancient people - and at least one of the images depicts childbirth.

Today the water rarely runs and threatens the delicate balance of the ecology. The shallow pools that are below the water table are supporting ‘Ōpae (shrimp), the Hawaiian ‘Amakihi (honey creeper), the ‘Auku’u (blue heron), and various Pueo. However the numbers are diminishing. As Maui develops there is less and less of an opportunity to keep Hawaii Hawaiian.

This stream is a historic treasure and needs to be protected, preserved and restored to it original flow, which not only brings life and nourishment to a myriad of species, but flow into the ocean bringing valuable nutrients to the reef fish and coral.

Sincerely,
Bob Flint
Sunny Jordan
355 Kaluanui Road
Makawao, HI 96768

5.0 Aaron Brothers

Aaron kuau77@gmail.com

10/12/2009 01:28 PM

To: laura.thielen@hawaii.gov, Governor.Lingle@hawaii.gov, Mayors.office@mauicounty.gov, danny.mateo@mauicounty.us, michael.molina@mauicounty.us, joseph.pontanilla@mauicounty.us, gladys.baisa@mauicounty.us, sol.kahoohalahala@mauicounty.us, bill.medeiros@mauicounty.us, jo_anne.johnson@mauicounty.us, wayne.nishiki@mauicounty.us, michael.victorino@mauicounty.us

cc:

Subject: Commission on Water Resource Management Hearings

Aloha to those in power over Maui County decisions:

Thank you for your service to the community. I am writing to encourage you not to forget the huge contribution Maui's last sugar cane company, HC&S, continues to make to Maui's value as a tourist destination and as a beautiful place for us to live. Without the vast expanses of green sugar cane, Maui would become another Oahu. HC&S keeps Maui rural, green, healthy, and a place people from the mainland and around the world want to visit.

I am all for returning water to the streams that is no longer needed by C. Brewer & Co, but please take into account that HC&S still needs some of the water to irrigate the remaining cane fields. Maui needs HC&S so please give them what they need to survive, and then return the rest of the water to the streams.

Mahalo,
Aaron Brothers
Paia, HI
579-8077

6.0 Lehua Clubb

"Lehua Clubb"
<lclubb@mauiprince.com>
10/13/2009 01:31 PM

To <laura.thielen@hawaii.gov>
cc
Subject FW: water on maui

From: Lehua Clubb
Sent: Tue 10/13/2009 1:24 PM
To: laura.thielan@hawaii.gov
Cc: Governor.Lingle@hawaii.gov
Subject: water on maui

My name is Lehua Clubb, member of Committee on Aging, Maui Haw'n Chamber of Commerce, Ahahui Kaahumanu, Secretary/Treasurer for Waiehu Kou Haw'n Homes and Chairperson for ILWU Unit 2511 in favor of sharing water. Being Hawaiian makes it a difficult decision for me. All vegetation need water to feed us. Our sugar cane needs water and also keeps families fed. Only God knows what we are presently facing. To imagine Maui without sugar cane when you're coming home on the airplane would be either looking at barren land or a city like Los Angeles. To work on getting desalinization is worth looking into. I have no solution except to say, at this time and at this moment we are forced to compromise. God help us all! O wau no, Lehua Clubb

Lehua Clubb
3146 Mapu Place
Kihei, HI 96753
Tel# (808) 879-3888

7.0 Howard Hanzawa

October 13, 2009

Laura Thielen, Chair
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

VIA EMAIL to laura.thielen@hawaii.gov

SUBJECT: **NA WAI EHA IIFS**

Dear Ms. Thielen:

I am writing to express my concern regarding the upcoming hearings on the possible restoration of stream flows for the subject case.

First of all, let me state that I do not have any interest in the Hawaiian Commercial and Sugar Co. (HC&S), financially or otherwise, except as a concerned community member. Let me further state that I am truly concerned that any decision which will negatively impact HC&S will eventually be devastating for the Maui economy, its long time residents, and for the land on which HC&S has farmed for generations. Should HC&S be forced to close, the loss of jobs and its effects on the economy can be documented. I'm sure others will also rightfully and eloquently provide further testify that the land itself will change from a green verdant plain to a dry dustbowl should the company be forced to stop growing sugar cane. The very image of Maui will be negatively impacted.

I believe that in the larger picture, a negative decision to restore water to the streams which will force HC&S to close will also in the long run be extremely hurtful to the State. There has been much talk in recent years about the need to actively support agricultural activities. What will be the message that will be conveyed if we could not support one of the State's largest agricultural companies which has provided jobs and housing for thousands of workers over the life of the company. State government will not only be further impacted by a further loss of tax revenues but also by an increased perception that it was unable to help sustain a company which has been an integral part of the Maui community for over a hundred years.

I hope that common sense will prevail after hearing all arguments before coming to a decision on this matter. There will be a tremendous impact in the wrong way to a majority of Maui's residents and also to the State's image should the decision go against the needs of HC&S and that of the greater Maui community. I request that the commission take these potential global effects into account when deciding on this matter.

Very truly yours,

Howard Hanzawa

cc: Governor Linda Lingle, Governor.lingle@hawaii.gov

8.0 Maui Cattlemen's Association

Maui Cattlemen's Association

PO Box 473

Kula, HI 96790

(808) 878-2660

Sustaining ranching communities in Hawaii

MAUI CATTLEMEN'S ASSOCIATION

TESTIMONY

October 14, 2009

Submitted via email: dlnr.cwrm@hawaii.gov

FROM: Maui Cattlemen's Association

TO: Commission on Water Resource Management
Kalanimoku Building
1151 Punchbol Street, Room 227
Honolulu, Hawaii 96813

HEARING DATE: Thursday, October 15, 2009 Paia Community Center

CONCERN : Relating to Maui County in stream flow and Agriculture

The Maui Cattlemen's Association is a non-profit organization representing small and large livestock producers in Maui County.

We support the efforts that the Commission on Water Resource Management is making towards instream flow restoration, as long as a balance can be made between the needs of the natural environment, human consumption, and agriculture requirements. With the current water sources available, we believe there can be a balance, provided we work together. In addition, we support and strongly advocate the idea of improving the current delivery systems, as well as developing more eco friendly systems and storage facilities that would compliment and work together with the current delivery systems. Please be mindful, that the instream and offstream uses protect all of Maui County, when decisions are made. Agriculture that rely on the entire system will be affected without these waters.

You may contact Maui Cattlemen's Association President, William Jacintho, through the information provided above, or Vice-President, Amber Starr, at (808) 573-6444.

Thank you,

William Jacintho, President

Amber Starr, Vice President

9.0 G.J. Molina

101 1 104

Commision on Water Resource Management,

Aloha, Cynthia Thyles, remember who provides jobs too Maui residents for over 125 years. They also provide electricity too Maui Electric company carpets the whole central plain of Maui with green sugar cane, which is way better than a steady dust bowl blowing dust all day. HC&S also spends $10-$20 million a year buying supplies from Maui companies too support their sugar company on Maui. Anyway whatever decision you rule for HC&S and other uses will probaly be appealed in higher courts Hawaii, or even the U.S. Supreme Court. John Duey you're lying when you said this is not personal, who are you kidding, coin seller? Your puny 18 acres of taro cant even compare to HC&S 38,000 acres of a green sugar cane! You're lying John. Can you give jobs to 800-900 people? I think not!

G.J. Molina
Kahului

10.0 U.S. Geological Survey

Stephen S Anthony
<santhony@usgs.gov>
10/14/2009 05:03 PM

To DLNR.CWRM@hawaii.gov
cc Stephen B Gingerich <sbginger@usgs.gov>, Darlene E Lytle <delytle@usgs.gov>
bcc
Subject Review of IFSARs

We have completed our review of the Instream Flow Standard Assessments Reports for 16 surface water hydrologic units in east Maui. Steve Gingerich did a detailed review of the Hanawi report and put all comments in electronically. For the other reports, he just looked at the specific areas that changed from report to report. Nearly all of the comments for Hanawi apply to every other report where the language is the same. The other reports have some additional specific comments.

The documents with our review comments are available at
ftp://ftpext.usgs.gov/pub/wr/hi/CWRM%20IFSAR/

Regards, Steve

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Stephen S. Anthony
Associate Director
USGS Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, HI 96813
Tel. 808-587-2406
Fax. 808-587-2401
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Summary of Comments by the United States Geological Survey

Comments by the U.S. Geological Survey on the Commission on Water Resource Management's (Commission) Draft Instream Flow Standard Assessment Reports for the hydrologic units of Waikamoi (6047), Puohokamoa (6048), Haipuaena (6049), Punalau (6050), Honomanu (6051), Nuaailua (6052), Ohia (6054), West Wailuaiki (6057), East Wailuaiki (6058), Kopiliula (6059), Waiohue (6060), Paakea (6061), Waiaaka (6062), Kapaula (6063), Hanawi (6064), Makapipi (6065, Island of Maui, were originally submitted via Adobe Acrobat PDF files utilizing comment tools that are part of the Acrobat software program. Those comments have been summarized by Commission staff in the following tables. Please note that page citations in the following comments refer to the draft reports, thus citations may have changed as a result of report revisions.

As noted in their transmittal e-mail, the USGS conducted "a detailed review of the Hanawi report and put all comments in electronically. For the other reports, he [Steve Gingerich] just looked at the specific areas that changed from report to report. Nearly all of the comments for Hanawi apply to every other report where the language is the same. The other reports have some additional specific comments." As such, this summary mirrors the comments as provided in the USGS-submitted PDF files.

Waikamoi (6047)

Chapter	Page	Comment
2.0	11	This is not accurate, Honomanu is highly permeably. [Refers to text: "With the predominance of poorly permeable pahoehoe lavas, Honomanu Basalt most likely traps the percolating ground water to the basal aquifer, and thus contributes to the development of high-level water resources in east Maui."]
2.0	11	The Kula Volcanics are generally considered the poorly permeable rocks with thick low permeability aa cores. The underlying Honomanu is generally highly permeable. There is no evidence for this anywhere on Haleakala. [Refers to text: "By far, Kula Volcanics dominates the Waikamoi hydrologic unit. Being generally composed of aa lavas, Kula Volcanics probably have extensive permeable zones that allow storage and transmission of ground water to down-gradient regions, as well as across the hydrologic unit towards adjoining areas. In areas where Kula lavas are underlain by poorly permeable layer of Honomanu Basalt, thick ash unit and soil horizon, storage for high-level ground water most likely form and become storage of high-level water with significant contribution to base-flow."]
3.0	29	The USGS has reactivated gaging station 5528 on Waikamoi Stream. http://waterdata.usgs.gov/hi/nwis/uv/?site_no=16552800&PARAmeter_cd=00065,00060,00045,00063,72150,00011. [Refers to Table 3-2.]
3.0	30	Mostly dry at low flow. [Reference to text: "Based on the available streamflow data, Waikamoi Stream appears to be: 1) dry above the Kula Pipeline diversion system; 2) flowing year round between the 3,000 feet and 500 feet (near Manuel Luis Ditch) altitudes; and 3) losing water below the Manuel Luis Ditch near the 700 feet elevation."]

Waikamoi (6047)

Chapter	Page	Comment
3.0	31	Gingerich and Wolff, 2005, p. 76 shows stage discharge relationships for 3 sites in the lower reach. Flows ranged from 0.1 to 0.4 cfs during the study. Data are available at http://waterdata.usgs.gov/hi/nwis/measurements/?site_no=205233156111901&agency_cd=USGS. The lowest site at the head of the terminal waterfall was always dry during visits. [Reference to text: "Low-flow measurements were conducted in 2002 to 2003 but not reported in the study."]
3.0	37	Text should read "stream goes dry", and not "stream could go dry". [Refers to text: "During low-flow conditions, the stream could go dry in the lower reaches of Waikamoi Stream."]
4.0	47	Text should read "no major diversions". [Refers to text: "Upstream of Wailoa Ditch where there are no diversions, the stream has no reduction in flow and thus, retains 100 percent of the natural habitat."]
4.0	47	This comment does not really reflect the conditions shown on the figure. [Refers to text: "Overall, greater than 50 percent of the natural habitat for all species in Waikamoi Stream was already maintained below Wailoa and New Hamakua Ditch under diverted conditions." Refers to Figure 4-3.]
10.0	76	Temperature data for 3 locations on Waikamoi in Gingerich and Wolff, 2005. [Refers to text: "Sediment and temperature are among the primary physical constituents of water quality evaluations."]

Puohokamoa (6048)

Chapter	Page	Comment
2.0	11	This is not accurate, Honomanu is highly permeably. [Refers to text: "With the predominance of poorly permeable pahoehoe lavas, Honomanu Basalt most likely act as stratigraphic trap to the downward migration of ground water and thus, may have contributed to the development of high-level water resources in east Maui."]
2.0	11	The Kula Volcanics are generally considered the poorly permeable rocks with thick low permeability aa cores. The underlying Honomanu is generally highly permeable. There is no evidence for this anywhere on Haleakala. [Refers to text: "With the predominance of aa lavas, Kula Volcanics probably have extensive permeable zones that allow storage and transmission of ground water. In areas where Kula lavas are underlain by poorly permeable layer of Honomanu Basalt, thick ash unit and soil horizon, storage of high-level ground water most likely develop as an important resource for fresh water and contributor to base flow."]

Puohokamoa (6048)		
Chapter	**Page**	**Comment**
4.0	43	Text should read “no major diversions”. [Refers to text: "Upstream of Wailoa Ditch where there are no diversions, the stream has no reduction in flow and thus, retains 100 percent of the natural habitat.”]
4.0	43	This comment does not really reflect the conditions shown on the figure. [Refers to text: "Overall, close to 50 percent of the natural habitat for all species in Puohokamoa Stream was already maintained below Wailoa and New Hamakua Ditch under diverted conditions.” Refers to Figure 4-3.]

Haipuaena (6049)		
Chapter	**Page**	**Comment**
2.0	11	This is not accurate, Honomanu is highly permeably, Kula is not. [Refers to text: "With the characteristic poor permeability of pahoehoe lavas, Honomanu Basalt’s most likely serve as stratigraphic trap to the downward migration of ground water and thus, may have contributed towards the development of high-level water resources in east Maui.”]
2.0	11	The Kula Volcanics are generally considered the poorly permeable rocks with thick low permeability aa cores. The underlying Honomanu is generally highly permeable. There is no evidence for this anywhere on Haleakala. [Refers to text: "With the predominance of aa lavas, Kula Volcanics probably have extensive permeable zones that allow storage and transmission of ground water. In areas where Kula lavas are underlain by poorly permeable layer of Honomanu Basalt, thick ash unit and soil horizon, storage of high-level ground water most likely develop to become an important resource for fresh water and contributor to stream base flow.”]
3.0	26	The reference states that the contact is within 1000 ft of the shore. After the 1999 report was published, field inspection shows that Haipuaena ends in a 300-ft terminal waterfall with the contact being some tens of feet up the sea cliff. So the stream lies on Kula Volcanics all the way to the terminal waterfall. [Refers to text: "Haipuaena Stream lies on the lava flows of Kula Volcanics for most of its length, with the exception of 1,000 feet of Honomanu Basalt near the coast.”]
4.0	43	Should be 19% of the natural base flow conditions, not 4.3%. [Refers to text: "At this point, it is estimated that the stream retains almost 50 percent of the natural habitat at just 4.3 percent of the natural base flow condition.”]

Haipuaena (6049)		
Chapter	**Page**	**Comment**
4.0	43	This comment does not really reflect the conditions shown on the figure. [Refers to text: "Overall, about 40-50 percent of the natural habitat for all species in Haipuaena Stream was already maintained below Wailoa and New Hamakua Ditch under diverted conditions.” Refers to Figure 4-3.]

Punalau (6050)		
Chapter	**Page**	**Comment**
2.0	11	The Kula Volcanics are generally considered the poorly permeable rocks with thick low permeability aa cores. The underlying Honomanu is generally highly permeable. There is no real evidence to state otherwise. [Refers to text: "With predominance of poorly permeable pahoehoe lavas in the sequence, Honomanu’s role in local hydrogeology may be seen as stratigraphic trap to the downward migration of ground water, leading to the development of high-level water resources in East Maui.]
2.0	11	There is no evidence for this anywhere on Haleakala. [Refers to text: "With predominance of aa lavas, Kula Volcanics probably have extensive permeable zones that would allow storage and transmission of ground water, particularly in areas where Kula lavas are underlain by poorly permeable Honomanu Basalt, thick ash layer, or soil horizon.”]

Honomanu (6051)		
Chapter	**Page**	**Comment**
2.0	23	The word “Agricultural” is misspelled. [Refers to Figure 2-5.]
3.0	31	Reference cited for Gingerich should be “1999b” for in this paragraph. [Refers to text: "According to Gingerich (2005), Honomanu Stream is most likely gaining ground water flow upstream from station 16527000, between 4,300 feet and 1,700 feet elevation.”]
3.0	34	Text should read “stream goes dry”, and not “stream could go dry”. [Refers to text: "During low-flow conditions, the stream could go dry in the lower reaches of Honomanu Stream.”]
4.0	47	Maybe mention that many recruits are usually found at the perennial springs near the mouth of the stream. Skippy Hau often visit there to gather recruits. [Refers to text: "As reported in Gingerich and Wolff (2005), the lower reach of Honomanu Stream was dry, providing no habitat for native species.”]

Honomanu (6051)

Chapter	Page	Comment
10.0	72	Temperature data are available for Upper Honomanu (Gingerich and Wolff, 2005). [Refers to text: "Sediment and temperature are among the primary physical constituents of water quality evaluations."]

Nuaailua (6052)

Chapter	Page	Comment
		No report-specific comments.

Ohia (6054)

Chapter	Page	Comment
3.0	26	Much of the streamflow was historically diverted for local agriculture (watercress?). Has this been stopped? [Refers to text: "Ohia Stream is not diverted at any major surface water diversion systems."]
3.0	26	As of 2005 much of the water was used for agriculture and the stream nearly dried up before reaching the ocean. [Refers to text: "It is unknown whether the stream will go dry during low-flow conditions."]
13.0	81	What about Ohia spring usage? [Refers to Table 13-1.]

West Wailuaiki (6057)

Chapter	Page	Comment
3.0	29	This is not possible, since 3 to 4 additional years of record would not raise the median flow from 90 years of record by 7 cfs. What is the reference for this? Could it be an issue of cfs vs. mgd? [Refers to text: "However, more recent records that incorporate flow data after 2005 show the median streamflow as 17 cubic feet per second."]

East Wailuaiki (6058)

Chapter	Page	Comment

East Wailuaiki (6058)

Chapter	Page	Comment
4.0	40	This statement does not really match Figure 4-3. [Refers to text: "Overall, about 50 percent of the natural habitat for all species in East Wailuaiki Stream is maintained below Koolau Ditch under diverted conditions." Refers to Figure 4-3.]

Kopiliula (6059)

Chapter	Page	Comment
Cover		Should read "hydrologic unit near". [Refers to text: " The western end of the hydrologic near the coast is Papiha Point, where Makolaka Island can be seen [Google Earth, 2009]."]
4.0	4-7	6 species upstream of the diversion seems highly unlikely. Only opae were observed during extensive surveys in 2002-03 and 2009. [Refers to Table 4-8.]
10.0	70	Temperature data are available from Gingerich and Wolff, 2005 and could be included here. [Refers to text: "Sediment and temperature are among the primary physical constituents of water quality evaluations."]

Waiohue (6060)

Chapter	Page	Comment
4.0	42	Fig. 4-3 shows a section with 0% habitat and a long section of 25-50% habitat downstream of the diversion. [Refers to text: "Overall, more than 50 percent of the natural habitat for all species in Waiohue Stream was already maintained below Koolau Ditch under diverted conditions." Refers to Figure 4-3.]

Paakea (6061)

Chapter	Page	Comment
3.0	32	Stream location should read "Paakea upper (PaU)". [Refers to text: "Paakea middle (PaL)" in Table 3-6.]
4.0	44	This is showing Waiohue data, need to change to Paakea data. [Refers to Table 4-4.]

Paakea (6061)

Chapter	Page	Comment
4.0	47	Terminal waterfall is small, hihiwai and oopu species were observed above this waterfall. [Refers to Table 4-6.]

Waiaaka (6062)

Chapter	Page	Comment
3.0	32	Actually, this stream was easy to assess because most of the watershed is downstream of the diversion, the effects of the diversion are minimal and within the error of the measurements show no reduction from the diversion. [Refers to text: "Due to the lack of information on the amount of flow being diverted at the Koolau Ditch as well as the lack of a gaging station upstream of the ditch to monitor undiverted flow, the effects of diversion cannot be assessed."]
4.0	41	This is because the most of the watershed lies below the diversion. [Refers to text: "According to USGS, Waiaaka Stream retains almost all of the natural base flow under diverted conditions."]

Kapaula (6063)

Chapter	Page	Comment
3.0	29	This should read "...the lowest daily mean flow of 0.31...the highest daily mean flow of 715..." [Referring to text: "The lowest flow of 0.31 cubic feet per second was recorded in 1938, and the highest flow of 715 cubic feet per second was recorded in 1948."]
3.0	29	Should just use adjusted value as it is a more accurate representation of long-term conditions. [Refers to text: "Based on the available streamflow records, median streamflow (TFQ50) is 5.2 cubic feet per second."]
3.0	29	This should read "...the lowest daily mean flow of 1.7...the highest daily mean flow of 436..." Should just use adjusted value as it is a more accurate representation of long-term conditions. [Refers to text: " The lowest flow of 1.7 cubic feet per second was recorded in 1935, and the highest flow of 436 cubic feet per second was recorded in 1942. Based on the flow records, median streamflow is 2.6 cubic feet per second."]
4.0	38	The reference for "Ford et al., 2009" is not in the bibliography.

Kapaula (6063)

Chapter	Page	Comment
4.0	43	Estimates of expected habitat availability are representative for opae and alamoo upstream of large waterfalls, just not the other species. [Refers to text: "Estimates of expected habitat availability are not representative of stream reaches within close proximity to large waterfalls since they generally prevent all species of interest, except for the opae and alamoo, from migrating upstream."]
4.0	42	Not clear from this table if this refers to streams downstream of diversions or all stream reaches. The most meaningful numbers would be from comparing only reaches below the diversions. Also, reference should indicate that table was calculated from Gingerich and Wolff rather than directly presented in Gingerich and Wolff. [Referring to Table 4-3.]
4.0	43	As no new data or supporting evidence is presented from SWCA studies in the area, it would be best to call this document a "literature review" of existing data commissioned by the main diverter of water in the area. This would distinguish it from existing independent peer-reviewed study reports. [Referring to text: "The SWCA Environmental Consultants, at the request of Hawaiian Commercial and Sugar Company, conducted a study that analyzed research published by DAR, USGS, and other investigators (Ford et. al., 2009)."]
4.0	43	What are "frequent changes in stream community structure"? This should be better explained. [Referring to text: "It was also important to note that frequent changes in stream community structure that may result in absence of native stream animals should not be interpreted as a negative indicator of stream health."]
4.0	44	For this stream, lack of species below the diversion most likely is because the stream is nearly inaccessible and has not been surveyed. All of the species of the lower reaches in the adjacent streams are most likely present here as well. [Refers to text: "While Kapaula is mostly a gaining stream (see Chapter 3), habitat measurements from USGS were conducted during the driest conditions. Therefore, the absence of the other species in the stream may be due to a combination of drought conditions and dewaterment of the stream by the EMI System and the Maui DWS Upcountry System."]

Hanawi (6064)

Chapter	Page	Comment
2.0	12	The word "volcanics" is misspelled. [Referring to text: "Kula volcnics and associated weathered soils and ash beds (Gingerich, 1999a)."]

Hanawi (6064)		
Chapter	**Page**	**Comment**
3.0	30	This should read "...the lowest daily mean flow of 0.9...the highest daily mean flow of 1,610..." [Referring to text: "Based on 86 years with complete record (1923-2008), the lowest flow of 0.9 cubic feet per second was recorded in 1984, and the highest flow of 1,610 cubic feet per second was recorded in 1948."]
3.0	30	This should read "...the lowest daily mean flow of 13...the highest daily mean flow of 2,320..." [Referring to text: "Based on 17 years with complete record, the lowest flow of 13 cubic feet per second was recorded in 1936, and the highest flow of 2,320 cubic feet per second was recorded in 1938."]
3.0	32	Reference cited for Gingerich should be "1999b" for both in this paragraph. [Referring to text: "Estimates show an average annual base flow of almost 13 million gallons per day, and all of this flow is gained between the ditch and the inactive station at 500 feet elevation (Gingerich, 2005)." Referring to text: "Two small reaches near the coast were found to be losing flow in Gingerich's study (2005)."]
3.0	32	Somewhere in this assessment, it should be noted that the streamflow does not pass the diversions at 1,300 about 75-85% of the time. Therefore a dry reach is present 75-85% of the time. Discussion and figures are in Gingerich, 2005.
3.0	33	Relative error of BFQ_{95} for gaging station 16508000 should be "0" instead of "--". [Referring to Table 3-6.]
3.0	34	Text should read "are". [Referring to text: "Flow estimates at the low flow station in Hanawi Stream is a combination of low-flow measurements and regression estimates."]
4.0	40	The reference for "Ford et al., 2009" is not in the bibliography.
4.0	43	Estimates of expected habitat availability are representative for opae and alamoo upstream of large waterfalls, just not the other species. [Refers to text: "Estimates of expected habitat availability are not representative of stream reaches within close proximity to large waterfalls since they generally prevent all species of interest, except for the opae and alamoo, from migrating upstream."]
4.0	44	Not clear from this table if this refers to streams downstream of diversions or all stream reaches. The most meaningful numbers would be from comparing only reaches below the diversions. Also, reference should indicate that table was calculated from Gingerich and Wolff rather than directly presented in Gingerich and Wolff. [Referring to Table 4-3.]

Hanawi (6064)		
Chapter	**Page**	**Comment**
4.0	45	As no new data or supporting evidence is presented from SWCA studies in the area, it would be best to call this document a "literature review" of existing data commissioned by the main diverter of water in the area. This would distinguish it from existing independent peer-reviewed study reports. [Referring to text: "The SWCA Environmental Consultants, at the request of Hawaiian Commercial and Sugar Company, conducted a study that analyzed research published by DAR, USGS, and other investigators (Ford et. al., 2009)."]
4.0	46	What are "frequent changes in stream community structure". This should be better explained. [Referring to text: "It was also important to note that frequent changes in stream community structure that may result in absence of native stream animals should not be interpreted as a negative indicator of stream health."]
4.0	46	Should note that extensive surveys by USGS revealed no alamoo above the diversion, no data is presented by SWCA about their findings, and DAR results are not clear as to how many and when alamoo where observed above the diversions. The statement appears somewhat misleading about present conditions. [Refers to text: "Almost all the native amphidromous species, except the hapawai, were present throughout the stream, some above diversions (opae and alamoo)."]
4.0	48	Ford et. al 2009 does not list any data or references for studies done by SWCA in east Maui. Where are the SWCA data that are referred to? [Referring to Table 4-7.]
4.0	50	Should have spring symbol in legend. [Referring to Figure 4-3.]
4.0	51	What is source of DAR survey point locations? [Referring to Figure 4-4.]
10.0	70	Gingerich and Wolff, 2005, Table 4, lists temperature measurements from Hanawi Stream. Lower Hanawi site had lowest average temperatures of the 13 sites monitored mainly due to Big Spring contribution. [Refers to text: "Sediment and temperature are among the primary physical constituents of water quality evaluations."]
13.0	118	Should present information about the economic value of the taro cultivation using the stream water. What sort of agriculture provides the most value per gallon of water used: sugar, taro, pineapple?
13.0	118	What would the impact on west and central Maui recharge or sugar cultivation by reducing the amount of water diverted from just this stream because this document is specific to only one stream? [Referring to section on Economic Impact for Hawaiian Commercial and Sugar Company.]

Hanawi (6064)

Chapter	Page	Comment
13.0	120	This is contrary to what is stated earlier (p. 27 and fig 3-1) and to the findings in Gingerich, 1999b which present evidence that the system is fully saturated in this area. Furthermore, there are no records of streamflow or spring discharge near enough to Kuhiwa well to support or refute these claims. [Referring to text: “It was also noted that the Kuhiwa Well does not reach to the basal aquifer but rather reaches a limited perched aquifer, and so competes for the same water as would appear in springs.”]
13.0	121	This section does not provide any information about the impact of Hanawi streamflow on pineapple cultivation. [Referring to section on Economic Impact for Maui Land and Pineapple Company.]
13.0	125	Other larger users of the water should be providing the same type of analysis to adequately address the concerns about economic impact of changing diversion amounts. [Referring to the last paragraph of section on Economic Impact for County of Maui, Department of Water Supply.]
14.0	142	All personal communication references would be better if they included the official title of the person to demonstrate their professional qualifications. [Referring to text: “Kawahara, K.C. Personal communication; Status of Conditions for Kuhiwa Well Pump Installation Approval. 4 Dec. 2008.”]

Makapipi (6065)

Chapter	Page	Comment
2.0	11	Wrong stream. [Referring to text: “Hana volcanics are most predominant in the middle reaches of the hydrologic unit and occur as a thin band on either side of Kapaula Stream in the lower reaches.”]
3.0	34	Map should read “Boundary of MAKAPIPI hydrologic unit”. [Referring to Figure 3-3.]
4.0	37	The reference for “Ford et al., 2009” is not in the bibliography.
4.0	40	Estimates of expected habitat availability are representative for opae and alamoo upstream of large waterfalls, just not the other species. [Referring to text: “Estimates of expected habitat availability are not representative of stream reaches within close proximity to large waterfalls since they generally prevent all species of interest, except for the opae and alamoo, from migrating upstream.”]

Makapipi (6065)

Chapter	Page	Comment
4.0	41	Not clear from this table if this refers to streams downstream of diversions or all stream reaches. The most meaningful numbers would be from comparing only reaches below the diversions. Also, reference should indicate that table was calculated from Gingerich and Wolff rather than directly presented in Gingerich and Wolff. [Referring to Table 4-3.]
4.0	42	As no new data or supporting evidence is presented from SWCA studies in the area, it would be best to call this document a "literature review" of existing data commissioned by the main diverter of water in the area. This would distinguish it from existing independent peer-reviewed study reports. [Referring to text: “The SWCA Environmental Consultants, at the request of Hawaiian Commercial and Sugar Company, conducted a study that analyzed research published by DAR, USGS, and other investigators (Ford et. al., 2009).”]
4.0	42	What are "frequent changes in stream community structure". This should be better explained. [Referring to text: “It was also important to note that frequent changes in stream community structure that may result in absence of native stream animals should not be interpreted as a negative indicator of stream health.”]
4.0	42	These are not provided and not referenced here or in Ford et al. 2009. [Referring to text: “Results of the studies analyzed by SWCA Environmental Consultants are presented in Tables 4-5 and 4-6. The consultant summarized data mainly from SWCA field studies, the USGS habitat availability study (Gingerich and Wolff, 2005), and DAR’s Atlas of Hawaiian Watersheds and Their Aquatic Resources.”]
4.0	42	No data is presented by SWCA about their findings, and DAR results are not clear as to how many and when alamoo where observed above the diversion. The statement appears somewhat misleading about present conditions. [Referring to text: “Akupa, nakea, nopili, alamoo, and opae kalaole were observed throughout the stream channel, some above diversion structures (opae and alamoo).”]
4.0	44	Ford et. al 2009 does not list any data or references for studies done by SWCA in east Maui. Where are the SWCA data that are referred to? [Referring to Table 4-5.]
4.0	46	Map should read “Boundary of MAKAPIPI hydrologic unit”. [Referring to Figure 4-3.]
4.0	47	What is source of DAR survey point locations? [Referring to Figure 4-4.]

Makapipi (6065)		
Chapter	**Page**	**Comment**
5.0	52	Map should read “Boundary of MAKAPIPI hydrologic unit”. [Referring to Figure 5-2.]
13.0	108	Should present information about the economic value of the taro cultivation using the stream water. What sort of agriculture provides the most value per gallon of water used: sugar, taro, pineapple?
13.0	108	What would the impact on west and central Maui recharge or sugar cultivation by reducing the amount of water diverted from just this stream because this document is specific to only one stream? [Referring to section on Economic Impact for Hawaiian Commercial and Sugar Company.]
13.0	110	This is contrary to what is stated earlier (p. 27 and fig 3-1) and to the findings in Gingerich, 1999b which present evidence that the system is fully saturated in this area. Furthermore, there are no records of streamflow or spring discharge near enough to Kuhiwa well to support or refute these claims. [Referring to text: “It was also noted that the Kuhiwa Well does not reach to the basal aquifer but rather reaches a limited perched aquifer, and so competes for the same water as would appear in springs.”]
13.0	111	This section does not provide any information about the impact of Makapipi streamflow on pineapple cultivation. [Referring to section on Economic Impact for Maui Land and Pineapple Company.]
13.0	115	Other larger users of the water should be providing the same type of analysis to adequately address the concerns about economic impact of changing diversion amounts. [Referring to the last paragraph of section on Economic Impact for County of Maui, Department of Water Supply.]
14.0	132	All personal communication references would be better if they included the official title of the person to demonstrate their professional qualifications. [Referring to text: “Kawahara, K.C. Personal communication; Status of Conditions for Kuhiwa Well Pump Installation Approval. 4 Dec. 2008.”]

11.0 Bill Best

Bill Best
<bestb002@hawaii.rr.com>
10/15/2009 10:45 AM

To dlnr.cwrm@hawaii.gov
cc
bcc
Subject Need to restore waters to East Maui streams from Makapipi to Waikamoi

Unfortunately, we are not able to attend State Water Commission Meetings, but as private citizens, ask that Streamflows be restored in Na Wai 'Eha and East Maui.

State water codes require water to be shared with our streams and stream life, with traditional agriculture and rural residents dependent on local water sources. but our streams have 98 % of their flow diverted most of the time. T

Millions of gallon of stream water is lost everyday in the ditches due to waste- broken flumes, pipes and ditches, ditches choked with tree roots, etc. In the Na wai Eha contested case, the companies (Wailuku Water & HC&S) admitted that around 12 mgd of water was "lost' to seepage. If East Maui losses are similar or greater, this would be enough water for the whole upcountry water system each day.

Since we cannot know how much rain will come in the future, we need to plan sensibly to use reservoirs, local wells and stream flow for agricultural use and residents in both East Maui and Upcountry. By diverting all the stream flows and many natural springs of East Maui, eventually lead to more water shortages for all, with no solutions. How this can be justified when drought conditions are so common on Maui, is questionable.

The current system gives HC&S the "right" to divert an unlimited amount of water from East Maui for $160,000 a year. It does not require that A&B provide stewardship of the stream beds they "control' with their diversions. Diminished flows mean weed choked stream beds, further limiting water that can be available to downstream E. Maui residents. HC&S/EMI are part of a partnership caring for upper watersheds. EMI has "kuleana" rights to these lower streams, but does not exercise their responsibility to remove dead trees and combat alien plants.

Mahalo for allowing our input.

Is there anything we need to do to make this input official or considered?

Mahalo nui,

Mr. and Mrs. Bill Best
280 Hauoli St.
Wailuku
242-9119

12.0 Governor Linda Lingle

EXECUTIVE CHAMBERS
HONOLULU

LINDA LINGLE
GOVERNOR

Testimony of Governor Linda Lingle

Commission on Water Resource Management
Public Meeting on East Maui In-Stream Flow Standards

Thursday, October 15, 2009
Paia, Maui

Members of the Commission Staff and Members of the Community:

I am here tonight to discuss an issue of far-ranging importance to the people of Maui and the people of the State of Hawai‘i.

It is the fundamental issue of whether we will enable agriculture to survive in our state by ensuring that farmers have access to adequate water to grow their crops.

I am not here tonight to talk about the technical and scientific aspects of in-stream flow levels. There are many able people in this audience who can provide that information.

I am here to talk about achieving a meaningful, reasonable, and balanced decision by the Water Commission, and to offer caution that the decisions the Commission makes will have profound consequences for the future of Maui and our state as a whole.

The Commission will determine the allocation of stream water to meet a public trust. Included in that deliberation is the examination of the beneficial uses for the water. I believe because of its importance, water for agricultural operations should be given the same level of protection as that given to domestic consumption, the protection of traditional and customary Hawaiian rights, and the protection of fish and wildlife to achieve a proper ecological balance.

Our state Constitution specifically calls for the conservation and protection of agricultural lands, promotion of diversified agriculture, and assuring agricultural self sufficiency. Agriculture depends on water. Agriculture, and the water it needs for sustainability, is a part of the public trust.

Water is a natural resource that is essential for life and when used with care and understanding, is a benefit to the community. Maui has a long history of depending on water from streams to meet the needs of its population – for growing crops, drinking, and for the preservation of habitat and ecological resources. Of all of the islands, Maui has the greatest dependence on surface water to meet these needs.

Under these conditions water that is returned or retained in streams on Maui is done at the expense of those who depend on this water on a daily basis. This is fundamentally different from the situation that occurred on O‘ahu involving the Waiahole Ditch where the closure of a plantation meant the return of excess water that was no longer needed for agriculture.

This matter before us is about water to meet the public interest. It is about Hawaiian Commercial and Sugar Company (HC&S) and upcountry farmers in Kula who rely on this water.

This is about whether we will be able to preserve almost 35,000 acres of agriculturally productive land on Maui and protect the jobs of more than 800 workers and their families who depend on water for their livelihoods.

This matter is about the residents of Maui who must depend on these streams for their drinking water and part of their electric power from the HC&S bio feedstock. It is also about providing for in-stream species and habitat conservation. It is about Hawaiian traditional and customary uses. And it is about the preservation of vast green open spaces and their contribution to our environment and our way of life.

This is a matter that impacts our core value that Hawai‘i should remain a viable agricultural state in the midst of continued urbanization.

The Commission will answer these questions by the decision they make in December. That decision will have consequences far beyond the streams we are discussing now.

As Governor of Hawai‘i, it is my responsibility to advocate for the decision that brings the most good to our community. I believe that decision must allow current users of these streams to continue to receive water in amounts that permit them to thrive – and that allow agriculture in our islands to survive.

Thank you for the opportunity to speak to you.

13.0 Okamura Farm, Kenneth Okamura

Okamura Farm
641 Polipoli Rd
Kula, HI 96790

Chair Thielen, and members of the Commission on Water Resources Management' & Staff

My name is Kenneth Okamura, I am a third generation vegetable farmer in Upcountry Maui. My main crop is head cabbage and I am also a member of the Maui Farmers' Cooperative Exchange the only vegetable marketing cooperative in the State.

The Upcountry Maui area is a very important agricultural region in the State. Before Oahu ~~and~~ we were one of two major produce growing regions in the State the other being Waimea on the Big Island. We are blessed with the natural resources to be able to grow many different types of crops. We grow tropicals and orchids on one area and protea and carnations in another. We are known for our Maui onions and Kula cabbage. We grow perssimons, cherimoya, and Kula strawberries. We have a vineyard and winery, and Christmas tree farms. Truly a rich resource for the State.

~~Okamura~~ We have been growing vegetables since my grandfather's day and I now grow mainly head cabbage as well as some other vegetables for the organic market. I am on the upper Kula water system.

Droughts have been an ongoing problem for farmers in the Upcountry Maui area for generations. I remember my father hauling water from the lower system to water his tomatoes. The water system has had many improvements over the years but there has also been a lot of growth and development. As it is the current Upcountry water system cannot meet the needs of the community when there is little rain as the reserves are quickly used up. We have been on voluntary restrictions for the last 3 of the past 5 years. Pumping from the lower elevations wells is also very expensive and it has been estimated to cost over $4.00 per thousand gallons (data from the draft of the Maui Water use and Development Plan) to pump water from the lower elevations to the higher upper Kula system. Please seriously consider the ecomonic impacts of any decisions that you make. We cannot farm with an inconsistent water supply

Sincerely,
Kenneth Okamura, owner/operator , Okamura Farm

14.0 Native Hawaiian Legal Corporation, Alan Murakami

BEFORE THE COMMISSION ON WATER RESOURCES MANAGEMENT
Fact Gathering Meeting
Paia Community Center

Testimony of Alan T. Murakami
Native Hawaiian Legal Corporation

October 14, 2009

I am the attorney for Na Moku Aupuni O Ko`olau Hui, Beatrice Kekahuna and Marjorie Wallett. The Hui's membership is focused primarily on the cultural landscape of Keanae-Wailuanui (as designated by the County of Maui). Ms. Kekahuna and Ms. Wallett are elderly Hawaiian cousins who have lived their entire lives along Honopou Stream. All of my clients are active taro farmers, whose extended ohana have continued the traditions of their ancestors cultivating kalo and relying on free-flowing streams that provides them both irrigation water and sustenance from the gathering of o`opu, hihiwai, and opae from various streams and fish, crab, and other marine foods nurtured by estuarine waters fed by those streams.

My clients are the petitioners who triggered this belated fact-gathering meeting with the filing of petitions to set interim instream flow standards for 27 streams along the East Maui coastline. They filed these petitions to enforce their constitutionally protected traditional taro growing, gathering, and fishing practices. The Hawai`i Constitution[1] and the water code explicitly recognize their rights and imposes a duty on this Commission to act affirmatively and timely to protect them. Moreover, the Constitution also expressly confirms the state's duty to preserve the cultural traditions of Hawaiians.[2]

Historic Background. The struggle of my clients, and those like them, to preserve their ability to practice their cultural traditions which are based on free-flowing streams is long and storied. At the inception of what is now the East Maui Irrigation Company's ditch system in 1876, their ancestors strongly opposed the proposal to tap the 27 streams at issue before this Commission. In return, the Kingdom explicitly required that the proposed diversions by Alexander and Baldwin (A&B) be subject to the following condition:

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1 Haw. Const., Art. XI, § 7 provides:

> The State has an obligation to protect, control and regulate the use of Hawaii's water resources for the benefit of its people.
>
> The legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establish procedures for regulating all uses of Hawaii's water resources.

2 Haw. Const., Article XII, § 7 provides:

> The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua`a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Island prior to 1778, subject to the right of the State to regulate such rights.

> " . . . existing rights of present tenants of said lands or occupiers along said streams shall in no wise be lessened or affected injuriously by reasons of anything herein before granted or convenanted, . . . "

See, 1876 Royal lease to Alexander and Baldwin, attached as Exhibit A.

Keep in mind that the ditch is only possible with the consent of the state government, which leased or permitted thousands of acres of former Crown lands belonging to the illegally overthrown Kingdom. As a result, over 75 percent of the water flowing to A&B's subsidiary, Hawaiian Commercial and Sugar, in central Maui is totally dependent on the Board of Land and Natural Resources issuing permits or leases to allow the massive diversion of up to 450 million gallons per day (160 mgd on average).

Moreover, A&B/HC&S owe their very existence to the use of water coming from lands subject to the claims of Hawaiians who the Congress acknowledged never waived their right to self-determination or the lands lost as a result of the 1893 overthrow. Indeed, under P.L. 103-150, the U.S. government's official policy is to attempt reconciliation with Hawaiians for the "act of war" the U.S. government acknowledged it perpetrated illegally on the then sovereign Hawaiian Kingdom.

The Territory of Hawai`i and the State of Hawai`i continued to impose the provision to assure protection of downstream taro farmer rights to water, in various forms, in subsequent renewals of the initial water lease to A&B. This provision reflects the governing common law rights of these farmers who hold "appurtenant rights" to the water from these 27 streams. However, over time, A&B ignored these rights, paying lip service to current taro farmers who are clearly suffering from the progressively increasing efficiency of the diversion works installed and constructed and maintained by A&B's subsidiary, East Maui Irrigation Company.

Procedural Background. On May 14, 2001, A&B filed a request for four revocable permits or long term licenses/leases for portions of State government (ceded, former Crown land) conservation land within the Ko`olau Forest Reserve and the Hanawi Natural Area Reserve identified as the Keanae, Nahiku, Honomanu, and Huelo areas. A&B thereby specifically requested the issuance of revocable permits or long-term licenses to allow for the "right, privilege and authority to enter and go upon the above-described areas for the purpose of developing, diverting, transporting and using government-owned waters." (Emphasis added). By approving these permits or issuing long term licenses/leases, the BLNR authorized A&B to transfer water outside the watershed of origin in an area that the Commission on Water Resource Management has not designated a water management area pursuant to HRS 174C-48 and without regard for superior rights to this water or a demonstration by A&B that these diversions are not adversely impacting the appurtenant water rights and other constitutionally protected rights to gather food products from these streams in the tradition and custom of Hawaiians. Accordingly, my clients challenged the further issuance of any permits or leases to A&B.

Contemporaneously with this request, my clients also filed the petitions to set interim instream flow standards for the 27 streams now before you. On September 25, 2008, the CWRM

set IIFS for 8 streams located closest to the residences of the petitioners, and ordered the CWRM staff to report back on the remaining 19 streams.

Applicable Water Rights. Ironically, in 1904, HC&S helped establish the applicable law on water rights that should guide your decision. This law provides that "**[t]he burden of demonstrating** that any transfer of water [is] not injurious to the rights of others **rest[s] wholly upon those seeking the transfer**. Hawaiian Commercial & Sugar Co. v. Wailuku Sugar Co., 15 Haw. 675, 694 (1904)." Robinson v. Ariyoshi, 65 Haw. 641, 649 n. 8 (1982) ("*Robinson*") (emphasis added). More specifically, "in order to obtain any ultimate judicial sanction to a transfer of water away from the lands of ancient application, the holder of a water right would have to 1) have defined **all the potentially affected interests** in a watercourse, and 2) have demonstrated that no aspect of these rights would be **detrimentally affected**." Id. (Emphasis added). As a result of the ruling in Hawaiian Commercial & Sugar Company ("HC&S"), A&B's sugar operation on Maui, successfully legally stopped Wailuku Sugar Company from making illegal out of watershed stream flow diversions from the Wailuku Stream.

Paradoxically, in 1904, in doing so, HC&S based its suit on appurtenant rights HC&S enjoyed at that time, while simultaneously continuing and expanding its illegal diversion of stream flow from East Maui streams which were, *and still is*, subject to the above rule.[3] In In Re Water Use Permit Applications, 94 Haw. 97, 142, 9 P.3d 409, 454 (2000) ("*Waiahole*"). Now that taro farmers and cultural practitioners want to assert the same rule HC&S asserted successfully 115 years ago, which is still good law, to its own commercial benefit, A&B argues the state needs to protect jobs and ignore that law. Instead, this Commission must invoke a "higher level of scrutiny" for private commercial uses of water like those of HC&S. *Id.*

In addition to the common law, the public trust doctrine of this state also mandates this result. In *Waiahole*, the Supreme Court noted:

> [I]f the public trust is to retain any meaning and effect, it must recognize enduring public rights in trust resources separate from, and ***superior*** to, the prevailing private interests in the resources at any given time. *See Robinson*, 65 Haw. at 677, 658 P.2d at 312 ("[U]nderlying every private diversion and application there is, as there always has been, a ***superior*** public interest in this natural bounty.").

Id. at 138, 9 P.3d at 450 (emphasis added). See, note 3. As in *Waiahole*, this Commission might be tempted to be swayed by commercial interests, but the Supreme Court clearly dealt with its past mistakes related to water resources:

3

> Thus, insofar as the public trust, by nature and definition, establishes use consistent with trust purposes as the norm or "default" condition, we affirm the Commission's conclusion that it effectively prescribes a "higher level of scrutiny" for private commercial uses…In practical terms, this means the burden ultimately lies with those seeking or approving such uses to justify them in light of the purposes protected by the trust…

Id. at 142, 9 P.3d at 454. (emphasis added.)

> Post-Mahele water rights decisions ignored this duty, treating public water resources as a commodity reducible to absolute private ownership, such that "no limitation…existed or was supposed to exist to [the owner's] power to use…the waters as he saw fit…Based on founding principles of the ancient Hawaiian system and present necessity, this court subsequently reasserted the dormant public interest in the equitable and maximum beneficial allocation of water resources…

Id. at 139, 3 P.2d at 451. (Internal citations omitted). Instead, it rejected any notion of vested rights to water resources:

> Under the public trust, the state has both the authority and duty to preserve the rights of present and future generations in the waters of the state…The continuing *authority* of the state over its water resources precludes any grant or assertion of vested rights to use water to the detriment of public trust purposes…***This authority empowers the state to revisit prior diversions and allocations, even those made with due consideration of their effect on the public trust***…

Id. at 141, 9 P.3d at 453. (Emphasis added.) (Internal citations omitted). It also signaled no reluctance to carefully scrutinizing any administrative decision that clashes with respect for the public trust doctrine:

> Specifically, the public trust compels the state duly to consider the cumulative impact of existing and proposed diversions on trust purposes and to implement reasonable measures to mitigate this impact, including the use of alternative sources… The public trust…is a state constitutional doctrine. As with other state constitutional guarantees, the ultimate authority to interpret and defend the public trust in Hawai`i rests with the courts of this state…This is not to say that this court will supplant its judgment for that of the legislature or agency. However, it does mean that this court will take a "*close look*" at the action to determine if it complies with the public trust doctrine and **it will not act merely as a rubber stamp for agency or legislative action**.

Id. at 143-144, 9 P.3d at 455-456. (Emphasis added.)

The Supreme Court in *Waiahole* leaves no doubt that the BLNR and the CWRM must critically review A&B's request pursuant to the public trust doctrine and cannot "rubber stamp" A&B's request to transfer water outside the watershed of origin without assigning these private companies the appropriate burden of squaring those transfers with superior rights and the public trust doctrine. *Id.*

Furthermore, the diversions are a "transfer of water" outside the watershed of origin. As such, those parties' proposing and/or advocating the continued transfer must first identify affected interests in each watercourse, and bear the burden of demonstrating that **no aspect** of all of these interests would be **detrimentally affected** by the proposed diversions. *Robinson, 65 Haw. 641, 649, n. 8 (1982)* (emphasis added). Requiring A&B and/or the State to carry this

burden of proof prior to authorizing any diversion is logical, reasonable, justified, and most importantly, required, since neither has the "**inherent enforceable right to transmit water**" outside its watershed of origin. *Id. at 648*. (Emphasis added). For too long, the state has shirked this duty.

Application of Law to A&B/HC&S Diversions. Given the applicable common law rule on out of watershed diversions/transfers cited above and the *Waiahole* Court's discussion the public trust doctrine as applied to diversions, Na Moku, et al. need not, at this point, establish their entitlement to water from the diverted streams or that those entitlements are or will be adversely impacted by the proposed diversions. Instead, the applicable common law requires that, to justify any diversion, A&B and/or the State of Hawaii must first identify the universe of rights potentially affected by the proposed action. *Robinson* makes clear that before any proposed transfer of water outside the watershed of origin; whether for an hour, a day, a week, a month, or thirty years, may be authorized, "those seeking the transfer" must demonstrate that the "transfer of water [i]s not injurious to the rights of others." *Robinson*, 65 Haw. 641, 649 n. 8 (1982).

Unless and until this burden is met by the State or A&B/HC&S, the continuing out-of-watershed diversions/transfers of East Maui stream water by A&B require that the State and its respective agencies, including the CWRM, as the trustees of these public trust resources, take immediate action to enforce these limitations. *Robinson*, 65 Haw. at 650 (leaving "actual enforcement of these limitations to appropriate subsequent actions brought by the parties, including the State"). In order for the State, as trustee of these public trust resources, to fulfill its significant duties, it must require that, unless and until the burden placed on it and/or A&B is met, A&B must immediately release a sufficient amount of streamflow into each and every stream within which Na Moku, et al. and others' exercise their superior rights.

A&B's diversions of water from Crown Lands continuously and detrimentally affect and violate Na Moku, et al.'s and others' constitutionally protected rights. The applicable common law and public trust doctrine clearly instruct that the burden of demonstrating the transfers of water at issue here are not injurious to these rights rests wholly upon A&B as the entity that seeks to divert/transfer such water and/or the State of Hawaii as the entity seeking to authorize them. As noted in *Waiahole*, the burden of the State of Hawaii ultimately falls upon BLNR, which has made no such showing. *Waiahole*, 94 Haw. at 142, 9 P.3d at 454.

Neither the State nor A&B has defined all the potentially affected interests in the streams it intends to take water from. Id. As *Robinson* instructs, [a]s long as there remained undefined or potentially affected interests in a watercourse no transfer of water could therefore be secure." *Id.* The First Circuit Court's October 10, 2003 Order already confirmed that any lease issued absent a before-the-fact determination of superior interests would violate the common law. *See*, Exhibit B, at 4-5. As noted before, *Robinson* confirms that this precondition also applies to the issuance of a revocable permit since it requires that the burden be carried before any transfer of water; whether for an hour, a day, a week, or longer, is authorized. *Robinson*, 65 Haw. 641, 649, n. 8. This Commission should affirmatively act consistent with both the applicable common law and its public trust duties absent this inquiry.

Once A&B and/or the State of Hawaii sufficiently identify each and every potential interest affected, it/they must then ultimately demonstrate that **no aspect** of each and every potentially affected interest will be detrimentally affected by the proposed transfer. Na Moku, et al., has already placed on record before the BLNR its extensive pattern of resource use from taro growing, fishing, and gathering practices. See, e.g., Petitioners' Direct Expert Testimony of Davianna Pomaika`i McGregor, PhD, attached as Exhibit C.

Unless and until A&B/HC&S or the State meets its burden, the clearly injured superior rights asserted by Na Moku, et al. must prevail over A&B's unsanctioned diversions/transfers to support commercial activity. Certainly, A&B must not be allowed to continue to avoid and escape the consequences of the same law that it previously successfully relied upon to prevent out-of-watershed diversions from Wailuku River. "The burden is upon it, if it desires a diversion to new lands, to make it without injury to others and to prove that it has been made if at all without such injury. " *Hawaiian Commercial & Sugar Company v. Wailuku Sugar Company*, 15 Haw. 675, 692 (1904) (injunction issued restraining Wailuku Sugar Company from diverting any water from Wailuku Stream during certain times and from certain ditches).

Furthermore, and pursuant to the public trust doctrine, Na Moku, et al.'s asserted and clearly unchallenged superior rights, as noted in the declarations summarized in your Instream Flow Assessment Reports, must take precedence over, at best, the private for-profit uses of A&B. *Waiahole*, 94 Haw. at 142, 9 P.3d at 454 (holding that any balancing between public and private purposes begin with **a presumption in favor of public use, access and enjoyment)** (emphasis added). Economics and private commercial uses of water does not trump the protection afforded under the public trust doctrine:

> Although its purpose has evolved over time, the public trust has never been understood to safeguard rights of exclusive use for private commercial gain… We hold that, while the state water resources trust acknowledges that private use for 'economic development' may produce important public benefits and that such benefits must figure into any balancing of competing interests in water, it stops short of embracing private commercial use as a protected 'trust purpose.'… [I]f the public trust is to retain any meaning and effect, it must recognize enduring public rights in trust resources separate from, and superior to, the prevailing private interests in the resources at any given time.

Waiahole, 94 Haw. at 138, 9 P.3d at 450.

Furthermore, and with respect to the rights asserted in the attached declarations, even in the absence of scientific certainty, the public trust's precautionary principle mandates that a sufficient amount of stream flow be returned to the streams upon which these superior rights rely:

> Where scientific evidence is preliminary and not yet conclusive regarding management of fresh water resources which are part of the public trust, it is prudent to adopt '*precautionary principles*' in protecting the resource. That is, where there are present or potential threats of serious damage, lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation… In addition, where uncertainty exists, a trustee's duty to protect the resource mitigates in favor of choosing presumptions that also protect the resource… [A]t a minimum, the absence of firm scientific proof should not tie the [State's] hands in adopting reasonable measures designed to further the public interest.
>
> So defined, the precautionary principle simply restates the [State's] duties under the constitution… Indeed, the lack of full scientific certainty does not extinguish the presumption in favor of public trust purposes or vitiate the [State's] affirmative duty to protect such purposes wherever feasible.

Id. at 154-155, 9 P.3d at 466-67. With the information your staff has generated from the data and information my clients have provided in connection with these petitions, the CWRM has more than enough of a basis to order the restoration of stream flow. Simultaneously, neither A&B nor the BLNR can show that no harm is coming to downstream users of water, especially those seeking to restore habitats for traditional and customary fishing and gathering.

Experience with Implementing 2008 IIFS Decision. Despite this burden, it is already objectively clear that the diversions have harmed Na Moku members in Keanae-Wailuanui, and the Kekahuna/Wallett ohana in Honopou. For example, the USGS installed gauging stations in Honopou conclusively demonstrate that the temperature of water from the diminished stream flow exceeded the 77 degree threshold in July and August 2009. See, attached USGS graph of temperature readings in one of the lo`i maintained by the Kekahuna/Wallett ohana.[4] See USGS graph, attached as Exhibit D. The risk of taro pythium rot rises dramatically above 77 degrees. This objective rise in temperature since November 2008 is typical for the hot summer months when adequate irrigation water becomes critically short. See, USGS graph, attached as Exhibit E. EMI diverts Honopou Stream 4 times along its course from mauka to makai and failed to release more water into the stream beyond the IIFS set by the CWRM.

More striking, the CWRM staff, in implementing the CWRM's September 25, 2008 decision establishing IIFS for the 8 streams covered by that order, does ***not*** have the staff or equipment resources to comprehensively monitor those streams. The state must find a way to provide those resources to make any implementation of decisions to set the IIFS for any particular stream meaningful, whether to support taro growing or stream and estuarine habitat. Severe budget cuts this past legislative session require greater creativity and effort to assure that the proper work can be done.

Long Term Viability of HC&S. Contrary to the claims of HC&S, water is not the critical element in its longer term economic viability. The closing of every other sugar plantation in Hawai`i is indicative of a more complex financial reason: it is doubtful that sugar plantation can be sustained in Hawai`i due to lower costs in other areas of the world. The future of HC&S

[4] The USGS established this station as part of the monitoring effort required by the BLNR pursuant to its March 23, 2007 Order for Interim Relief in the contested case hearing conducted related to the challenge to the issuance of permits or leases to EMI filed by Na Moku and Kekahuna/Wallett.

operations is NOT strictly dependent on water being available from East Maui. The availability of sugar price supports is probably a greater factor in HC&S' future viability as a business operation.

In any case, the agribusiness operations of A&B generated just 6% of its 2008 revenues, while accounting for $13 million in losses, which were offset by $268 million in profits from its real estate and shipping ventures. Thus, HC&S constitutes just an extremely minor, and losing, part of A&B operations. See chart from 2008 A&B Annual Report, attached at Exhibit F. It only made $200,000 in profit in 2007.

Waste. The State has never forced A&B/HC&S/EMI to account for its water usage to determine its reasonableness. Na Moku has filed a complaint of waste, based on sworn testimony provided by HC&S which indicates that its usage could be as high as 17,000 gpd in the wet season and 34,000 gpd in the dry season. With creative math, it admits to no less than 5,000 gpd. The CWRM should resolve this complaint ASAP.

Conclusion. In the absence of any showing by the BLNR or A&B/HC&S that its diversions are causing no harm to downstream users of stream water in the 27 streams, the overwhelming precedent cited above clearly mandates that the State, at a minimum, require A&B to return a sufficient amount of water to streams to restore habitats to support the cultural practices of my clients and others and respect the law. The stream fauna and flora deserve appropriate and adequate protection under the Constitution, Water Code and related case law. The economic and financial interests at stake are secondary; in fact, they appear not to depend on the provision of water in the long term. Otherwise, the State will continue to violate the applicable rule of law and remains in breach of its public trust duties.

Furthermore, the CWRM must couple any decision to implement an IIFS determination with adequate resources and a plan to address the specific needs of taro farmers and cultural practitioners, with equipment and staff to properly monitor appropriate criteria.

possession of all and singular the premises hereby granted
devised or assigned or intended so to be and to sell and dis-
pose of the same or any part or parcel thereof and all benefit
and equity of redemption therein or thereto of the party of
the first part his executors administrators or assigns for
such sum of money as the parties of the second part or
their representatives or assigns shall deem to be reasonable
and in their own manner or at their discretion in the name
of the party of the first part and as his Attorneys by these
presents duly made constituted and appointed to make exe-
cute and deliver good and sufficient deed or deeds of sale
conveyance release and assignment thereof absolutely
to the purchaser or purchasers thereof and out of the pro-
ceeds of such sale or sales to retain all sums of money with
interest thereon as aforesaid then remaining unpaid
whether then or thereafter payable to the parties of the se-
cond part for or by reason of advancements as aforesaid and
also all costs and expenses incurred or sustained by rea-
son of such sale or sales rendering the surplus (if any) to
the party of the first part his heirs executors administra-
tors or assigns. In witness whereof the party of the first
part hath hereunto set his hand and seal the day and year
first above mentioned.

Thomas Spencer (L.S.)

Hawaiian Islands. Island of Oahu. ss. On this twenty
sixth day of December A.D. 1876 before me personally ap-
peared Thomas Spencer to me well known and who exe-
cuted the foregoing instrument and acknowledged that
he executed the same freely and voluntarily and for the
uses and purposes therein set forth.

John H. Pratt. Notary Public.

Recorded Hampson this 27th day of December AD 1876 at 11 o'clock AM
Thomas Brown Registrar of Conveyances

Minister of Interior To Hamakua Ditch Co.

Lease

An Indenture made and concluded this Twenty sixth day of September A.D. 1876 by and between William L. Lee, Minister of the Department of the Interior of the Kingdom of the Hawaiian Islands of the first part, and the Hawaiian Sugar Company a Corporation established under the laws of the said Kingdom, and Samuel T. Alexander and Henry P. Baldwin, doing business

EXHIBIT A

as copartners on the Island of Maui in said Kingdom under the firm name of Alexander and Baldwin, and James M. Alexander of said Island of Maui and Thomas H. Robinson of the city of Honolulu, in the Island of Oahu in said Kingdom of the second part: Whereas the said parties of the second part being desirous of using for irrigation and otherwise the water of certain streams hereinafter named by conveying the same by means of a ditch, canal pipe, aqueduct or other water-course by them to be constructed over certain lands situate in said Island of Maui and amongst them certain lands of the Hawaiian Government have carefully applied to the said parties of the first part and requested them that they be secured by the authority of the Hawaiian Government in so doing, and that the Hawaiian Government on such terms and conditions as it may deem fit, do grant unto them the right to take, draw off and use the water of said streams for their own use for purposes of irrigation or otherwise & the right to enter into Government lands and to dig and construct therein a water course whereby to conduct over them the water of said streams, and to continue maintain and repair such water course with full right of ingress and egress upon and out of said lands, at any and all times while and so long as the right to use said water ~~because~~ shall be granted to them. And whereas the said Minister of the Department of the Interior by consent of the King in Cabinet Council, has power to sell lease or otherwise dispose of the public lands and other property in such manner as he may deem best for the promotion of agriculture and the general welfare of the Kingdom provided that no sale of any one parcel or lot exceeding Five Thousand dollars in value shall be made without the consent of the King in Privy Council. And whereas the water of the said streams has from time immemorial flowed off into the sea and thereby become useless for irrigation or other purposes, and it would promote the general welfare of the Kingdom and its Agriculture if the same were utilized as aforesaid. And whereas the Hawaiian Government is not now ready or willing to incur the expense and undertake the labor of constructing such water course: Now therefore this Indenture Witnesseth that in consideration of the premises and also of the sum of One hundred Dollars paid before the signing and ensealing of these presents, by the said parties of the second part, to the said party of the first part for the use of the Hawaiian Government the receipt whereof is hereby acknowledged and in further consideration of the promises covenants and

undertakings herein after mentioned on the part of the said parties of the second part by them to be kept and performed, he the said William S. Mahoney Minister of the Department of the Interior of the Kingdom of the Hawaiian Islands by and with the consent of the King in Cabinet Council, and by virtue of the authority by law in him vested, doth hereby covenant and grant with and to the Haiku Sugar Company, Alexander and Baldwin James M. Alexander and Thomas H. Robinson and their respective successors representatives and assigns, that it shall be lawful for them and their agents and servants, and all and every person and persons for the benefit and advantage of them the said parties of the second part, and of their respective successors or representatives and assigns from time to time and at all times during the term of twenty years next ensuing after the date of these presents (except as herein after provided) to take, draw off conduct away and use for their own purposes of irrigation or otherwise, the water in and from those certain streams, and sources of water situate in the District of Hamakualoa in said Island of Maui known as Haiku, Kailua, Hoalua, Waiko, Hokuula and Honopou, and to conduct and cause said water to flow through any water course from the said streams or sources of water on any part or portion thereof and across any and all lands of the Hawaiian Government situate in said Island of Maui (except as hereinafter provided) over which it may be for the convenience or interest of the said parties of the second part their successors representatives and assigns to conduct or cause said water to flow for their uses and purposes as aforesaid, and to enter into and upon, & pass and repass, and dig up said lands and any part thereof in order to construct, maintain, repair, replace and keep in order and use such water course, and to do all such acts in and upon said streams and sources of water and lands as shall or may be necessary in order to convey and use the water of said streams and sources of water. Provided nevertheless and the continuance of the right herein before granted is upon this condition, that said water course shall be constructed by the said parties of the second part within two years from the date hereof, and that existing rights of present tenants of said lands, or occupiers along said streams shall in no wise be lessened or affected injuriously by reason of any thing herein before granted or recommended, and that the said parties of the second part their successors representatives and assigns shall pay unto the said party of the first part and his successors the sum of One hundred dollars during each and every

year in which they shall use the said water aforesaid by authority of these presents, which said sum shall be payable in advance, on the first day of October in each of said years and also water, on the first day of October in each of said years and also reserving and excepting unto the said party of the first part and his successors the right to conduct water or to grant to any other person or persons, corporation or corporations the right to conduct water from said streams and sources of water, or from any other streams or sources of water, over said lands, in such manner and to such extent only as shall not diminish or interfere with the supply or use of the water as herein before granted and secured to the said parties of the second part, or impair or render less useful to said parties of the second part their successors representatives or assigns the use and enjoyment of said water course and water. And further provided, and it is hereby agreed that at any time after the King in Privy Council shall have approved of the report of the Commissioners to be appointed under the provisions of an Act " To develope the resources of the Kingdom " approved on the 25th day of September A.D. 1876, defining and setting forth a plan to develope the resources of the Island of Maui, but more particularly in the reference to the Districts of Koolau, Hamakua, Makawao and Huka or any of them the said party of the first part and his successors may purchase of the said parties of the second part their successors representatives and assigns all the material used in constructing said water course, and all the rights title and interest of them and every of them in and to the same, and also to pay aforesaid all the rights of water and ways herein before granted upon payment of such sum of money as the construction of such water course and the materials used therein shall have cost to the completion thereof, and in addition to such payment agreeing thereafter to furnish said parties of the second part their successors representatives and assigns with water through such water course or otherwise in such quantities as may be required by them to irrigate their respective lands (not exceeding in amount that to which a right is herein before granted) provided such quantity shall flow in such water course or otherwise from said streams, but not for a longer period than the unexpired term hereof and upon such fair and reasonable annual rates as shall in no case exceed the rates fixed by any other franchise for such water nor in any case during the unexpired term of this grant shall such annual rates exceed five dollars per acre to the grantees or their respective successors representatives or assigns for lands irrigated. And it is further agreed that if at the end of said term of twenty years the rights herein before granted shall be granted to any person or persons, corporation or corporations by said party of the first part or his successors, they shall be offered to be renewed and continued (on like terms and conditions with those herein named) unto the said parties of the second part, their successors representatives and assigns for a further term of twenty years. And the said parties of the second part for themselves and their respective successors representatives and assigns covenant with the said party of the first part and his successors that they will pay said sum of One hundred dollars annually as aforesaid and that they will complete said water course within two years from date hereof, or else forfeit and surrender all rights herein before granted unto them, and that in constructing maintaining or replacing said water course that they will do no unnecessary damage to said lands.

In witness whereof the said William S. Mackenzie as Minister of the Interior party of the first part, and the said Haiku Sugar Company by its President and Secretary, and the said Samuel T. Alexander and Henry M. Baldwin, and the said James M. Alexander and the said Thomas H. Hobron parties of the second part have hereunto set their respective hands and seals the day and year first above mentioned.

In presence of
The words "other parties for such water nor in any" inter lined on the 26 line of the 6 page before signing and the word "Convenience" on the fourth line of fourth page.

William S. Mackenzie (L.S.)
K. Kalaiaimoku
J. Mott Smith Pres. Haiku S. Co. (L.S.)
Jas. P. Cooke Haiku S. Co. (L.S.)
Alexander and Baldwin
per H. P. Baldwin (L.S.)
James M. Alexander (L.S.)

Hawaiian Islands. Island of Maui ss. On this the 13th day of December A.D. 1876 personally appeared before me H. P. Baldwin for Alexander and Baldwin and James M. Alexander known to me to be the persons described in and who executed the foregoing instrument who acknowledged to me that they executed the same freely and voluntarily and for the uses and purposes therein set forth.

J. W. Kaauhaoa Agent to take acknowledgements for the Dist of Makawao. Maui.

T. H. Hobron (L.S.)
By his Attorney in fact E. C. Hobron

Hawaiian Islands. Island of Oahu ss. On this 21st day of December A.D. 1876 before me personally appeared J. Mott Smith President Haiku Sugar Co. for P. Cooke Secretary Haiku Sugar Co. and Thos. H. Hobron by E. C. Hobron his Attorney in fact

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known to me to be the persons described in and who executed the annexed instrument and severally acknowledged that they executed the same for the uses & purposes therein set forth.

John H. Paty. Notary Public.

Hawaiian Islands. Island of Oahu. ss. On this 29th day of December A.D. 1876 personally appeared before me H. L. Macfarlane known to me to be the person described in and who executed the annexed instrument who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein set forth.

Chas. T. Gulick. Notary Public.

Recorded & Compared this 29th day of December AD 1876 at 3 o'clock PM

Thomas Brown Registrar of Conveyances

C R Bishop To Hamakua Ditch Co.

Lease

This Indenture made this second day of October A.D. 1876 between Charles R. Bishop of Honolulu in the Island of Oahu and Kingdom of the Hawaiian Islands (hereinafter named Lessor) of the first part and the Hawaiian Sugar Company a Corporation incorporated under the laws of said Kingdom and Samuel T. Alexander and Henry P. Baldwin doing business as Co-partners on the Island of Maui in said Kingdom under the firm style of Alexander and Baldwin and James H. Alexander of said Island of Maui and Thomas H. Hobron of said Honolulu parties of the second part doing business as Co-partners on said Island of Maui under the firm style of The Hamakua Ditch Company (hereinafter named Lessees) Witnesseth: That in consideration of the rent hereinafter reserved to the Lessor and to be paid by the Lessees as hereinafter mentioned and of the conditions hereinafter contained by the Lessees to be observed and complied with, he the said Lessor doth for himself and his heirs and assigns hereby covenant grant and agree to and with the Lessees and their respective successors representatives and assigns that for and during the Term of twenty years next to ensue after the day of the date of these presents and during all times during said term, it shall be lawful for the said Lessees their successors representatives and assigns and their agents or servants and all others acting for them or on their behalf to enter into and upon that certain tract of land situate in said Island of Maui and known as the Ahupuaa of Honopueokalua hereinafter for the purpose of constructing across said land and of maintaining and repairing a water course (now in process of construction

14.0-14

1ST CIRCUIT COURT
STATE OF HAWAII
FILED

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N. ANAYA
CLERK

NATIVE HAWAIIAN LEGAL CORPORATION
1164 Bishop Street, Suite 1205
Honolulu, Hawaii 96813
Telephone: 521-2302

ALAN T. MURAKAMI 2285
MOSES K.N. HAIA, III 6277

Attorneys for Appellants Na Moku Aupuni o Ko`olau Hui, Beatrice Kekahuna, Marjorie Wallett, Elizabeth Lapenia

ISAAC HALL, ESQ. 2238
2087 Wells Street
Wailuku, Maui, Hawaii 96793

Attorney for Appellant MAUI TOMORROW

order affirming blnr fofcol

IN THE CIRCUIT COURT OF THE FIRST CIRCUIT

STATE OF HAWAII

MAUI TOMORROW, formally known as MAUI TOMORROW FOUNDATION, INC., and its supporters,	)	Civil No. 03-1-0289-02 (Agency Appeal)
Appellant,	)	
vs.	)	ORDER AFFIRMING IN PART AND REVERSING IN PART STATE OF HAWAII BOARD OF LAND AND NATURAL RESOURCES' FINDINGS OF FACT AND CONCLUSIONS OF LAW AND ORDER, DATED JANUARY 10, 2003; AMENDED JANUARY 24, 2003 REGARDING PETITION CONTESTING APPLICATION FOR LONG TERM DISPOSITION OF WATER LICENSES AND ISSUANCE OF INTERIM REVOCABLE PERMITS AT HONOMANU, KEANAE, NAHIKU, AND HUELO, MAUI
STATE OF HAWAII; BOARD OF LAND AND NATURAL RESOURCES of the State of Hawaii; DEPARTMENT OF LAND AND NATURAL RESOURCES of the State of Hawaii; PETER T. YOUNG, in his official capacity as Chairperson of the Board of Land and Natural Resources and the Director of the Department of Land and Natural Resources; ALEXANDER & BALDWIN, INC.; EAST MAUI IRRIGATION CO.; MAUI LAND & PINEAPPLE CO., INC.; COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY; HAWAII FARM BUREAU FEDERATION,	)	ORAL ARGUMENT DATE: September 17, 2003 TIME: 1:30 p.m. JUDGE: Honorable Eden E. Hifo
Appellees.	)	

EXHIBIT B

14.0-15

NA MOKU AUPUNI O KO'OLAU HUI; BEATRICE KEKAHUNA; MARJORIE WALLETT; ELIZABETH LAPENIA; MAUI TOMORROW,	)	Civil No. 03-1-0292-02 (Agency Appeal)
Appellants,	)	
vs.	)	
STATE OF HAWAII; BOARD OF LAND AND NATURAL RESOURCES of the State of Hawaii; DEPARTMENT OF LAND AND NATURAL RESOURCES of the State of Hawaii; PETER T. YOUNG, in his official capacity as Chairperson of the Board of Land and Natural Resources and the Director of the Department of Land and Natural Resources; ALEXANDER & BALDWIN, INC.; EAST MAUI IRRIGATION CO.; MAUI LAND & PINEAPPLE CO., INC.; COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY; HAWAII FARM BUREAU FEDERATION,	)	
Appellees.	)	

ORDER AFFIRMING IN PART AND REVERSING IN PART
STATE OF HAWAII BOARD OF LAND AND NATURAL RESOURCES' FINDINGS OF FACT AND CONCLUSIONS OF LAW AND ORDER, DATED JANUARY 10, 2003; AMENDED JANUARY 24, 2003 REGARDING PETITION CONTESTING APPLICATION FOR LONG TERM DISPOSITION OF WATER LICENSES AND ISSUANCE OF INTERIM REVOCABLE PERMITS AT HONOMANU, KEANAE, NAHIKU, AND HUELO, MAUI

On September 17, 2003, this Court heard oral arguments on this administrative agency appeal of Appellee State Of Hawaii Board Of Land And Natural Resources' Findings Of Fact And Conclusions Of Law And Order, Dated January 10, 2003; Amended January 24, 2003, Regarding Petition Contesting Application For Long Term Disposition Of Water Licenses And Issuance Of Interim Revocable Permits At Honomanu, Keanae, Nahiku, And Huelo, Maui (hereafter, "BLNR decision"). The following counsel appeared for and presented oral argument on behalf of the indicated parties: Alan T. Murakami and Moses K.N. Haia, III for Appellant Na

Moku Aupuni O Ko`olau Hui, Isaac Davis Hall for Appellant Maui Tomorrow, Alan M. Oshima, Randall K. Ishikawa, and David Schulmeister for Appellee Alexander & Baldwin and East Maui Irrigation Company, Linda L.W. Chow for Appellee Board of Land and Natural Resources, State of Hawai`i, Chris Parsons for Appellee Hawai`i Farm Bureau, Jane Lovell for Appellee County of Maui, Richard J. Kiefer for Appellee Maui Land & Pineapple.

This Court finds that the following issues presented in this HRS chapter 91 appeal are exclusively legal in nature. The facts as presented are not disputed. Accordingly, this Court may review the legal issues under a *de novo* standard of review.

Scope of Agenda

Pursuant to HRS § 92-7(d), an agency cannot change the agenda for its meeting, once filed, by adding items thereto without a two-thirds recorded vote of all members to which the board is entitled. The same statute requires that no item shall be added to the agenda if it is of reasonably major importance and action thereon by the board will affect a significant number of persons. Id. Items of reasonably major importance not decided at a scheduled meeting can be considered only at a meeting continued to a reasonable day and time. Id.

It is undisputed that in this instance, the relevant agenda item of the Board Of Land And Natural Resources (hereafter, "BLNR") was to consider action on the then-pending revocable permits covering the four water areas of Huelo, Honopou, Keanae, and Nahiku. It is undisputed that there was no change to this agenda. However, this Court finds that there was a specific petition for intervention filed by the Appellants which sought to address both the revocable permits, which were on the agenda, and the long-term 30-year water lease, which was on the agenda only for discussion purposes.

Therefore, this Court concludes that there was no error of law, despite the operation of HRS §92-7(d), in entertaining those petitions for intervention, having hearings, and coming to conclusions as contained in the BLNR decision. The claim related to this point of legal error is hereby rejected, and the BLNR decision on this issue is AFFIRMED.

Out of Watershed Transfers, Traditional and Customary Practices, and the Public Trust

Transfers of Water. The Court initially concludes that the Water Code, HRS chapter 174C, does not prohibit the transfer of water outside the watershed of origin in an area that the

Commission on Water Resources Management has not designated a water management area pursuant to HRS §174C-48. There is no dispute that the area of East Maui that is the subject of the water lease is not a water management area.

Furthermore, there is little dispute that the transfer of water out of the watershed of origin is not absolutely prohibited under the common law of Hawai`i. Robinson v. Ariyoshi, 65 Haw. 641, 658 P.2d 287 (1982) ("Robinson"). However, Robinson allows these transfers only when it can be demonstrated that to do so would not be injurious to others with rights to water.

In addition Conclusion of Law No. 3 of the First Amended Findings of Fact and Conclusions of Law (at page 7) acknowledges that, upon a determination that it would be in the best interest of the state, the BLNR may enter into a lease of water emanating from State lands for transfer outside of the watershed of origin, provided that the lease is issued in accordance with the procedures set forth in HRS chapter 171 and a provision that all diversions of stream water shall remain subject to the interim in-stream flow standards set by the CWRM and any judgment of a court of competent jurisdiction establishing appurtenant or riparian rights in favor of downstream users.

This conclusion of law means that the BLNR could meet and decide whether it is in the best interest of the state to lease whatever is excess without knowing what is "excess." Accordingly, this Court concludes that this conclusion of law is fatally flawed, and is inconsistent with the common law and with the suggestion that one could ever determine the best interest of the state absent data on what is "excess."

Native Rights and the Public Trust. This Court concludes that its analysis of tradition and customary native Hawaiian practices and appurtenant rights and the public trust obligations emanating from the Hawai`i Constitution and case decisions construing it dovetails into the issue of out of watershed transfers. Accordingly, this court also concludes that it was erroneous for the BLNR to conclude that it could begin the process to put out to lease the water that could affect these rights without first making a determination as to whether it would be in the state's best interest in light of the lack of knowledge or information of what the CWRM will ultimately determine in the future, notwithstanding Appellees' argument that the CWRM has exclusive jurisdiction over determining what amount of water must flow through the streams which all agencies have a duty to protect.

This Court finds no error in the BLNR conclusion that the BLNR is not required to conduct a parallel investigation. In the process of determining whether there is any surplus water which would be in the best interest of the state to lease for 30 years, the BLNR is entitled to rely on and use any determination of the CWRM to establish instream flow standards, whether as a result of Appellant Na Moku Aupuni O Ko`olau's filing of 27 petitions to amend interim instream flow standards, or any other request, or pursuant to CWRM's exercise of its statutory obligations to protect riparian rights, native Hawaiian rights, or in the discharge of any of its other obligations. However, if there is no CWRM determination to amend instream flow standards, then any BLNR investigation it could itself perform on these issues would not be parallel to the CWRM. If the BLNR believes it does not have the requisite expertise to investigate, then it should wait until the CWRM has acted or make its own application to establish instream flows reflecting the diversion it proposes to make, before authorizing the diversion.

In any case, given the provisions of the Hawai`i Constitution, neither the BLNR nor this Court can rubber-stamp any determination of the CWRM. Rather, the BLNR is obligated to make a truly independent investigation as to whether it's in the state's best interest to authorize the diversion of water from East Maui streams.

This ruling does not necessarily mean that every CWRM decision may be collaterally attacked. However, at any BLNR contested case hearing, any party may challenge a CWRM decision if its methodology is wrong or some other error is committed, whether or not it has been collaterally attacked on appeal. This Court simply affirms that the BLNR may not merely rubber-stamp every CWRM determination.

Therefore, this Court REVERSES Paragraph 3 and 5 of the Order contained in the BLNR decision and any related conclusion of law.

Environmental Impact Assessment

It is undisputed that pursuant to HRS chapter 343, certain rules were promulgated by the agency having the authority to implement that chapter. It is undisputed that those rules included HAR 11-200-8(a)(1), which creates an exception to doing an environmental assessment so long as the proposed action authorizes the continued operation of existing structures, facilities, equipment, or topographical features and precludes any expansion or change of use beyond that

previously existing operation. However, any contrary statutory requirement trumps an otherwise valid rule. A rule cannot supercede a statute. Under HRS § 343-6(7), a rule can authorize an exemption to a requirement for an environmental assessment only where there is minimal or no significant effect on the environment. This Court finds that the proposal for a 30-year lease of any or all excess water that may exist after there finally is a determination of riparian and native Hawaiian rights to the said water from 33,000 acres of state land, as a matter of law, does not constitute a minimal or no significant effect on the environment.

As to the cases cited to the Court, the Court finds that Confederated Tribes and Bands of the Yakima Indian Nation v. Federal Energy Regulatory Commission, 746 F.2d 466, 475-477 (9th Cir. 1984), which held that the relicensing of a power plant needed to be analyzed as if it were the original licensing of the plant, is persuasive, as appellants argued, and would require an environmental assessment (EA), and perhaps an environmental impact statement (EIS), depending upon the result of the EA, for a long-term lease which constitutes the first long-term lease of this water since at least 1985.

Furthermore, the Court concludes that a supplemental reason for reversing on this point is that HAR 11-200-8(a) requires the agency purporting to invoke the exception to consult with other agencies. At a minimum, it must consult with the CWRM. The undisputed record is that the BLNR performed no consultations with other agencies. Accordingly, even if the rule were applicable, which it is not, the BLNR would not have met its requirements.

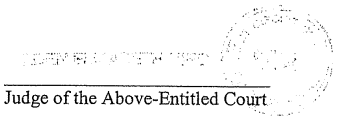
Therefore, this Court REVERSES Paragraph 4 of the Order contained in the BLNR decision and any related conclusion of law.

Continued Contested Case and Revocable Permits

The Order appealed from does not deal with the revocable permits and, as such, this Court does not issue any rulings with respect to these revocable permits.

The Court understands, and the parties agree, that the contested case proceedings appealed from, are ongoing, so that the Court's declining to rule on this issue is without prejudice to the ability of the parties to raise whatever issues they wish with regard to the revocable permits at any ongoing contested case hearing or in any other forum.

Dated: OCT 10 2003, Honolulu, Hawaii.



Judge of the Above-Entitled Court

APPROVED AS TO FORM:

Linda L.W. Chow, Esq.
Deputy Attorney General
Attorney for Appellees
STATE OF HAWAII, BOARD OF LAND AND NATURAL RESOURCES, DEPARTMENT OF LAND AND NATURAL RESOURCES, PETER T. YOUNG

Alan M. Oshima, Esq.
Randall I. Ishikawa, Esq.
David Schulmeister, Esq.
Attorneys for Appellees
ALEXANDER & BALDWIN, EAST MAUI IRRIGATION

Christopher I.L. Parsons, Esq.
Attorney for Appellee
HAWAII FARM BUREAU FEDERATION

Jane E. Lovell, Esq.
Deputy Corporation Counsel
Attorney for Appellee
COUNTY OF MAUI, DEPARTMENT OF PUBLIC WORKS

Richard J. Kiefer, Esq.
Attorney for Appellee
MAUI LAND AND PINEAPPLE

NATIVE HAWAIIAN LEGAL CORPORATION
1164 Bishop Street, Suite 1205
Honolulu, Hawai'i 96813
Telephone. 521-2302

ALAN T. MURAKAMI 2285
MOSES K. N. HAIA III 6277

Attorneys for Petitioners
Na Moku Aupuni O Ko`olau Hui,
Beatrice Kekahuna and Marjorie Wallett

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

In the Matter of the Contested Case Hearing Regarding Water Licenses at Honomanu, Keanae, Nahiku, and Huelo, Maui	)	DLNR FILE NO. 01-05-MA
	)	PETITIONERS' DIRECT EXPERT TESTIMONY OF DAVIANNA POMAIKAI MCGREGOR, Ph.D.; CERTIFICATE OF SERVICE
	)	Hearing Date. October 10, 2005
	)	Time. 9.00 a.m.
	)	Officer. Hon. E. John McConnell, Esq.

PETITIONERS' DIRECT EXPERT TESTIMONY OF
DAVIANNA POMAIKAI MCGREGOR, Ph.D.

Q. Please state your name for the record.

A. DAVIANNA POMAIKAI MCGREGOR.

Q. Where do you live?

A. I live in Kaiwiula, Kapalama, O`ahu and Ho`olehua, Moloka`i.

Q. Where do you work and what is your title?

A. I am a Professor of Ethnic Studies at the University of Hawaii, Manoa.

Q. What is your educational background and training?

EXHIBIT C

A. I graduated from the University of Hawaii with a Bachelor of Education degree in Secondary Education in 1972 and a Bachelor of Arts degree in Asian/Pacific History in 1973. I did my graduate work at the UH, where I obtained a Master of Arts degree in Pacific Islands Studies in 1979. I also earned a PhD in Hawaiian and Pacific History from the University of Hawai'i in 1989.

Q. What was your doctoral dissertation topic?

A. The title of my doctoral dissertation is "Kupa`a I Ka 'Aina: Persistence On The Land." It examines the conditions of Hawaiians from 1898 to 1930, the first 32 years of direct U.S. rule over Hawai'i. It compared the conditions of Hawaiians in urban O`ahu with that of Hawaiians in rural Hawaiian communities on the island of Moloka`i, the moku of Hana, Maui and the ahupua`a of Waipi`o, Hawai'i.

Q. Did you prepare a *curriculum vitae* to reflect your education and training?

A. As part of my testimony, I have submitted my *curriculum vitae* which contains information on my academic training, my teaching, my research, and my publications.

Q. Have you previously been qualified to testify as an expert witness?

A. I have served as an expert witness regarding traditional Hawaiian subsistence, cultural, and religious customs and practices in the following Civil Cases: *Kelly v. 1250 Oceanside Partners*, Civ. No. 00-1-0192K (Haw. 3rd Cir.); *Office of Hawaiian Affairs, et al vs. Housing and Community Development Corporation of Hawaii, et al*, Civil No. 94-4207-11 SSM, 1994 - 2001; *Kamaka v. Department of Defense*; *Pele Defense Fund v. Paty*, Civ. No. 89-089 (Haw. 3rd Cir.); *Pele Defense Fund v. Campbell Estate*, Civ. No. 89-089 (Haw. 3rd Cir.); and *Hanakeawe v. Nansay Hawaii, Inc.*, Civ. No. 90-316 (Haw. 3rd Cir.). I have also testified as a cultural expert in the following criminal trespass cases. *State of Hawai'i v. Spalding* (Haw. 3rd Cir.); *State of Hawai'i v. Naeole* (Haw. 3rd Cir.); *State of Hawai'i v. Kaleo Patterson* (Haw. 3rd Cir.); *State of Hawaii v. Keli`ikoa* (Haw. 3rd Cir.).

Q. Have you ever been qualified before administrative bodies to testify as an expert?

A. I appeared as an expert before the State of Hawai'i Water Commission in the Waiahole Water Case, Docket No. CCH-0A95-1, and *In re Waiola O Molokai,* Docket No. CCH-MO96-1; before the Public Utilities Commission in Docket # 7259 Relating to Hawaiian Electric Light Company, Regarding Integrated Resource Planning, 1993; and before the Public

Utilities Commission in Docket # 6617 To Require Energy Utilities in Hawai'i to Implement Integrated Resource Planning, 1990.

Q. Have you had the opportunity to study the nature and extent of cultural, religious, and subsistence activity in which the Native Hawaiians have engaged to support themselves?

A. Yes. I first studied rural Hawaiian communities where Native Hawaiians comprised the majority of the population and continued to support their extended 'ohana through traditional Hawaiian subsistence farming, fishing, hunting, and gatheringcustoms and practices when I wrote my PhD dissertation. Subsequently, I conducted a number of studies of the traditional and customary practices of Native Hawaiians, which mirror long-held cultural practices of ancient Hawaiians in several rural communities throughout the state. While all have unique features associated with those communities, these traditions and customs I've recorded are resilient and persistent. In many instances, the continuation of these cultural practices is financially necessary for many families. These studies have taken me to East Maui,where I conducted extensive and expanded research, as well as Moloka`i and the Island of Hawai`i.

Q. What prompted your expanded research for East Maui?

A. In June 1993, the Hawai`i State Legislature approved what later became Act 156 to implement a preexisting statutory mandate requiring planning for the state's physical environment and for socio-cultural enhancement, which recognizes the significance of the state's "cultural landscapes." Accordingly, it established a task force to examine Hawaiian cultural landscapes. This task force was responsible for developing designation criteria, specifying activities and uses consistent with cultural landscape districts, developing procedures for definition of cultural landscape districts and their boundaries, and reporting their findings to the legislature.

Q. What happened as a result of this effort?

A. In January 1994, the DLNR Cultural Landscape Task Force reported back to the Legislature on the importance of landscape preservation within a vital daily living context. The Task Force defined cultural landscapes as geographic areas, which exhibit monolithic characteristics of an ethnic, economic or cultural nature. They reflect the interaction of cultural, economic, and natural forces on the environment. They are a definable area, which clearly defines the settlement or use of the land, water, and/or living systems (plants and animals) over a long period of time, as well as cultural values, norms, and attitudes toward the land, water and/or

living systems. These geographic areas possess a significant concentration, linkage or continuity of landscape components (i.e., vegetation, buildings and structures, archaeological sites, roads and trails, waterways, religious and natural features and resources), which are united by human use and past events and/or aesthetically by plans or physical development. Typically, these landscapes could involve abandoned villages or agricultural systems, taro-producing areas, sugar lands, ranches, fishing areas, traditional gathering areas, and entire islands.

Q. What were the recommendations of the Task Force?

A. The Task Force supported a model project focusing on the Ke`anae-Wailuanui area on Maui, because it recognized that this community is a taro-growing area with long continuity of use and with local support for preservation.

Q. What was the purpose of this model project?

A. The project involved a cultural landscape study to inventory and assess the resources of the Ke`anae-Wailuanui communities. The Maui County General Plan of 1990, on which the Hana Community Plan is based, has themes, one of which under "land use" is:

> To preserve for present and future generations existing geographic, cultural and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.

Maui County adopted the Hana Community Plan as part of its adoption of County General Plan in July 1994, under Section 2.80.050 of the Maui County Code. To implement the Hana Community Plan, the Maui County Planning Department initiated the resulting Ke`anae-Wailuanui Cultural Landscape study. The Hana Community Plan calls for county government to "compile special plans and studies necessary to implement the recommendations of the Community Plan." It also establishes the following goals, policies and implementing actions:

> Land Use: Preservation and enhancement of the current land use patterns which establish and enrich the Hāna Community Plan region's unique and diverse qualities.
> - Identify and inventory exceptional open space resources and viewsheds. Explore protective management measures such as covenants, easements, and other planning tools.
> - Explore alternative land use and overlay zoning designations that recognize and preserve the unique natural and cultural characteristics of each community within the Hāna region.
> - Encourage the availability of agriculturally suitable lands to provide opportunities for small diversified agricultural activities with residential tenancy for farmers.

Q. What was the specific goal of the Ke`anae-Wailuanui Cultural Landscape study of July 1995?

A. The goal was to describe and quantify conditions and traditions which have shaped the land and which still affect the patterns of land use. Land use management policies based on a broad foundation of knowledge of resources will better enable the community and its representatives in county and state government to make effective decisions appropriate to this and other rural and agricultural areas.

Q. What were the specific tasks of the study?

A. There were three major tasks: (1) identify the historic context of the landscape, through archaeological research to determine the depth of wetland taro cultivation and a literature search, including a summary of Land Commission Awards for the Ke`anae and Wailuanui ahupua`a, focused on agricultural or other uses of the claims; (2) identification of cultural landscape components, including farm land, crops, vegetation types, water control, gathering, hunting, home sites, ocean-related activities, and lands associated with Hawaiian legends; and (3) preliminary mapping using historical maps, aerial photographs, and detailed land classification maps to identify existing land use areas and the boundaries of the cultural landscape.

Q. What was the methodology for conducting this study and who was the team responsible for conducting the work?

A. The methodology is described on pp. 13-17 of the report. Basically, (1) Cultural Surveys Hawaii, Inc. conducted a literature search, including a review of aerial photographs, (2) Cultural Surveys Hawaii, Inc. and Group 70 conducted field surveys, including mapping of taro lo`i; and (3) I conducted personal interviews, relying heavily on kupuna (9 of 13 interviewees) from Ke`anae and Wailuanui.

Q. How reliable are the sources of oral history, as related by those Hawaiians you interviewed?

A. The oral history interviews were consistent with each other and were cross validated with the information gathered through the literature search and the field surveys.

Q. What are the cultural landscape area boundaries?

A. The team identified the Keanae-Wailuanui core Cultural Landscape area boundaries in Figure 3 of the report. The area encompasses the Ke`anae peninsula and runs southeast along the coast to the southeast ridge of Wailuanui Valley. On the west, it is bounded by the Ke'anae YMCA, Ke`anae Arboretum and the Palauhulu stream. Inland it extends 600 feet mauka of the Hana Highway, stretching from the YMCA camp to the ridge on the east side of Waikani Falls. The informants also identified a wider traditional cultural practices region shown in Figure 4 of the report, for fishing, hunting and gathering. This extends from Makapipi Stream and forest access road in the east, to Honomanu and the Kaumahina ridge on the west and mauka to Pohaku Palaha on the northern rim of the Haleakala Crater.

Q. In summary, what did these sources of information show?

A. The literature search documented the cultural and natural setting of the cultural landscape area, which has a rich and long history of supporting Hawaiians who tilled the land, grew taro and other food crops, and fished the nearshore ocean seas as far as 11 miles offshore. In the various land commission testimonies, maka'ainana from the Ke`anae-Wailuanui community described their agricultural pursuits in the 1840's. The field surveys, combined with the literature search, yielded information that enabled the team to map the cultural landscape - historic locations of buildings, taro lo`i, `auwai, and other cultural features of the communities that settled the area. The interviews helped me link current uses of land and streams by residents to their historic uses and verified those practices that continued to be followed along the traditions of their ancestors. The relative isolation of this cultural landscape enabled it and its residents to avoid or resist intensive modern land developments and retain many of the ancient traditions passed down through the generations of Hawaiians who resided in this area.

Q. Why was the Ke`anae-Wailuanui area selected for this cultural landscape study?

A. Aside from the land use planning angle I've previously mentioned, it was particularly appropriate because it is associated with a deep and long tradition of growing taro, the staple crop of Native Hawaiians for generations. The earliest Polynesian voyagers to Hawai`i brought taro with them. It has been linked mythologically to the origins of Hawaiians as a people. The plant itself has attributes which are embedded in the notion of the family and kinship relations. All parts of the taro plant are used for food. Much of the traditions surrounding the cultivation and use of taro have persisted in Ke`anae-Wailuanui to a much

greater extent than most other parts of Hawai`i. With such an intimate association with the people and culture of Hawai`i, Ke`anae-Wailuanui was a prime candidate for designation as a cultural landscape. Today, large-scale taro cultivation is confined to isolated areas in Hawai`i – Hanalei/Waioli, Hanapepe and Waimea on Kaua`i, Waikane/Waiahole on O`ahu, Onokohau, Waihe`e, Ke`anae-Wailuanui on Maui, and Waipi`o Valley on the island of Hawai`i. The taro landscape of Ke`anae-Wailuanui is a viable traditional economy which has maintained historic and cultural integrity, traditional lifestyles, and social continuity to an equal or greater extent than any of the other taro growing landscapes in Hawai`i.

Q. What physical attributes of Ke`anae-Wailuanui did your study examine?

A. The 1995 study identified 12 components for examination. They are listed on page 44 of the report. Among them are taro cultivation, the Ko`olau Ditch built and maintained by EMI, and cultural resources and use areas.

Q. What did you learn about the taro cultivation in Ke`anae-Wailuanui?

A. Wetland taro cultivation is the most important single component of the cultural landscape of Ke`anae-Wailuanui. Wetland taro cultivation requires a precisely defined, stable field system with a continuous and reliable source of water. The system must be designed so that cool, fresh water can be delivered constantly to every field. In this sense, a taro landscape is designed as a single system with interrelated elements (fields, streams and `auwai). Alteration of any of these elements could affect the entire system. The ancient Hawaiians who designed this landscape were limited in the degree to which they could alter the natural topography. They dealt with this constraint by flexibility of design. Seen as a whole, the taro landscape appears as a simple network of inter-connected rectangles defined by banks, which hold in water. Upon closer inspection, it is apparent that field design, water flow, and water delivery are a response to subtle variations in the natural landscape. A taro landscape is extremely complex in its internal workings.

Q. What areas of taro cultivation exist in Ke`anae-Wailuanui?

A. There are five major locations of active taro cultivation - Ke`anae peninsula, Wailuanui, Ke`anae Arboretum, Waianu Valley, and Lakini. An additional small area of cultivation exists at Waiokamilo Stream just makai of its crossing of Wailuanui Road. There are small lo`i on both sides of the stream. In addition, throughout the district old taro terraces can be found and taro still grows in the wild in the valleys, along streams. Informants speak of going

out and gathering lu`au leaves from the wild taro because it has a good flavor, distinct from the cultivated varieties. Some of the areas for the gathering of wild lu`au include Pi`ina`au, Nua`ailua, Kupa`u, Waipio, Awiowio, Pohole and Pahoa.

Q. Please describe the Wailuanui taro area.

A. This is the largest taro system of the cultural landscape, with 339 lo`i, that Cultural Surveys plotted off a 1982 aerial photograph in Figure 15. They lie mainly west of Wailuanui Stream and to the north and east below Hana highway. It is an area of mixed cultivation and uncultivated areas. There is also a smaller set of lo`i above Hana Highway in the area known as Lakini. See, Figure 21.

The essence of Wailuanui is water (wai = water). Wailuanui is best viewed looking mauka. The taro lo`i as seen from makai, are framed by the steep green slopes of the valley with Waikani Falls to the east and Waiokamilo Stream waters entering from the center and west. The lo`i themselves, as they ascend the slopes, decrease in size to accommodate the requirements of water control. Nowhere else in Hawai`i are such miniature fields still cultivated in this kind of topography with such integrity. See, p. 126.

Q. Please describe the Wailuanui `auwai system.

A. It is evident that at Wailuanui Valley, the `auwai and lo`i systems were constructed first and subsequent residences and circulation networks accommodated the already established systems. The pattern of cultivated lo`i at Wailuanui is likely close to what existed at the time of the Mahele, but for the time when rice was cultivated just prior to and after the dawn of the 20th century.

Cultural Surveys was able to produce a schematic of the `auwai as it takes water from Waiokamilo Stream and passes through Lakini. Figure 21. The water flows past these lo`i, partially returning back to Waiokamilo Stream, but mainly flowing under the existing Hana Highway to irrigate the valley lo`i below that point.

There is another major diversion of Waiokamilo Stream below Hana Highway that irrigates the extreme western end of the valley. See, Figure 22.

Cultural Surveys approximated the direction of flow in the `auwai system servicing the valley, as the system was complex and our team did not have the time or resources to make a definitive map of all aspects of it.

Q. Did you discover any major changes in the use of the valley for taro cultivation since the time of the Mahele?

A. Our team did not find any historic map of the valley. Taro cultivation is well documented for the entire area in the 1850's Land Commission Award documents. In Appendix A of the report, the various claims for Land Commission Awards in Ke`anae-Wailuanui are rendered in a table. The table illustrates the extent to which taro was grown on the claimed parcels. The table summarizes the testimonies submitted in support of the requests for Land Commission Awards and reflects the presence of taro cultivation at the time of the Mahele for these parcels. While it indicates what was happening on those parcels at that time, it does not indicate which of the pieces claimed were actually awarded by the Land Commission. Nevertheless, the table gives an accurate indication of the extent to which active taro cultivation existed and on which parcels in the valley. This activity also indicates where irrigation water from the streams was being applied in pursuit of this activity at the time of the Mahele.

Q. Did you discover any other evidence of the extent of taro growing in the valley during different times in history following the Mahele?

A. Apparently, as an 1896 map (Figure 9) of the lower section of the valley reveals, by then there was a sizable area devoted to rice cultivation, although much of the southeastern portion along Wailuanui Stream remained in taro. This pattern apparently persisted through 1903, according to a similar map of the area (Figure 10). Some of the residents I interviewed indicated that rice was preferred at that period because water temperature was not the crucial consideration as it is for taro cultivation, reflecting a diminished water supply to the valley for irrigation. Chinese farmers grew rice in significant parts of the valley between 1880 and 1927, when the market collapsed because of the competition from California.

A 1936 photograph (Figure 16) shows that a majority of the valley was under taro cultivation, with considerably less tree and bush vegetation than was present in 1994 when I conducted my field research. By 1966, in contrast, while all cultivated areas appeared to be in taro, there is a dramatic increase in forest growth along the periphery of the valley, compared to 1936, as Figures 17 and 18 reveal. Contrasted with current conditions, as depicted in the photographs taken in 2004 and this year in June, it appears that there is now substantially different, as well as fewer, areas of taro lo`i than was being actively cultivated in 1966.

This evidence shows there was apparently a period of decline in taro cultivation in the valley between 1936 and 1966, as well as between 1966 and 1994. However, while to varying degrees, the Wailuanui valley residents, especially Hawaiians, continued a tradition of taro cultivation that continues through the present. This cultural landscape is distinctive in terms of this long tradition, and continues on to this day, reflecting how critical taro production is to this community.

Q. Do you have an opinion as to whether the current taro cultivation reasonably approximates the amount of water used to cultivate taro at the time of the Mahele?

A. Yes.

Q. And what is that opinion?

A. While the rice cultivation earlier last century may have altered some of the pattern of lo`i in the valley, the broad pattern remains since both crops are wetland agricultural products and the irrigation system plays a critical role in their cultivation. The mechanics of irrigation systems must follow gravity. Residences are found on slightly elevated areas at the edges of the fields, not in the center of the lo`i, which would be the low spot and subject to periodic flooding. The roadway network serving these residences skirt the cultivated areas and does not cut into the system of lo`i. This pattern involves frequent tending and fits the horticultural character of Hawaiian agriculture where the cultivated fields are relatively small and are within walking distance of residences. It is a pattern developed before automobiles and mechanized agriculture. The field was central, not the residence. This pattern is found even in areas where residences are not nearby. See, p. 126.

There was far more taro cultivation in the valley in the 1800's than presently. There is also far less water flowing naturally into the valley as a result of the major EMI diversion into the Ko`olau Ditch mauka of Kupau and Akeke Spring. This reduction in taro production is significant compared to historic levels.

Q. On what basis doyou make this conclusion?

A. During the fieldwork for this study, which included field trips as well as interviews, it became apparent that the Ke`anae-Wailuanui communities have a long history of small commercial ventures associated with processing and marketing of local taro. Besides the People's Store, which once stood at Ke`anae landing, there were six separate poi mills, each in operation over a different span of time. Each sold local taro processed into poi to the community

itself and also exported taro. Taro was exported in two separate directions: to Hana and to Ha`iku/Kahulu/Wailuku. The Alama Poi Shop operated from the 1920's to the 1950's. The Ching Poi Mill operated in the 1930's through the 1950s, exporting poi to Kahului and Hana. The Ng family operated a mill that exported poi to Hana. The Alu family ran the Kupa`u Mill from the late 1930's to the early 1950's. The Lum Hoy Poi Mill exported poi to Wailuku from the 1930's through the 1940s. The last mill, Ke`anae-Wailua Poi Mill was started in 1975 by Mr. Ed Wendt and operated through 1984. The current level of taro production contrasts sharply with what historic records show.

Q. Do you have an opinion, based on your training, research, and expertise, whether the land uses of Wailuanui residents are linked to Hawaiian cultural mores and practices?

A. Yes.

Q. What is your opinion?

A. The land use patterns of the Ke`anae-Wailuanui region have been shaped by Hawaiian cultural mores and practices. The 'ohana values and practices of the community stress the conservation of natural resources for the benefit of present and future generations. Rules of behavior are based on respect of the 'aina, the virtue of sharing, and a holistic perspective of organisms and ecosystems that emphasize balance and coexistence. The Hawaiian outlook which shapes these customs and practices is lokahi or maintaining spiritual, cultural. and physical balance with nature. In the course of their travels through the various 'ili of the traditional cultural practices region, practitioners of Ke`anae and Wailuanui are able to renew their knowledge and understanding of the landscape, the place names, names of the winds and the rains, traditional legends, wahi pana, historical cultural sites, and the location of various native plants and animals. The region is thus experienced as a part of their 'ohana, necessitating the same care as would a member of their family.

Q. Do you have an opinion, based on your training, expertise, and research, on how important traditional and customary gathering of `o`opu, `opae, and hihiwai is to the Hawaiians of Wailuanui?

A. Yes.

Q. What is that opinion?

A. Ke`anae-Wailuanui is one of the few remaining areas in the Hawaiian Islands where 'opae can be gathered. Virtually every stream has 'opae at some time during the year.

However, it is easier to gather `opae in the tunnels of the EMI ditch system. The irrigation ditch itself is an excellent breeding area for the 'opae because it has flowing water year round. Some streams below the ditch, however, don't have enough flowing water to sustain the 'opae year round when the water is diverted into the ditch system. Commercial sale of 'opae is prohibited under a state law that went into effect in 1993. `Opae is still a popular delicacy among the families in the district. They also gather 'opae to share with family and friends outside and on different islands. 'Opae, the `a`aniu net used to gather it, and the methods of preparing it will continue to be a distinctive aspect of the cultural lifestyle for which Ke`anae-Wailuanui is known and distinguished.

`O`opu and hihiwai are becoming increasingly scarce in the Hawaiian Islands. Certain species of `o`opu are endangered and others are rare. They require pristine and flowing stream waters to exist. Ke`anae-Wailuanui is one of the few areas where they still can be found in sufficient size to be occasionally caught for subsistence food.

The gathering of hihiwai is also carefully managed. The location of the hihiwai is knowledge that has been passed down from generation to the next for their protection and proper management. It is not information that is made available to the general public.

Q. What is the geographic range of this gathering activity?

A. Family members of all ages engage in some level of gathering activity in the Ke`anae-Wailuanui district. Kupuna like Helen Nakanelua still go out and gathers 'opae with her homemade `a`aniu net in the 'auwai that runs through her property at Lakini. Waiokamilo Stream still has 'opae which is accessible to the kupuna. The Ka`auamo family is best known for theirtraditional and customary gathering activities. Awapuhi Ka`auamo Carmichael still goes out gathering for 'opae, hihiwai, and 'opihi from Kailua and over through Kuhiwa. Awapuhi Carmichael identified some of the area which she regularly accessed for gathering of `opae, hihiwai, and `o`opu:

> We have our own names. Kapa`ula, gather `opae. We use Puaakaa, we call it Kaunoa. Above the road, the ditch above the road, we use that stream, and then it branches off. Even Makapipi, we use Makapipi stream. We use all the way to the tunnel. We use it. Kuhiwa gulch is used by our family. Kuhiwa gulch we use also. Makapipi is just mauka. Kuhiwa is mauka.

Gathering from a variety of places is important in order to maintain the resources. The choice of place to gather is determined by the weather and other natural signs. Awapuhi Carmichael described the factors which affected her decision as to where to gather on a particular expedition:

> It depends on what we're getting, and how we feel . . . We never go to the same place. You know how the Hawaiians used to do, they don't go back to the same place, so can restore. It depends on the weather, and then we go by the moon, the stars. If use one place, then go to another place, depends on the moon and the stars. We go up far . . .We all go to the same places, although each of us have our favorite hole, places, where we go for opae, you know. All mauka for 'opae. And then below have the `o`opu and the prawns, they introduced the prawns, and hihiwai. Above the road is more the `opae. Above the road is where all the opae are. Above the main highway. And then below the road has hihiwai, `o`opu, you know.

Within the traditional cultural landscape area for Ke`anae-Wailuanui unoccupied areas with flowing pristine streams and the forested areas are integral to the livelihoods of the families in the district. For example, nobody lives in the area from Wailuaiki to Kopili`ula and over to Hanawi but there are many gulches and streams flourishing with hihiwai and `o`opu.

Q. What was the importance of subsistence gathering to the health of Hawaiian gatherers who engaged in this traditional activity – historically and in current times?

A. Through subsistence, families attain essential resources to compensate for low incomes. They can also obtain food items, especially seafood, that may be prohibitively costly under a strict cash economy. If families on fixed incomes were required to purchase these items, they would probably opt for cheaper, less healthy foods that would predispose them to health problems. In this respect, subsistence not only provides food, it also ensures a healthy diet.

Subsistence generally requires a great amount of physical exertion (e.g., fishing, diving, hunting) that is a valuable form of exercise and stress reduction and contributes to good physical and mental health. It is also a form of recreation that the whole family can share in. Family members of all ages contribute at different phases of subsistence, be it active hunting, fishing or gathering or cleaning and preparing the food for eating. Older family members teach the younger family members how to engage in subsistence and prepare the food, thus passing on ancestral knowledge, experience and skill.

Q. What was the pattern of these subsistence activities amongst those traditional and customary gatherers of Ke`anae-Wailuanui you interviewed?

A. Subsistence gathering, hunting and fishing is an integral part of the lives of the residents of Ke`anae-Wailuanui. There is general agreement among the informants that their traditional cultural practices region extends from Honomanu in the west to Makapipi in the east and mauka from Pohaku Palaha on the rim of the Haleakala crater makai to the shoreline, and into the ocean as far as the buoy 11 miles offshore. Additional areas are used by residents of Ke`anae-Wailuanui depending on where their family ancestors originated and established subsistence practices. For example, some families fish and gather as far as Kaupo or as far west as Honopou and mauka to Waikamoi. The location and distribution of water is the primary determinant of the distribution of natural resources. Traditional land use boundaries were defined in relation to the amount and location of water. The change of season from wet to dry does affect the distribution and availability of subsistence resources. When there is a lot of rain, the resources are more abundant and spread out over a larger area. During the dry period, the amount of resources shrink and they are distributed near to water sources.

Most subsistence areas can only be accessed by land through a trail or a dirt road. The Pi`ilani Trail affords an important route of access between `ili along the coastline. The Ke`anae-Wailuanui residents also use an extensive network of mauka to makai trails to carry out their subsistence activities. Hunters say that one can readily catch a decent sized pig without venturing far up the mountain. However, the network of trails allows access to upper regions where the larger animals roam. Fishing resources vary by ocean depth. Along the rocky shoreline fishermen gather crab, `opihi, ha`uke`uke, and other shellfish. In the reef, residents gather limu and catch squid, lobster, and reef fish such as 'uhu, kala, and manini. At greater depths bottom fish are caught such as weke, ehu, 'opakapaka and uku. In the bays, nets are used to surround 'akule. `Aholehole, `ama`ama and uouoa are also caught with gill nets. In the deep ocean and out to the buoy the fishermen troll for ono, aku, `ahi, marlin, and mahimahi. Ocean resources are accessed by land through mauka-to-makai trails and along the Pi`ilani Highway. Boats are also used for ocean subsistence activities. The launching areas are Honomanu Bay, Ke`anae Landing, Wailuanui Bay and Hana Harbor.

Resource gathering patterns are also influenced by ho`ailona or spiritual signs in natural phenomena. Ke`anae-Wailuanui residents stay alert to the direction and patterns of clouds, winds, rain, the flight of birds, rainfall and all natural elements to inform them about where the ideal place is to gather on any given day. They also keep track of the moon phases and the effect

on the shifts in the tides. Ancestral knowledge of the interpretation of place names in the district also informs Hawaiians about the special features or qualities of that particular area for subsistence and cultural use.

Q. Is this a traditional pattern of subsistence activity?

A. Traditional factors shape the pattern, nature and purpose of the ongoing subsistence fishing, gathering, farming and hunting activities. These include family and ancestral connections to particular features of the landscape; the distribution of water; access; the type of resource to be obtained; the life cycle of that resource; the diet and feeding habits of fauna; the weather and seasonal changes; and ho`ailona. The subsistence activities are also guided by traditional values and customs which include but are not limited to the following:

1. Only take what is needed.

2. Don't waste natural resources.

3. Gather according to the life cycle of the resources. Allow the resources to reproduce. Don't fish during their spawning seasons.

4. Alternate areas to gather, fish and hunt. Don't keep going back to the same place. Allow the resource to replenish itself.

5. If an area has a declining resource, observe a kapu on harvesting until it comes back. Replant if appropriate.

6. Resources are always abundant and accessible to those who possess the knowledge about their location and have the skill to obtain them. There is no need to overuse a more accessible area.

7. Respect and protect the knowledge which has been passed down intergenerationally, from one generation to the next. Do not carelessly give it away to outsiders.

8. Respect each other's areas. Families in Ke`anae-Wailuanui usually fish, hunt, and gather in the areas traditionally used by their ancestors. If they go into an area outside their own for some specific purpose, they usually go with people from that area.

9. Throughout the expedition keep focused on the purpose and goal for which you set out to fish, hunt, or gather.

10. Be aware of the natural elements and stay alert to natural signs, e.g. falling boulders as a sign of flash flooding.

11. Share what is gathered with family and neighbors.

12. Take care of the kupuna who passed on the knowledge and experience of what to do and are now too old to go out on their own.

13. Don't talk openly about plans for going out to subsistence hunt, gather, or fish

14. Respect the resources. Respect the spirits of the land, forest, ocean. Don't get loud and boisterous.

15. Respect family `aumakua. Don't gather the resources sacred to them.

Q. To what extent, if any, does taro cultivation relate to the traditional and customary gathering of `o`opu, `opae, and hihiwai?

A. These native aquatic marine species and taro rely upon pristine, clear, cold, free running streams that flow year round. All of the great historical taro growing areas of Hawai'i rely on pristine streams where native aquatic species thrive - Ke`anae-Wailuanui, Kahakuloa on Maui; Hanalei on Kaua`i; Waipi`o on Hawai'i, the windward valleys of Moloka`i. `O`opu, `opae and hihiwai have been a part of the traditional diet of taro farmers in these areas.

Q. Were you able to determine the degree to which traditional and customary gathering of `o`opu, `opae, and hihiwai in Wailuanui has changed since the 1890's?

A. Aunty Helen Nakanelua who was 83 in 1994 was born in 1911 and described how she used to go out and gather `opae with her grandmother who would have been born and learned how to gather `opae before the 1890's:

> And I used to go along with my grandma, with a five gallon can, you know those tall ones, and I pack some wood, and I pack salt, so that whenever my grandma goes with the upena net, do you have an idea what the upena net looks like and they have a little bag there? Some of the bags are small, but she used to have these long bags, and then she cleans that where I am, she takes that out, we clean it and we cook it in this can. Salt it and cook it there, the wood that I take we cook it. And after it's cooked, I begin spreading it on a table oil cloth and a mat I used to pack along and then she leaves me there I attend that opae while it's drying. By the time she comes back here, it's partly dried, I gather that `opae again, and separate it in another bag, because that's partly dried, and we continue on, she gets another bag to do the same thing, cook, so that by the time she ends up her day, most of the opae, except the last one she has is partly half dried already. Do you know how the upena look like? I show you, cause I have made some for me, because I use it.

Although Aunty Helen continues to gather `opae, it is not as plentiful as it had been in her youth. An indicator of the decline of `opae is the passage of a state law in 1993 which prohibits its commercial sale due to its scarcity.

Q. Do you have an opinion as to the importance of the Ke`anae-Wailuanui region to Hawaiian cultural history?

A. Yes.

Q. What is that opinion?

A. The most distinctive historic association of the Ke`anae-Wailuanui landscape is its unbroken relationship to the foundations of Hawaiian culture through the traditional cultivation of taro, the major component of the cultural landscape. The traditional cultural practices region is also significant as a surviving enclave of Hawaiian subsistence, cultural, and spiritual beliefs, customs, and practices. Rural Hawaiian communities like Ke`anae-Wailuanui are cultural kipuka - places where Hawaiians have maintained a close relationship to the land through their livelihoods and customs - that play a vital role in the survival of Hawaiian culture as a whole. There is a growing recognition that protection of the natural resources and the integrity of the lifestyle and livelihoods within rural districts is essential for the perpetuation of Hawaiian culture. However, the survival of these cultural kipuka and the traditions and customs related thereto are continually eroded by an ever increasing lack of water.

Q. Do you have an opinion on how significant the Ke`anae-Wailuanui region is as judged against federal criteria for cultural significance?

A. Yes.

Q. What is that opinion?

A. The Ke'anae and Wailuanui cultural landscape is significant under the four National Register criteria of significance and an additional Hawai'i state criterion. Under Criterion A, Ke'anae-Wailuanui is associated with significant events affecting broad patterns of history. The evolution of Hawaiian culture and society in the Hawaiian Islands over the past 1500 years was sustained by highly developed and well-managed systems of wetland taro cultivation. Ke'anae-Wailuanui is an extraordinary example of a highly developed historic Hawaiian wetland irrigation system which sustained the complex social organization and sophisticated customs and practices of the Native Hawaiian culture. The cultural landscape also includes the historic network of irrigation ditches and tunnels which were developed in the late

nineteenth and early twentieth centuries. The last completed segment of the Hana Belt Road is also in this cultural landscape.

Under Criterion B, Ke'anae-Wailuanui is associated with events which involved famous people such as the landing of Umi-a-Liloa's war canoes during his 14th century battle over Hana against Ho'olae-Makua and the staging of the battles between Kalaniopu'u and Kahekili in the 18th century.

Under Criterion C, Ke'anae-Wailuanui epitomizes the quality and integrity of a historic landscape centered around the historic wetland cultivation of taro. In addition, the 2 churches, its public school facility and the Waikani Bridge are also excellent examples of each of these types of historic architecture.

Under Criterion D, Ke'anae-Wailuanui provides excellent potential to yield information important in the prehistory and history on the origins, chronology and development of Hawaiian taro cultivation, as well as the complex social structures which both sustained and perpetuated by this kind of agricultural technology.

Q. To what extent are those that now gather and attempt to farm taro in the valley genealogically linked to the Hawaiians that lived in the valley during the 1800's?

A. The informants that I interviewed said that they lived and farmed lands that their ancestors had lived on and farmed in the 1800's.

Q. Do you have any opinion based on your training and education of whether there is any correlation historically between the amount of traditional gathering from the streams and the amount of fish and limu that could be taken from the coastal areas of the valley and the sea for subsistence purposes?

A. Yes.

Q. What is that opinion?

A. The abundance of aquatic and marine resources are dependent upon the pristine, clean, free flowing year round streams flowing into the ocean. The bays where the fresh water mixes into the ocean water are important spawning grounds for the fish. Moki Day, a Hawaiian fisherman from the area, described how the bays are important breeding grounds which deserve protection:

> You can consider all the shoreline area between here and Kaupo as breeding grounds for all these shoreline species of fish. They come into our rivers here because we have the fresh water, and they come in here and breed here and lay their eggs here.

According to the late Uncle Harry Mitchell, who had been a long-time resident of the area, the streams and the ocean together provided the breeding ground for `o`opu. He described the lifecycle of the `o`opu as follows:

> The first heavy rains usually arrived in August or September, carrying the `o`opu to the ocean where they spawned. Once they laid their eggs, the mother `o`opu died. The baby `o`opu, called hinano, would hatch and develop in the salt water from August/September through November. The salt water made them strong enough to climb up the stream where they would mature. About November, the hinano began to make their way up stream to the large fresh water pools in the mountains. Their migration upstream coincided with the arrival of the migratory birds from the north which fed upon the hinano as they made their perilous journey to the uplands. [i]

Q. Do you have an opinion on how significant the diversion of stream water from Wailuanui Valley by EMI has been on the ability of its residents to continue their tradition of taro growing and gathering from the streams and coastal areas?

A. Yes.

Q. What is that opinion?

A. The diversion of steams in the Ko'olau watershed, via the East Maui Irrigation (EMI) Company system, has reduced the surface water flow in the region mauka of the cultural landscape. The system currently provides most of the irrigation water for central Maui's large-scale agriculture and is the main source for county water supplies to upcountry Maui residents and farmers.

While the degree of reduction has not been quantified, the volumes of water carried by the ditch are significant and impact on the stream ecology in Ke`anae-Wailuanui is probable. Native endemic and indigenous species such as `o`opu and 'opae and hihiwai are likely to have been affected within the last few generations, with consequent impact on the traditional gathering practices that are part of the local lifestyle. During interviews for the study, some residents expressed concern over the impact of the diversion of water by EMI Co. on the ecology of the region. They also questioned the effects that the EMI diversion may have on the temperature and consistent flow of stream water to taro lands.

Q. Do you have an opinion on what positive steps should be taken to promote the perpetuation of the cultural landscape of Ke`anae-Wailuanui?

A. Yes.

Q. What is that opinion?

A. Provide incentives for taro growing, such as tax relief for parcels used for taro farming. Provide support to the community to maintain the water sources and the 'auwai, such as state and county support to clean and maintain the agricultural irrigation systems. Maintain the Pi`ilani Trail along the shoreline as well as the trails and unimproved roads running makai from the highway to the beach, and the trails and unimproved roads running mauka into the forest reserve should be maintained and their significance in the cultural landscape assessed. The watershed's forest should be protected. Access for cultural, subsistence, and spiritual customs and practices should be afforded to those residents of the community who will maintain traditions of respect and stewardship of the land and water resources. Develop the Ke`anae Arboretum to offer interpretation and education, with emphasis on practical and hands-on experience. Improve lookout points with better paving, approach signage, interpretive signage, landscaping and benches. Preserve and maintain the 2 large heiau and other cultural sites. Document and protect historic taro terraces. Perpetuate significant aspects of the cultural landscape without hampering changes beneficial to the community and its residents.

Q. Are you familiar with crucial definitions of traditional land divisions used by Hawaiians?

A. Yes.

Q. What are the land divisions that were common in delineating the various land uses made by Hawaiians?

A. The traditional Hawaiian land divisions according to Malo (1951:16-18) consist of the following district, subdistricts, land divisions and land parcels:

- island: *Moku-puni* (cut off surrounded).
- Large District: *Apana* (pieces) or *Moku-o-loko* (interior division), e.g. Hana.
- Sections: *`Okana* or *Kalana*, e.g. Honua`ula. [*`Okana* is also a district or sub-district and usually comprising several *ahupua`a*; *Kalana* is smaller than a district (Pukui & Elbert 1971: 113, 258).]
- Subsection within *`Okana*: *Poko*. [Dividing a District, or *ahupua`a* into two or more sections, e.g.: Hamakua Poko; Hamakua Loa]

- *Ahupua`a*. (running *mauka-makai,* from the mountains to the sea) [a sub-district land division, some contain a few hundred acres, others 10,000 acres, or more]
- *`Ili-`aina* [*`Ili-`aina*, a sub-division of an *ahupua`a*; *`ili lele*, a discontinuous *`ili-`aina*, consisting of two or more parcels of land in the same *ahupua`a* and having the same name]
- *Mo`o-`aina* [*mo`o-`aina* is a cultivated garden within an *`ili-`aina* or *`ili-lele*]
- *Pauku-`aina* (joints of lands) [*pauku-`aina* is a land section smaller than a *mo`o-`aina*]
- *Kihapai* (patches or farms) [dry land garden]
- *Ko`ele* [*ko`ele*, a cultivated garden, the produce of which went to the *ali`i* of the district or island]
- *Hakuone* (land cultivated by 'ohana with crops going to *konohiki)* [produce of which went to chief of the *ahupua`a*]
- *Kuakua* (broad *kuauna* or *kuaauna*, an embankment) [embankments between wet taro gardens, usually cultivated] (Malo 1951: 16-18). Information in brackets [ ] added.

---

[i] Harry Mitchell, April 22, 1988.

CERTIFICATE OF SERVICE

I hereby certify that two (2) copies of the foregoing document were duly served on Linda L. Chow, Deputy Attorney General, for Hearings Officer, The Honorable E. John McConnell on August 1, 2005, by hand delivery. I further certify that one (1) copy was served on the remaining parties as indicated, on August 1, 2005.

Linda L. Chow, Esq. Deputy Attorney General For Hearings Officer The Honorable E. John McConnell (Ret.) 465 S. King Street, Room 300 Honolulu, Hawaii 96813	[ ] [X]	U. S. MAIL HAND DELIVERY
Randall K. Ishikawa, Esq. Ishikawa Morihara Lau & Fong, LLP 841 Bishop Street, Suite 400 Honolulu, Hawaii 96813	[X] [ ]	U. S. MAIL HAND DELIVERY
Elijah Yip, Esq. David Schulmeister, Esq. Cades Schutte 1000 Bishop Street, 10th Floor Honolulu, Hawaii 96813	[X] [ ]	U. S. MAIL HAND DELIVERY
Isaac Hall, Esq. 2087 Wells Street Wailuku, Maui, Hawaii 96793	[X] [ ]	U. S. MAIL HAND DELIVERY
Robert H. Thomas, Esq. 1001 Bishop Street Pauahi Tower, Suite 1600 Honolulu, Hawaii 96813	[X] [ ]	U. S. MAIL HAND DELIVERY
Brian T. Moto, Esq. Jane Lovell, Esq. Deputy Corporation Counsel County of Maui 200 S. High Street Wailuku, Hawaii 96793	[X] [ ]	U.S. MAIL HAND DELIVERY
Richard Kiefer, Esq. David Merchant, Esq. 444 Hana Hwy, Suite 204 Kahului, Hawaii 96732	[X] [ ]	U.S. MAIL HAND DELIVERY

DATED: Honolulu, Hawai'i, August 1, 2005.

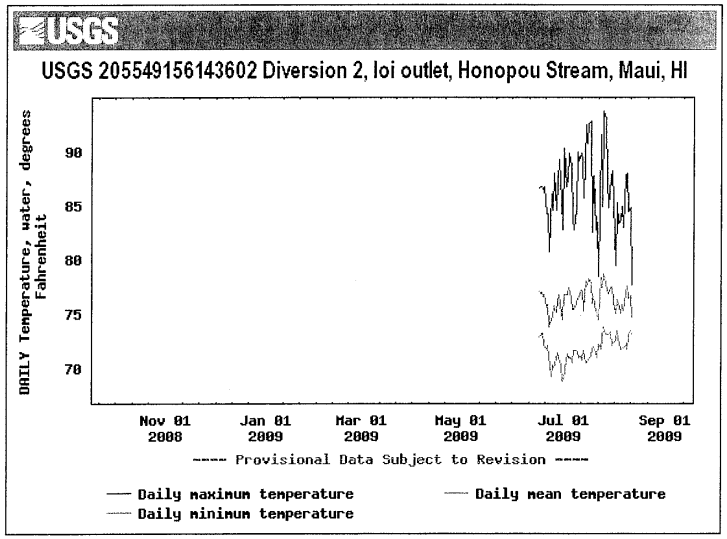
ALAN T. MURAKAMI
MOSES K. N. HAIA III
Attorneys for Petitioners
Na Moku Aupuni o Ko`olau Hui, et al.

Exhibit D

USGS Temperature Readings in Kekahuna/Wallett Lo`i*

July and August 2009

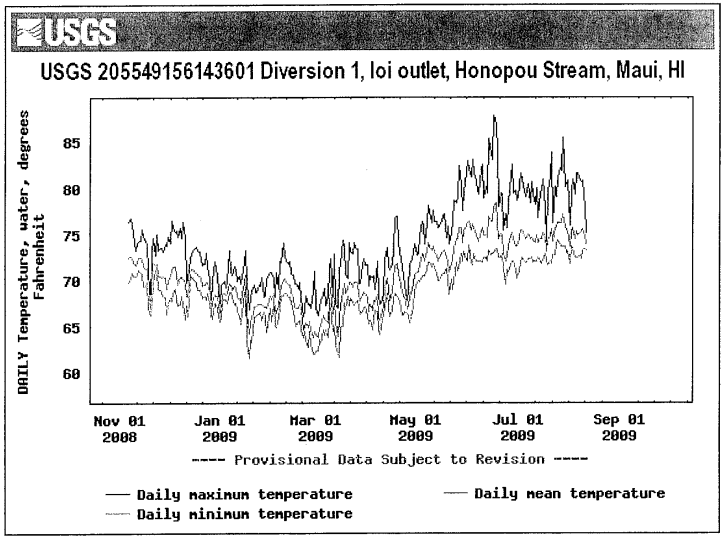
(*Subject to Review and Revision by USGS*)



* The location of these readings is at the outlet to one of the planted lo`i in the Kekahuna/Wallett lo`i complex located near the end of the system.

Exhibit E

USGS Temperature Readings in Kekahuna/Wallett Lo`i*
November 2008 through August 2009
(Subject to Review and Revision by USGS)

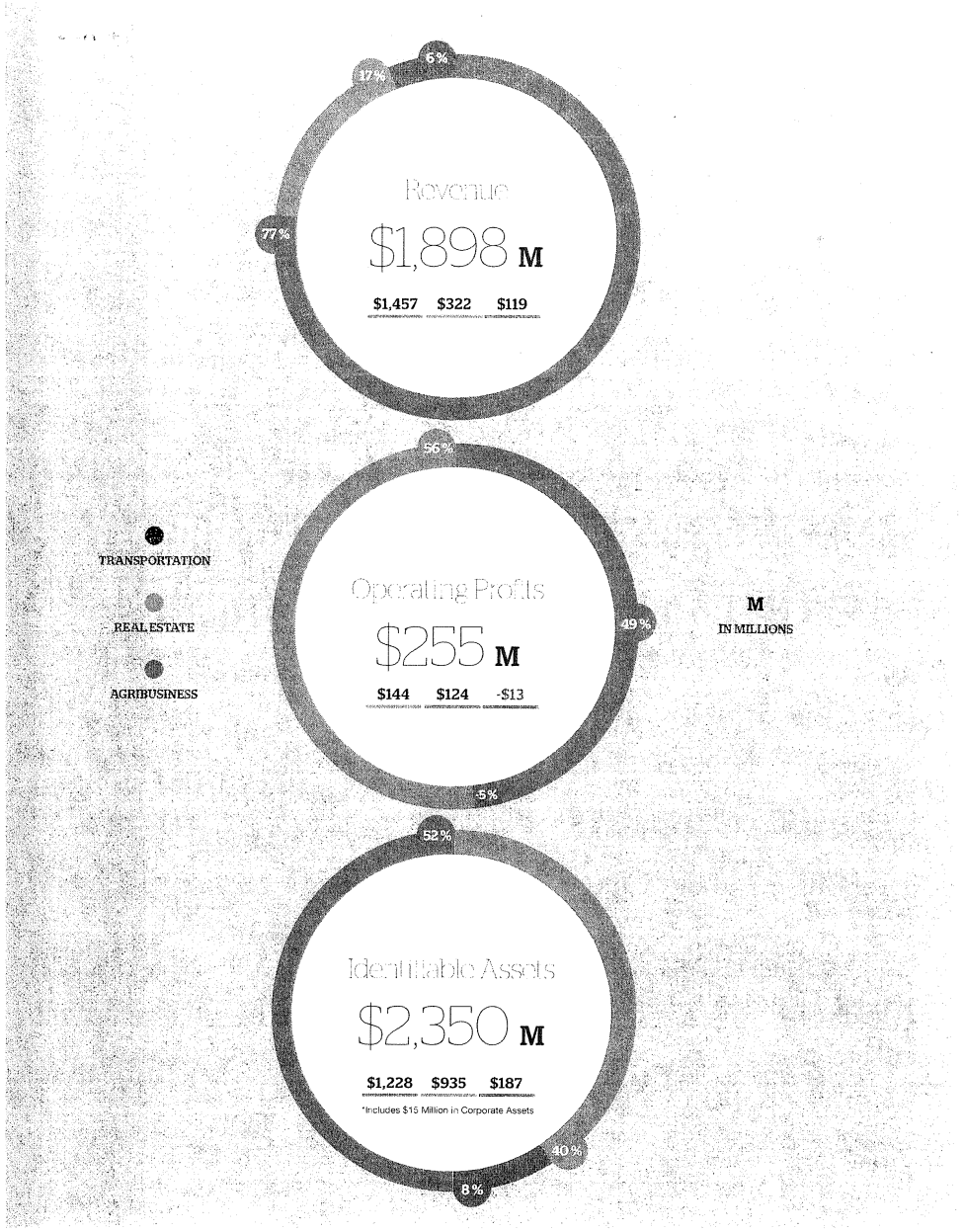


* The location of this gauge is in the main auwai, which runs through the Kekahuna/Wallett lo`i complex without passing through any planted lo`i.

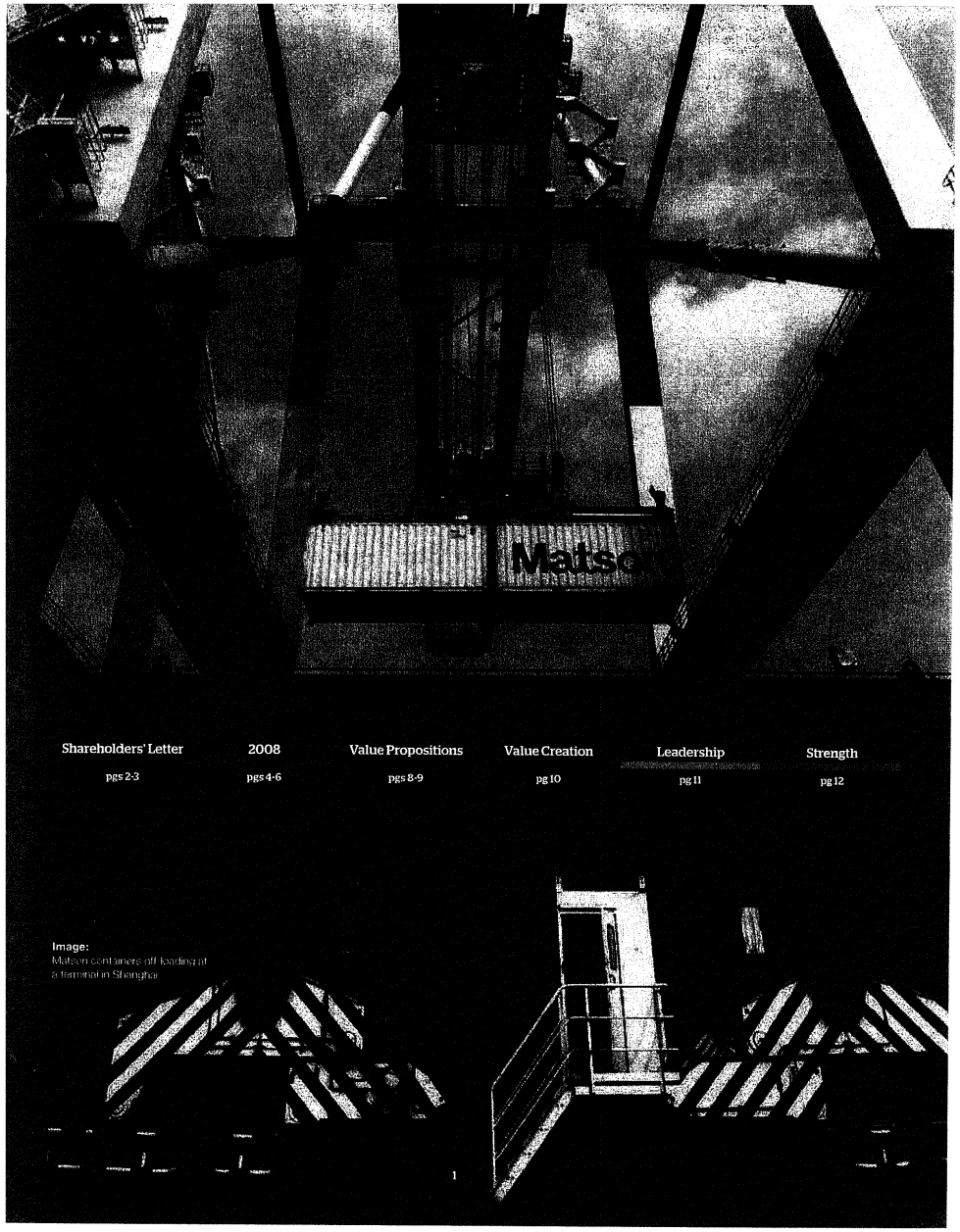
EXHIBIT E

Alexander & Baldwin, Inc.

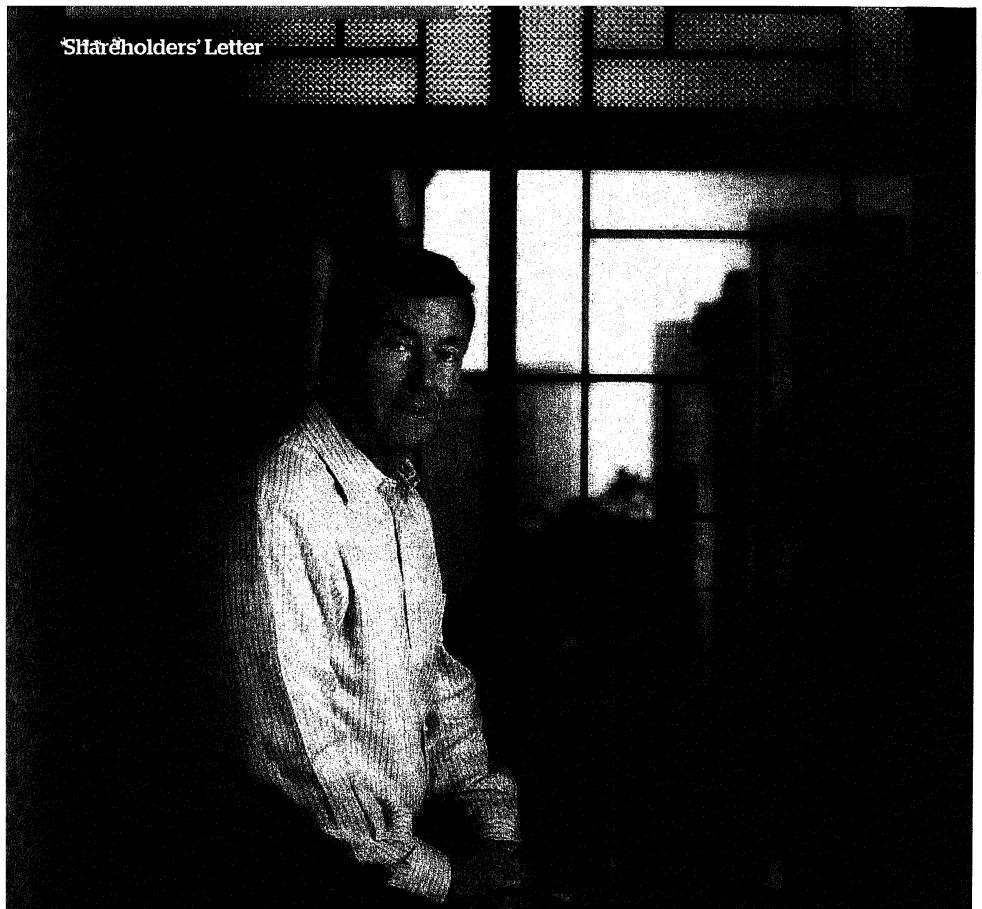
EXHIBIT F


Revenue
$1,898 M
$1,457 $322 $119
6%
17%
77%
Operating Profits
$255 M
$144 $124 -$13
56%
49%
-5%
Identifiable Assets
$2,350 M
$1,228 $935 $187
*Includes $15 Million in Corporate Assets
52%
40%
8%
TRANSPORTATION
REAL ESTATE
AGRIBUSINESS
M
IN MILLIONS

14.0-48


Shareholders' Letter
pgs 2-3
2008
pgs 4-6
Value Propositions
pgs 8-9
Value Creation
pg 10
Leadership
pg 11
Strength
pg 12
Image:
Matson containers off loading at
a terminal in Shanghai
1

14.0-49



2008 was memorable in many respects. External conditions, most of them negative, shaped the year. Questions in the first half of the year revolving around whether we were in a recession were replaced in the second half by questions of how deep and how long the recession would be. Attendant to the serious downturn in the economy was the unexpected and severe financial crisis that dominated headlines since September. All of this is backdrop for a year where our two major businesses experienced increasingly challenging conditions, but performed well.

Despite conspiring economic elements, we earned net income of $132.4 million, or $3.19 per share. While this was modestly below what we earned in the banner year of 2007, our core franchises, Matson Navigation and A&B Properties, proved their ability to manage well through the initial stage of a sharp, cyclical downturn. But there is more to do.

We are a cyclically sensitive company, so we have chosen to keep our balance sheet strong and conservative over the long term. Our debt to capital ratio is a low 32 percent. We have no large refinancing needs over the next few years, and we have maintained a solid credit rating. At times like this, with financial markets in disarray, our philosophy of a conservative financial structure has additional meaning and value.

We did not acquire much in the way of overvalued real estate in these last few years when others did. Our underwriting discipline compelled us to walk away from numerous investments when we felt the risk/reward ratio was out of balance. This does not mean that we won't have performance issues from time to time with some of our real estate investments, but it does mean that we are better situated than most to weather today's conditions.

Our management team responded quite well to the initial thrust of the economic downturn in 2008. We knew it was coming but, like most others, we were surprised by its ferocity. We have acted to reduce our operating cost structure in a number of separate actions. Hiring freezes were instituted in 2008 and are being followed in early 2009 by painful but necessary reductions in our employee base. Salary freezes have been put in place and incentive compensation programs reduced. Numerous efficiency initiatives have been implemented across the Company and are in the process of being expanded.

Capital spending is being carefully managed and working capital is an area of major focus. Although the Company has a strong balance sheet, it is important to ensure that capital uses are consistent with a more difficult economic environment.

With the stressed economic and financial environment comes opportunity, and we expect to make strategically focused investments in 2009 that will create value in the years ahead. We have a successful history of investing when conditions are at their worst.

It also bears noting that the Company, once again, increased its dividend in 2008. We paid $51 million in dividends during the year, extending a phenomenal record of 106 years of continuous dividends. At the same time, we repurchased $59 million of Company stock.

We do expect 2009 to be challenging. Earnings will be diminished as we wrestle with the fallout from the continued economic contraction. We will continue to take all necessary actions to preserve and increase the value of the Company. Operating costs are being reduced and capital will be invested wisely.

This has been an increasingly difficult period for our employees. We have asked them to do more and, at the same time, are in the process of reducing our employee workforce. While we realize similar actions are taking place in many companies, that does not ease the burden on our dedicated people. Let me express my personal appreciation to them for the tremendous contributions they have made over many years.

There were key promotions that strengthened the A&B management team in 2008. Stanley M. Kuriyama was promoted to President of A&B, Matthew J. Cox to President of Matson Navigation, and Norbert M. Buelsing to President of A&B Properties. Each has substantial responsibility that will shape the future of the Company.

Let me express appreciation to the A&B Board of Directors, whose wise counsel is of great importance to the Company. And to you, our shareholders, I thank you for your continued support.

W. Allen Doane

W. Allen Doane
Chairman of the Board and Chief Executive Officer

15.0 Maui Hotel & Lodging Association, Carol Reimann

Maui Hotel & Lodging
ASSOCIATION

October 16, 2009

Laura Thielen, Chair
State Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Dear Chair Thielen and Members of the Commission on Water Resource Management,

I represent the Maui Hotel & Lodging Association (MHLA) – our membership is comprised of approximately 40 properties and 80 various businesses. Collectively, we employ over 10,000 Maui County residents.

MHLA would like to commend the State Commission on Water Resource Management for their hard work in considering the unique water issues we face on Maui. We would like to request that the Commission examine the community needs on Maui; and come up with a fair and balanced decision that embraces the consideration of "people first" and includes water for community use.

Maui is the most dependent upon stream water than any other County in the State. We rely on these streams for agriculture, drinking water for our homes and businesses, and for the last sugar business in Hawaii - HC&S. If instream flows are allowed to flow "mauka to makai" to the extent currently recommended by the Commission, all of our existing uses could all be at risk. Additionally, it could trigger HC&S to go out of business which could cause:

- 800 HC&S workers to be unemployed
- Our beautiful "Valley Isle" to become fallow fields of dust & dirt
- Maui Electric to lose the 7% of power that HC&S contributes to our grid
- The water systems that HC&S currently maintains and the Maui Water Department depends upon to be at-risk – who would incur the cost to build out and/or maintain this infrastructure?

Certainly, the drinking water and agricultural ramifications are immense for our residents. But also consider the run-off issues and fire hazards if our cane fields were to disappear.

From a Visitor Industry perspective if our verdant cane fields turn fallow, it would change the entire look and appeal of our island paradise forever. Maui's strength as a top tourism destination depends on our ability to showcase our island as a lush, green tropical paradise. Can you imagine flying in to Kahului Airport over a dust bin?

1727-B Wili Pa Loop • Wailuku, HI 96793 • 808/244-8625 • 808/244-3094 fax • info@mauihla.org

The Visitor Industry is the economic engine of Maui. We directly provide 40% of all jobs on Maui. This is a direct figure, indirectly, the numbers multiply. These are quality jobs with meaningful careers. We currently generate 75% of our County's economy (per the Mayor's State of the County Address 2009). We contribute approximately 40% of the total collections of Real Property Tax (this is from our Time Share and Hotel/Resorts who pay the highest rates). Tourism also contributes significantly to Maui's economy via transient accommodation tax, increased tipping fees & fuel tax.

The Visitor Industry doesn't only sell rooms. The lushness of our verdant "Valley Isle" is what attracts visitors to our paradise and ultimately what drives our local economy.

We think it's imperative that the Commission come up with a fair and balanced decision that includes consideration and support of water for community use - which will also maintain the attractive lushness of our island. We are not asking that no water to be allowed to flow, but seek a more balanced decision that will continue to provide sufficient water for our residents & businesses. This is an important decision to rush into – we encourage you to ensure that the majority of Maui residents' voices are heard on this issue - not just the vocal minority.

Thank you for the opportunity to testify.

Sincerely,

Carol Reimann
Executive Director

1727-B Wili Pa Loop • Wailuku, HI 96793 • 808/244-8625 • 808/244-3094 fax • info@mauihla.org

16.0 Maui Office of Economic Development, Clark Hashimoto

CHARMAINE TAVARES
Mayor

DEIDRE M. TEGARDEN
Economic Development Coordinator

OFFICE OF ECONOMIC DEVELOPMENT
COUNTY OF MAUI
2200 MAIN STREET, SUITE 305, WAILUKU, MAUI, HAWAII 96793, USA
Telephone: (808) 270-7710 • Facsimile: (808) 270-7995 • Email: economic.development@mauicounty.gov

October 15, 2009

Testimony on the Instream Flow Standard Assessment Reports

Good evening staff members of the Committee on Water Resource Management. My name is Clark Hashimoto, Agriculture Specialist for the Office of Economic Development, County of Maui. My interest in this Instream Flow Standard Assessment is for all of agriculture here on Maui. Enough water should be given to the taro growers to grow their crops and I want them to succeed. By the same token we need to be sure that enough water is given to other ventures in agriculture. Sugar, pineapple, diversified agriculture and the residents of Maui need ample water to survive.

We hear the word sustainable. How can agriculture be sustainable when over 80% of our food is imported? How can we be sustainable if we don't have enough water to grow our crops? I oversee the Kula Agricultural Park in Pulehu which gets their water from HC&S and EMI. There are 435 acres, 31 agriculture lots and 26 farmers. Their water needs can reach up to 500,000 gallons a day. Their economic value is over $5 million annually. But this is only one small part of agriculture here on Maui. Conservatively, the economic value of agriculture here on Maui is in excess of $154 million.

Weather forecasters are suggesting that the recent "dry" climate may become the norm. Without ample water for all, Maui will never be the same. Therefore we need to look at the entire system and its impact on the entire community –taro growers, agriculture and domestic water supply for existing residents and be slow and careful about how we return water to the streams until we gather more data on the workings of this complex system.

Thank you.

17.0 Department of Agriculture, Sandra Lee Kunimoto

LINDA LINGLE
Governor

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 South King Street
Honolulu, Hawaii 96814-2512

SANDRA LEE KUNIMOTO
Chairperson, Board of Agriculture

DUANE K. OKAMOTO
Deputy to the Chairperson

TESTIMONY OF SANDRA LEE KUNIMOTO
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE COMMISSION ON WATER RESOURCE MANAGEMENT
OCTOBER 15, 2009
PAIA COMMUNITY CENTER
5:00 to 9:00 p.m.

PUBLIC FACT GATHERING
INSTREAM FLOW STANDARD ASSESSMENT REPORTS FOR 16 HYDROLOGIC UNITS ON MAUI

Thank you for this opportunity to comment on the ongoing process to develop instream flow standards that will affect existing and potential off-stream diversion of irrigation water for agricultural production throughout central and upcountry Maui.

Article XI, Section 3 of the Hawaii Constitution declares: "The State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands." The issue before the Commission speaks directly to this constitutional mandate as agriculture is dependent on having adequate and reliable irrigation water.

If we are to increase our agricultural self-sufficiency in accordance with the Constitution, there must be assurance that sufficient quantities of irrigation water will be available to continue operation of existing farms and for new farms. Reduction in the quantity of irrigation water or uncertainty about its future availability will threaten the viability of farming operations. This uncertainty can result in undermining initiatives to increase food and bioenergy production in Hawaii.

We are deeply concerned about the impact of a reduction of the quantity of irrigation water currently diverted for irrigation of the 27,102 acres of Alexander and Baldwin (A&B) agricultural land designated by the Land Use Commission as Important Agricultural Land (IAL) on June 29, 2009. A&B voluntarily sought and received IAL designation for much of the Hawaiian Commercial and Sugar Company plantation which depends on the irrigation water supplied from these 16 hydrologic units. It took almost 30 years since the constitutional amendment for Important Agricultural Lands (IAL) for the laws to be passed and the first lands to be so designated. Reducing irrigation water allocated for farming on these lands could reverse those advances made after so many years.

We strongly believe that the ability to produce food is an undeniable public interest, and that the ability to produce alternative energy sources through energy crops to alleviate dependence on imported fossil fuels is also in the public interest. Agriculture serves the needs of the community for food, employment and open, green space which is essential to Maui and the State. Being in the public interest, and a constitutional mandate, agriculture should be regarded as important as the oft quoted public trust uses of domestic use, exercise of traditional and customary Hawaiian rights, and resource protection.

The Commission must objectively consider and balance the public interests for the water, both instream and offstream. Therefore, as these hydrologic reports are the primary reference for subsequent amendments to the interim instream flow standards, we expect that the information included in the reports on instream uses be held to the same quantitative standards expected of East Maui Irrigation System, Maui County of Water Supply and other offstream uses. The information included in the reports should be accurate and inclusive, and of similar quality and detail in order to be used to balance competing uses.

The Department of Agriculture is concerned that our submittal of information to the Commission by email on May 29, 2009 regarding Instream Flow Standards Assessment

Report Data Needs was not incorporated into the hydrologic reports. Our information was about our Upcountry Maui Irrigation System that is under construction, and included estimates for future demand, service area, economic impact, and water use efficiency. We believe the information we provided is essential to ensuring the hydrologic reports contain the “best available” information.

Following are specific comments on the Waikamoi, Puohokamoa, and Haipuaena hydrologic unit reports:

The Waikamoi, Puohokamoa, and Haipuaena hydrologic units directly affect the Maui County Department of Water Supply system that will provide water to the upcountry agricultural water line that is currently under construction. The Department of Agriculture is providing contracting and project management services for the design and construction of this system through a Natural Resources Conservation Service agreement. Without an adequate allocation of water from these units, the water line will be useless to the farmers and a terrible waste of scarce resources.

Chapter 4 (Maintenance of Fish and Wildlife Habitat) discusses the benefits of restoring significant flow into the stream. It makes scant acknowledgment of the importance of irrigation ditches and appears to be biased toward stream restoration. There are references to the negative impact of stream diversions on native species habitat and the spread of invasive species. Will the instream flow standards reflect a preference for re-establishing biota or be balanced? Once biota is re-established in dry stream sections, we are concerned that the supply of instream water for biota will be maintained, to the detriment of other instream and non-instream uses.

Chapters 5 (Outdoor Recreational Activities), 6 (Maintenance of Ecosystems), and 7 (Aesthetic Values) describe values and activities of each but provide no information as to their potential impact on instream flow and possible impact on diversions for agricultural irrigation.

Chapter 10 (Maintenance of Water Quality), page 79 in the Waiakamoi Report – It seems the water quality classification changes from 1a to 2 then back to 1b. This seems to be counter intuitive. Is there a natural filter or occurrence that cleans up the stream?

Chapter 11 (Conveyance of Irrigation and Domestic Water Supplies) does not include much discussion about irrigation.

Chapter 12 (Protection of Traditional and Customary Hawaiian Rights) contains some emotion-ladened text that lacks specificity and is inappropriate for a document which will be used to determine the allocation of water and is supposed to represent the "best available" information..

Chapter 13 (Noninstream Uses) – Is ground water recharge considered in determining quantities available for non-instream uses?

The report does not include information on the Department of Agriculture irrigation waterline under construction and how agriculture in the Upcountry area would be benefitted. For your information, this system originates from the Olinda water treatment facility and terminates in Keokea, a distance of approximately 9.4 miles, with approximately 15 miles of lateral service lines. This irrigation system is expected to deliver irrigation water to 473 acres of Upcountry agricultural land.

Finally, it would be very helpful if Sections 13.5.2 and/or 13.5.3 would identify agricultural use per system, i.e. Upper Kula Line, Lower Kula Line, and the Makawao system.

Thank you for this opportunity to provide our comments.

EMI-IIFS16.e09

18.0 Edwin Young

(c) The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.

(d) The state water code shall be liberally interpreted to protect and improve the quality of waters of the State and to provide that no substance be discharged into such waters without first receiving the necessary treatment or other corrective action. The people of Hawaii have a substantial interest in the prevention, abatement, and control of both new and existing water pollution and in the maintenance of high standards of water quality.

(e) The state water code shall be liberally interpreted and applied in a manner which conforms with intentions and plans of the counties in terms of land use planning. [L 1987, c 45, pt of §2]

[§174C-3] Definitions. As used in this chapter, unless the context otherwise requires:

"Authorized planned use" means the use or projected use of water by a development that has received the proper state land use designation and county development plan/community plan approvals.

"Board" means the board of land and natural resources.

"Chairperson" means the chairperson of the commission on water resource management.

"Change in use" means any modification or change in water use from or to domestic, municipal, military, agriculture (including agricultural processing), or industrial uses.

"Channel alteration" means: (1) to obstruct, diminish, destroy, modify, or relocate a stream channel; (2) to change the direction of flow of water in a stream channel; (3) to place any material or structures in a stream channel; and (4) to remove any material or structures from a stream channel.

"Commission" means the commission on water resource management.

"Continuous flowing water" means a sufficient flow of water that could provide for migration and movement of fish, and includes those reaches of streams which, in their natural state, normally go dry seasonally at the location of the proposed alteration.

"Department" means the department of land and natural resources.

"Domestic use" means any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation.

"Emergency" means the absence of a sufficient quantity and quality of water in any area whether designated or not which threatens the public health, safety, and welfare as determined by the commission.

"Ground water" means any water found beneath the surface of the earth, whether in perched supply, dike-confined, flowing, or percolating in underground channels or streams, under artesian pressure or not, or otherwise.

"Hydrologic unit" means a surface drainage area or a ground water basin or a combination of the two.

(9) Such other information as the commission may require. [L 1987, c 45, pt of §2]

[§174C-94] Completion report. Within thirty days after the completion of construction or alteration of any stream diversion work, the permittee shall file a written statement of completion with the commission. The commission shall designate the form of such statement and such information as it shall require. [L 1987, c 45, pt of §2]

[§174C-95] Abandonment. Any owner of any stream diversion work wishing to abandon or remove such work shall first obtain a permit to do so from the commission. [L 1987, c 45, pt of §2]

PART IX. NATIVE HAWAIIAN WATER RIGHTS

§174C-101 Native Hawaiian water rights. (a) Provisions of this chapter shall not be construed to amend or modify rights or entitlements to water as provided for by the Hawaiian Homes Commission Act, 1920, as amended, and by chapters 167 and 168, relating to the Molokai irrigation system. Decisions of the commission on water resource management relating to the planning for, regulation, management, and conservation of water resources in the State shall, to the extent applicable and consistent with other legal requirements and authority, incorporate and protect adequate reserves of water for current and foreseeable development and use of Hawaiian home lands as set forth in section 221 of the Hawaiian Homes Commission Act.

(b) No provision of this chapter shall diminish or extinguish trust revenues derived from existing water licenses unless compensation is made.

(c) Traditional and customary rights of ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778 shall not be abridged or denied by this chapter. Such traditional and customary rights shall include, but not be limited to, the cultivation or propagation of taro on one's own kuleana and the gathering of hihiwai, opae, o'opu, limu, thatch, ti leaf, aho cord, and medicinal plants for subsistence, cultural, and religious purposes.

(d) The appurtenant water rights of kuleana and taro lands, along with those traditional and customary rights assured in this section, shall not be diminished or extinguished by a failure to apply for or to receive a permit under this chapter. [L 1987, c 45, pt of §2; am L 1991, c 325, §8]

CHAPTER 175
MOLOKAI IRRIGATION AND WATER UTILIZATION PROJECT

REPEALED. L 1987, c 306, §19.

Cross References

For present provisions, see chapters 167 and 168.

CHAPTER 176
WATER RESOURCES

REPEALED. L 1987, c 45, §8.

19.0 Michael Nobriga

October 14, 2009

Commission on Water Resource Management:

May I start to tell you back in the early 1970's as Chairman of the then semi-autonomous Board of Water Supply, my Board and I took the first plantation water away for our upcountry people - 12 million gallons to be exact, that could carry us through droughts.

For 10 years we had plans to build wells close to EMI ditches where we could supplement what we took. But the people of Maui in 1978 voted to turn water over to the elected officials who they felt could do better.

Not so.

Most of all water development on Maui that you enjoy was by our semi-autonomous Board. The new Waikamoi system was developed by US Department of Agriculture and the Soil & Water Conservation that we were members of.

The Piiholo Agriculture line was built with all agriculture appropriations for agriculture, but got changed to a domestic line in the 1980's to continue development.

The Wailuku system in our time was good for 40 million GPD. Before the Joint Venture line was build, five (5) geologists in our State agreed to that figure except one who wasn't so sure.

The State's Constitution Convention in 1978 created a Water Commission that should be "semi-autonomous" but nothing happened for 10 years till 1987-88. A Commission was formed to write the rules on more or less what the Convention wanted – which was to hold public hearings, etc.

My memory tells me one of the first things they did was all "IIFS" be grandfathered to a later date. But Heritage Streams (those that have not yet been diverted) be immediately protected to "No Diversion".

And the Water Commission ended with DLNR Chair chairing the Commission with the DOH Chair to serve on the Commission. But when I attended a Commission hearing back in 1988, Fred Trotter was Chair. Maybe he could shed more light on this. The amount of work assigned to the Commission would probably need 150 people to work on. Yet the Commission may still have 60 people and have never been funded to its fullest. Why?

In 1991, I was asked to serve on the Commission and accepted after hearings at the Legislature. I ended up serving on the first largest contested hearing as one of 4 Hearing officers. We found that water tables were contributed by sugar's 1 million gallons per acre year used in furrow irrigation of which 35 to 40% added to ground water.

Lake Wilson, with raw sewage from Schofield was used at Wailua Sugar Co. They never drilled for water because of that contamination. A few years ago Oahu's Board of Water Supply drilled. Lord behold! Good clean water. This is all our experts after the fact. Sugar cleaned our water. Where were they before we lost all the ag?????

On that issue we took care of "IIFS" agriculture and taro. Everyone was not satisfied – they said not enough. But after we added "NOT TO BE WASTED", things changed. I believe Ag has never used the allotted amount – neither did taro. We can use water for fish and other purposes, but not to clean grass. But has "IIFS" benefited? I don't know because I've never been back since my term expired in 1998.

As far as our County, development continues without water. Ag water gets taken again for people. There's over 40mil gallons of pristine ground water sitting along the road to Hana in the Waikamoi area that needs to be developed for people to use. Yet we drill in old pineapple fields that are contaminated water. It can be treated as Oahu does or could be exchanged for agriculture water.

To our elected officials of Maui – DO SOMETHING. Not kill agriculture. We need sustainability for our State. With a catastrophe (NO SHIPS or PLANES) we will all starve. We cannot eat homes. We need jobs. We do not need GREED.

Buddy Nobriga
Community Servant

Attachment – Maui News Viewpoint of October 15, 2009
Gary Fujimura says everything I'm trying to say here.

Water policy should be done by balancing the needs and wants

VIEWPOINT
GUY FUJIMURA

The Commission on Water Resource Management was created with the passage of the state water code in 1987 to ensure the water resources of the state were best managed, protected and used for the benefit of the people of Hawaii. The first members of the commission felt a huge responsibility to properly implement the newly passed water code.

Because the code was newly enacted, there was no precedent to follow. We considered the intent of the Legislature when they crafted the water code while taking into account the work of the 1978 Constitutional Convention that called for the enactment of a state water code and the many different points of view and concerns regarding the water resources of our state.

We understood our duty to protect our precious water resources, as well as the need to provide the greatest benefit to the greatest number of people. We never viewed our role as driving land use, economic or other policy decisions. Nor did we see our role to use water to effect social change. Implementing the state water code in a manner that maximized the public good was never an easy task, certainly a complicated one and never completely satisfactory to all parties.

During the legislative deliberations over the water code, there were very strong views expressed, ranging from state control over every drop of water, to a delegation of control of all water issues to the counties, to free market systems with government only serving a data collection, research and analysis role. In the end, it was clear to all involved that the state water code only passed because of compromises made. These compromises reflected the very heart of the code, which recognizes the myriad needs and demands for water and ensures a balancing of interests in every situation. The establishment of a rote hierarchy of uses was patently rejected by the Legislature when establishing the water code, and again when the code was statutorily reviewed five years later. The Legislature clearly mandated that there was no one-size-fits all approach appropriate for water decisions and that no one use trumped all other uses.

Because the Legislature saw that the code should not create great upheaval in the state's economic and social infrastructure, existing uses of water were provided great respect. Recognizing that significant economic activity was based upon reliance upon water use, the code sanctioned the continuance of these uses as long as they were "reasonable-beneficial." When existing uses were abandoned, however, then the commission would step in and determine the best alternative use for these waters. State and county land use plans were also provided great standing, and water decisions would follow those plans and not vice versa.

As the current water commission considers important stream water use decisions on Maui, it is important to review the original intent of the state water code and the Commission on Water Resource Management, to consider the specific circumstances of each decision — a one-size-fits-all approach to any decision is not necessarily the best fit for every situation, and to honor existing uses until such uses are abandoned or wasted. The intent and purpose of the carefully crafted state water code was to manage and protect Hawaii's surface and ground water resources, a balancing of our needs and wants on a statewide basis. In our island state we must find ways to manage our resources to protect our economy and jobs, as well as to protect our precious resources for our future.

■ *Guy Fujimura is currently the secretary-treasurer of the ILWU Local 142. He was appointed as one of the first members of the Commission on Water Resource Management and chaired the commission's Stream Protection and Management Task Force, which convened in May 1993 and issued its report to the commission in August 1994.*

Letters

20.0 Maui Department of Water Supply, Jeffrey Eng

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

October 15, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, HI 96809

Dear Commissioners:

SUBJECT: PUBLIC FACT GATHERING MEETING REGARDING THE INSTREAM FLOW STANDARD ASSESSMENT REPORTS FOR THE HYDROLOGIC UNITS OF WAIKAMOI, PUOHOKAMOA, HAIPUAENA, PUNALAU, HONOMANU, NUAAILUA, OHIA, WEST WAILUAIKI, EAST WAILUAIKI, KOPILIULA, WAIOHUE, PAAKEA, WAIAAKA, KAPAULA, HANAWI,AND MAKAPIPI

The subject instream flow standard assessment reports in general correctly illustrate upcountry Maui's current and future reliance on surface water. As the reports state, the county's Upper Kula water system relies on water from the Waikamoi, Puohokamoa and Haipuaena streams. Our Lower Kula water system relies on those same streams and the Honomanu stream as well. The Makawao water system draws from EMI's Wailoa ditch, which relies on water from all sixteen hydrologic units under this current consideration.

Approximately 90% of upcountry Maui's domestic and agricultural water supplies are derived from surface water. Surface water has always been and will continue to be the primary source of water for upcountry Maui. It is also important to keep in mind that upcountry Maui's agricultural and livestock industries are dependent on the county having adequate water to sustain those industries.

The county has a duty to provide water to support its residents and the local economy. As the commission deliberates on the instream flow standards, we ask that they strongly support the current and future needs of our upcountry Maui community.

Sincerely,

JEFFREY K. ENG
Director

"By Water All Things Find Life"

21.0 Nahiku Community Association, Dorothy Kamalu Kahookele Sili

Nāhiku Community Association
Oct. 15, 2009, Paia Community Center 5PM

Lena Kamalu Kahookele Sili - President
(Dorothy) (AKA Kuma Kahalu)

Greeting Aloha Ahiahi Pakahia Pau, Ka Po'e Po'o, Ohana, Aikane, Malihini, Aloha.

1. Representing my Village/Community of Lower Nāhiku which sits in between Makapipi Stream and Kuhiwa Stream and being a Keiki o Ka Aina Ma Nāhiku. I would like to know why our Stream (Makapipi) which is a perrineal Running Stream, is in lack of this.

2. Is this due to too much Diversions of our water? Even with Heavy, Heavy, Rains, are we getting the over flow, or leftovers to sustain our Kahawai until the Rains subside, then our Kahawai has water for fleeting moments! Like ½ a day, if we're lucky, 1 day or 2 days. When this occurs there is something very wrong with this picture, Don't you think? We want our Perrineal flow back.

3. On page 88 it stated that in 1954 there was only 10 houses in Lower Nāhiku and a School House. I was 11 years old at that time and the last graduate of that School. And there were more than 10 Houses present. I can also name all the Residences living in Nāhiku at that time.

Page II

4- There were much farming, wetland and dryland kalo growing, and uala (sweet potatoe patches.) There were much animal raising of pua'a, moa, cattle (pipi) etc.

5- Our laundry days were done at the our kahawai kaheka (ponds). There was no county water lines at that time. Water was taken from the kahawai and carried by hand in buckets and on the sides of the mules to use for bathing and cooking. Our kahawai was never dry! Why is it dry now?

6- Perhaps the bottom line to this question is over developments of all sorts of things! To name a few, Hotels, Resorts, Condo's, Businesses, Housing, etc. Golf Courses?

7- Like the "four great waters" (Na wai eha, Iao, waihe'e, waikapu, and waiehu) and all HC&S employees who are striving to keep their jobs - we of the east side of Maui, of all the mighty streams, without our streams flowing freely and 365 days a year it because of economy impact where do we go to survive if we cannot afford to buy rice, anymore - simple! Our kahawai's will supply us with our edible needs, and so will our kahakai. Our kahawai and kahakai also need each other to survive.

Page 3
continued

8- I'd like to add to my mana'o in regards to Mr. Garret Hew EHI President and HC&S water management director that I am appalled by his statement in the Maui News of October 9, 09, and I "quote,"
With that much water going into the streams, they should flow mauka to makai Hew said. Why sacrifice 800 good jobs especially in this economy, for a little more fish and fauna, he asked.
Hew said simply, without water, A&B, will survive, but sugar in Hawaii won't!
"unquote -

9- My comment is, and I direct it to Mr. Hew, in all due respect!
#1 yes our water should always flow from mountain to sea freely with no obstructions involved -

#2 What do you mean for a little more fish and fauna? May I remind you this is our gateway, food land, etc, when there is no jobs, or money - this is our mark of survival. Mr. Hew we don't live 5 minutes away from the stores. Don't talk the walk - walk the talk.

#3 - Off course A&B will survive! They'll survive mainly on developments. Then everyone wonders we-la no ho'i ka wai?

Page 4
Continued

#4- Honey Bee's Will be able to give us Honey for Sugar - We survived with that while I was growing up - and we had Sugar Cane fields on the East side of Maui too. My grandfather Raised Lot's of Sugar Cane the purple Ko was our toothpaste, and toothbrush.

#5- I thank Mr. (Dr. Lawrence Miike) for caring enough for all concerned. And I thank the Commission on Water Resource Management for allowing us this time to come forward and share our thoughts feelings, and concerns, on our main surviving source, Ka Wai Ola The Living Source Water.

10- Also who is responsible for the cleaning & maintaining of our streams? Why is the area's where water is diverted seem to be the only areas looked into, and maintained. To survive we need clean, debri free, dirt free running water to keep healthy. There are people who can use the job in clearing, cleaning, and maintening our Kahawai, from all a Hupua'a. Stream cleaners are important, to keep our Kahawai Pono!

Mahalo

22.0 Nahiku Community Association, Edward P. Johnson, Jr.

Ola wai. Water is life. Water is wealth. Water is to be shared, Water is growth.

My name is Edward P. (Kalama) Johnson. I Reside on the East side of Maui in Lower Nahiku. At Preasent I am the Secretary of the Nāhiku Community Association.

My testamony on the diversion of our rivers and stream is simple and clear.

STOP

Our ecosystem is litterly drying out. No more dose the ōpae feed the families along with the ōopu, hihiwai, ōpae kala'ole ōpae kuahiwa, ōpae kalo. The plant life along these rivers also plays a big part in our way of life.

I lived in Lower Nāhiku from the late 80's and I swam and harvested from Makapipi Stream almost every day Till recently. Now Makapipi is dry most of the year along with most of the stream on the eastside

Why are we denied our God given rights to our natural waterways Is developing out ways peoples life. Surely its not Aquaculture for we coexited for ten's of years Our Voices will not go away we will be heard and we will pervail

Edward P. Johnson Jr.

23.0 Nahiku Community Association, Harold D.L. Kekahuna

Nahiku Community Association
Oct. 15, 09 - Paia Community Center

Harold D.L. Kekahuna - Board of Director
Chairperson for Environmental Management
(public works, streams, hazardous waste, roads, bridges, storm drains, (culverts) debri discharge etc.

Period of Record - 1932-1945
Complete Water Use - 1933-1944

1- What is the latest USGS Gauge stations status from Gauge No - 5060 - 5865 - 50 fo
(Development Tunnel) (Hakapipi Stream) (Makapipi Stream)
on the Flow-Duration Characteristics based on complete water years for 2000-2009.

2- What was the main purpose of diverting the Hakapipi stream and was the village (community) notified in any way for this action. If so, by whom, with whom.

3- Why are the streams in question not being maintained (cleaned) to insure good, clean, healthy quality water. (Examples: Invasive alien plants, dead animal carcasses, debris of all sorts.) This includes humans using our streams as bathrooms and showers/bathing.

4. Who authorized the two diversions or more to take place at Hakapipi and why.

5- USGS (pg-34) Station (Diversions) (above 1000 ft) 16506000 - 16506500 - and below 1000 ft. Why is there no water 16507000 between these gauge stations, and are they active or inactive?

6- Is there any money being made from this Makapipi flow? If so, how much and who gets the bulk of it.

7- Is there anything that the Commission can do to help or can do to keep Makapipi and other streams in question alive and yet flowing as it should be, so that all can be served equally of this valuable source.

8- Two major diversions:
① CWRM Registration No. 983.6 below 1000 ft. level.
② CWRM Registration No. 298.6 above 1000 ft. level on the West branch of Makapipi.
Two minor diversions - E.M.I Codekla KLB above 1000 ft level - What are the latest report meaning is it active or in-active. Wouldn't this help better understand the stream flow of Makapipi?

9- The community of Nāhiku also have a report on the Kuhiwa stream flow that was also dry for a long time. Would it be due to underground water wells being drilled? This would be on the East side of our Makapipi stream.

10- I conclude by sharing that Makapipi stream has the right to live for each of it natural residents, be it human, plants, fauna etc. All of Maui and each Ahupua'a have the right to have water for all which should always be shared accordingly and equally.

24.0 John Blumer-Buell

JOHN BLUMER-BUELL
P.O. Box 787, HANA, MAUI, HAWAII 96713
PHONE and FAX 808-248-8972
EMAIL blubu@aloha.net

October 15, 2009

State Commission on Water Resource Management
Laura H. Thielen, Chairperson
Meeting at Paia Community Center

Subject: Instream Flow Standard Assessment Report
Hydrologic Units 6064 Hanawi Stream and 6065 Makapipi Stream

Aloha Chairperson Thielen, Members of the Commission and Staff,

Parley Kanaka'ole and I were representatives for the Hana Community Association in the contested case hearing before the Commission on Water Resource Management (MA-CC-91-1) regarding the application for pump installation at Kuhiwa Well in Nahiku. The thirty seven page "Finding of Fact, Conclusions of Law, and Decision and Order" is attached as an important reference. Impacts upon Hanawi Stream, Makapipi Stream and the unnamed stream between Hanawi and Makapipi Streams were the core issues of the case.

I request a meeting in Nahiku or Keanae with the commission and/or staff members to review Maui Land and Pineapple Company compliance or non compliance with the "Decision and Order" dated October 2, 1991. I would like the meeting to include the Hana Community Association, Ned Iliahi Goodness, the Nahiku Community Association, Maui Land and Pineapple Company, Na Moku Aupuni O Koolau Hui and other interested parties.

The agenda should include:
* Review of the Decision and Order for compliance or non compliance.
* Review of the 1991 "Baseline Aquatic Survey of Kuhiwa Stream, Makapipi Stream and Hanawi Stream" and the 1993 "Aquatic Monitoring Survey of Hanawi Stream, Makapipi Stream an Paluhulu Stream".
* Discussion of a methodology to include the community in future monitoring of stream conditions and improvement of the watershed.
* Discussion of restoring Kuhiwa, Makapipi and Hanawi Steams to their natural state.
* The Betsill Brothers Well. The use of this well has not been properly monitored. The well may be in the same perched aquifer as Kuhiwa Well and could certainly add to the treat of Kuhiwa Well on Big Springs. I have been told this well is a source of water for at least one subdivision that has not been disclosed to the commission.
* Land title issues.

The Hawaii Stream Assessment, accepted by the Commission on Water Resource Management, identifies seven streams in the state with the most outstanding aquatic an riparian values which should receive full watershed protection from the mountains to the ocean as "Kapu Streams". Discussion of full protection of Makapipi Stream, Hanawi Stream and the unnamed stream would be a constructive way to explore the "kapu" issues. It appears the watershed is "dying" and loosing its capacity to sustain itself at historic levels.

FINANCIAL ISSUES

I have been a concerned citizen for years feeling the privatization of public trust waters do not reflect the public's interests or wishes or a true market value of the resource. In effect, the public is subsiding private companies millions of dollars per year with little accountability.

Potentially, we already have the financial resources available to finance reservoirs for water storage, repair leaks in the system and repair the watershed. Water storage would solve some of the issues before you.

A little background information, subject to your review and confirmation of the facts.

* The system of ditches in the license areas divert on average 160 million gallons per day or 58+ billion gallons of water per year.
* A&B/EMI pay about a fifth of a cent per thousand gallons.
* I recently checked with the Department of Water Supply and was told the rate charged for agricultural water is one dollar per thousand gallons after the initial base charges. I have no problem with a "corrected" rate, if documented.

Here is the simple math:
* 160 million gallons per day times 365 days per year equals 58,400,000,000 (fifty eight billion, four hundred million gallons per year).
* Divide 58,400,000,000 by 1000 to get the number of thousand of gallons---that number is 58,400,000 (fifty eight million four hundred thousand)
* Multiply 58,400,000 by one dollar per thousand dollars. That total is fifty eight million four hundred thousand dollars ($58,400,000)

What is the actual amount being received by the public trust beneficiaries of the state?

Please confirm all the actual financial figures, including "expenses", as part of your public discussion.

Thank you for your consideration.

Mahalo nui,

John Blumer-Buell

SIERRA CLUB LEGAL DEFENSE FUND

FAX TRANSMITTAL MEMORANDUM

TO: JOHN BLUMER-BUELL
HANA COMMUNITY ASSOCIATION
Fax No.: 1-248-7487

FROM: Arnold L. Lum/ceci
[Transmitting from (808) 521-6841]

DATE: October 3, 1991

RE: Maui Pineapple Company, Ltd. Pump Installation
-293-

Number of Pages (including this cover memo): 38

If there are any problems with transmission, please call (808) 599-2436. We are transmitting from a Hitachi HiFax 46.

COMMENTS: Findings of Fact, Conclusions of Law, and Decision and Order

212 MERCHANT STREET, ROOM 202, HONOLULU, HAWAII 96813, TELEPHONE (808) 599-2436, FAX (808) 521-6841

COMMISSION ON WATER RESOURCE MANAGEMENT
STATE OF HAWAII

In Re Application of MAUI PINEAPPLE COMPANY, LTD. Pump Installation Permit Kuhiwa, Nahiku, Maui, Hawaii	)))))	MA-CC-91-1

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER

By application dated August 17, 1990, Maui Pineapple Company, Ltd. (hereinafter "Applicant" or "Maui Pine") requested approval of a permit to install a well pump with the capacity to withdraw up to 1.0 million gallons of water per day (MGD) from the Kuhiwa Well at Nahiku, Maui, Hawaii.

At the December 19, 1990 meeting of the Commission on Water Resource Management (hereinafter "Commission") to consider Applicant's request, the Hana Community Association (hereinafter "HCA" or "Petitioner"), through counsel, requested a contested case hearing on the application.

On March 25, 1991, the Commission published notice of the contested case hearing in The Maui News and the Honolulu Star Bulletin. The notice informed interested parties that the Commission intended to conduct a contested case hearing on the application, and that applications for intervention were to be filed by April 15, 1991.

Subsequently the Commission granted intervention to the HCA and Ned Iliahi Goodness.

On May 30, 1991, the Commission convened a contested case hearing in Wailuku, Maui, Hawaii. The hearing was concluded on June 19, 1991, at Honolulu, Oahu, Hawaii.

Dennis Niles, Esq., and Arnold Lum, Esq., appeared at both hearings as counsel for Applicant and HCA respectively. Mr. Goodness appeared at the first hearing but waived his right to appear and participate at the second hearing.

The Commission, having fully heard and examined the testimony, evidence and argument of counsel presented during the hearing, the proposed findings of fact, conclusions of law, and decision and order submitted by the Applicant and Petitioner, after deliberation hereby makes the following findings of fact and conclusions of law, and issues its decision and order:

I. FINDINGS OF FACT

A. Applicant

1. Maui Pine is engaged in the business of the cultivation, processing, marketing, and distribution of canned

pineapple. Hartley, p. 3[1]. The company employs approximately 900 year round employees, and a number of seasonal laborers. Tr. I, p. 64.[2]

2. The pineapple business is cyclical and very competitive. Over the past 10 years, the company was profitable in the first seven years, but lost money in the last three years. In 1990, the company had a record loss of approximately 6.5 million dollars on gross sales of approximately 70 million dollars. Tr. I, pp. 43-44.

3. The company cultivates approximately 8,000 acres of pineapple on the island of Maui, of which approximately 1,700 acres is under cultivation in Central Maui. Tr. I, pp. 34-35. The 1,700 acres of pineapple crop in Central Maui is supplied with irrigation water drawn from the Koolau Ditch of the East Maui Irrigation (EMI) distribution system. Hartley, p. 3; Tr. I, pp. 18 and 31.

4. Maui Pine use of water from the EMI system is made under an agreement with East Maui Irrigation, Inc, which requires Maui Pine to supply the ditch with a quantity of water equivalent

[1]Citations to the written direct testimony submitted in this proceeding will be to the name of the author, e.g., "Hartley", "Behrens", etc.

[2]Citations to the transcript of the contested case hearing held on May 30, 1991 will be referenced as "Tr. I, p. _". Citations to the transcript of the reconvened contested case hearing held on June 19, 1991 will be referenced as "Tr. II, p. _".

to the amount which it withdraws, plus a factor for transmission losses. From 1956 through 1989, the agreement allowed Maui Pine to accumulate water credits by pumping water into the ditch during rainy periods when withdrawals for irrigation were not required and to use those credits by withdrawing irrigation water during dry periods. Hartley, pp. 3-4.

5. Maui Pine's maximum withdrawal from the EMI system for pineapple irrigation under the pre-1989 agreement was 1.5 MGD. This daily quantity of water was sufficient for periods when irrigation was required. Tr. I, p. 31.

6. Maui Pine's existing source for supplying the Koolau Ditch is the Hanawi Pump Station, located on Hanawi Stream immediately below the Hana Highway. This source withdraws surface water from Hanawi Stream through a pipe which is installed behind a dam on the stream. Tr. I, p. 181.

7. The maximum pumping capacity of the Hanawi Pump is approximately 0.5 MGD. Tr. I, pp. 31 and 74. On an <u>annual</u> basis, this pumping capacity has been sufficient to meet Maui Pine's annual irrigation requirements in Central Maui. From 1983 through 1987, Maui Pine diverted between 110 and 148 million gallons annually from Hanawi Stream through the operation of the Hanawi Pump. Applicant's Exhibit E (Registration and Declaration of Water Use Form).

8. In 1989, Maui Pine and EMI concluded a new agreement, under which Maui Pine will no longer be able to accumulate water credits, and will instead be limited each day to withdrawing the quantity of water it actually puts into the ditch on that same day, less transmission losses. Hartley, pp. 4-5. Maui Pine is, however, presently able to continue accumulating water credits under a two-year extension of its pre-1989 agreement with EMI. This extension will expire on December 31, 1991. Tr. I, pp. 61-62.

9. In conjunction with the new agreement, EMI granted Maui Pine permission to utilize and operate the Kuhiwa Well, located on land owned by EMI. By application dated August 17, 1990, Maui Pine applied to the Commission for a permit to install a 700 gpm (1.0 MGD) capacity pump on the Kuhiwa Well.

10. Maui Pine desires to operate the Kuhiwa Well (1.0 MGD capacity) in addition to the Hanawi Pump Station (approximately 0.5 MGD capacity) such that Maui Pine's total capacity for putting water into the EMI ditch system on a daily basis is approximately 1.5 MGD.

11. Maui Pine claims it needs to operate the Kuhiwa Well. "Pumping from Kuhiwa Well is absolutely essential during dry years to drip irrigate the company's East Maui fields to the extent necessary to keep them healthy and productive." Pyle, p. 6. "We can't reduce our volume and continue to be a reliable

source of supply to the private pineapple trade." Tr. I, p. 35 (Hartley). "It's the kind of thing that can destroy a business. I'm seriously concerned that it would destroy ours." Tr. I, p. 36 (Hartley).

B. Intervenors

12. The Hana Community Association (HCA) is comprised of individual residents of the Hana District of Maui. The HCA does not oppose the issuance of a pump installation permit. Tr. II, p. 84. Rather, HCA's concerns center on the terms and conditions pursuant to which Maui Pine will be allowed to draw water from the Kuhiwa Well. Id.

13. The central issue raised by the HCA relates to the possible effect of well pumpage on the flow of streams and springs in the area, including the Hanawi and Makapipi streams and on the Behren's spring and Big Spring, and the kind of monitoring needed to judge the effects, if any. Minute Order No. 1.

13. Ned Iliahi Goodness claims an interest in a Royal Patent (Grant) 4448, (Parcel 26, Nahiku), located in TMK 1-2-04:03. Kuhiwa Well is also located in TMK 1-2-04:03. Mr. Goodness also appears concerned with appropriate conditions for the issuance of a permit. He urges monitoring of the impact of pumping, the adoption of an allocation system that favors taro

farming, and the cessation of pumping "for cause." Tr. I, p. 188.

C. Nature of Surface Waters in the Vicinity of Kuhiwa Well

14. The Kuhiwa Well is located in the vicinity of three streams which exhibit reaches of perennial flow and which provide aquatic habitat and other instream values. These streams are: 1) Hanawi Stream; 2) Makapipi Stream; and 3) an unnamed stream (hereinafter "unnamed stream") which flows through a property owned by Dr. Michael Behrens.[3] All of these streams discharge into the ocean approximately 10,000 feet makai of the Kuhiwa Well.

Hanawi Stream

15. Hanawi Stream is located approximately 4,000 feet to the west of the Kuhiwa Well at its nearest point. Big Spring, a major spring providing much of the base flow of Hanawi Stream, is located on Hanawi Stream approximately 5,500 feet makai of the well.

16. Hanawi Stream is presently diverted by EMI's Koolau Ditch and by Maui Pine's Hanawi Pump, located about 1,500 feet below the ditch. Hanawi Stream has perennial flow above the ditch. Tr. I, pp. 115, 116.

[3]Dr. Behrens is a member of the Hana Community Association.

17. Hanawi Stream has perennial flow from Big Spring to the ocean. Nearly 21 years of historical streamflow records are available on Hanawi Stream below Big Spring. These include 15 years at USGS gage station 16509000, Hanawi Stream Below Government Road, near Nahiku, operated from July 1932 through July 1947, and 5-1/2 years of record collected at the same site by East Maui Irrigation from January 1927 through June 1932. The average 15-year discharge recorded by the USGS was 27.1 MGD. The minimum flow recorded during the 21 years of record was 8.2 MGD, occurring in 1936. The second lowest recorded discharge was 9.5 MGD, occurring in both 1931 and 1935. Commission Submittal Item 10, December 19, 1990.

18. Hanawi Stream is generally regarded as one of the most biologically productive East Maui streams for three species of native o'opu, and also provides habitat for the native hihiwai snail and the 'opae shrimp. Yuen, p. 1. It is rated by the United States Fish and Wildlife Service (USFWS) as one of the highest quality streams in the state and by the Hawaii Department of Land and Natural Resources as one of the high quality streams in the State. Tr. II, pp. 38 and 58.

19. Hanawi Stream is used by Hawaiian families for gathering hihiwai, o'opu, and 'opae. Kahookele, p. 1; Bergau, p. 1.

Makapipi Stream

20. At its nearest point, West Makapipi Stream is located less than 1,000 feet west of the Kuhiwa Well. East Makapipi Stream is located less than 1,500 feet east of the Kuhiwa Well. The confluence of these two main tributaries of Makapipi stream is located approximately 2,500 feet makai of the Kuhiwa Well.

21. West Makapipi Stream is presently diverted by EMI's Koolau Ditch. There are no other known existing diversions of Makapipi Stream.

22. Makapipi Stream flows are intermittent, but there are perennial spring-fed pools within the stream below the ditch. Kahookele, p. 1; Bergau, p. 1.

23. Makapipi Stream is described in the Hawaii Stream Assessment as an "outstanding" stream, and supports a diverse assemblage of native species. Tr. II, p. 58. Native fishes and invertebrates are present in the stream. Yuen, p. 1. 'Opae and two species of o'opu have been found in the stream. Kahookele, p. 1; Petitioner's Exhibit "E".

24. Makapipi Stream is used by Hawaiian families for gathering o'opu, prawns, and 'opae. Bergau, p. 1.

Unnamed Stream

25. The unnamed stream is located between Hanawi and Makapipi Streams. It flows through the property at TMK 1-2-01:14 owned by Dr. Michael Behrens, and flows into a pond near the ocean in Lower Nahiku. Behrens, p. 1; Bergau, p. 1.

26. Two springs provide water to the unnamed stream. An upper spring at the head of the stream is located just makai of the highway, and is approximately 4,000 feet makai of the Kuhiwa Well. A second spring is located at a waterfall about halfway between the upper spring and the ocean, and is approximately 7,500 feet makai of the Kuhiwa Well. The property owned by Dr. Behrens is located downstream of both springs. Map by Commission staff; map from Stearns and Macdonald, Bulletin 7, 1942; Behrens Statement of Fact, p. 1.

27. The unnamed stream has perennial flow through the property owned by Dr. Behrens and also where it flows into a pond near the ocean in Lower Nahiku. Behrens, p. 1; Kahookele, p. 1; Bergau, p. 1.

28. On May 24, 1991, Dr. Behrens estimated the flow of the unnamed stream on his property as three (3) gallons per second by placing a five gallon bucket in the stream. This flow rate corresponds to 0.26 MGD. Conditions in the Nahiku area were

quite dry on the date of measurement and streams in the area were at a low level. Behrens Statement of Fact, p. 1.

29. Of the estimated 3 gallons per second flow in the unnamed stream on May 24, 1991, Dr. Behrens further estimated that approximately one half of the flow originated at the (lower) spring at the waterfall and that the remainder of the flow originated from above the waterfall. Tr. I, pp. 155-156.

30. The unnamed stream is the sole source of water for Dr. Behren's property, where it is used for drinking, bathing, and for irrigation of plants, and aesthetics. Behrens, p. 1. The pool at the end of the stream at Nahiku landing is used for recreational purposes by the Nahiku community and has been traditionally used as a source of water in drought periods for residents of lower Nahiku whose homes do not have access to the county water line. Behren's Statement of Fact, p. 1.

31. The unnamed stream contains populations of o'opu and prawns. Kahookele, p. 1.

D. Effects on Surface Water by Pumping Ground Water at Kuhiwa Well

32. When water is pumped from a well, the water taken from the ground has to be balanced by a loss of water from somewhere else. Tr. I, p. 111.

33. If the groundwater body tapped by the well is connected to springs and/or streams, then pumping the well will cause the flow of the springs and/or streams to be reduced. Id.

34. If the groundwater body is not connected to springs and/or streams, then pumping the well would not have any effect on these. Id.

35. Hanawi Stream is generally connected to a groundwater body, as evidenced by perennial flow at a USGS gage above the Koolau Ditch, and by gaining flows and perennial flow below the ditch. Tr. I, pp. 115-116.

36. There is insufficient information to conclude that Makapipi Stream is generally connected to a groundwater body. Tr. I, p. 113. However, reports of perennial pools and springs shown on a map by Stearns and Macdonald indicate that some groundwater connections may exist. Bergau, p. 1; Stearns and Macdonald, Bulletin 7, 1942.

37. There is insufficient information to conclude that the unnamed stream is generally connected to a groundwater body. However, the perennial nature of the stream through the property owned by Dr. Behrens and springs shown on a map by Stearns and Macdonald indicate that some groundwater connections may exist. Behrens, p. 1; Stearns and Macdonald, Bulletin 7, 1942.

38. Two opposing models of groundwater behavior in the Nahiku region were described to the Commission by expert witnesses Doak Cox and William Meyer respectively.

39. Doak Cox has served as director of the University of Hawaii's Water Resources Research Center (1964-70) and Environmental Center (1970-85). Dr. Cox was involved in the original geohydrology studies which led to the development of the Kuhiwa Well in the 1940s. In 1980, he assessed possible downstream effects of diverting water from Hanawi Stream in the area of the Big Spring. Cox, pp. 2, 3 (Exhibit DT-3).

40. William Meyer is the District Chief of the Water Resources Division, United States Geological Survey, Pacific Region.

41. The data and analyses available at this time are insufficient to determine which of the two opposing models of groundwater behavior best describes conditions in the Nahiku region for purposes of predicting effects of well pumpage. However, the two models concur in several significant ways.

42. Due to highly complex geological conditions, neither groundwater model is able to specifically predict the full impact of well pumping in terms of where all impacts would occur, or the expected magnitude of impact at any point along the streams in the region. Tr. II, p. 13.

43. Both groundwater models suggest that well pumping will have some impact on the flow of Big Spring into Hanawi Stream. Commission Staff Exhibit 2. However, neither model can conclude at this time that the impact would be of sufficiently large magnitude in relation to the normal flow of the stream at that point to be detectable.

44. In terms of predicting impacts on streams from well pumping, the only significant difference between the groundwater models is in whether any impact is possible above the elevation of the standing water level in the existing open well hole. This elevation, approximately 1,100 feet, corresponds approximately to the elevation of the Hana Highway in this area. The model presented by Doak Cox suggests that impacts can only occur on streams and springs at elevations lower than this elevation. The model presented by William Meyer suggests that impacts might occur on springs and streams both above and below this elevation. Commission Staff Exhibit 2.

45. Approximately 50 files with information on exploratory wells in the Nahiku area have been located which, if analyzed, might provide more evidence on which of the two opposing models of groundwater occurrence is most applicable in the Nahiku area. Tr. II, pp. 7, 12-13. However, a determination of the more applicable model would likely only answer the question of whether impacts might occur above the Hana Highway in addition to below the highway.

46. After pumping begins, the response time before there is any impact on flows of streams and springs might be anywhere from a few days to as long as ten years. Tr. II, p. 20. The uncertainty of how long it would take for impacts to result is due to uncertainty over the properties of rocks that exist between the well and the streams. Tr. II, p. 19.

47. Because pumping will be intermittent, the maximum possible impact on flows of streams and springs is related to the response time before any impact occurs. Tr. II, pp. 20-23.

48. Maui Pine's historical water usage over the last 15 years suggests that pumping of the Kuhiwa well would occur on approximately 43 days per year on average. In any single year, pumping of the well would occur for anywhere from 0 (zero) days to 100 days during the year. The historical usage data also suggest that continuous pumping (running the pump 24 hours per day) would not occur for more than 50 days consecutively. The greatest use would occur during dry years with low rainfall. Pyle, Exhibit T-2-D.

49. If the response time for an impact to occur is longer than the consecutive days of pumping, then the maximum possible impact on flows of streams and springs should be less than 1.0 MGD, the maximum pumping rate. If the response time is longer than several years, then the maximum possible impact should

approach (1.0 x 43/365) = 0.12 MGD, the average pumping rate. Tr. II, pp. 20-23.

50. The significance (and detectability) of a surface water flow reduction is related to the amount of flow which would otherwise occur. For example, a flow reduction of 0.25 MGD at the springs feeding the unnamed stream or perennial pools along Makapipi stream might cause that stream or the pools to go completely dry and be readily detectable. However, the same 0.25 MGD level of flow reduction at Big Spring would be extremely difficult to detect.

51. Given present information, it is not possible to predict the total impact on surface waters in the Nahiku region which would result from pumping of the Kuhiwa well. Tr. II, p. 13. At one extreme, the impact might be an undetectable loss of flow totalling less than 0.12 MGD. At the other extreme, it might be a highly detectable drying up of normally perennial small springs and streams, and have a total magnitude equal to the pump capacity, 1.0 MGD.

E. <u>Determining Impacts on Instream Flows</u>

52. The only method available to fully predict in advance actual streamflow depletion from pumping of the Kuhiwa well is through construction of a ground water model. Sufficient data

are not available to do this. The time and cost to obtain the data would be prohibitive. Meyer, May 2, 1991, p. 3.

53. Close monitoring of water levels in the well during pumping might answer the question of whether the impact would occur in the short-term or in the long-term, and hence whether the total magnitude of possible streamflow depletion would be closer to the short-term pumping rate, 1.0 MGD, or to the long-term average pumping rate, 0.12 MGD. Tr. II, pp. 23-24.

54. The most direct manner to determine the impact of pumping the Kuhiwa Well on nearby springs and streams is to pump the well and monitor for actual impacts. Id.

55. Any monitoring program requires baseline data on conditions prior to the onset of pumping.

56. It is probably not possible to design a monitoring program which would detect the total impact of well pumping on stream flows. Tr. II, p. 16.

57. Three approaches to monitoring for impacts on stream flows have been proposed to the Commission: a single-gage or observation point flow measurement approach; a paired-gage flow measurement approach; and a biological monitoring approach.

F. Single-Gage or Observation Point Monitoring Approach

58. A single-gage or observation point approach involves monitoring flow characteristics of streams and springs at specific points of interest, such as at Hanawi Stream below Big Spring and at perennial pools along Makapipi Stream and the unnamed stream.

59. Presently available baseline data for a single-gage or observation point approach include:

- 21 years of gaged streamflow records at (discontinued) USGS gage station 16509000, Hanawi Stream Below Government Road;

- more than 70 years of gaged streamflow records at (active) USGS gage station 16508000, Hanawi Stream near Nahiku, located 200 feet upstream from the Koolau ditch intake;

- testimony that the flow of Hanawi Stream at the pump station at Hana Highway rarely drops below 0.5 MGD, which occurs only once every several years and for a period of three or four days (Tr. I, pp. 30, 41, 78);

- testimony that certain pools never go dry along intermittent Makapipi Stream (Kahookele, p. 1, Bergau, p. 1);

- testimony that a pool in Lower Nahiku fed by the unnamed stream never goes dry, although the flow to the pool was lower than usual during a drought (Kahookele, p. 1, Bergau, p. 1, Behrens Statement of Fact, p. 1); and

- testimony that the unnamed stream never goes dry where it flows through the property owned by Dr. Behrens, and that the flow in the stream at that property during a low-flow period on May 24, 1991 was estimated to be approximately 3 gallons per second or 0.26 MGD (Tr. I, p. 156, Behrens Statement of Fact, p. 1).

60. Under a single-gage or observation point monitoring approach, streamflow records at gaged sites would be assessed in terms of low-flow frequency characteristics and/or by correlations with climatic data such as shown by Cox (April, 1980). Other locations with known flow characteristics as described above would be monitored by visual observation and/or spot flow measurements.

61. A single-gage or observation point approach would detect impacts which are of large magnitude relative to the base

flow of the stream or spring at the points being observed. For example, an impact of 1 MGD should be readily detectable at sites with a base flow of 2 MGD or less in the absence of pumping. Tr. I, pp. 143-145.

62. Except for Hanawi Stream below Big Spring, all the sites with gaged or visually determined baseline data described above are believed to have base flows of 2 MGD or less during low flow periods.

G. Paired-Gage Monitoring

63. A paired-gage monitoring approach would directly monitor the groundwater inflow to a reach of stream by constructing a gage at the upstream and downstream end of the reach. Under conditions of steady low flow, the groundwater inflow to the reach is the difference in streamflows between the two gages.

64. Baseline data are not presently available for the paired-gage approach. Collection of these baseline data would require operating each pair of stations for one year prior to pumping. Tr. I, pp. 151-152. Analysis of these data would involve determining the correlation between the flow in the stream and the groundwater inflow to the reach being assessed.

65. The paired-gage approach would not be appropriate for determining whether there is an impact on specific springs, such as on Big Spring, because individual springs represent a single point discharge of water. Tr. I, p. 134.

66. The paired gage approach would be required to identify impacts which are small relative to the base flow in the stream, and hence which require very accurate measurements. Tr. I, pp. 143-145.

67. Installing a new gaging station in the Nahiku area would likely involve an intensive effort due to difficult access. The installation cost for each new gaging station could be in the tens of thousands of dollars. Tr. I, pp. 137-138. Once established, the average cost for the USGS to collect and analyze the data from each gage would be approximately $6,500 per year per station. Tr. I, p. 133.

H. Biological Monitoring

68. A biological monitoring approach would directly monitor the habitat values and indigenous species in the streams potentially affected by pumping of the Kuhiwa well.

69. The biological monitoring approach would require baseline data collection prior to pumping. The U.S. Fish and Wildlife Service has suggested that two to seven months would be

required for baseline data collection, including site selection and replicates of pre-project conditions to develop a statistically valid baseline. Tr. II, pp. 43, 46.

70. The State Division of Aquatic Resources is presently engaged in setting up a statewide stream monitoring program which would provide long-term controls to determine whether aquatic variations observed by a consultant for the applicant on Hanawi or Makapipi Streams are consistent with variations elsewhere. Tr. II, p. 59.

I. Alternatives to Well Pumping

71. Maui Pine considered the alternative of constructing a water storage facility in central Maui as an alternative to withdrawing groundwater from the Kuhiwa Well. However, this alternative was rejected because expected costs in the order of $0.50 to $1.00 per gallon of reservoir capacity was not economically feasible for the company. Tr. I, pp. 28, 86-87.

72. Cost estimates developed by the County of Maui and State of Hawaii for water storage reservoirs in Kula, Maui vary between 7.6 and 20 cents per gallon of reservoir capacity. Petitioner's Motion to Supplement the Administrative Record, Exhibits "A" and "B".

II. CONCLUSIONS OF LAW

After fully reviewing the record, pleadings, and arguments of counsel in this case and based upon the foregoing Findings of Fact, the Commission makes the following Conclusions of Law.

1. The Commission has jurisdiction to consider and authorize pump installation permits to extract ground water pursuant to Hawaii Revised Statutes, chapter 174C and, more particularly, HRS §§ 174C-5, 174C-82, 174C-84, and 174C-86.

2. The Commission has jurisdiction to establish, revise, and require amendments to interim instream flow standards pursuant to Hawaii Revised Statutes, Chapter 174C and, more particularly, HRS §§ 174C-5 and 174C-71.

3. The proposed use of ground water for agricultural irrigation purposes is a recognized beneficial use under the Water Code. HRS § 174C-2(c).

4. While promoting maximum beneficial use of Hawaii's water resources, the Code also requires the Commission to make adequate provision for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of the waters of the State for municipal uses, public recreation, public water

supply, agricultural, and navigation all of which are in the public interest. HRS § 174C-2(c).

5. Maui Pine's proposed use of this water for continued agricultural irrigation will serve the broad public interest in several ways.

First, it will help to sustain a long established pineapple operation and enterprise by insuring a critically needed water source. This is in keeping with the State's declared goal of supporting a diversified agricultural economy (HRS § 226-7(a)(1) and (b)(6)) as well as the maintenance of open green spaces. HRS § 226-11, -12, and -13.

Second, a pump installation permit with appropriate conditions will allow the maximum beneficial use of the water while respecting and not compromising the protection of the resource, both ground and surface, or the other objectives of the Water Code.

Third, a biological and hydrological monitoring system as a condition to a permit could provide information which will guide future decisions and actions of the Commission in managing water resources in the Nahiku region, including the establishment of permanent instream flow standards.

Fourth, faced with inconclusive factual information, the Commission recognizes the need to establish a process to both proceed with a needed use while retaining jurisdiction to monitor and modify the use should subsequent data indicate any injury or harm. This balance may be modified over time as data becomes more accurate, the environment changes, or legal obligations impose different standards.

6. The Commission concludes that the proposed pumping could have some impact on stream flows in the vicinity of the well. However, the magnitude of such an impact remains uncertain. The record does not provide sufficient evidence to conclude that the proposed pumping would or would not harm the stream flows in question, or whether the impact would be greater than an insubstantial modification of the stream flow allowable under Hawaii Administrative Rules, § 13-169-36. However, if the actual impact of the proposed pumping is a de minimis loss of stream flow, the benefits that inure to the public from the proposed pumping outweigh such a minimal reduction.

7. The Commission concludes that approval of this pump installation permit is not inconsistent with the interim instream flow standards established by this Commission on June 15, 1988. Hawaii Administrative Rules, § 13-169-44. However, any detectable and not "insubstantial" reduction of instream flows would require Maui Pine to apply for and obtain an amendment to the interim instream flow standards under HRS § 174C-71 and

Hawaii Administrative Rules, Title 13, Chapter 169. That process would then weigh Maui Pine's proposed use on the basis of more conclusive data showing the magnitude of the reduction and the impact upon the biological environment and other protected interests.

8. The Commission is well satisfied that the concerns raised by the Intervenors may be resolved through the program of biological and hydrological monitoring and by the other conditions established in this Decision and Order. Moreover, the conditions imposed by this Order and by law will reasonably protect the interests asserted by the Intervenors both now and in the future.

9. The Commission concludes that by both proceeding with the pumping of the well and the collection of biological and hydrological data, the development of a permanent instream flow standard will be premised upon more complete data.

10. By retaining the involvement of the Intervenors in the process, their concerns will continue to be heard and analyzed.

11. By granting the permit, the hardship on Maui Pine that would ensue from denying the use of water for irrigation both in the short and longer terms is avoided.

12. Based upon the foregoing, the Commission concludes that the record of evidence and the applicable law warrant and justify the granting of the pump installation permit upon the terms and conditions stated in the accompanying Decision and Order.

13. Any Finding of Fact or Conclusion of Law by either Maui Pine or the Intervenors not specifically adopted by the Commission is hereby denied and rejected.

14. Any Conclusion of Law improperly deemed, construed, or designated as a Find of Fact shall be treated as a Conclusion of Law. Likewise, any Finding of Fact improperly deemed, construed, or designated a Conclusion of Law shall be treated as a Finding of Fact.

III. DECISION AND ORDER

Based on the foregoing Findings of Fact and Conclusions of Law, it is the Decision and Order of the Commission that the application of Maui Pineapple Company, Ltd., for a pump be and the same hereby is granted, subject to the following terms and conditions:

1. The applicant shall provide and maintain appropriate measurement devices in the Kuhiwa well to measure and record the water level in the well. The applicant shall also provide and maintain approved meters or other appropriate devices or means for measuring and reporting well pumpage on a continuous basis and total water usage on a monthly basis. In total, one meter shall record the pumpage from the well, a second meter shall record the pumpage from the Hanawi Pumping Station and a third meter shall record the amount of water taken from the irrigation ditch for pineapple irrigation.

2. The applicant shall submit a Well Completion Report to the Division of Water Resource Management within 30 days after the completion of the work.

3. The proposed use shall not adversely affect existing legal uses in the area, including instream uses and existing off-stream uses.

4. Use of water from the well shall be for pineapple irrigation only.

5. The maximum quantity of water to be pumped on an annual basis from the well and the existing Hanawi Stream Pumping Station combined shall not exceed the annual capacity for withdrawing water from the Hanawi Stream Pumping Station alone under past operating practice. This maximum annual quantity is approximately 180 million gallons per year, based on the 0.5 MGD capacity of the pumping station.

6. In order for the Commission to be able to determine whether the pumping of the Kuhiwa Well is causing a reduction in stream flows, a monitoring program shall be implemented by the Applicant.

7. To ensure that the monitoring program is effective and fair, a review panel shall be established which consists of five members: one person representing each of the involved parties, the Hana Community Association and Maui Pineapple Company, Ltd.; one person representing the Commission; a biologist from the State Division of Aquatic Resources; and, a hydrologist or hydrogeologist from the US Geological Survey. However, it would not be considered a violation of these permit conditions should either the Hana Community Association or US Geological Survey

decline to participate in the review panel. The review panel would meet on a regular basis as it considers appropriate to:

a. Assess the Applicant's compliance with the conditions of this permit.

b. Assess the data collected under the monitoring program, with particular attention to determining whether there is any evidence that pumping may be causing a reduction of stream flows.

c. Assess any additional data or analysis not specifically required by this permit which might be brought forward by any party to provide greater insight into predicting or determining the specific impacts of pumping the well.

d. Report its findings to the Commission.

8. The monitoring program to be implemented by the Applicant, and assessed by the review panel, shall include the following elements:

a. Before the commencement of well pumping, baseline biological surveys of the stream biota of Hanawi and Makapipi Streams shall be conducted, and one or more permanent monitoring sites shall be selected following

the findings of the baseline surveys. The protocol for said baseline biological surveys and selection of permanent monitoring sites shall meet the approval of the State Division of Aquatic Resources.

b. Before the commencement of well pumping, the USGS gaging station on Hanawi Stream below Big Spring shall be re-established with a continuous recording gage in a manner which meets the approval of the USGS. Low-flow stream discharge and water level measurements for the gage shall be made by the USGS.

c. Before the commencement of well pumping, a single gaging station consisting of an appropriate measuring device such as a standard "V-notch" weir and staff gage shall be established along the unnamed stream at TMK 1-2-01:14, by Maui Pine and the USGS in cooperation with the landowner, Michael Behrens. Should the landowner decline to cooperate, this condition would not apply.

d. Before the commencement of well pumping, the locations of perennial pools along Makapipi Stream and the unnamed stream shall be located in cooperation with the persons who testified to their perennial nature, and their characteristics documented to the extent possible. Should the persons who testified as to the

existence of perennial pools along these streams decline to cooperate, this condition would not apply.

e. Maui Pine shall notify or cause notice of the scheduled commencement of pumping date to be given to the Commission and to the Hana Community Association not less than seven days prior to the commencement of pumping.

f. The commencement of pumping shall be controlled as a pump test to determine well yield and drawdown characteristics. The protocol for the pump test shall be determined by the State Division of Water Resource Management in cooperation with the USGS.

g. After pumping has commenced, biological data shall be regularly collected from permanent monitoring sites established under element "a" above. The protocol for the biological monitoring shall meet the approval of the State Division of Aquatic Resources.

h. After pumping has commenced, data from the re-established USGS gaging station on Hanawi Stream below Big Spring shall be continuously collected and analyzed by the USGS.

i. After pumping has commenced, data from the unnamed stream shall be continuously collected and analyzed by the landowner at TMK 1-2-01:14, who shall allow for field verification of low-flow events by Maui Pine and other members of the review panel.

j. After pumping has commenced, perennial pools (if any) along Makapipi Stream and the unnamed stream shall be regularly inspected during low flow periods and their characteristics documented to the extent possible.

k. All biological, streamflow, and other data described above shall be collected at Maui Pine's expense for a period not to exceed 10 years. The duration of the monitoring program may be shortened by the Commission if data collected under conditions of extreme low flow and prolonged continuous pumping do not show any detectable impact on stream flows and biological habitat, if other evidence is brought forward which yields the same conclusion, or if Maui Pine terminates its use of water from the well.

l. All biological, streamflow, and other data described above, including total monthly water usage data, shall be provided to the Commission and to each member of the review panel on a timely basis after being collected.

9. Evidence to be considered by the review panel and the Commission that pumping may be causing a reduction in stream flows includes, but is not limited to:

a. The drying up of historically perennial pools and/or springs along Makapipi Stream or the unnamed stream.

b. The drying up or discernable depletion of the unnamed stream where it flows through TMK 1-2-01:14.

c. Record low flows at either of the two USGS gaging stations on Hanawi stream which are less than the record low flows recorded previously at those stations, and not attributable to extreme climatic conditions.

d. More frequent occurrence of low flows (a shift in the low-flow frequency characteristics) at either of the two USGS gaging stations on Hanawi Stream, and not attributable to climatic conditions.

e. A loss or reduction in aquatic habitat and/or native species as determined by the biological monitoring program.

10. If either the review panel or the Commission finds evidence that pumping of the Kuhiwa Well may be reducing the flow of either Makapipi Stream, Hanawi Stream, or the unnamed stream,

the Commission shall instruct the Applicant to cease pumping, pending a hearing, at which time the Commission shall consider whether said reduction in stream flow is: 1) due to pumping; and, 2) whether an amendment of the Interim Instream Flow Standards would be required before the Applicant could resume pumping.

11. Pumping shall cease immediately if evidence of possible pumping-related impacts is found and if this or other evidence suggests that the response time between start of pumping and impact on streams is six months or less. In particular, pumping shall cease immediately if any evidence of pumping-related impacts is found during the first year of pump operation.

12. If evidence of possible pumping-related impacts is found after the first year of operation and the response time between start of pumping and impact on streams is believed to be more than six months (in which case an immediate stop of pumping would not correspond to an immediate restoration of stream flows), pumping shall cease within six months of this evidence being found.

13. If the unnamed stream at TMK 1-2-01:14 were to go dry or be discernably depleted, the Applicant shall cease pumping in accordance with conditions 11 and 12 above, and, for the period it takes for normal stream flows to be restored, shall furthermore be responsible for providing sufficient water to the property to satisfy domestic needs, and reimburse the landowner

for crop damages and any other financial losses directly caused by the loss of water supply.

14. Total monthly water usage data shall be reported to the Commission on a regular basis.

15. The permit may be revoked if work is not started within six months of the date of issuance or if work is suspended or abandoned for six months. The work shall be completed within two years of the date of issuance.

16. This permit shall not be deemed to diminish or waive the rights granted under Hawaii Revised Statutes section 174C-63 to any person to apply for and receive a water use permit to exercise appurtenant water rights whether or not those appurtenant rights are currently being exercised.

17. The permittee's right to this permit or to withdraw water is subject to diminution and modification by the Commission on Water Resource Management or the courts of the State of Hawaii in order to protect the natural resource, to maintain instream flow standards, and to assure appurtenant rights, riparian and correlative rights and uses under Article XII, section 7 of the Hawaii State Constitution, HRS Chapter 174C, and the common law, and to assure to the Department of Hawaiian Home Lands those rights provided by section 221 of the Hawaiian Homes Commission

Act, whether such rights are or will require the actual withdrawal of water or not.

IT IS SO ORDERED.

DATED: Honolulu, Hawaii, October 2, 1991

COMMISSION ON WATER RESOURCE MANAGEMENT
STATE OF HAWAII

By: _____
WILLIAM W. PATY, Jr., Chairperson

_____
GUY K. FUJIMURA, Commissioner

_____
ROBERT S. NAKATA, Commissioner

_____
JOHN C. LEWIN, M.D.,
Ex-officio member

Approved as to form

_____
William M. Tam,
Deputy Attorney General

25.0 Maui Electric Company, Ltd., Michael Ribao

Oral Testimony Before the Commission on Water Resource Management
In Support of Hawaiian Commercial and Sugar Company's
Motion to Consolidate Petitions to Amend Interim Instream Flow Standards
for East Maui Streams
By: Michael Ribao
Manager, Power Supply Department
Maui Electric Company, Limited

Good evening Chair Thielen and Members of the Commission. My name is Michael Ribao. I am the Manager of the Power Supply Department at Maui Electric Company (MECO).

MECO is vitally interested in the continued viability of HC&S. HC&S has long been a firm and reliable power producer, providing up to 16 MW of electricity on Maui. Continued power production by HC&S, from the burning of bagasse, is an important part of MECO's plan to: 1) reduce our dependence on fossil fuels, and 2) to meet the State of Hawaii's Renewable Portfolio Standard of 25% of our electricity sales being generated from renewable resources by the year 2020 thru our Hawaii Clean Energy Agreement.

Power produced by HC&S is critical to MECO because it is considered firm renewable power that is available 24 hours a day, 7 days a week. Other forms of alternative energy, such as solar and wind power, while also important, are considered as-available power - - that is, only available when the sun or wind can produce sufficient energy depending on changing weather conditions. As-available renewable energy cannot be consistently relied upon, and requires us to have standby generating capacity to adjust to fluctuations of such resources.

HC&S asserts that its economic well-being is dependent upon the integrated ditch system. We support that view. It doesn't make sense to make decisions about an integrated system by just considering a small portion of it.

At MECO, we also operate a complex integrated system and we know first hand that you cannot make either technical or economic decisions about the whole system based on facts relating to just a portion of the system.

The importance of HC&S to the well-being of Maui – in the jobs it provides, in the direct and indirect positive impacts on Maui's economy, in keeping agriculture thriving, and in producing a reliable source of renewable energy – requires that the Commission exercise utmost caution and deliberate the potential impacts its decisions will have on HC&S. The stakes are too high to risk a piecemeal approach without a full understanding of the impact on the entire comprehensive picture. Let's keep Central Maui green with the water it needs.

MECO, therefore, supports HC&S's motion to consolidate and consider interim instream flow standards in the context of the entire East Maui Irrigation system, and we respectfully request the Commission to do the same.

Thank you.

26.0 Kupaa Farms, Gerry Ross and Janet Simpson

October 14, 2009
Submitted via email: dlnr.cwrm@hawaii.gov

FROM: **Janet Simpson/Gerry Ross, Kupa'a Farms, Box 458, Kula, HI 96790**

TO: **Commission on Water Resource Management**
Kalanimoku Building
1151 Punchbowl Street, Room 227
Honolulu, Hawaii 96813

HEARING DATE: **Thursday, October 15, 2009 Paia Community Center**

Aloha Commission members,

Thank you for the opportunity to address our concerns in terms of water use and the need to balance water availability with environmental health. As we all know water will be the defining issue of our time as our population spirals ever upwards against a background of constant and locally decreasing water supply. We support a balanced approach to water that includes restoration of instream water flow and balancing this with offstream water uses.

We are a small farm in lower Kula. We grow about 40 different crops on 4 acres and we feed about 20 Maui families with our produce every week. We grow many kinds of vegetables, pineapple, taro, sweet potato, and award-winning coffee, all on drip irrigation and all organically. We do our utmost to stretch every drop of water that we get. We are in a particularly dry area of Kula with only 20" of rainfall average so irrigation is critical to our existence. We make extensive use of drip irrigation, wind breaks, cover crops, perennial cover crops and vegetative banks, and in our coffee orchards, we use managed shade trees and living ground covers. All of these contribute to efficient water use. We do not take lightly the fact that much of our water is diverted from streams in East Maui. In the winter we use less than 500G/A/day and in the summer this rises to 2500G/A/day.

We are just one of the many offstream agricultural users in Kula. Although we are one of only a few organic farms, collectively all Kula farms will be increasingly essential for the self sufficiency of Maui which will become more of an issue as the cost of transportation goes in only one direction….up.

As an organic farmer we take the view that we must work to collaborate with ecosystems rather than overwhelm them with the human perception of what is healthy. Water is part of that in terms of finding a balance between instream flow

to maintain local ecosystem health and the amount of water that goes into diversions. As a farmer I need to know what sorts of changes to stream flow are being proposed, how they will affect ditch/diversion flow numbers and how this will impact us?. It is a straight forward issue for our farm: no irrigation, no farm. I tried to educate myself by reading one of the reports on the website for Piinaau stream. It is a very well written and informative document. I was trying to find out how much water there is, what are the suggested changes to inflow standards, how this will impact Upcountry users etc. It took me awhile to figure out some of the graphs. How can the Commission expect someone to make sense of a figure that plots "years" on the bottom (very understandable) vs. "Cumulative departures of monthly flow from the median of monthly flows, in number of standard deviations". Ultimately, in order to be able to make an informed decision, I need to know "How much water can be diverted and still maintain the health of the stream system and watershed and satisfy offstream users such as myself?"

In the meantime I have talked with many friends about the water issues facing Maui and several things appear to be clear: we have witnessed decreased rainfall in the last 40 years and our water transportation system (flumes, ditches, and reservoirs) are in disrepair and are very inefficient. For example the ditches in Na Wai Eha lose up to 4 million G/day from leaks and needed repairs; similarly reservoir losses are around 4-6M a day. No such numbers exist for East Maui (although they should) but anecdotal and observed problems along the EMI ditch system are considerable. So given that our farm is as efficient as possible with water, shouldn't the East Maui ditch systems be similarly efficient?. Given the specter of decreased rainfall, increased offstream demands and the negative impacts of on-going water diversion shouldn't we be looking at improving the efficiency of our water collection systems?

I believe that ultimately a collaborative effort is needed to resolve this problem…as a friend has always commented to me in areas of conflict, it is a race to the middle ground. I look to the Commission for finding that middle ground.

Mahalo, Gerry Ross and Janet Simpson

27.0 Maui Land & Pineapple Company, Jeffrey T. Pearson

Maui Land & Pineapple Company, Inc.

October, 15, 2009

Name: Jeffrey T. Pearson, P.E. Phone: 808 877-1606
Affiliation: Water Manager, Maui Land & Pineapple Company, Inc.
P.O. Box 187, Kahului, Hawaii 96733
Email: jpearson@mlpmaui.com

Testimony on the INSTREAM FLOW STANDARD ASSESSMENT REPORTS For the hydrological units of east Maui, Public Fact Gathering Meeting of October 15, 2009

In paragraph 13.4.4 of all hydrologic unit reports under the title "Maui Land and Pineapple Company", some shifts in our agricultural direction require clarification to the draft report write-up.

There have been many changes within ML&P in general and with Maui Pineapple Company in particular. In an effort to reduce transportation costs, and consolidate our agricultural operations, MPC will now concentrate pineapple growing exclusively in the East Maui area. We are currently not planning to lease any lands as stated in the draft reports. Our acres under cultivation will be downsized to approximately 1600 acres, down from the draft report value of 2,800 acres. Our water use estimates for east Maui will also be reduced to approximately 3.1 mgd from 2009 to 2016, down from the 4.4 mgd discussed in the daft reports.

Thank you for allowing comments on the draft reports for the east Maui streams INSTERAM FLOW STANDARD ASSESSMENT REPORTS.

P.O. Box 187 • Kahului, Maui, Hawai'i 96733-6687 • 808-877-3351 • Fax 808-871-0953
mauiland.com

28.0 Kolea Schonwalter

As the community pursues legal action to restore the flow to Nā Wai 'Ehā streams, it's meeting a corporate campaign of misinformation and scare tactics. Wailuku Water Company (WWC) and Hawaiian Commercial & Sugar (HC&S), a division of Alexander & Baldwin, Inc. (A&B), don't want to let go of their monopoly over stream water. Now they're resorting to fiction to support their stand.

Here are the facts, including admissions the two companies made during legal proceedings.

1. Fiction: This case is about jobs and the economy.

Fact: This case is about who controls Maui's water future.

Water is a public trust resource that belongs to all, including generations yet unborn—not the property and profit source of these two private companies. WWC contributes nothing to the economy, but simply seeks to skim a profit off of public water. HC&S/A&B could and should use practicable alternatives. Instead, it seeks to hoard Nā Wai 'Ehā water for sale to the public while reserving use for its future development projects. This case will decide whether the future of Nā Wai 'Ehā and Maui belongs to these companies, or all the people of Maui.

2. Fiction: WWC and HC&S say they are using every drop of stream water they divert.

Fact: Water is available for sale.

In a 2005 letter to its shareholders, WWC declared that after HC&S, kuleana users, and existing WWC customers, "27.5 million gallons a day (mgd) would be available to new customers." HC&S/A&B and WWC now want to sell 9 mgd of Nā Wai 'Ehā water to the County of Maui for a surface water treatment plant.

3. Fiction: WWC and HC&S say no stream water is being wasted.

Fact: There are numerous examples of waste and dumping.

Water Dumping: WWC gave Maui Cattle Company up to a million gallons a day to spray into the air over a dry pasture in Mā'alaea all day, every day, through the heat of summer. For years, HC&S dumped outrageous volumes of water—up to 14,000 gallons per acre per day (gad), more than twice the amount needed for sugar—onto sandy, unproductive land slated for development. The companies committed this dumping even after the community brought legal action to stop the waste and restore stream flows.

Water Wasting: HC&S admitted that its unlined Wai'ale Reservoir, which receives water from Waihe'e and Spreckels Ditches, loses 6 to 8 mgd through leakage. Another 3 to 4 mgd is lost in other parts of its ditch system. This accounts for more than 25 percent of the water that is actually delivered to the reservoir. (To put this in perspective, the 'Īao Aquifer, Maui's main source of drinking water, has a total capacity of less than 20 mgd.)

4. Fiction: HC&S says it has no other affordable water sources except from Nā Wai 'Ehā streams.

Fact: Reasonable alternatives are available.

HC&S has used Well No. 7 in Central Maui for more than six decades to produce more than 20 mgd of non-potable agricultural water. But it prefers to use

the "free" Nā Wai 'Ehā water so it can avoid running the well and instead sell its internally generated electricity to Maui Electric for windfall profits.

HC&S also should take the initiative to use the more than 5 mgd of reclaimed water from the Wailuku-Kahului wastewater treatment plant that is now dumped in injection wells, degrading nearshore waters.

5. Fiction: HC&S will be forced to go out of business if Nā Wai 'Ehā streams are restored.

Fact: HC&S is only banking WWC's "Surplus" and can afford to share.

Historically, the former Wailuku Sugar plantation used most of the water diverted from Nā Wai 'Ehā, and HC&S used only about one-third. Now, Wailuku Sugar has turned into a "water company," and HC&S is simply helping WWC to bank its unused "share"—but only for now. HC&S admitted that, as WWC finds more "customers," the water will no longer be available to HC&S. Thus, unless HC&S is willing to rest its future in WWC's hands, HC&S's future does not depend on Nā Wai 'Ehā water.

With very modest investments, HC&S can show community responsibility, stop wasting water from its leaky system, and make good use of its non-potable ground water supplies. But HC&S wants to keep taking—and wasting—public stream water for free, while the streams run dry and households are asked to cut back their use.

6. Fiction: Stream restoration is detrimental to agriculture.

Fact: Restoration will support agriculture.

Scores of family farmers from Waikapū to Waihe'e support restored stream flows to farm their kuleanas, grow food for their families and communities, and live their culture. Nā Wai 'Ehā was Maui's breadbasket in ancient times, and its rich lands could regain their productivity with more water.

A&B seeks to develop agricultural land. Even while claiming HC&S cannot lose any substantial acreage without going out of business, A&B is busy planning to urbanize thousands of acres of plantation land. A&B has already received approval from the state Land Use Commission to reduce its Maui agricultural lands by 25 percent, with 10,000 acres slated for future development.

7. Fiction: Stream restoration impairs the ability to provide water to existing and new homes.

Fact: Stream flow recharges public aquifers.

The U.S. Geological Survey (USGS) estimates that the companies' stream diversions deprive the 'Īao Aquifer, Maui's main drinking water source, of more than 12 mgd of recharge. This exceeds 60% of the current 20 mgd capacity of the aquifer and could provide clean, affordable ground water for thousands of affordable homes via the county's system.

8. Fiction: Stream restoration is detrimental to Maui's economy.

Fact: A healthy environment is the economy.

Maui's economy and way of life depend on a balanced ecosystem. Over a century of draining Nā Wai 'Ehā watersheds has taken a toll on the ability of the 'āina to maintain a healthy cycle in our streams, oceans, and aquifers. These companies can show community responsibility by adopting economically feasible alternatives and restoring water to the public. Instead, they prefer to hoard the water for their exclusive profit. It's time to restore balance.

The Companies' Wai'ale proposal is a raw deal. The Wai'ale treatment plant WWC and A&B propose to the County requires the public to bear the plant costs and pay the companies for the water. Meanwhile, A&B would reserve half of the water for its own developments. The County's own analysis concludes that the price WWC proposes to charge for water makes the Wai'ale plant unfeasible. Instead of supporting water profiteers, the County needs to adopt aggressive conservation measures, which its analysis concludes is the most feasible alternative.

29.0 Dick Mayer

POTENTIAL USES of EAST MAUI STREAM WATERS

October 15, 2009

(NOT necessarily in any priority order)

Prof. Dick Mayer tel 808-878-1874
dickmayer@earthlink.net

1. Restoration of natural stream flows and transport of nutrients to the ocean
   (Maui's natural environment is a foundation of our traditional+modern economy)
   (How many MGD are needed as a minimum?)

2. Provide dependable water supply for East Maui's taro farming
   (Historical agricultural activity utilizing the East Maui stream waters)
   (Appurtenant and Riparian rights)

3. Hold in reserve adequate water for the growing Hawaiian Homelands development
   (300+ now; 2,800 expected)
   (Present 0.5 MGD is inadequate over the long term)

4. Continue providing dependable water supply for Upcountry's diversified farmers
   (Animals, vegetables, fruits, flowers, existing and future ag. parks, etc.)
   (Determine minimum "drought season" needs)

5. Continue providing for the domestic water needs of the Upcountry Maui region
   (Determine minimum wet season and "drought season" needs at each elevation
   Upper Kula, Lower Kula, Olinda, Makawao, Pukalani, Haiku, Haliimaile)

6. Continue providing irrigation water for the HC&S sugar plantation
   (29,000 acres from EMI System)
   (Consider alternative, less water intensive crops that would allow
   for higher employment and potentially higher revenues)

7. Determine accurate needs of ML&P's Upcountry Pineapple plantation
   (Much of the land has been sold off, acreage being decreased)

8. Reserve water supplies for future Upcountry residential development
   (1,300 names on water meter list; many other potential lands)

9. Begin delivering potable water to Maui Island's major towns in Central Maui
   (Maui Island Plan designates central valley area for significant population growth)

10. Begin delivering water for the resort developments and golf courses in South Maui
    (Location of Maui's largest industry, tourism)

RECOMMENDATIONS:
Put all of these conflicting uses into a matrix that will make clear
the scale of the various potential water users.
- Include wet season and drought season demands.
- Include water delivery cost estimates.

Prepare cost estimates on the annual and long-term maintenance costs of the EMI System.

Propose a "water management authority" or a division of the Water Commission to operate an integrated East Maui system, fairly and efficiently.

POTENTIAL USES of EAST MAUI STREAM WATERS

October 15, 2009

(NOT necessarily in any priority order)

Prof. Dick Mayer tel 808-878-1874
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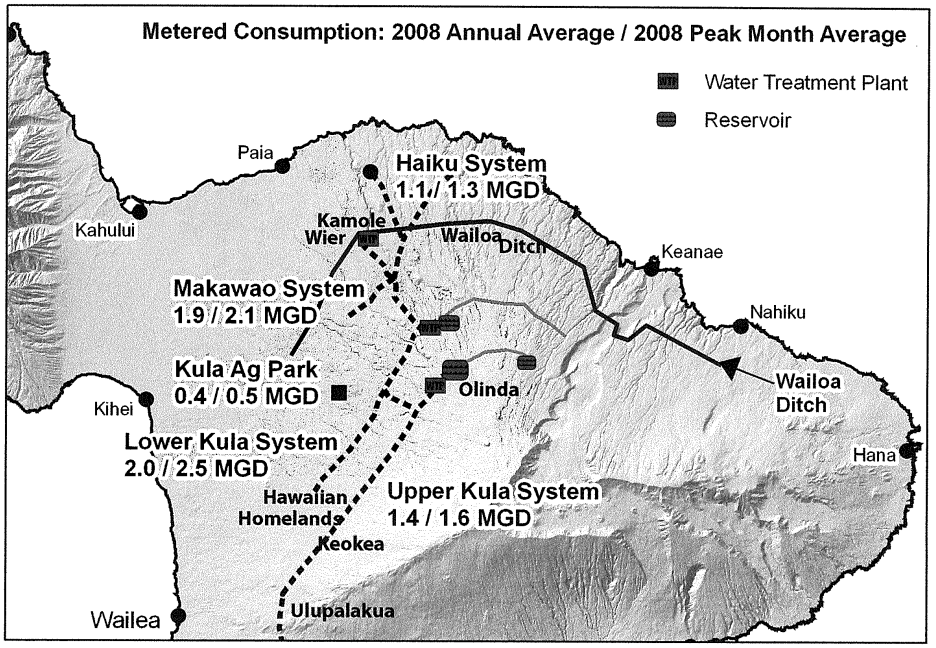


30.0 Elaine S. Wender

HC 1 Box 93 Ha'ikū, Hawai'i 96708 (808) 249-2370 October 15, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawai'i 96809

RE: Instream Flow Standard Assessment Reports for Sixteen East Maui Streams

Thank you for being here tonight. For too many years the pleas of East Maui residents to restore streamflow have gone unheeded.

I appreciate that you sent me a CD of the draft reports, as I was unable to download the files from the internet, but I have found it very difficult to review them. The largest is 245 pages long. Trying to read the documents on my laptop makes me weary. Much of the information in the various reports is the same, but there is no way to ascertain that without reading each report. It would be very helpful if you published the common material in one document, and then the information particular to the individual streams in separate reports. Also, hard copies should be made available at least in libraries. I will be submitting written comments later on some of the reports.

Ancestors of current residents of Ke'anae-Wailuanui protested the taking of stream water 125 years ago. Those in power ignored them. That has been the pattern for over a century. For over 25 years I have testified along with many others at countless hearings asking for restoration of streamflow. Recently, finally, we have seen the beginning of change, and I hope that the staff and the commission will continue to listen, and to act in accordance with your legal mandate.

Twenty two years ago, in November, 1987, the Ke'anae-Wailuanui Community Association submitted comments, signed unanimously by all 11 directors, on the original proposed IIFS, specifically recommending that a continuous flow from the mountain to the sea be reestablished in area streams, including streams being considered today (see attached). Similar comments were submitted to the CWRM in April, 1988 (see attached Maui News article). Since that time, five of the 11 who signed have died: President Harry Kūnihi Mitchell, Vice-President Ruth Hanson, Harry K. Pahukoa, Jr., Samuel E. Kaauamo and Harry O. Mitchell, Jr. Sarah Kaauamo, who earlier was a director, has also passed away.

COMMENTS ON INTERIM INSTREAM FLOW STANDARDS (IIFS) FOR EAST MAUI
KE'ANAE-WAILUANUI COMMUNITY ASSOCIATION, INC.
November 18, 1987

Ka wai ola is the very lifeblood of our existence in Ke'anae and Wailua. We are dependant on the waters of Kane and Kanaloa to irrigate our lo'i kalo, and to provide an environment where the native flora and fauna which are an essential part of our Hawaiian lifestyle can flourish.

East Maui presents a unique situation. Nowhere else in Hawai'i does such an extensive ditch and tunnel system exist, stretching from Nahiku, near Hana to upcountry and central Maui. Every single stream which crosses this system is completely dewatered at that point during almost the entire year. Only when there are storm flows is there an overflow from the ditch. Even then, a continuous flow is not established from the mountain to the sea because many of the diversions are above the ditch, and dewater the streams above, and the storm flow is not released until it hits the ditch. Normally we are completely dependant solely on those spring waters which arise below the ditch.

Nothing in the Water Code requires the grandfathering in of all these diversions. The licenses to take the water from East Maui are currently being renewed from month to month, so that at the present no claim can be made that there is a vested interest in the taking of all of this water. You are mandated by the new code to "protect, enhance, and reestablish, where practicable, beneficial instream uses of water." (sec. -71(4)) The restoration of some streamflow would lead to the restoration of suitable aquatic habitat for native species such as 'o'opu, 'opae and hi'iwai. We have been caught in a Catch-22 in that you have refused to deal with the issue of minimum stream flow in the contested case regarding the issuance of the East Maui water licenses, stating that the matter will be dealt with via the Code. But when we raise the issue in the context of the Code, we are told that existing diversions will be grandfathered in. Thus there is no forum in which to address the issue.

Without a reestablishment of continuous flow from the mountain to the sea, the discussion of what mathematical formula to use to set the IIFS is meaningless as far as flows below the ditch are concerned. Right now, the flow immediately below the ditch on all streams is zero almost all the time. So whether you use the mean or the median, 60% or 100%, the figure will remain zero. Beneficial instream uses will be completely sacrificed. The assurances in the Code of the continuation of our Hawaiian gethering rights are meaningless if there is nothing in the streams to gather.
If you begin by considering the unimpeded flow of the streams, then we can debate the formulas presented. It is obvious that DOWALD does not have adequate data to recommend standards that have any real meaning. There is absolutely no biological or geological data to support the assertion that the formula suggested will result in

Likewise, the notice for this meeting was inadequate. We received notice by mail four days before the meeting. We have not seen any published notice. Neither this meeting nor the informational meetings gave adequate notice as required by Chapter 91. Surely you are engaged in rule making in establoshing the IIFS, and must adhere to due process. What you do here today will have a severe impact on our lives. We hope that you will do your best to protect our waters of life.

Adopted unanimously by Board of Directors
Ke'anae-Wailuanui Community Association, Inc.
November 18, 1987

Harry Kunihi Mitchell
President

Ruth Hanson
Vice-President

Stephanie A. Hookano
Recording Sec'y.

Charmaine K. Day
Corresponding Sec'y.

Frances G. Ah Koi

Samuel E. Kaauamo

Juanita J. Chong

Wendell H. Kaililaau

Issac Kanoa, Jr.

Harry O. Mitchell, Jr.

Harry K. Pahukoa, Jr.

Panel hears pleas to both increase, reduce river flow

The Maui News 4/28/88

By GARY KUBOTA
Staff Writer

KAHULUI — Native Hawaiians last night criticized a proposal supported by Maui County and some farm interests to "grandfather" all existing diversions from East Maui streams and allow more water to be taken in the future.

Keanae resident Harry Mitcheli and representatives of the Keanae-Wailuanui Community Association called upon the state water commission to restore some streams that are dry because of existing diversions.

"We've been neglected so long it's not funny anymore," Mitchell said.

The county, Hawaiian Commercial & Sugar Co., and Kula farm groups argued in favor of increasing the diversions to accommodate economic and population growth.

About 55 people attended the meeting at Kahului School to discuss how much water should be allowed to flow in East Maui streams.

The state Commission on Water Resource Management, which held the meeting, is reviewing a staff recommendation to allow existing diversions and establish interim flows for 77 East Maui streams.

The conflict last night stems partly from the diversion of East Maui streams about a century ago for sugar cane cultivation from sources traditionally used by native Hawaiians.

During the meeting, Mitchell asked commission chairman William Paty to deliver a message to Gov. John Waihee, calling for the restoration of some streams in the Keanae area.

Mitchell warned that if the commission supported grandfathering all existing diversions, native Hawaiians will be forced to go to court to assert their aboriginal water rights.

Elaine Wender, a Keanae resident, said the classification of certain streams as having "low value" leaves them vulnerable to future diversions.

Wender said two streams in this category are the East and West Wailuaiki streams. Bonneville Pacific Corporation wants to use both for hydroelectric development, a project opposed by a number of native Hawaiians in Keanae.

Wender said the Waiokamilo, a stream also listed as having low value, is the main source for taro farming at Wailua.

Wender said the steam was dry the majority of the time during the 1984 drought and any further diversion away from East Maui would hurt the community.

Alan Murakami, an attorney with the Native Hawaiian Legal Corp., said the interim stream flow standards were intended to protect streams until the commission could establish permanent standards.

Murakami said with this intent in mind, the commission should take a conservative approach to restrict new diversions until the value of the stream is evaluated.

Murakami said the commission should require existing users to show there is a need for water being diverted from the streams.

HARRY MITCHELL
"We've been neglected"

East Maui Irrigation warned that a reduction in the current diversions could result in a severe water shortage Upcountry, especially during droughts such as the one experienced in 1984.

Robert Warzecha, EMI's general manger, said during the drought, Hawaiian Commercial & Sugar Co. was forced to lay off scores of employees, and the company, as well as Maui Land & Pineapple, suffered economic losses.

Warzecha said the commission's staff proposal leans heavily toward protecting stream wildlife and that equal consideration should be given to its economic impact.

Warzecha said a requirement reducing the amount of water that could be diverted from the streams could "spell economic doom for a great deal of Maui's agriculture."

He added that Maui County, which relies upon EMI as a source of water, would be unable to provide water to its Upcountry residents.

Maui County Water Director Vince Bagoyo said he recognized the need to protect native Hawaiian wildlife but noted that the county needs to supply water to farms and residents Upcountry.

He asked the commission to consider grandfathering existing diversions used for public purposes.

Support for grandfathering also was supported by the Maui Farmers' Cooperative and the Maui County Farm Bureau. But not all Upcountry residents took a hard position.

County Council Member Tom Morrow and Upcountry farmer Robert Monden asked the commission to try to accommodate the request by the Keanae-Wailuanui community to restore some stream flow.

Morrow said he didn't think Harry Mitchell was asking for much.

Morrow indicated that the problem stemmed from the county government allowing too much growth Upcountry, and that new residents there are going to be surprised when they face a water shortage during a drought.

30.0-4

31.0 Sierra Club Maui Group, Lucienne de Naie

SIERRA CLUB 2007
KOOLAU DITCH NEAR KOPILI ULA - DITCHES HAVE PIECES OF LOGS & OTHER DEBRIS
2008

SIERRA CLUB TESTIMONY 2009

2008 KOOLAU DITCH NEAR KOPILI'ULA – ALIEN TREES HELP THEMSELVES TO DITCH WATER

SIERRA CLUB TESTIMONY 2009

INFRASTRUCTURE IN NEED OF REPAIR ALLOWS WATER TO FLOOD AREAS ALONG ITS PATH. 2008 WASTING WATER

SIERRA CLUB TESTIMONY 2009

JULY 2009 HUELO STREAM BELOW (MAKAI) HANA HWY — HOW CAN OUR STREAMS BE HEALTHY WHEN THEY ARE NOT CARED FOR ?

2008 ALIEN BLACKBERRY GETTING ESTABLISHED ALONG KOOLAU DITCH - NEAR HANAWI STREAM.

SIERRA CLUB TESTIMONY 2009

INVASIVE CLIDEMIA COLONIZES THE WATERSHED ALONG W/ INVASIVE GINGERS, JOB'S TEARS. KOOLAU DITCH HANAWI AREA 2008

SIERRA CLUB TEST. 09

32.0 Maui Tomorrow Foundation, Inc., Irene Bowie

MAUI TOMORROW

Protecting Maui's Future

Instream Flow Standard Assessment Report testimony to CWRM – Oct. 15, 2009

Mahalo for the dedicated research efforts by staff and consultants to produce the stream accessment reports. My name is Irene Bowie, executive director of Maui Tomorrow Foundation and my remarks this evening pertain to the common elements in all the reports, rather than any specific report.

We've heard of the current HC&S business model, but have not see any analyses of the viability of this current model or discussion of any alternative business model that may be on the horizon. As the economic sections of the report made clear, there are a number of competing uses for the stream waters. The Commission should have a clear idea if HC&S will realistically continue to employ 800 people and farm 34,000 acres even if it gets every drop of water it can harvest from the East Maui watershed. What happens if rainfall levels drop even further? Can HC&S remain viable? Where is that discussed?

What if, in the future, HC&S becomes a private water company or being sold to one?

Also not discussed are the implications of HC&S only committing 27,000 acres of their 34,000 acre ag lands as Important Ag Lands. There should be a detailed analyses of exactly how much water that would require. We are told that currently 29,000 acres are irrigated by EMI's system from E.Maui streams using 145 mgd. Is less land intended to be farmed? If so, it should not be assumed that water use will remain the same. The report should include this discussion, especially in light of the evidence of unneeded water use presented during the Na Wai Eha contested case.

While the nature of the various watershed areas is discussed and the work of the East Maui watershed partnership is described, there is no effort made to address strategies that could improve the ecological integrity of the watersheds below 3000 ft elevation.

The plaintiffs in Maui Tomorrow's original challenge to the EMI/ HC&S BLNR leases, depend upon flows generated below the upper diversions. These sections of the watershed are being neglected throughout East Maui and we would like to see that topic addressed in these assessment reports with more than a cursory mention of the lower elevations of the hydrological units being

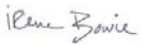
predominantly alien vegetation. EMI actually claims ownership of most of the overgrown, weed-choked stream beds in many of these hydrological units

The last area missing is a plain language discussion of system losses, efficiency of delivery systems (the ditches) from streams to ag fields and potential waste. This topic was well researched and disclosed in the Na Wai Eha proceedings and its implications to stream restoration decisions are significant.

All of these topics are important because the Commission is being asked to look primarily at economic justifications to keep status quo instream standards on these 19 East Maui streams. Is this a sound basis on which to base decision making of important public resources, or is it the same litany that has been used for years?

Today reasonable use of streamflow emphasizes the full and beneficial employment of the stream not only for economic advantage but for social, cultural and other advantages that will insure the stream's living character. Water law must continuously balance private property rights to scarce resources with public-interest limitations on private use.

Thank you,



Irene Bowie
Executive Director
Maui Tomorrow Foundation, Inc.
55 N. Church Street, Suite A-5
Wailuku, Hawaii 96793
Phone: 808.244.7570
E-mail: director@maui-tomorrow.org

33.0 Maui Chamber of Commerce, Pamela Tumpap

MAUI CHAMBER OF COMMERCE

OUR BUSINESS IS MAUI BUSINESS

October 15, 2009

State Commission on Water
Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Dear Commissioners,

Aloha! I am here today on behalf of the Maui Chamber of Commerce, an organization representing diverse businesses from every sector throughout the island, to share our thoughts on stream water use.

We appreciate the opportunity to testify of this issue as water is essential to life and our quality of life and the use of this precious resource requires careful consideration.

We believe decisions related to water should be balanced and reflect the triple bottom line view of sustainability—economy, environment and social well being. They should incorporate a broad view, examining all possible water sources and resolutions (including new source development which we have long supported and continue to support), and take into account both current and future needs.

The challenge is that the matter you are addressing today with both the West and East Maui streams impacts our entire community and many in the community do not fully understand how these issues will affect them. Through recent cooperative education efforts, more and more are recognizing the importance of stream water use and coming forward to speak out, with hundreds participating in a rally yesterday and thousands signing a petition to ask that you ensure that Interim In-stream Flow Standards set for East and West Maui continues to provide water to sustain off-stream uses—for homes, businesses, County water systems, community facilities and agriculture.

This is not a "big business issue" as some would tout, it is a Maui issue and I am here because we are passionate about Maui.

If there is a 50% reduction in water diverted from streams, it impacts us all—residents, businesses large and small, employees, farmers and entire industries. We care too much not to take a strand to help ensure the public is informed and to give them a voice in the process, especially as this issue is moving very fast and thus far, overall input has been minimal.

Therefore, we are here tonight on behalf of our broad membership to support:

- Providing water for existing and future uses that contribute to our economic well being.
- Water for community use as stream water is used by the County for resident use.

313 Ano Street • Kahului, Maui, HI 96732 • Phone (808) 871-7711 • Fax (808) 871-0706

- Our agricultural industry and providing needed water to not only sustain, but grow the industry and keep Maui green.
- Our visitor industry which relies on Maui's beauty and green valleys to attract visitors. This industry directly provides 40% of all jobs on Maui and generates 40% of the County's real property tax revenue, indirectly benefiting us all.
- We support HC&S, a long-time Maui company who graciously contributes to the community, helps support the ag industry, helps maintain our water infrastructure, continues to work on conservation methods, generates renewable power and who employs approximately 800 people here.
- Aid for businesses and the economy, particularly during these economic times when no business—large or small—is immune from the looming recession.
- Water for affordable housing.
- Adequately planning for water supply and reasonably priced water, taking a comprehensive view, and addressing all sources of water and new source development, to meeting current needs and future growth.
- Fair and balanced water decisions that put people first.

We understand that it is the Commission's job to "weigh the importance of the present or potential instream values with the importance of the present or potential uses of water for noninstream purposes, including the economic impact of restricting such uses" and request more consideration be given to the economic impact of eliminating 50% of the current water use.

Our message, along with the public outcry, is not that no water should be returned to the streams. We too want stream health. Our concern is with the hefty recommendation on the amount of water to be returned to the streams. The community needs and relies on this water and the negative effects of such a severe recommendation will be devastating.

Therefore, we request that more regard must be given to the economic and social benefits the use of this water provides. We ask you to hear the voices of the residents, businesses, and farmers who testify and come up with a more balanced, winning solution for an IIFS that protects Maui's agricultural industry and businesses, provides needed resources for the community, and allows for future growth, while addressing stream biology and wise water use.

Thank you for the opportunity to testify.

Sincerely,

Pamela Tumpap
President

313 Ano Street • Kahului, Maui, HI 96732 • Phone (808) 871-7711 • Fax (808) 871-0706

34.0 Geoffrey Haines

Geoffrey Haines
P.O. Box 772
Makawao, HI 96768

10/15/09

RE: Testimony concerning the establishment of interim instream flow standards by the Commission on Water Resources Management

To Whom It May Concern:

This testimony is on behalf of myself. I have been a resident of Maui County for the past 55 years and currently am part owner and manager of Pacific Produce, Inc. Our company operates a 7 acre hydroponic lettuce growing operation that currently employs 8 Maui residents.

I have a history that has given me some insight into some of the aspects of the controversy surrounding the establishment of instream flow standards. I am familiar with a portion of the history of HC&S, taro cultivation, and the East Maui water collection system. My son is an ecologist with expertise in native Hawaiian insects and I understand the importance of protecting our forested areas.

From the day our family arrived on Maui in 1954 and for the next 25 years my father was an employee of HC&S. During this time, I learned through his experience what was happening in the world of sugar production on Maui. I learned of the challenges and how they were solved.

In the early days all irrigation was accomplished by flooding the furrowed fields. This inefficient system and a seven year drought created a situation where central valley wells were pumping salt water. In the next several years, first unsuccessful sprinklers and then the current drip irrigation technology were instituted. So much water was saved that yields increased and acreage could be added.

New varieties from all over the world were being collected and tested for adaptability, yield and disease resistance, drastically reducing the need for fertilizers and pesticides.

The implementation of the use of the byproduct bagasse as a biofuel set them way ahead of their time.

The innovative and dedicated workers of HC&S were meeting and working on constant challenges as they always have and they have developed a truly sustainable agricultural operation.

I have experience as well with the cultivation of taro and am familiar with its cultivation practices during the early 1970's. I farmed land in both Keanae and Wailua using the methods that were employed by other farmers in the area. Both mine and most of the

other operations were commercial in nature and produced taro for poi factories on and off island.
The method of taro cultivation used in these areas involved diverting water from existing natural streams and running it through a series of terraced ponds. I believe the original builders of the system nourished these ponds by capturing runoff from the streams. In some cases, this resulted in carrying or floating soil from higher elevation forests to replenish nutrient levels. As in much of the developing world today, these farmers utilized the nutrients that have taken thousands of years to build in the soils of perennial forests.

In the five years I farmed taro I was never without water. Keanae was fed by a constant spring-fed stream diverted by a flume. If the ditches were not constantly maintained, the water would back up and flow into surrounding unfarmed areas and seep away. I kept them open.

In the 1970's huge amounts of commercial fertilizers were being applied to these taro patches. This created a fertile situation for weeds and consequently large amounts of herbicide were being sprayed directly into the taro patches. The herbicide was an oil based product that floated on top of the water into the ocean with the excess fertilizer. This toxic brew was constantly flowing day and night. I have never heard of any study of the effect of the many years of these practices or if they are still occurring. Any agricultural operation that dispenses contaminated water into streams or the ocean constitutes a threat to the ecosystem we are trying to protect with the proposed standards.

While living in Keanae, I worked for East Maui Irrigation Company with other residents of the area including many who were also farming taro as a part-time business.
A two year stint as general laborer took me to most of the extensive collection system. A relatively small crew looked after the series of intakes and ditches. When it wasn't raining, we tried to save every drop. When the big rains came we opened the gates and let the excess down the streams. The ditches themselves have been running for many, many years and have developed their own ecosystems that may or may not be the same as what is found in a running stream. Some of the streams, Keanae and Hanawi, for example, have springs feeding them below the ditch system. These should be protected from diversion of any kind or pumping in the future.

For 15 years I worked for a project that provided agricultural research and outreach to developing countries. The aim was to provide knowledge and expertise in nutrient management to farmers all over the world to increase productivity and protein content. Number one, to increase the standard of living. Number two, to protect further degradation of valuable pristine areas worldwide. Productive agriculture saves rainforests. It's a given.

Maui is a unique place but has a challenge to keep it that way. In my lifetime here, relatively big changes have occurred but really, in the face of huge pressure to turn Maui into another Oahu, we have had the perseverance to keep and actually improve much of

what makes Maui a good place to work and live. Let's look at what we still have and what we need to save.

1) Large forested areas that have been forever protected for wildlife and prime watershed. Thanks to fantastic efforts of donors and volunteers, an ongoing effort is continuing to fence out and control invasives and improve the water collecting capabilities of rainforests.
2) An agricultural operation that is committed to keeping our central valley from becoming a city.
3) A thriving tourist industry that relies on Maui being what it is. It's dependant on both of the above.
4) A population made up of generations of hard working individuals that depend on all of the above.

I think that we have a much more important issue to focus on if we are going to sustain any kind of agricultural base not to mention water flowing freely to the ocean.

We need to focus immediately on conserving what we have. All users must step up and institute water saving measures: Hotels, golf courses, development companies, farms, homeowners. For example, sprinklers are running in the heat of the day every day on the side of Haleakala Hwy.

We need to focus immediately on a means to store water that is currently being wasted. I am beginning to see large tracts of former cropland sitting idle. Will it become more housing before it is dedicated to water storage facilities? Will anyone step up and make the investment?

My suggestion is that this question of interim instream flow standard be analyzed very, very carefully. In my opinion, a lot of progress has been made preserving and developing water sources but we have a long way to go to sustain what we have.

35.0 Christina Hemming

INSTREAM FLOW STANDARD ASSESSMENT REPORTS (IFSAR)

For the Hydrologic Units of

Waikamoi (6047), Puohokamoa (6048), Haipuaena (6049), Punalau (6050), Honomanu (6051), Nuaailua (6052), Ohia (6054), West Wailuaiki (6057), East Wailuaiki (6058), Kopiliula (6059), Waiohue (6060), Paakea (6061), Waiaaka (6062), Kapaula (6063), Hanawi (6064), Makapipi (6065)

Public Fact Gathering Meeting

Date: Thursday, October 15, 2009
Time: 5:00 p.m. to 9:00 p.m.
Location: Paia Community Center
Hana Highway, Paia, HI 96779

Public Review Drafts Availability

Oahu: Kalanimoku Bldg, Room 227,
1151 Punchbowl St., Honolulu, HI 96813
Website: http://www.hawaii.gov/dlnr/cwrm/

Please provide any comments you wish to offer on the public review drafts of the **INSTREAM FLOW STANDARD ASSESSMENT REPORTS** for each of the hydrologic units:

1) 2008 MLP SEC Disclosure states that No $ apropriated for filters as needed for litigation.

2 → Surface water criteria met to designate E. Maui as a water management area.

3 → Ground water not properly monitored needs to be regulated.

4) well permits need to be assaigned according to time waiting

5) Hpoko wells not legally systematically and thoroughly monitored — to create correct stats

→ Designate E Maui — area illegal transporting water outside

(attach additional sheets as necessary)

PLEASE PRINT **Name:** CHRISTINA HEMMING **Phone:** 572 0336

Affiliation: (if applicable)

Address: PO 791114 PAIA HI 96779

Email: Christinahemming@yahoo.com

Submit this form (plus additional sheets, if any) via mail or fax. Comments may also be e-mailed.
Mail: Mailing address located on the back.
Facsimile: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov. (Please include information in the shaded area with the e-mail)

All comments must be received or postmarked by October 30, 2009. Mahalo!

36.0 Marta Sweeney

INSTREAM FLOW STANDARD ASSESSMENT REPORTS (IFSAR)

For the Hydrologic Units of

Waikamoi (6047), Puohokamoa (6048), Haipuaena (6049), Punalau (6050), Honomanu (6051), Nuaailua (6052), Ohia (6054), West Wailuaiki (6057), East Wailuaiki (6058), Kopiliula (6059), Waiohue (6060), Paakea (6061), Waiaaka (6062), Kapaula (6063), Hanawi (6064), Makapipi (6065)

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Website: http://www.hawaii.gov/dlnr/cwrm/

Please provide any comments you wish to offer on the public review drafts of the **INSTREAM FLOW STANDARD ASSESSMENT REPORTS** for each of the hydrologic units:

Honorable water Commission, I humbly ask of All officials involved to Honor the State Laws that govern the water Rights / Supply and Source back to the Agriculture Community & Community at Stake — please Honor the culture — There truly is enough water for every former person on this island. Stop diverting the precious water flow. As for the employee's of HC&S It is sad they would be out of a job if HC&S continues to lose millions a year — garantee they would be out of a job already if it wasn't for this recession — HC&S is sitting on this land to develop in the future that why the water is so important to HC&S to hold onto the precious water Rights so they can devi vp dried up Cane field & other land. They — HC&S should think of other sustainable Crops if they really care about Maui & its citizens. Please vote pono and Honor the voice of the People
With Aloha

(attach additional sheets as necessary)

PLEASE PRINT **Name:** Marta Sweeney **Phone:** (808) 878-6743

Affiliation: (if applicable) Self

Address: 34 @ Kulani Dr. Kula, HI. 96790

Email:

Submit this form (plus additional sheets, if any) via mail or fax. Comments may also be e-mailed.
Mail: Mailing address located on the back.
Facsimile: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov. (Please include information in the shaded area with the e-mail)

All comments must be received or postmarked by October 30, 2009. Mahalo!

37.0 Representative Joseph M. Souki

joseph souki <joesouki@msn.com>

joseph souki
<joesouki@msn.com>
10/15/2009 11:38 AM

To <laura.thielen@hawaii.gov>
cc <ilwumaui2@yahoo.com>
Subject

Hello Laura,

The business and Labor community in Maui is very concerned and fearful about the future of Sugar in Maui if the DLNR Board makes decision on water usage that will have a negative effect on the operation of the Sugar plantation in Maui, (HC&S). If the Plantation should shut down it will affect 800 employees, over 20,000 acres in the central plain will becomse a desert that will adversly affect south Maui, providing dust storms, similar to the Sahara, and Maui Electric which currently purchases electricity from HC&S will have to burn more oil. It will also have a ripple effect on the vendors that sell or rent their wares and services to the plantation. Economically it will be devastating for Maui, with the Hotel Business down etc.

Please do what you can to preserve the plantation.

My best Alohas

Joe Souki

38.0 Sue & Lowell Thomas

"Sue Thomas"
<sue@tvasearch.com>
10/16/2009 09:55 AM

To <laura.thielen@hawaii.gov>,
<Governor.LindaLingle@Hawaii.gov>,
<mayors.office@mauicounty.gov>,
<michaelmolina@mauicounty.gov>,
<josephpontailla@mauicounty.us>,
<gladys.baisa@mauicounty.us>,
<sol.kaoohala@mauicounty.gov>,
<billmaderios@mauicounty.gov>,
<jo_anne.johnson@mauicounty.us>,
<michael.victorino@mauicounty.us>
cc
Subject IIFS

Hello,
We are primary residents here in Maui where we have lived the majority of each year for the last 11 years. We are very concerned about the water issues around IIFS potential decisions for the following reasons:

- HC&S and local upcountry farmers would be denied the water they need to operate and thus would negatively impact the entire community.
- Job loss for families and extended families that count on their income and complete livelihood from HC&S as well as farms Upcountry that would lose their agriculture/cattle income.
- Maui Electric Customers-the majority of the island- gets a 7% of their energy needs from HC&S.
- The vast green space created by the growth of sugar cane makes the Green Island nickname stick!
- Look how bad Lani looks when the pineapples were pulled out and the business evaporated. We in Maui do not want our island to look like that or to be in such poor fiscal shape.

There must be a way of mediating all parties issues and concerns without "throwing the baby out with the bathwater" so to speak. We believe that HC&S is a community minded, fair and responsible business, one of the larger on Maui. We believe that every effort should be made to allow HC&S to continue to operate while continuing to be sensitive to the water concerns of the island. You for taking the time to read this letter,

Sue and Lowell Thomas
180 Kala'ihi Place
Lahaina, HI 96761

39.0 Ernest H. Rezents

Ernest H. Rezents
808 Makawao Ave.
Makawao, HI 96768-8936

October 18, 2009

Ms. Laura H. Thielen, Chairperson
Commission on Water Resource Management
PO Box 621
Honolulu, Hi 96809

Dear Ms. Thielen,
Thank you for conducting a very orderly meeting in Paia, Maui on October 15, 2009. Your patience and focused listening impressed me.

I spoke on behalf of my Haiku, Maui stream that now has a flow of about 1/20th of what it used to be. I believe that water has been diverted above and that a spring is now my only source. I have walked up the stream and saw where water once flowed but no longer does. I am concerned about its much reduced flow because this water has supplied water for cattle and various forms of agriculture to us for nearly 100 years. We have kuleana water rights.

It is my opinion there is sufficient water for in stream and off stream users if:

1. The flumes are patched to deliver the water where it is supposed to go. We have heard about the unbelievable leaks and no one seems to take responsibility for fixing them. Someone told me not to worry because the water that pours out runs down to a lower ditch. There is some seepage (good for wells I suppose) so not all will reach the lower ditches.
2. More storage needs to be built so that rain water can be stored and used when the ditches are low. This has been talked about for many years, but because of costs it has never happened.
3. Wells be dug in the East Maui area where it is known to have ground water. Electricity is expensive but photovoltaic, wind power, hydroelectric turbines, ocean wave action, etc. can supply some of the energy.
4. The water shed maintenance is critical in both west and east Maui. Invasive species need to be controlled; funding needs to be restored to do the work.

As was pointed out, Maui Pine is just about out of pineapple production, Wailuku Sugar is out of production, HC&S has less acreage, upcountry Maui farmers are fewer than before, what happened to all of the water that was formerly used by them? Housing and Development has been nonstop, until now. However, this provides employment to many and generates more State and County revenue. Developers also need to "show me the water" first.

Sugar cane is thirsty, so is taro. It just happens that we have more cane and less taro fields, so cane is the "bad guy".

I do not want to see HC&S go under. It would be devastating to Maui's economy, tourism, and environment. If the cane fields looked like the pineapple fields, who would want to visit Maui? Dust storms would return. Seeing barren fields from the air would not be welcoming. This will also affect the State's income from taxes.

HC&S needs to be in business while it looks for alternative ways to become profitable. By having all that

acreage set aside for agriculture is a commitment on their part. Yes, they need to develop some land to make money, but agriculture seems to be their big interest on Maui.

I disagree with Dr. Miike's 50:50 water usage for the Na Wai Eha. That is a bit excessive. Not all the taro farmers are going to grow taro. Many times the fields are barren because it is hard work. The younger generation does not want to work as hard as their parents and family. So the water will be wasted. The stream life used as food is sporadic, if at all. People live off the supermarkets and only small supplements come from streams.

We were supposed to have a coffee plantation in Waikapu (employment). It is now on hold because of the water uncertainty in West Maui. Maui County was expecting to use some of the Na Wai Eha water for homes, etc. This is also uncertain now.

I hope your commission's conclusion includes some mandates for increasing available water to Maui's users (transmission flumes, storage, wells, desalination, conservation, etc.). All entities need to be more efficient and aware of the other entities' needs.

The commission can make a decision and revisit it in maybe three years to tweak it. We need to keep the central valley of Maui green. The stakes are very high.

Thank you for your time.

Ernest H. Rezents

40.0 Esther Bugtong

10-19-09

To the water commissioners,

My name is Esther Bugtong. I would like to thank you for allowing me to give my comments. I have worked for HC&S for 23 years. When I began working for this company I carried heavy tanks on my back and held a hoe all day. I also drove different types of equipments in the company. Today I'm a electrician Apprentice and I'm still striving to better myself. My husband also is employed at HC&S he's a Power Plant Operator and worked for the company for 21 years. We both believe that there is enough water to be share among all of Maui. But we cannot see the water that is so precious to go down in the stream. What needs to be done is to see other ways of finding how we can save water. Am I wrong to think of other ways to hold on to the precious water. When it rains at times it rains over the ocean so when that happens it is easy to say that the ocean has water going into it. So when it rains on the island isn't safe to say that what is on land should be kept for the land. If HC&S loses the water the company will eventually close. Both my husband and I will not have any income coming in and we will lose everything we worked hard for. We will not be able to pay for our mortgage cause of no income. My middle girl will not be able continue to go to college. There are a lot of effects that will happen if HC&S shuts down. It would be a domino effect for many families that have been apart of this company and many other companies on this island . So please I ask to find a balance for all. Find a better solution for all. God be with you all

Thank you,
Esther Bugtong

41.0 Erin Malia Fowler

Erin Malia Fowler
P.O. Box 1498
Kihei, Hawaii
96753
(808) 269-4054

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT

2009 OCT 21 AM 10: 35

October 20, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Members of the Commission on Water Resource Management,
I am writing in regards to the Water Commission'sproposed reduction of stream water that is now being used for drinking water and the Hawaiian Commercial and Sugar Company (HC&S). As a life-long resident of Maui, I am deeply concerned about the implications of reducing the amount of water used for HC&S's crops. Sugar cane production is a way of life for many on the island of Maui. Across the island chain, we have watched sugar cane disappear and houses sprout up on lands that once held green sugar cane pastures. Once these productive agricultural lands are paved over, they are gone forever. We cannot afford to lose more agricultural land, especially in a state that has the unsustainable practice of importing more than eighty-percent of its food. Maui has been experiencing a drought for the last three years and agricultural yields are down for HC&S. The company cannot afford to pump water out of its wells. If the company's water is reduced, it would likely go out of business.

HC&S provides employment, produces energy with biomass, and ensures that our agricultural lands are maintained. HC&S may also help Hawaii in the future to reduce its dependency on oil. Hawaii is currently importing ethanol derived from corn that is then mixed with gasoline. In Brazil, sugar cane is used to develop ethanol. The quality is superior to corn-based ethanol. If Hawaii's only sugar cane production company is forced to go out of business, Hawaii will never have the chance to develop sugar cane-derived ethanol. Once again, we cannot afford to lose sugar cane production on Maui.

Sincerely,
Erin Malia Fowler
Erin Malia Fowler

42.0 Pukalani Plant Co., James A. Jones

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT

2009 OCT 22 AM 8:46

PUKALANI PLANT
COMPANY
"Growing Upcountry"
P.O. Box 880123
Pukalani, HI 96788
Phone 572-8950
Fax 572-4763
PUKALANIPLANTCO.COM
Est. 1992

October 20, 2009

Commission Water Resource Management
State Department of Land and Natural Resources
PO Box 621
Honolulu, HI 96809

Email: dlnr.cwrm@hawaii.rr.gov

My name is James A. Jones and I'm the owner of Pukalani Plant Co. Pukalani Plant Co. was started in 1992 as a wholesale plant nursery serving the retail, landscape and hotel markets. Our operations began in the town of Pukalani and have now expanded to Lot 5 in the Kula Agriculture Park. Pukalani Plant Co. currently employees 11 full-time staff. The staff at Pukalani Plant Co. receive an above average agriculture wage, vacation, sick leave, holiday, medical insurance, matching 401K retirement plan, bi-annual bonuses, and are covered by all the required employment insurances. Of note, in this economic slowdown Pukalani Plant Co. has not had to layoff anyone or cut any of our staff's hours.

I write this letter in support of agriculture. It is an industry that is essential to Maui. It is an industry that needs to be protected and preserved. Water is the lifeblood of our industry. Without it there will be an industry in ruins. I believe the Upcountry Region is a unique situation in that the primary water source is from surface systems. We already experience on a yearly basis voluntary and mandatory water restrictions without stream flow intervention. It concerns me greatly that the water system that feeds our region will be adversely affected due a streams first decision. I contend that we have gone too far down the road to allow a decision like this to take place. It should be people and communities first. I believe with better technology and improved systems a balance can be achieved, but sustaining those who have become dependent on this resource should take precedent over the desire to allow streams to flow.

Thank you

James A. Jones

President
Pukalani Plant Co.

43.0 Ag Systems Hawaii, William L. Pyle

WILLIAM L. PYLE, PE
AGRICULTURAL ENGINEER
PO BOX 880369
PUKALANI, MAUI, HAWAII 96788

October 22, 2009

To: Commission on Water Resource Management
Department of Land and Natural Resources
PO Box 621
Honolulu, Hawaii 96809

ATTN: Instream Flow Standard Assessment Reports
RE: East and West Maui Streamflow Standards

Page1/2

COMMENTS:
From 1967 to 1989 I worked at the Hawaiian Commercial and Sugar Company (HC&S) on Maui as their Field Agricultural Engineer. As part of my job responsibilities I studied the existing surface irrigation systems and looked for ways to improve the crop water use efficiencies and possibly reduce the amount of water required to grow a crop of sugar cane.

In the early seventies I participated in an intensive irrigation study by the Hawaiian sugar industry, in conjunction with the Hawaii Sugar Planter's Association Experiment Station on Oahu, and with participation by all the sugar plantations in Hawaii. This study was to find ways to use the then new, and largely experimental, "drip irrigation" methods for sugar cane cultivation. After several years of working with irrigation equipment manufacturers on the mainland and conducting many field experiments in the cane fields throughout Hawaii, the Hawaii sugar industry developed a very sophisticated, dependable, inexpensive and extremely efficient drip irrigation method using a polyethylene plastic thin wall half-inch diameter drip irrigation tube called "Bi-Wall", which delivered irrigation water directly as needed to the crop's root zone.

Starting in 1974, I embarked on a conversion program at HC&S on Maui to convert the entire farm from the old style furrow irrigation methods to the new drip irrigation method. We converted about 3,000 acres a year and finished up in about 1990. The old furrow methods needed a lot of water in the highly permeable Hawaiian volcanic soils to get water from one end of the field to the other end. The water use efficiencies we were getting were actually quite good considering the type of systems available to us, and in the soils we had to work with. To maximize these irrigation water efficiencies, the irrigation furrows were surveyed in by survey crews using survey instruments in order to lay each crop's irrigation furrows on an exact 1-1/2 to 2 percent slope, which will move water efficiently down the length of the furrow without causing soil erosion. Still, the best crop water use efficiency we could get in these fields was in the order of 35 to 40 percent, meaning that 60 to 65 percent of the water was lost to deep percolation in our loose volcanic soils, and to surface evaporation.

PHONE: (808) 572-9085, CELL: (808) 283-1185

WILLIAM L. PYLE, PE
AGRICULTURAL ENGINEER
PO BOX 880369
PUKALANI, MAUI, HAWAII 96788

October 22, 2009

To: Commission on Water Resource Management
Department of Land and Natural Resources
PO Box 621
Honolulu, Hawaii 96809

ATTN: Instream Flow Standard Assessment Reports
RE: East and West Maui Streamflow Standards

The new drip irrigation systems were carefully designed to maintain the best water use efficiencies possible, in the order of 80 to 90 percent, occasionally higher, with small amounts of water unavoidably lost to surface evaporation in Maui's intense sunlight and wind conditions, and to a small amount of deep percolation loss in our loose soils. These efficiencies are ranked among the highest possible by the Irrigation Association, the recognized international organization for irrigation businesses.
(see http://www.irrigation.org/default.aspx)

HC&S has developed and maintained the best and most efficient irrigation systems possible for their crop, and over the last 40 years has been able to reduce the amount of water needed for their crop to a minimum. Taking water away from HC&S by diverting needed stream water back into the streambeds at their irrigation ditch intakes in both East and West Maui is not a viable option. Water is in these streams for us to productively use as a community, and HC&S has proven themselves as responsible members of our community with their aggressive and forward thinking development of these sophisticated irrigation methods.

Sincerely submitted,
William L. Pyle, PE
Agricultural Engineer
Hawaii License #4146

PHONE: (808) 572-9085, CELL: (808) 283-1185

44.0 Hawaiian Commercial & Sugar Co., Michael Jensen

"Jensen, Michael at HCS"
<mjensen@hcsugar.com>
10/26/2009 07:37 AM

To <dlnr.cwrm@hawaii.gov>
cc
bcc
Subject Instream Flow Standard Assessment Reports

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809
Facsimile: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Michael Jensen, Agricultural Services Manager at HC&S. I strongly request that the Commission consider the impacts to all offstream users of water as decisions for the remaining 19 streams are made.

As Manager of Agricultural Services, I am responsible for the field equipment used in all phases of sugarcane cultivation at HC&S. Over the years, despite financial challenges, our parent company, Alexander and Baldwin has continued to invest in the company. Currently, due to the severe losses, we have experienced, the amount of capital is reduced, not most importantly it continues so critical replacements can continue as well as productivity improvements can occur. To me, this indicates that our parent company is serious about keeping us in business. I have seen other companies stop capital investments as profits decline. Inevitably, this leads to a downward spiral from which it is difficult to recover.

The past years of drought have been extremely difficult for us. I have seen the cane in the fields stop growing and the planting crew placed on "no work offered" as there was no water to germinate the cane. This year, the rains are better and I see the cane fields looking much better than before. I have hope. But, the decisions facing us for East Maui could mean that all of our hard work will be for naught. Without the diversions, it is like going back to 2007 and 2008 without water. With those yields, I cannot see how our shareholders can justify keeping us open. And, the empty fields at the former Pioneer Mill tells me the likelihood that the Central Valley will stay green is not good.

I am very concerned about our future and the future of the many vendors that do business with us. I respectfully ask that the welfare of not only those of us at HC&S but all of Maui that depends on East Maui waters be considered when decisions are made.

Thank you.
Michael Jensen
Manager, Agriculture Services

Hawaiian Commercial & Sugar Co.
P.O. Box 266, Puunene, Maui, Hawaii, 96784
808-877-2917 Office
mjensen@hcsugar.com

45.0 Diane P. Bevilacqua

Diane P. Bevilacqua
P. O. Box 416
Puunene, HI 96784

October 21, 2009

Commission on Water Resource Management
State Department of Land & Natural Resources
P. O. Box 621
Honolulu, HI 96809

Re: East Maui Interim Inflow Stream Standards

Dear Commissioners,

I would like to express my thoughts and opinions on some of the issues relating to the decision before the Commission on setting the interim inflow stream standards for the East Maui Stream.

I am a resident and concerned citizen of Upcountry Maui and have been reading about the issue before the Commission on setting new interim inflow stream standards for several of Maui's streams. I am concerned that there seems to be a push from some sectors and special interest groups for drastic changes to the present settings without full concern of how the drastic change will affect the many families whose livelihood, health and safety depend on the current diversion of the water.

Upcountry Maui residents rely heavily on the water from the streams for their drinking water from the County of Maui Department of Water Supply ("DWS"). Upcountry farmers also rely on water from the streams: both via the DWS potable system and via the HC&S irrigation ditch that supplies the ag park. Hawaiian Commercial & Sugar Co. ("HC&S") relies on the diverted stream water to irrigate their crop and employ several hundred people directly. HC&S also provides indirect employment opportunities to many vendors and service companies whose success is linked to this major agribusiness.

The diverted stream flows are required to keep the Central Valley of Maui green, providing stable soil conditions, beautiful open space, jobs, a food product, biomass and hydro-electric energy supply to Maui Electric Co., supplemental cattle feed from both the molasses and the tops of the cane plants, and many more tangible and aesthetic benefits.

Even with the present stream diversions, we have not seen a shortage of poi and luau leaves in the market and, from what I understand, the native species that inhabit Maui's streams are not actually endangered at this time. It is hard to understand why a change is warranted at this time.

I know that you take the decision at hand very seriously and I understand that you have received testimony from a number of individuals and entities, but I wanted to submit my input as well. Thank you for your efforts as a Commission member.

Sincerely,

Diane P. Bevilacqua

Diane P. Bevilacqua

46.0 Ricky A. Watimar

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT

2009 OCT 26 PM 12: 22

Ricky A. Watimar
P. O. Box 416
Puunene, HI 96784

October 22, 2009

Commission on Water Resource Management
State Department of Land & Natural Resources
P. O. Box 621
Honolulu, HI 96809

Re: East Maui Stream Flows

Dear Commission Members:

I was born and raised on Maui, grew up in the plantation camps and was the fourth generation in my family to work for Hawaiian Commercial & Sugar Company. I'm proud to say that I worked for HC&S for 25-years and am thankful for the opportunity they provided to me and my family. I am also sad to see that a group of vocal outsiders have created a stir and are pushing to take needed irrigation water from sugarcane to put back in streams to flow into the ocean. It seems like a waste to me if fresh water that can be used to irrigate the sugarcane and other Maui farm crops and could provide drinking water to people is just sent to the ocean.

If HC&S goes out of business there would be about 36,000 acres of fallowed wasteland. This could create a fire hazard and a dust bowl for all of us on Maui and would allow the rat and other rodent population to flourish. Without HC&S, a significant portion of Maui's renewable energy supply would be gone since HC&S provides both bagasse generated power and hydro-electric power to Maui Electric Company. I know of many times that Maui would have experienced power interruptions if not for the support provided by the HC&S power system. Many, many people would lose their jobs, both at HC&S and at area businesses. I understand the need for reasonable amounts of water to true working taro farmers, but I really don't understand why the fish in the stream, that aren't even endangered, would have a higher priority than the common people of Maui. Unfortunately, that seems to be what some people seem to be recommending.

I hope the Commission can find a way to allocate the stream flows for the best community good and will give the priority to people and current beneficial users.

Thank you,

R Watimar

Ricky A. Watimar

47.0 Keith A. Watimar

Keith A. Watimar
P. O. Box 416
Paunene, HI 96784

October 22, 2009

Commission on Water Resource Management
State Department of Land & Natural Resources
P. O. Box 621
Honolulu, HI 96809

Re: Upcoming Maui Stream Flow Decisions

Dear Commission Members:

I wanted to write with my input on the issue of the stream diversions and the setting of inflow stream standards on Maui.

I am 22-years old and working as a millwright apprentice at Hawaiian Commercial & Sugar Co. This program provides training in mechanics, welding and machining as well as the operation of large off-road trucks, loaders and other equipment. I don't know where else on Maui we could learn such a broad and versatile skill set. I enjoy the job and the opportunity to learn a trade and don't mind the hard work involved. But I am concerned that the decisions you need to make about how much water will need to remain in the streams can threaten HC&S's ability to remain in business and the chances for myself and others to work and learn a useful trade. The plantation has provided jobs and training for five generations in my family and I hope it will be able to continue to do so.

I also live in Upcountry Maui and hope to be able to have my own home someday. If more water is kept in the streams, there will be less for drinking or homes for those of us that want to stay on Maui.

When you make your decisions on the stream flows, please consider the value that the present users of the diverted water bring to the people of Maui. Your decisions today will affect our futures tomorrow.

Sincerely,

Keith Watimar

Keith A. Watimar

48.0 Hawaiian Commercial & Sugar Co., Lee Jakeway

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809
Fax: (808) 587-0219
e-mail: dlnr.cwrm@hawaii.gov

Re: Instream Flow Standard Assessment Report

Chair Thielen and Members of the Commission:

My name is Lee Jakeway, Director of Energy Development and Planning at HC&S. I strongly recommend the Commission consider impacts to all those parties who depend on offstream uses of water from the East Maui watershed. These parties range from small farmers to large farms such as HC&S and even municipal users who depend on the Upcountry water supply from the County of Maui via the East Maui Irrigation Company.

As Director of Energy Development at HC&S and from previous experience in both the Hawaiian sugar industry and world sugar industries I have seen firsthand the economic importance of sugarcane as a cultivated crop. Not only does it provide an essential food ingredient in the form of sucrose, but sugarcane also provides a significant source of biomass energy, a renewable energy source. Over the past several years, HC&S has provided about 7% of Maui Island's electricity requirement through export power sales, most of which is produced from renewable biomass and hydropower. The State of Hawaii's initiative to reduce dependence on imported oil for our energy needs will require all forms of renewable energy, including biomass which is considered a firm power source.

Sugarcane provides high biomass yields compared to other crops on an equal crop inputs basis. With the technologies being developed now to convert lignocellulosic biomass such as cane trash, the full biomass production potential of sugarcane will soon be utilized to produce both food and energy products. There are energy cane varieties available that can produce higher fiber percentages to take advantage of this developing technology. We must continue research into alternative sugarcane varieties as well as alternative crops that produce high biomass yields for enhanced energy production.

I have seen the negative economic impacts to rural areas on the islands of Kauai, Hawaii, and Maui when sugar companies ceased operations and there was no agricultural crop replacement. On the other hand, I have also seen the positive economic impacts that world sugar industries have on rural development, especially in poorer developing areas where rural electrification was needed.

My entire career has been with the sugarcane industry. I am sure there are many other people within HC&S who can also make this claim as well. I respectfully ask the Commission to take into consideration the welfare of all those whose livelihoods depend on the continued flow of East Maui water to the Central Valley as you make your important decision on instream flow standards.

Thank you

49.0 Hawaiian Commercial & Sugar Co., Robert Cushnie

"Cushnie, Robert at HCS"
<rcushnie@hcsugar.com>
10/27/2009 08:37 AM

To <dlnr.cwrm@hawaii.gov>
cc
bcc
Subject testimony ...

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Robert Cushnie and I am the Planting and Seed Department Manager at HC&S. Many within my family have worked and retired from the sugarcane industry. Several of my uncles have been managers and the industry has supported their children to seek careers of their choice.

In my position, I am responsible for the planting of the sugarcane. I have 62 people working for me. Some can barely understand English but in the course of employment with us, they learn and are able to pursue better jobs. This is what makes HC&S unique. It has a wide range of jobs for those who barely can read or write to those with higher skills and education. And, as they all work in one company, there is significant opportunity for upward mobility to better jobs. It is not common for such a range of opportunities to be available in one company, let alone one company in Hawaii.

Maui is facing one of the highest levels of unemployment ever. We need to make sure we keep all opportunities for people to earn a reasonable wage so they can support themselves and their families. Please consider these unique qualities at HC&S when making your decisions on the 19 streams. If we loose HC&S, I don't know that we will ever see another operation of this scope again.

Thank you for this opportunity to provide my opinion on this important matter.

Robert A. Cushnie
Manager Planting and Seed Department
Hawaiian Commercial & Sugar Co.
Puunene, Maui, Hawaii

50.0 American Machinery, Sean Loa

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Sean Loa and I am an Account Representative at American Machinery. American Machinery is the John Deere dealer in the State of Hawaii, selling, and maintaining equipment. Our clients range from people in the construction business to agriculture. Many of my customers in Upcountry Maui depend on EMI for their water and I am concerned about their future. I testified during the hearings for the IIFS determinations for the first eight streams in East Maui and my position remains unchanged.

While I work as a representative from American Machinery, I am also of Hawaiian descent. I support perpetuation of my cultural heritage, but I urge the Commission to recognize that people of Hawaiian descent also depend directly and indirectly on the economic viability of HC&S and that many Hawaiians are engaged in non-traditional agriculture --in other words, farming crops other than taro. They also live in areas using the municipal water from those streams.

I see value in both instream and offstream uses and therefore would like to see a solution addressing both needs. The impacts of the decision on the 19 streams can impact HC&S, my Upcountry farmer clients, and the basic livelihoods of people like myself that depend on the business from them.

Thank you.

51.0 Maui Disposal Co., Inc., Marilyn Chapman

Maui Disposal

October 27, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: In stream Flow Standard Assessment Reports Via: Email

Chair Thielen and Members of the Commission:

My name is Marilyn Chapman, Vice President, Sales / Marketing at Maui Disposal Co., Inc. I am very concerned about the impacts of upcoming East Maui IIFS decisions on HC&S and agriculture as a whole in Maui.

Our company services the waste and recycling for HC&S on a weekly, monthly, year after year basis.

We have already seen a very large reduction in their waste stream due to their cut back in hours and work force as well as active fields. In addition, we stepped in and offered a percentage discount off the price of hauling their waste, because we believe strongly in the viability of HC&S. We realize the importance of what they offer including; employment for many, beautiful green fields that keep the tourists coming and keep the dust under control as well as their contributions by buying from many, many local companies.

I respectfully request that you consider the impacts on businesses such as Maui Disposal in your evaluations. Maui Disposal is part of the Maui Community and employees many people that will be impacted by such a large decrease in business if HC&S were not part of our customer base. We would appreciate your understanding of the impacts on all of us in your final determination.

Mahalo,

Marilyn Chapman
Vice President, Sales / Marketing
Maui Disposal Co., Inc.

52.0 American Red Cross, Hawaii Chapter, Maui Advisory Committee, Joe Bradley

October 26, 2009

To: Department of Land and Natural Resources
Commission on Water Resource Management

From: Joe Bradley
Chairman, Maui Advisory Committee
American Red Cross, Hawaii Chapter

Ladies and Gentlemen:

This letter is written asking you to consider Alexander & Baldwin's significant contribution to Maui's charitable organizations – and the Red Cross, in particular – when reaching your final decision about water allocation on this island.

Since the Red Cross Advisory Committee was reconstituted here over three years ago, an employee of A&B's Matson subsidiary – Buzz Fernandez – has served continuously on our board. In addition to the generous contribution of his time, he has made resources of the company available to us. I've personally served on boards with other fine people from A&B like Grant Chun and Frank Kiger who have made lasting, significant contributions to Maui.

I'm very concerned that cutting back the water available to A&B's subsidiary, Hawaii Commercial and Sugar Co., will threaten the viability of the sugar operation. Hundreds of people are employed by HC&S.

A&B – and HC&S – are part of the fabric of our community. Scores of their employees serve on charitable boards, coach youth sports, work in scout programs and do the hard work of leading by example.

Please consider the fine corporate character of this company when you make your decisions about the streams of Maui.

Thank you.

53.0 ChemSystems
Steve Kakuni

ChemSystems

Date: October 27, 2009

To: Chair Thielen and Members of the Commission
Commission on Water Resource Management
Box 621
Honolulu, Hi. 96809

From: Steve Kakuni
General Manager, ChemSystems

Subject: **Instream Flow Standard Assessment Reports**

As you know, HC&S will be the only operational sugar mill in Hawaii after Gay and Robinson closes on Kauai. Over the years, this industry has touched many lives and even influenced the cultural makeup of modern Hawaii.

As a child growing up in Kahuku, the sugar mill was the focal point of our community that helped shape my life. I witnessed first hand, some positive life values such as hardwork, preserverence and a real sense of community.

Even today, as my company provides the water treatment services to HC&S, I can still experience that sense of community that surrounds sugar. No doubt my company will suffer immediate financial losses should HC&S close, however the greater loss will be suffered by the community and its people.

I respectfully ask that you keep the people of this community in mind when contemplating your decision.

Sincerely,

Steve Kakuni

P. O. Box 17716 · Honolulu, Hawaii 96817 · Phone: (808) 839-4446 · Fax: (808) 836-1505

54.0 Maguire Bearing Co., Ltd., Dedrick Sabas

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Dedrick Sabas, Warehouse/Deliveries at Maguire Bearing Company. I am very concerned about the impacts of upcoming East Maui IIFS decisions on HC&S and agriculture as a whole in Maui.

Our company supplies necessary parts like bearings, motors, belts, and many other industrial parts needed to help their machinery to run efficiently. If HC&S's viability is reduced, we will lose business, resulting in either reduction in pay, or lay-offs. Our company thrives in giving the best quality customer service to anyone who may be in need of industrial parts, as well as helping our customers to obtain the necessary parts if we do not have at hand. HC&S is one of our largest customers we connect with. They are good people of whom we give the utmost respect to. Without HC&S, we will be hit with a huge loss in profits and income, thus will have a domino effect that will impact the lives of the employees of our company. We are all a family, of which many of us have family of our own to support. At times like this when our economy is at it's lowest, it will be devastating for many of us if HC&S shall not receive the support needed to make their business survive.

I respectfully request that you consider the impacts on businesses such as Maguire Bearing Company in your evaluations. We are all part of the Maui Community and would appreciate your understanding of the impacts on all of us in your final determination.

Thank you.

MAGUIRE BEARING COMPANY
KAHULUI, MAUI

55.0 Maguire Bearing Co., Ltd., Charlie Guard

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Charlie, SALES MAGUIRE BEARING position at Company. I am very concerned about the impacts of upcoming East Maui IIFS decisions on HC&S and agriculture as a whole in Maui.

Our company (how your business is associated with HC&S).

If HC&S's viability is reduced how it will affect your business.
LOOSE MY JOB, MEDICAL and WATCH THIS COUNTY DIE! There is too MUCH AT STAKE - THINK

I respectfully request that you consider the impacts on businesses such as (your company name), in your evaluations. We are all part of the Maui Community and would appreciate your understanding of the impacts on all of us in your final determination.

Thank you.

Charlie Guard

56.0 Hawaiian Commercial & Sugar Co., Alice Ruchiradhamrong

Ms. Alice Ruchiradhamrong
526 So. Kamehameha Avenue
Kahului, HI 96732-1939

October 26, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
P. O. Box 621
Honolulu, HI 96809

RE: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Alice Ruchiradhamrong and I am Senior Benefit Plans Administrator at Hawaiian Commercial & Sugar Company. As part of my job, I help our workers and retirees with their benefits program.

HC&S workers enjoy a generous benefits package. Many speak of the risk with sugarcane cultivation but our retirees enjoy many years of retirement. As such we have more retirees than employees. We have 910 retirees while having 800 active employees.

I am very concerned about what will happen to our employees and their families if they lose their jobs. Some have medical needs whether personally or within their families. Without insurance, the cost can be overwhelming.

I know our company will be facing huge increases in unemployment insurance costs next year due to the increase in the jobless during the last year. Can the system sustain another 800? I do not understand why active jobs are being placed at risk.

Please consider the welfare of our employees and their families during this process.

Thank you.

Sincerely yours,

Alice Ruchiradhamrong

Alice Ruchiradhamrong

57.0 Maui County Farm Bureau, Warren Watanabe

My name is Warren Watanabe, Executive Director of the Maui County Farm Bureau. I come before you today, on behalf of our commercial farm and ranch families and organizations on the island. I also have a small specialty vegetable operation dependent upon waters on the Upper Kula line provided by the County and originating in East Maui.

Upon being advised that we did not submit information in a timely manner for the IIFS determinations of the first 5 streams in East Maui, Farm Bureau has been in discussions with the Commission Staff to provide as much information as possible in a timely manner as well as the visits by the staff and commissioners to some of our farms. We appreciate the inclusion of the economic impacts associated with these East Maui Streams. We hope both were instrumental in reaching a better understanding of agriculture's needs. Without water our industry cannot exist. While many tend to take commercial agriculture for granted, we are the people who put food on the table and other products to sustain society. The result of these hearings can decide whether agriculture will remain on Maui or fade into the sunset, leaving Maui dependent upon imports. However, there are additional considerations that must be taken.

1) **Passive treatment of mitigative considerations**. The IIFS section of the Water Code requires the identification of mitigative actions during the process. The draft takes a passive role in this area by reporting on activities that are currently being pursued by the Maui DWS or actions that HC&S could take. It does not proactively seek to recommend additional actions that could be taken to mitigate the impacts of returning additional water to streams.

   Throughout its' history agriculture has actively developed sources of water to carry on its' business. In addition to the extensive infrastructure at EMI, many of the County infrastructure …the Lower Kula Line, Kahakapao Reservoirs, and the Upcountry Dual Line were built with Federal dollars originating in agriculture – USDA. However, we continuously find ourselves at the forefront to find new sources of water …. And today we find that we may lose water to fish, while we again will need to struggle to find other sources of water so agriculture can continue. We do not believe it was the intent of the authors of

the IIFS law to place agriculture or the community in this position. We believe, that this is why the section on mitigation was included.

After years of work, the Dual Line is nearly complete. Yet today we face the possibility that even as it is completed, there may be no water for it. The intent of the dual line is to increase acres of production. Reference to this new transmission system and its' source associated with the Kahakapo reservoirs is missing. Significant Federal resources has been spent in its' construction thusfar. There also may be implications to the State if IIFS decisions result the dual line becoming unusable.

We strongly urge that the Commission actively consider possible mitigative actions before requiring stream restorations. If the estimated impacts to agriculture and the community are understated, the cost to Maui may be unbearable. In a recent survey of over 800 Maui County Fair attendees, 95% said agriculture was either very or extremely important to Maui. Our farmers and ranchers are hanging on by their fingernails. Good planning decides what businesses and developments we desire and identifies the ways to secure resources, including water to accomplish the vision. Water should not be dictating whether we have agriculture or businesses. We need to develop water so we can realize the visions we have for the Maui we love.

Farm Bureau strives to see that many of the lands that currently lie fallow in Upcountry Maui can one day return to full production. A decision to restore water to the streams without corollary mitigative action will leave existing farms without enough water for their operations. This will mean there is no hope to return these lands to agriculture and force them into development. We do not believe this was the intent of the Water Code.

2) **Lack of recognition of H'poko Wells** Several years ago the County of Maui constructed two wells in H'poko to increase water supplies during droughts. The water was found to contain small amounts of DBCP but with treatment, safe to consume. Similar treated waters are being used for drinking purposes in Napili as well as Mililani on Oahu. Unfortunately, unreasonable minds have prevailed, resulting in the use of these waters only for irrigation in exchange

for additional surface waters from East Maui for municipal use. This increases treatment costs that are not needed. Education of the public is critically needed so a misinformation do not dictate these important decisions. The running of these wells should be included as a mitigative action.

3) **Alternative crop options** Through these proceedings, there have been mention of growing crops that use less water as well as the replacing of sugarcane. Other than plants of the cactus family, fully grown plants, with full crop canopy covering the field as is seen in sugarcane fields will use the same amount of water. You need to replace evaporation ...or the amount of water the plant transpires.

People assume because plants such as cabbage are smaller, they use less water. Fully grown, such is not the case ...it actually could use more since leafy vegetables are not as tolerant to reduced water availability. Unlike sugarcane whose yields are merely reduced, in the case of vegetable crops it will mean total loss of production. For example with lettuce, the plant will actually try to outgrow its' own ability to produce cells resulting in a phenomena called "tipburn" ... the uptake of calcium along with the water is too slow so cell walls do not form. The warmer the region, the more likely tipburn will occur and the product will not be marketable.

The total amount of water is relative to the % of ground covered. So, if there were wide interrows between plants, yes, the water used will be less than cane but that is because there is no full canopy cover over the field. The water use for the area covered with plants is the same as sugarcane.

By limiting farms to use crops that have low water use requirements, the process will dictate what crops can grow. People enjoy diversity in agricultural products. What we cannot grow will be imported. There have been numerous reports of invasive species hitchhiking on agricultural imports. Most recently, the Little Fire Ant was found in a taro field in Waihee. What will it mean in the

watershed if this insect found its' way to the tall trees in the forests? There are many threats that result in unintended consequences of these decisions.

The environment in the Central Valley should not be taken for granted. It is undisputed that many of the fields in the Central Valley contain soils conducive for vegetable or fruit production. However, such production will need to be seasonal with different crops only able to be planted during certain times of the year ...again, unacceptable to the consumer. Certain staples such as lettuce is expected to be available year round …not just during the winter. These crops cannot be grown in Puunene in the summer since they will flower before maturity. Also, due to the hot sun, the lettuce will be bitter. Pest problems will be at an all time high since their growth cycle will be very short. Diamondback moth a major pest of farmers will have lifecycles less than 20 days meaning they will be more prone to develop insecticide resistance. This will be coupled with more likelihood of resistance due to suboptimal insecticide applications in areas because of the strong winds that prevail in the valley. Pesticide applications will increase – unlike sugarcane that relies on natural predators for insect resistance and genetic resistance for disease control, vegetable varieties are not as advanced. We will need to apply insecticides and fungicides. Organic production is a "hope". Our farmers already have a difficult time recruiting workers. Finding enough workers to hand tend fields required for organic production will be impossible....and if we could import workers, they will need housing ...where will the water come from?

Another concern would be dust . Vegetable crops have a normal cycle of 3 months. Plowing the fields every three months will not be acceptable due to the tremendous dust that would be created throughout the valley. Sugarcane fields are cultivated every two years.

Farmers in the Ewa plains farm to take up maxium land acreage. The low water use by Ewa farmers was cited at some time. These farmers rotate there plantings, farming only one crop in a location and then leaving that area fallow until planted the next year. It is good for the land and for the farm, but that is

not the incentive. The incentive is to reduce property tax rates for the landowner by keeping the maximum acreage in cultivation. Maui farmers do not operate in that manner. Up to three crops are grown each year. Leaving central valley fields fallow for rotational purposes will result in "dust devils" or mini whirlwinds of dust as well as threats of rodents which will impact the adjacent farms. There will be unintended consequences.

Low water use crops. There is an axiom that "you reap what you sow". The same is true for agriculture. Your yields will reflect your inputs. For several years, Jatropha has been toughted as a low water use crop for biodiesel production. Recently research results report that without water, yields are low and erratic. (see attached). Ironically, there are implications that Jatropha uses more water than corn and corn we know uses more than sugarcane (output:input ratio of cane exceeds all other energy crops).

Some see organic production as a low input operation. It is not. Synthetic fertilizers, GM technology and pesticides are forbidden but they must be replaced with alternatives that provide the nutrition, pest tolerance and disease tolerance that the crops can grow. Organic fertilizers such as compost is used but its' nutrient release rate tends to be slower resulting in lower yields. High organic yields have been reported but it is because the soils received high compost material or other nutrients using groundcover plowed into the soil etc.(In Hawaii you need to irrigate to produce the groundcover). Unlike the mainland(freeze during the winter), pests live year round so pest and disease control is a major challenge, not to mention weeds.

There are agricultural operations in place on lands that use water from the 19 streams. We are not sitting idly trying to maintain the status quo. If there were better options we would be doing them …including HC&S. Why would we risk what can be for what we have? The idle sugarcane and pineapple fields across the state should strongly attest to how difficult it is. The most successful crop that has followed these two crops is houses. Maui does not want that. There is a place for development ...our farmers need homes too.

But, it should not come because decisions through processes such as the IIFS force farming out of business. That was not the intent of the Water Code.

Again, thank you for your patience in working with us. We support the information provided by the Hawaii Farm Bureau in addition to the comments above. We respectfully urge the Commission to recognize that we are not Waiahole. Returning water to streams will take water away from someone and comes with a cost. Focusing on mitigative measures so restoration can occur at a later date is in the interest of the people of Maui. We are willing to work with you to fill any information gaps about agricultural use and impacts there may be. Please contact me at 2819718. Thank you.

Wonder weed plans fail to flourish

The first of four weekly articles on biofuels looks at how investment in jatropha is slowing, as investors realize that basic research is needed.

THE BUSINESS OF BIOFUELS

The promise of green gold is fading from *Jatropha curcas*, a shrub that thrives in arid conditions and whose seeds yield a diesel-like oil. Many had seen it as a potential saviour for marginal lands, a plant that could lift developing countries out of poverty and into a sustainable oily future.

Just last year, some analysts were predicting that the area planted with jatropha worldwide — at the time, 721,000 hectares — would rise as high as 22 million hectares by 2014. The Jatropha Alliance, an advocacy group based in Berlin, was estimating that investments of up to US$1 billion could be expected annually. More than 130 companies were in the race, dominated by D1 Oils of London, which in 2007 had landed a $160-million deal with oil giant BP.

But this July, BP and D1 announced that their deal was off. And of 140 investments made in biofuels so far this year, says analyst Harry Boyle of London-based New Energy Finance, only four or five have been in jatropha projects. "Jatropha has gone very quiet," he says.

What happened? It's difficult to untangle the impacts of the global financial downturn from disappointment with jatropha in particular, says Rob Bailis, an environmental scientist at Yale University. But "over the past three years, the investment got way ahead of the plant science", he says.

Early investors are now realizing the plant's limitations. Jatropha can live in very dry conditions, but doesn't necessarily yield a lot of seeds. The plant takes three years or more to reach maturity, requiring care along the way. And jatropha seedlings are often not well-suited to the climate in which they are planted.

Even supporters acknowledge that the allure of jatropha is fading somewhat. "This year, a lot of projects did not continue," admits Thilo Zelt, director of the Jatropha Alliance.

One blow came with the publication of a controversial paper in June, in which a team led by Arjen Hoekstra at the University of Twente in the Netherlands suggested that jatropha needs more water than other bioenergy crops, such as maize (corn), to produce the same amount of oil (W. Gerbens-Leenes *et al. Proc. Natl Acad. Sci. USA* **106**, 10219–10223; 2009). Jatropha had nearly four times the water footprint of sugar-cane ethanol, for instance.

Billion-dollar investment plans for large-scale farming of the jatropha biofuel crop are on hold.

Critics point out what they see as flaws in that analysis, including the fact that it is difficult to compare jatropha, which is wild, with crops such as maize that were domesticated for optimal use thousands of years ago. In addition, the analysis looked at a small number of plantations, all of which had young trees, which could skew the conclusions, says Bart Muys, a forest ecologist at the University of Leuven in Belgium. But Hoekstra says that more thought needs to be given to variables such as where jatropha is planted and how it is harvested. "Jatropha was the hallelujah crop," he says, but in reality "it is just another crop with its own characteristics".

> "Over the past three years, the investment got way ahead of the plant science."

The split between D1 Oils and BP has hurt jatropha's reputation as a good business investment, says Boyle. In a statement, BP spokeswoman Sheila Williams said that "the decision to pull out of this is purely based on economics and a decision to focus on key strategic areas", such as sugar-cane ethanol from Brazil, cellulosic ethanol from the United States and biobutanol. In the meantime, D1 Oils has shifted from planting jatropha to focusing on basic research — including starting a breeding programme to develop seeds with high oil yields, says Henk Joos, the company's head of plant science.

Another company concentrating on basic science is SG Biofuels, based in Encinitas, California. It has collected samples from jatropha plants growing wild in different environments and is creating a library of genetic material from which it intends to develop enhanced seed strains to test, says chief executive Kirk Haney.

Eventually, jatropha might prove more useful on a local scale. For instance, Diligent Energy Systems, a company based in Eindhoven, the Netherlands, has set up small-scale operations in Tanzania, where it provides jatropha seeds for farmers to plant among other crops or on spare land that is unsuitable for food crops. The farmers are guaranteed a price for the oil seeds they produce, and so have an incentive to tend the crop and harvest it carefully, says company founder Ruud van Eck. Some 5,000 farmers are involved, he says, with a total of 3,500 hectares of jatropha planted between them. "The idea is to grow to 10,000 by the end of this year," he says.

In other countries, jatropha has yet to capture local support. In the Lao People's Democratic Republic, farmers have been bombarded with seeds and promotional material from companies but received little to no support, says

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Jakob Rietzler of the Lao Institute for Renewable Energy in Vientiane. As a result, he says, the jatropha they planted reached harvest at the same time as the rice crops. "Farmers neglect their jatropha seeds because they have to harvest their rice," he says.

In India, where much of the jatropha hype originated, success will come only if a conservative, realistic approach is adopted at the beginning, says Pushpito Ghosh, director of the Central Salt and Marine Chemicals Research Institute in Bhavnagar. Biodiesel from his institute's jatropha project (see *Nature* 449, 652–655; 2007) has been used in test cars belonging to the project and in collaboration with General Motors. Ghosh's team has been working to improve the genetic stock of their jatropha, and is about to embark on a life-cycle analysis of how much biodiesel jatropha can generate from a 50-hectare plot.

Even so, "it would be premature to call [jatropha] a success in India", says Ghosh. "It is still in the take-off stage."

He sees the hype and subsequent disappointment surrounding jatropha as a weeding-out process, leaving behind smaller, more professional players. These include the Australia-based Jatoil, which in August announced a memorandum of understanding with the European biofuel producer PT Waterland. The deal is expected to give Jatoil between 1,000 and 2,000 hectares of established jatropha-bearing land in Java. And China, one of the world's leading biofuel manufacturers, is also taking an interest in jatropha, with 105,000 hectares planted in the country by 2008 and a total of 700,000 predicted by 2015.

More oil per seed is the goal.

T. LANTICO AND GINA FOTO/GLOBAL PRESS

The next year is likely to see more basic research into the crop. Muys and his team, for instance, have analysed global land suitability and developed a high-resolution map to show where jatropha might grow best; Madagascar, Tanzania and Ethiopia are likely candidates. Meanwhile, Bailis is conducting jatropha life-cycle analyses to account for land-use change in India and Brazil. Zelt says that seeds optimized to produce more oil will be entering the market in the coming months, and the first real second-generation plants will be planted next year.

So although jatropha may not be a saviour plant, transforming vast quantities of desert land into biofuel-producing moneymakers, it is likely to find its niche as a local alternative in certain developing countries. "We need to find ways to use local business resources more efficiently," says Jeremy Woods from Imperial College London's Centre for Environmental Policy. "And jatropha can play a big part in that." ■

Katharine Sanderson

NEXT WEEK: BIOALGAE

58.0 Hawaii Farm Bureau Federation, Dean Okimoto

Hawaii Farm Bureau
FEDERATION
2343 Rose Street, Honolulu, HI 96819
Phone: (808) 848-2074; Neighbor Islands: 1-800-482-1272
Fax: (808) 848-1921; e-mail: info@hfbf.org

October 29, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Chair Thielen and Members of the Commission:

Thank you for this opportunity to provide additional input regarding the Instream Flow Standard Assessment Reports for the 19 streams in East Maui. We appreciate your dialogue with our Maui farmers todate and the visits to their farms. Our farmers are not very vocal and tend to keep things to themselves. We appreciate your patience in reaching out to them to get information. We will continue to work with them be sure that all relevant information is provided to you.

Hawaii Farm Bureau Federation(HFBF) is very concerned about the outcomes of these proceedings. The agricultural areas associated with these streams are among the largest in the State both in size and area. The areas are also under chronic water shortages so additional reductions in availability to water could be catastrophic. Many of our smaller farms are facing financial challenges due to the economic downturn so additional risks can push them over the edge. For these reasons we are very concerned.

In 2008, HFBF intervened in the proceedings of the first eight streams, joining HC&S's motion to consolidate. We felt this was critical since all of the streams are part of a system. Considering each individually, without regard to the cumulative impact can result in unintended consequences. We felt it was in the benefit of both parties if a cumulative evaluation were conducted. During our subsequent discussions, we have been led to believe that the decisions on the 19 streams will be taken as a unit ...in otherwords to

recognize that they are all part of one system. We respectfully request that the decision also consider the cumulative impact of the restoration of the original order of the first eight streams. Any one reduction in diverted water may not appear significant but the total can be detrimental.
The second major issue is the lack of recognition of Important Agricultural Lands(IAL). Reference to IAL is passive and treated as another land use category. **IAL IS NOT JUST A LAND USE CATEGORY AND IS CONSTITUTIONALLY RECOGNIZED.** It is an agricultural viability initiative. County zoning identifies lands categorized as agriculture but many lands lie without productive agricultural activity. In these initial years of IAL designation (up to 2011), landowners are encouraged to voluntarily designate their lands as IAL in exchange for access to incentives to help their operations. The lands are those that are already in production ...not just lying fallow as is with zoning. IAL is not just lines on a map but people working the land producing agricultural products. Unlike other classifications that can undergo rezoning for various reasons, the criteria for rezoning IAL is stringent. Removal of lands from IAL categories have stringent criteria requiring two thirds vote in the LUC. At the same time, Counties are required to review maps that identify IAL on a regular basis and remove from IAL classification those lands that "**a sufficient supply of water is no longer available to allow profitable farming of these lands due to governmental actions, acts of God, or other causes beyond the farmer's or landowner's reasonable control."** We strongly respect that this designation be afforded recognition throughout the document.

The following testimony will focus on the Puohokamoa Stream report. I believe the areas which we will address are in common for all streams.

1. Upcountry Dual Line
   HFBF together with Maui County Farm Bureau(MCFB) has worked with the Department of Agriculture and USDA Natural Resources Conservation Service(NRCS) to develop this system. We recognized that the use of potable water for irrigation was not the most efficient use of resources. The original design intended for an additional reservoir to be built. However, shortage of resources resulted in the dependence of the system on the Kahakapao Reservoirs. We respectfully request that the use as well as future users of this system be considered within the recognized offstream uses. HDOA has submitted this data and we

request its inclusion. Current reference is passive and does not give adequate weight to its needs.

2. Drought
   We appreciate the recognition of the impact of drought to our smaller farmers and ranches. However, it should be noted that
   a. The Kula area is the prime agricultural area for vegetable and flower farming on Maui. The significance of this fact is not apparent, making it appear that Kula is just another agricultural area on Maui.

   b. It is not clear why the impact to HC&S was not included in this section. HC&S experiences drought impacts before the rest of agriculture in Upcountry Maui. The omission of this impact is significant.

3. Outdoor Recreational Activities
   We recognize the opportunities associated with ecotourism. However, this can be a case of "nice to have" vs. "must have". Within the "balancing of uses", consideration should be given to critical watersheds. We parallel this to our farms and ranches. People, birds, animals walking through our farms and ranches can carry with them undesireable weed seeds or disease spores ...so farmers often discourage entry of outsiders on their farms. We believe watersheds can equally be threatened with the introduction of seeds of invasive noxious plants that could outcompete with the native flora that is most conducive to a watershed ...to allow the forest floor to absorb water by being a sponge. The document records some of the undesireable alien species and many are seed borne. Perhaps it would be reasonable that certain areas be allowed for recreation and ecotourism but other areas be declared critical as a watershed. We find it unacceptable if agriculture's access to water is denied in preference to recreational uses.

4. Maintenance of Ecosystems
   In the concluding sentences, there is a recognition of the forests for drinking water. Why is agriculture not included? These streams are the source of water for designated IAL IALs are constitutionally recognized. We believe this section should recognize agriculture and specifically IAL.

5. Protection of Traditional and Customary Hawaiian Rights
   We respect the traditional practices associated with growing of kalo. However, in a sense of equity, we respect that the Commission recognize the use of water by agricultural plants other than consumptive use. Page 83 accepts the use of water for cooling of the taro plants as critical for kalo cultivation. Agricultural plants have needs for water other than consumptive use. Uses of water for generally accepted practices including but not limited to pest management, salinity control should be recognized. While drip irrigation is the most water efficient method of irrigation, there are other cases in which sprinkler irrigation is justified. Farmers and ranchers should be allowed to follow practices that result in best agricultural production consistent with the Constitutional Mandate to increase the State's self sufficiency.

6. Classification of Agricultural Lands
   The significance of IAL is not emphasized;
   27,000 acres of Important Agricultural Lands have been designated within agricultural areas served by Puohokamoa Stream. The Constitution requires that these lands be preserved for future generations and for use in increasing the State's sustainability and self sufficiency.

7. System overview
   Average stream flows are reported. Maui streams are flashy resulting in great variation in flows. A histogram depicting the number of days with various flow rates should be presented to give a better picture of stream characteristic. The average flow is misleading. For agriculture the number of consecutive days with low flows is what is important ...the average doesn't relay this concept.

8. Economic Impact – Mitigation Costs
   There is passive mention of Mitigation costs, recognizing the efforts by the County to address Upcountry Maui needs. It does not address agriculture's needs, e.g. how do you keep 27,000 acres of IAL viable or provide for the Upcountry dual line.

Summary

It is obvious that the offstream impacts are significant. Maui's role in agricultural production has decreased while its' population has increased. This is contrary to the Constitution which requires that we increase our sustainability and self sufficiency. We respectfully request that the Commission recognize the needs of commercial agriculture. Our success will be dependent on a complementary cooperation between large and small enterprises ... a diversity that meets the needs of people whether it be for food, energy, or fiber(flowers, landscaping, etc.).

Agriculture will play a principle role to prevent invasive species ..a threat to the watersheds, the very resource the IIFS attempts to protect. We urge a holistic evaluation be taken in your deliberations. Environmental, cultural, economic, and societal impacts need to be considered with the ultimate priority being the welfare of the people of Maui.

These proceedings are of precedence setting nature. We are very concerned, that as with Waiahole, these decisions will have wide reaching consequences. If there are any questions please contact Mae Nakahata at (808)2819716

Sincerely yours,

Dean Okimoto
President
Hawaii Farm Bureau Federation

59.0 Wai Engineering, Inc., David A. Young

Wai Engineering, Inc.
95-522 Kipapa Drive, Mililani HI 96789
Phone: (808) 623-1449, Fax: (808) 625-7288, E-mail: waiadmin@hawaii.rr.com

October 28, 2009
Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: In Stream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Dave Young (owner) of Wai Irrigation, Inc. Our company has been working with HC&S for over 16 years. We believe that the future viability of HC&S will be negatively affected by the IIFS decisions made on the 19 streams in East Maui.

Many of us here at Wai Engineering have long term friends (20 plus years) at HC&S that have been negatively impacted for the past decade due to drought conditions and consequent layoffs and furloughs. The conditions will only get worse if the water supplies are inadequate.

As an agricultural engineering company, we are very familiar with the irrigation practices at HC&S. They have made the conversion from furrow irrigation with an irrigation efficiency of about 60% to drip irrigation that has an irrigation efficiency of about 80%. Their systems use the latest technology to get the highest attainable irrigation efficiency. When surface water is not available from the ditch system they must pump from ground water that has more saline content. That situation leads to less cane production and higher cost for them.

Another factor that can't be overlooked is the contribution of the surface water to recharge of the ground water aquifer. Reduced recharge not only impacts HC&S but also negatively impacts the county water system.

Besides the concern for the viability of one of the major business elements for Maui and the State of Hawaii, please keep in mind the inter relationship of ground water and surface water as IIFS decisions are considered.

Thank you for listening to our concerns.

Respectfully Submitted,

_____
David A. Young

cc: file

60.0 BEI Hawaii, Maui Branch, Greg Heyd

BEI HAWAII

Greg Heyd
300 Pakana Street
Wailuku Hawaii 96793
808 244-3761
E-mail gheyd@beihawaii.com

10/28/09

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Greg Heyd, Branch Manager for BEI-Hawaii operations on Maui. BEI-Maui has ten employees. As a vendor of fertilizers, agricultural chemicals and industrial chemicals, Maui's agriculture community are among our biggest customers. Their future viability will have an impact on our operations.

HC&S and Upcountry farmers utilizing water from the 19 streams in consideration, represent sales exceeding five million dollars. It is a significant portion of our business. As their viability is challenged, we see reductions in sales which in turn affects our viability. Having a large customer such as HC&S allows us to spread our overhead costs resulting in containing costs for all of our customers.

I respectfully request that the secondary benefits of offstream uses by HC&S and Upcountry farmers and ranchers be given serious consideration as decisions are made.

Thank you for you consideration.

Greg Heyd
Branch Manager BEI-Maui

61.0 Maguire Bearing Co., Ltd., Gordon Hamada

Maguire Bearing Co., Ltd.
1919 Hau St.
Honolulu, HI 96819
PH: 808/847-3531 FAX: 808/842-4889
E-mail Address: honolulu@maguirebearing.com

Date: October 28, 2009

RE: In-stream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission;

My name Gordon Hamada, Vice-President of Maguire Bearing Company Ltd.
I am writing in concern of the impacts of upcoming East Maui IIFS decisions on HC&S and agriculture in Maui.

Maguire Bearing Company Ltd has been in business with Hawaiian Commercial and Sugar Company for the past 30 years. Throughout the years, HC&S has highly depended on purchasing industrial parts from Maguire Bearing Company to replace their impairment equipments.

If Hawaiian Commercial and Sugar Company's viability is attenuated, it will have a significant effect on gross revenue at our Maui branch in Kahului. HC&S is the only sugarcane producer in the state of Hawai'i. It is also one of Maguire Bearing Company's largest business relations on the island. Therefore, as a result to opposing the HC&S viability, the outcome may affect Maguire Bearing Company Ltd as a business in many ways. If, Hawaiian Commercial and Sugar Company is forced to decrease the in-stream water flow onto their property, the agriculture will suffer causing the crops to grow immaturely that may result in unsuccessful business growth. Which in turn will affect every business that is in association with Hawaiian Commercial and Sugar Company. Lack of business may cause an increase in pricing for other customers on the island, loss in employment benefits, employment layoffs, etc.

On behalf of Maguire Bearing Company Ltd, we trust that you will put into consideration the impacts on businesses associated with Hawaiian Commercial and Sugar such as ourselves, in you evaluations. Your immediate attention and understanding on this matter is highly appreciated.

Thank you,

Gordon Hamada
Maguire Bearing Company Ltd.
Vice-President

62.0 CWR Hawaii, Inc.
David A. Tavares

CWR HAWAII, INC.

120 Mokauea Street • Honolulu, HI 96819 • Tel (808) 843-2020 • Fax: (808) 842-3030 • Email: cwrhawai@cs.com

October 29, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is David A. Tavares with Coordinated Wire Rope of Hawaii, Inc. dba CWR HAWAII. I am very concerned about the impacts of the upcoming East Maui IFS decisions on Hawaiian Commercial & Sugar and agriculture as a whole in Maui.

Our company is a major distributor of hoisting, rigging, and material handling equipment and supplies to the last sugar plantation in the islands.

If HC&S's viability is reduced it could curtail the growing and harvesting of sugar in the islands; and jeopardize the livelihood at our Maui branch. In which, it is already feeling the economic down turn.

I respectfully request that you consider the impacts on businesses such as CWR HAWAII, in your evaluations. We are all part of the Maui Community and would appreciate your understanding of the impacts on all of us in your final determination.

Thank you,

David A. Tavares
CEO/VP
CWR HAWAII
120 Mokauea Street
Honolulu, HI 96819
PH: 808-843-2020

63.0 Karin Perreira Hokoana

Aloha kakou,

The fact is that the world has changed. There is a constant battle between man and nature, with the solutions typically being an "all or nothing" approach. The real world is rarely black and white – it's usually shades of gray. The Commission on Water Resource Management's (CWRM) must consider all issues and the impact on any decisions surrounding the Interim In stream Flow Standards and the "Stream First, Mauka to Makai" petition.

Water is the 'lifeblood' to agriculture. Currently, Upcountry Maui and the farmers in the Kula Ag Park use East Maui Irrigation (EMI) for their water needs. Hawaiian Commercial and Sugar (HC&S), a subsidiary of Alexander and Baldwin, has relied on stream water from East and West Maui for the irrigation of their sugar. They also in turn have supplied the County of Maui public drinking water.

HC&S has survived 127 years in business through their ecological consciousness and their ingenuity. HC&S is 100% energy self sufficient by using renewable energy from biomass and hydropower. Maui Electric Company (MECO) customers have benefited by obtaining 7% of their energy needs from HC&S, largely from renewable energy resources. MECO has also relied on supplemental power provided by HC&S during power outages due to inclement weather.

The economy relies on presence of businesses such as HC&S. It is one of the largest employers on Maui and employs approximately 800 residents. There are many Maui businesses that directly or indirectly benefit by their existence. HC&S supplies cattle farmers with remnants of harvested cane. Also, approximately $100 million is contributed to the Hawaii economy from goods and services paid to businesses and vendors. If CWRM implements the interim in stream flow standards, HC&S's operations will be severely crippled, affecting the sustainability of the last remaining sugar company in Hawaii.

A big picture approach is needed in seeking a solution, rather than continually revisiting this issue, referencing the petitions that were filed in 2001 challenging the current stream usage in the East and West Maui. A balance between in stream (maintenance of fish and wildlife, etc), and off stream (agriculture, domestic/municipal water systems), can be sought to best benefit the people of Maui. All water sources in contention should be reviewed for purposes that each source can serve. Streams that appear to support the healthy native flora and fauna should be protected for those purposes. Streams that have the best economic potential with systems in place to collect and deliver water with consideration to the proximity to deliver water to the end user should also be protected for those purposes.

Creative solutions must be sought for a 'win-win' for all parties involved. The CWRM's task is daunting one however, a balance between man and nature is required for the co-existence of Maui's social, ecological and economic future.

Respectfully submitted by:
Karin Perreira Hokoana
220 Pico Tract
Haiku, Hawai'i 96708
(808)357-8702

64.0 Hawaiian Commercial & Sugar Co., Donna Ventura

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT

2009 OCT 29 AM 11:58

October 27, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Donna Ventura and I am the Human Resource Assistant at HC&S.

Part of my responsibilities involves the management of the apprenticeship program. I register our employees with the U.S. Dept of Labor Bureau of Apprenticeship and Training. I take care of ordering their books, grading their exams, tracking their hours, and processing their upgrades. I am also responsible for job postings and tracking all employees' work history. I am therefore very aware of the many companies that have benefited from the HC&S's apprenticeship program. Maui Electric, the County of Maui, the State of Hawaii, Grand Wailea Hotel, Sheraton Hotel, Ritz Carlton, Goodfellow Brothers, Ameron, and Tedeschi Vineyards are among the beneficiaries. Many also go to the neighbor islands and the mainland, and obtain good jobs using their journeyworker certification from HC&S as their qualification. We not only maintain a skilled workforce for HC&S but we are the training ground for employees moving on to other companies in the public sector.

I work with Alfred Valles; who is the State Director for the Hawaii/Pacific U.S. Department of Labor, Office of Apprenticeship Training and Labor Services, Bureau of Apprenticeship and Training. Mr. Valles has told me that there is no trades program comparable to that of HC&S in the State of Hawaii for the training of apprentices in a variety of fields. He has also told me, that HC&S exceeds National and State averages in apprentice to journeyworker ratios.

The lack of trained trades workers will be a detriment for Hawaii companies. They will need to recruit from the Mainland which is costly and does not provide jobs for Hawaii residents. Also, many of our employees would not be able to afford the cost of a vocational school and raise a family at the same time. I ask you to please consider all of these services that HC&S provides to the people of Maui and to the State when making your decisions on streamflow. Please allow HC&S to continue to receive the water it needs to survive.

Thank You!
Sincerely,

Donna Ventura

Donna Ventura

65.0 Kula Country Farms, Chauncy Monden

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

email: dlnr.cwrm@hawaii.gov

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Chauncey Monden and I am a third generation farmer in Upcountry Maui. My wife Teena and I farm 100 acres, growing produce and diversified vegetables. We have three children ages six, ten and thirteen. Our entire livelihood is dependent on the Kula Country Farms. I also live in Kula, depending on water from East Maui for my water needs at home.

Everyone talks about "local". Farms such as mine are important if you want local fruits and vegetables. I produce 8,000 lbs of strawberries every week. Strawberries are considered one of the highest risk crops for invasive species introduction. I believe my production is helping increase our food self-sufficiency AND help protecting our environment including the watershed.

However, without water, I will not be able to continue my operations. I sympathize with taro growers who need water. As a farmer I understand. Please find ways to address the needs of the taro growers along with our needs as agriculture. I think we need to expand our water resources ...if we do the challenges during drought may not be as bad. I see more houses being built in Kula ...yet no new water sources. The only water sources I hear of are by private developers. We need to do something so the rest of us will not need to worry about water every year.

Sincerely,

Chauncy Monden

Chauncy Monden
Owner
Kula Country Farms

66.0 Ka Lima O Maui, Chantal Ratte

Ka Lima O Maui

"Enhancing Lives Through Self-Reliance"

October 27, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Chantal Ratte, Executive Director at Ka Lima O Maui, Ltd. I am very concerned about the impacts of upcoming East Maui IIFS decisions on HC&S and agriculture as a whole in Maui.

Ka Lima O Maui, a Not for Profit organization providing employment services for adults with disabilities, provides grounds services on a weekly basis to HC&S. This contract, like many others, between our agency and HC&S is used as a training tool while providing employment for the persons with disabilities we serve. HC&S's viability is important to our organization to secure employment for our workers, especially in this difficult economy.

I respectfully request that you consider the impacts on businesses such as Ka Lima O Maui in your evaluations. We are all part of the Maui Community and would appreciate your understanding of the impacts on all of us in your final determination.

Sincerely,

Chantal Ratte
Executive Director

J. Walter Cameron Center, 95 Mahalani Street - Wailuku, Hawaii 96793
Tel: (808) 244-5502 / 244-5503 - Fax: (808) 244-2077
info@kalimaomaui.org

67.0 Maui Electric Company, Ltd., Edward Reinhardt

Testimony Before the Commission on Water Resource Management
Commenting on the Interim Instream Flow Standards Assessment Reports ("IIFSARs")
for East Maui Streams

By: Edward Reinhardt
President
Maui Electric Company, Limited

In previous testimony before the Commission on Water Resource Management in support of Hawaiian Commercial and Sugar Company's (HC&S) position on the IIFSARs for East Maui streams, Maui Electric Company, Ltd. (MECO) highlighted the value HC&S brings to the community as a renewable energy resource and an employee of choice within Maui County.

MECO would also like to inform the Commission that there are other intangible values to the community as a result of a viable operating plantation on Maui. As a valued partner in the business community; HC&S has developed an Apprenticeship training program that has benefited not only their business needs, but the community as a whole. This is evident by the many technically trained applicants who have applied for positions at MECO. Further, we have been fortunate to have had the opportunity to hire several locally qualified applicants into our business from this source. Without this source our other options are to look at off island or mainland applicants.

MECO, therefore, supports HC&S's position that the Commission considers the cumulative impacts on the community when making its decisions on the 19 East Maui streams.

Thank you.

68.0 Hawaiian Commercial & Sugar Co., Kelly Ruidas

KELLY RUIDAS
P.O. Box 1947
Wailuku HI, 96793

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Kelly Ruidas, Internal Combustion Engine Mechanic for Hawaiian Commercial & Sugar for the past 12 years. As part of my written testimony, I will mainly focus on the human resource aspect of HC&S.

In Mr.Volner's opening statements during the CWRM - HC&S site visit, Thursday, October 22, 2009, he alluded to HC&S's three main assets: land, water, and its people.

In reviewing the IFSAR covering HC&S's Employment and local economy, it touched on the 800 full-time employees that work at HC&S, however, does not go into further detail with respect to the many apprenticeship programs available to its employees. For this reason, please allow me to elaborate on the history and the background of these programs.

APPRENTICESHIP PROGRAM HISTORY AND GOALS

- Negotiated between Union (ILWU) and Management in 1962
- Registered with State and Federal DOL
- Program expanded in 1987 for advancement to higher levels
- Provide for achievement based pay
- Development of a skilled and well trained workforce

MECHANICS OF THE APPRENTICESHIP PROGRAMS

Time and Hours involved

- Pre-apprentice = 3 months
- Apprentice = 7600 hours
- Trainee Progression series = 0-12 months
- Trades Progression 18-24 months

Oversight by:

- Federal DOL
- State DOL
- EEO Laws
- HC&S Human Resources Trades/ Journey worker Progression Committee

RANGE OF SPECIALIZED FIELDS

- Carpenter
- General Mechanic
- Plumber
- Sheet metal
- Welder
- Electrician
- Machinist
- Power Plant Operator
- Millwright

PROGRAM COSTS (Per Apprentice over a 4 yr. period)

- 51 Books = $2675
- Earnings = $150,000
- Benefits = $24,480

CURRENT STATUS

- 56 Apprentices in training
- 162 Journey workers

BENEFICIARIES OF THE HC&S PROGRAM

- County of Maui
- State of Hawaii
- Maui Electric Company
- Ameron
- Goodfellow Construction
- Hawaiian Cement
- Grand Wailea Hotel

In order to reinforce the significance of HC&S's apprenticeship programs, HC&S asked Alfred B. Valles, State Director, Hawaii-Pacific Office of Apprenticeship, USDOL, to comment on our apprenticeship programs. (9/23/09)

"HC&S has always been in my view an exemplary apprenticeship program and I often use it as a best practice of a skills training model in the U.S. Your ratio of 26% Apprentice to Journey worker far exceeds the average by a sponsor on both the state level and national level."

"We do not have any other company (on Maui) that could fill the gap for our trades program."

In my oral testimony at the East Maui Public Fact Gathering Meeting, Thursday, October 29, 2009, I mentioned the many displaced workers that HC&S has accommodated with employment. This is extremely important considering the unstable economic environment that we all face. The following are the companies from which these laid-off individuals came.

COMPANIES OF DISPLACED WORKERS

- Maui Toyota
- Hawaiian Dredging
- Goodfellow Construction
- Maui Land and Pine
- Valley Isle Ford

In closing, I respectfully ask that the CWRM consider the beneficial aspects of HC&S's Apprenticeship Program. The program provides a higher skilled workforce to this company and the numerous businesses on Maui that gain indirectly from HC&S's ongoing apprenticeship training.

Thank you for your time and consideration.

KELLY RUIDAS
Internal Combustion Engine Mechanic
Hawaiian Commercial & Sugar Company

cc: Members of the Commission on Water Resource Management (without enclosures)

69.0 Kahului Trucking & Storage, Inc., Glenn Wilbourn

"Glenn Wilbourn"
<gmw.maui@hawaiiantel.net>

10/29/2009 02:31 PM

To <dlnr.cwrm@hawaii.gov>
cc
bcc
Subject In stream Flow Standard Assessment Reports

Commission on Water Resource Management

Department of Land and Natural Resources
Box 621
Honolulu, HI 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Re: In stream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Glenn Wilbourn and I am the Executive Vice-President / General Manager at Kahului Trucking & Storage, Inc. My father worked for Pioneer Mill and I worked at HC&S for many years before being promoted to my current position.

At KT&S we employ many Mechanics and CDL drivers. The past two years have been difficult with HC&S's lower sugar production and this led to a reduction in job opportunity for all of my employees. The majority of sugar is exported and as long as HC&S is producing sugar, the sugar must be shipped and so the trucks must run. I have watched construction go through their economic cycles as well as others in the various business sectors. Many of the drivers are left without work, often months at a time. Being associated with an agricultural producer, our workers have enjoyed a level of stability. I believe this is not only good for our employees and their families but also for Maui and the State.

I do not know if putting HC&S at risk is good for Hawaii. I ask that the Commission consider these implications when making your final decision.

Thank you.

70.0 Hawaiian Commercial & Sugar Co., Rodney Chin

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Rodney Chin and I am the Director, Farming Operations at HC&S. I am responsible for all irrigation related operations. As such, the issues surrounding the 19 East Maui streams concern me.

I have 140 people working in my department. They install, repair and maintain the drip system. They are very aware that we work on a water short farm. This means they must be constantly on the lookout for problems in the system and correct them in a timely manner. This can mean crawling in fully grown cane to repair a plugged line so the cane does not die or coming out at night to turn on or off systems because the ditch level changes abruptly.

2007 and 2008 were difficult years. Even as we saw problems, we did not have enough water to perform the repairs. Without the water running, identifying the problem causing a dry cane line is not easy. And the repairs may take longer than the time identified by our computer model to meet the field's irrigation needs. I am very concerned if these uses are seen as waste. Please understand that we cannot apply water on crops with a precision like applying with an eyedropper.

As much as we wish our drip tubing is perfect, it is not. We often have tubing that are defective with no water emitted. We need to replace the tubing and so portions of the field that did work need to be left running while we replace the defective tubing. In a perfect world, it would be said we are wasting the water that is being applied to those lines that are not defective. But that is not practical. My predecessors told me that water that goes beyond the root zone contribute to the recharge of our groundwater. During the summer, the groundwater is all we have. And, I know from prior experience, that applying groundwater alone ruins our soils and makes it difficult for our cane to grow. We must apply calcium when we pump heavily. I wonder if other crops could grow under these conditions. I know some say that we do not need water from East Maui because of our wells. That is not true. Without water from East Maui, our wells will go salty and the cane will not grow.

I have worked for HC&S 26 years and the 2007 and 2008 were the most difficult years for us. We saw fields go 70 days without water. During the final stages of sugarcane growth, the fields are put on "ripening" which is a gradual drying process through which the plant uses its energy to produce sugar instead of more plant material. Irrigation is no longer based on evaporation but applied just enough to keep the plant

photosynthetically active. We measure plant moistures and apply water as needed. Since this is a process of placing the plants under stress, if the interval is not correct, the plant can die. Under normal circumstances, the irrigation in the upper ditch fields takes 4-5 days. In 2008, it took us nearly 3 weeks to complete a round ...we did not have enough water to irrigate the field and instead, had to irrigate it in sections. This resulted in suboptimal sugar storage and resultant poor juice qualities. So we were in double jeopardy. We not only had low cane tonnage due to lack of growth from lack of water but also poor sugar yields due to inadequate sugar storage due to poor water availability during the final preharvest period. I am very concerned if what little water we had will no longer be available. These fields have no access to well water.

During the summer, we have an insect called the lesser cornstalk borer that bores into the newly germinating cane shoot, and kills it. As a result a new shoot must emerge. We have found that keeping the soil surface wet reduces the intensity of damage. But, that means we must apply more than the consumptive requirement for the cane. I believe this water is justified and part of growing the crop. Please take this use in consideration. Our system is not exact so we can instantaneously turn the system off when we reach 100 percent water balance. We try as closely as possible but it means will need to be over 100 some of the time. This happens during the first 6 weeks of crop establishment and after that the plants are tolerant to the borer.

As you can see, water for sugarcane is important for purposes beyond consumptive use. Please take into account the real water needs to grow a crop in your discussions as you reach a decision on East Maui. My workers and I are doing our best to make efficient use of waters from East Maui. Without it the day will come when we cannot grow cane and the green Central Valley will be no more.

Thank you

71.0 Hawaiian Commercial & Sugar Co., Garret Hew

ALEXANDER & BALDWIN, INC.
HONOLULU

TELEPHONE: (808) 579-9516
FACSIMILE: (808) 579-9517

EAST MAUI IRRIGATION COMPANY, LIMITED
P.O. BOX 791628, PAIA, MAUI, HAWAII 96779

October 30, 2009

Mr. Ken Kawahara, Deputy Director
Commission on Water Resource Management
P. O. Box 621
Honolulu, Hawaii 96809

Dear Ken:

Re: Draft IFSAR - Makapipi

I thought I would provide you with some information regarding Makapipi Stream that may be helpful to include in the Instream Flow Standard Assessment Report. The two pieces of information below appear to be consistent with the fact that Makapipi Stream lies largely on extremely permeable lava flows, as reported in Section 2.1 Geology. I am also attaching several pictures of Makapipi Stream that I took on October 28, 2009.

2001 Releases

In 2001, during the dengue fever outbreak, at the request of the State Department of Health (DOH), EMI closed its Makapipi Stream diversion, allowing all of the water to flow in the natural streambed. In closing the diversion, DOH hoped to have moving water in the stream, which would limit breeding opportunities for mosquitoes. The diversion was closed for the period from September 20, 2001 to September 21, 2001. What we found, however, that there are losing reaches below the diversion right below of the Hana Highway Bridge which cause most of the stream water to disappear into the ground. Instead of resulting in a continuous flowing stream, closing the diversion created more pools of standing water, which defeated the purpose for the releases. Because of that, the experiment was terminated and the diversion reopened after two days.

Washed Out Pond

Several people, myself included, recall more flow in Makapipi Stream below Hana Highway back in "the old days." I believe the change can be traced back to March 24 and 25, 1994, when we experienced a very heavy rainstorm. The Paakea rain station recorded 11.01 inches and 21 inches of rain, respectively, for those two days. That storm washed out the pond below the Hana Highway Bridge. And since that time, most of the water that reaches that area sinks into where the pond used to be and does not flow downstream. Only in times of very heavy rainfall will you see water flowing in the lower reaches of Makapipi Stream.

Conclusion

I hope you find this information useful for IFSAR purposes. Please feel free to call me if you have any questions or comments.

Sincerely,

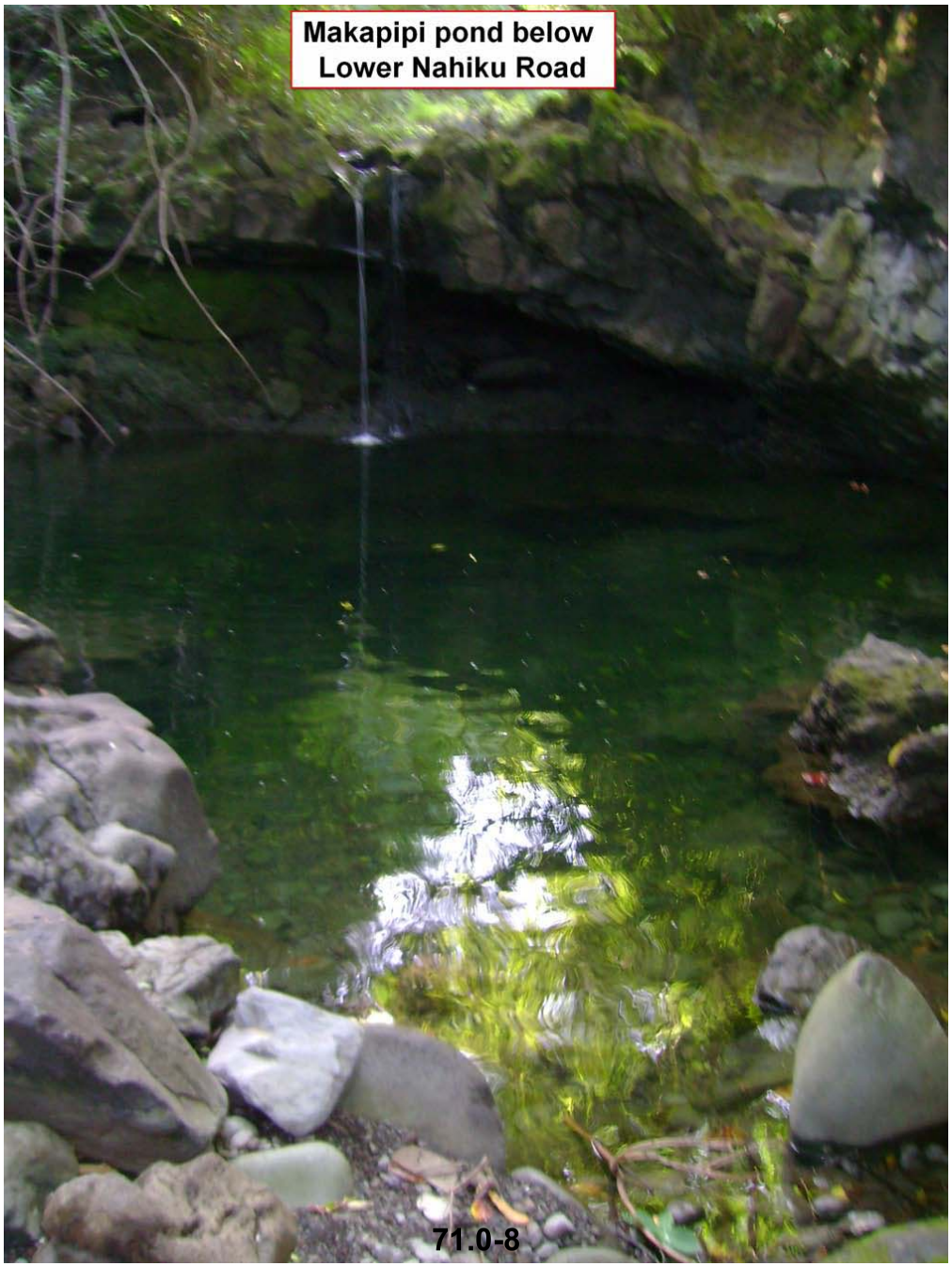
Garret Hew
President


Makapipi Stream below
Hana Highway
71.0-5


Makapipi Stream
above Hana Highway
71.0-4


Makapipi Stream above
Lower Nahiku Road
71.0-6


Makapipi Stream below
Lower Nahiku Road
71.0-7


Makapipi pond below
Lower Nahiku Road

71.0-8


Makapipi Stream
below pond

71.0-9


Unnamed and unmapped
stream West of Makapipi
71.0-10

72.0 Hawaiian Commercial & Sugar Co., Christopher J. Benjamin

MAUI HC&S
HAWAIIAN COMMERCIAL & SUGAR COMPANY

October 30, 2009

Mr. Ken Kawahara, Deputy Director
Commission on Water Resource Management
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Kawahara:

Thank you for the opportunity to comment on the sixteen Draft Instream Flow Standard Assessment Reports (Draft IFSARs) dated September 2009 for surface water hydrologic units in east Maui. As encouraged by Commission staff, HC&S had provided information prior to the publication of the Draft IFSAR's, once by letter dated June 2, 2009 and again on September 24, 2009 when it was made clear that the Commission was continuing to encourage the submittal of new information.

We appreciate that much of the data on water usage and the economic impact of restricting HC&S's use of east Maui stream water as provided in our June 2, 2009 letter has been incorporated into the Draft IFSARs. We also recognize that there wasn't enough time to incorporate the additional information provided in our September 24, 2009 letter into the Draft IFSAR's prior to their publication, however we would ask that you find that information appropriate for incorporation into the Final IFSARs for these sixteen east Maui surface water hydrologic units.

Section 4.0 Maintenance of Fish and Wildlife Habitat

We would like to take this opportunity to again urge your inclusion of the biological study data provided in our June 2, 2009 letter. We note that the Draft IFSAR's contain selected information from the report entitled "Status of Hawaiian Macrofauna in East Maui Streams and Biological Considerations for the Amendment of Interim Instream Flow Standards in Selected Streams (IIFS)" by SWCA Environmental Consultants which we provided, but failed to include several of the major points which were highlighted. As a result, the Draft IFSAR's, which are supposed to contain best available information, instead contain selective information which displays a pre-determined bias in favor of continuous and uninterrupted stream flow from a biological perspective. As documents to aid the Commission in making decisions about interim instream flow standards, the Draft IFSARs should, when there is conflicting data, fairly reflect all known data even if they offer differing viewpoints.

HAWAIIAN COMMERCIAL & SUGAR COMPANY A DIVISION OF ALEXANDER & BALDWIN, INC.
P.O. BOX 266 PUUNENE, MAUI, HAWAII 96784 TEL 808-877-0081 FAX 808-871-2149

To illustrate, in Section 4.1 (on page 44 of the Waikamoi IFSAR), there is a discussion about diversions preventing the migration of native stream animals. It then states:

> *While Ford et al. (2009) suggested that the presence of amphidromous species upstream of diversions is an indication of restored continuity of streamflow from periodic freshets, continued dewaterment of streams by diversions, especially during low flow conditions, could possibly result in longer stream reaches with prolonged dry periods, limiting overall habitat for native species.*

However, a very different impression would be left with the reader as to the significance of uninterrupted stream flow if the discussion also included the following major points from the same SWCA report:

- The system of water diversions in East Maui, while clearly exacerbating the dry end of the wet-dry cycle of stream ecology, has not been demonstrated to preclude suitable habitat conditions for sustaining populations of the amphidromous species.

- No one has yet determined the relationship between the abundance or density of native amphidromous species and habitat availability.

Similarly, the description from the USGS study of the relationship between streamflow and habitat availability in Section 4.3 leaves the reader with the impression of a direct correlation between streamflow and species abundance. SWCA's report, on the other hand, notes that no one has yet determined the relationship between the abundance or density of native amphidromous species and habitat availability. We believe that the inclusion of SWCA's major points are necessary – even if denominated as point of controversy – for more objective, and less biased, IFSARs.

In our June 2, 2009 communication, we commented on the statement in the previously published IFSARs that "[t]he Commission does not intend to delve into the biological complexities of Hawaiian streams, but rather to present basic evidence that conveys the general health of the subject stream." [Emphasis added.] We stated, "Given what is known about the native amphidromous species, a report on amphidromous populations found in one stream, without substantial discussion about the biological characteristics and wider populations of these species, is not helpful in furthering the understanding that the Commission requires when considering maintenance or restoration of stream habitat," and provided the SWCA report for that purpose.

It was very disappointing, therefore, to find that the Draft IFSARs continue to limit discussion of stream biology to individual streams or hydrologic units. Just as economic impacts of restricting offstream uses must be considered on a regional, and not a stream-by-stream basis, a regional approach should be taken in considering stream restoration for biological purposes. As indicated in the SWCA report (and as pointed out in our June 2

communication), the following points are especially pertinent to a regional approach to stream restoration for biological purposes:

- Amphidromous gobies have evolved reproductive patterns adapted to extremely variable and unpredictable habitat conditions characteristic of Hawaiian streams; amphidromous native macrofauna are extraordinarily resilient to changing conditions within streams, and they continue to persist within the Hawaiian Islands in apparently stable metapopulations.
- Amphidromous species are part of statewide metapopulations, i.e., unlike salmon, they do not necessarily return to their natal stream and there is movement of individuals from stream to stream and exchange from a common inter-island oceanic larval pool.
- Of the 18 East Maui streams for which there is data, 17 were found to have amphidromous species in their upper reaches. This means that these individuals had to have migrated upstream past diversion structures to inhabit these reaches, confirming that ecological connectivity occurs under existing conditions.
- There is a substantial amount of suitable habitat in East Maui streams for all 9 native amphidromous species under existing diverted conditions. The data clearly show that ecological connectivity exists within and among streams of the East Maui study area.

Therefore, we ask that the Final IFSAR's for these sixteen hydrologic units incorporate the information contained in all of the bullet points above. In that the IFSAR's are supposed to represent best available information for the Commission's consideration, we believe all available data, not just selected data, should be presented.

Section 13.0 Noninstream Uses

As noted above, we submitted additional information in a second letter dated September 24, 2009 based on our understanding that the Commission was still open to receiving updated data. To recap our September 24 letter, we (1) updated and augmented information about the economic impacts of restricting HC&S's uses of water, including, among other things, data regarding the direct correlation of water to sugar yields; (2) provided additional information on the EMI system; (3) clarified terms of the water transportation agreement between EMI and Maui Land and Pineapple Company; and (4) noted that Alexander & Baldwin, Inc. voluntarily designated 22,254 acres that are irrigated with EMI water as Important Agricultural Lands (IAL), thus committing to keep these lands in productive agriculture over the long term. In that this data was received after you had completed the Draft IFSAR's, we would ask that the updated data on noninstream uses be incorporated into the Final IFSAR's.

With respect to mention of IAL in the IFSAR's, we offer the following. We note that at the beginning of Section 13.0 Noninstream Uses (page 101 of the Waikamoi IFSAR), you quote Article XI, section 3 of the State Constitution, including the provision relating to the designation of IAL. The last sentence of that first paragraph states, "It is the availability of water that allows for the designation of Important Agricultural Lands."

Thereafter, the only discussion about IAL is found in one statement within section 13.3 Classification of Agricultural Lands, referring to the development of agricultural incentives by HDOA. We believe that IAL should be more fully discussed in this section, replacing the discussion on ALISH. IAL is a far more relevant topic that ALISH as an agricultural land classification—not only does the IAL designation have a constitutional basis, whereas ALISH does not, it is also a considerably more comprehensive indicator of agricultural land suitability than the ALISH soil classification designation. ALISH, in fact, is only one of eight standards and criteria used to identify IAL under the state law. We would suggest this IAL discussion recite the constitutional basis for the IAL law; include a summary of Act 183, which sets forth that the intent of the IAL law is to promote agricultural viability and also establishes the standards and criteria for identifying IAL; and reference Act 233 which provides a comprehensive package of incentives for agricultural activity on IAL.

In addition, the IFSAR's should note the relevance of IAL (the classification of ag lands) to the subject hydrologic unit. However, limiting this analysis to whether or not the subject hydrologic unit itself contains agriculturally classified lands (whether that be IAL as we propose, or prime ag lands under the ALISH system) is misleading. The relevant information for the Commission's consideration is whether water from the Waiakamoi hydrologic unit serves and is relied upon by any agriculturally classified lands. To this end, we believe it is appropriate and relevant to include a mention that more than 22,000 acres of land irrigated by the EMI system have been designated IAL by the State Land Use Commission in 2009.

Finally, towards the end of Section 13.4.3 (on page 135 of the Waikamoi IFSAR), in discussing the economic impact to Kahului Trucking & Storage, the statement is made that "[i]f HC&S were to downsize its operation, KT&S may have to do the same." In our June 2 communication, we noted that an important factor in the continued viability of HC&S is its economies of scale, which has allowed it to survive while the smaller plantations have been forced to shut down. Because of this, any significant contraction of the plantation is not feasible. Therefore, the statement about "downsizing" HC&S is misleading and should be deleted. It would be perhaps more accurate to cite that KT&S' viability is directly linked to HC&S'.

Conclusion

HC&S appreciates all of the time, work and effort the staff has invested in compiling the Draft IFSARs and in your efforts in broadening your information base. Please feel free to contact us if you have any questions or if there is other information that you believe HC&S can or should provide.

Sincerely,

Christopher J. Benjamin
Plantation General Manager

73.0 Hawaiian Commercial & Sugar Co., Sean M. O'Keefe

ALEXANDER & BALDWIN, INC.

Mr. Ken Kawahara, Deputy Director
Commission on Water Resource Management
P. O. Box 621
Honolulu, Hawaii 96809

Subject: East Maui Draft Instream Flow Standard Assessment Reports

Dear Mr. Kawahara:

Thank you for the opportunity to comment on the sixteen Draft Instream Flow Standard Assessment Reports (Draft IFSARs) dated September 2009 for surface water hydrologic units in east Maui. My comments relate to Section 10, Maintenance of Water Quality, which discusses maintenance of water quality and application of the State Water Quality Standards (Hawaii Administrative Rules Chapter 11-54). This section is for the most part identical in all of the reports with the exception of discussion of the classification of the individual streams within the respective hydrologic units and the associated figure (Figure 10-1). Items 1 and 2 below are general comments applicable to Section 10 of each of the reports. Comments specific to individual reports are provided in Item 3, below.

1. Stream classifications in the draft reports conflict with the State Water Quality Standards.

The classification of inland waters under the State Water Quality Standards (WQS) is inaccurately described in all of the reports and improperly applied in eleven of the sixteen reports. Specifically, each report states that "streams that run through natural reserves, preserves, sanctuaries, refuges, national and state parks, and state or federal fish and wildlife refuges are Class 1a". Under HAR Section 11-54-5.1(a)(1)(A)(i), Class 1a waters include all standing waters within the natural reserves, preserves, sanctuaries, and refuges "*established by the department of land and natural resources under chapter 195, HRS, or similar reserves for the protection of aquatic life established under chapter 195, HRS*" (emphasis added). The Draft IFSARs appear to have ignored the key qualifying language (set forth in italics). Consequently, the Draft IFSARs erroneously assign Class 1a designations to waters within forest reserves under the mistaken assumption that this classification applies generically to all waters within any "reserves".

Reserves that would qualify a stream for Class 1a designation would include, for example, natural area reserves (NARs, such as the Hanawi NAR) but would ***not*** include state forest reserves per se (unless the forest reserve met one of the other qualifying criteria listed in §11-54-5.1(a)(1)(A)(ii) through (v)) because such reserves are not "established under Chapter 195, HRS" (Natural Area Reserve System (NARS)). Rather, state forest reserves are established under HRS Chapter 183, Forest Reserves, Water Development, Zoning; they are therefore clearly **not** reserves encompassed by the language of §11-54-5.1(a)(1)(A)(i). Put simply, waters located within the forest reserves that are not also within the Protective Subzone, within the NARS,

Environmental Affairs • P.O. Box 266 • Puunene, Hawaii 96874 • Telephone (808) 877-2959 • Fax (808) 871-7663

within national or state parks, within state or federal fish or wildlife refuges, or within the Waimanu National Estuarine Research Reserve, and that have not been identified as critical habitat for threatened or endangered species, **are not Class 1 streams but are in fact Class 2 streams**.

It appears that the Draft IFSARs relied upon "draft" stream classification maps published in 2002 by the Department of Health Environmental Planning Office (DOH-EPO) in support of a proposed rulemaking revising the WQS stream classification system. The proposed revision was never adopted, and DOH-EPO withdrew these maps for revision when advised by members of the Water Quality Standards Technical Advisory Group and by the then Director of Health that the maps actually conflicted with the existing WQS. Current DOH guidance for identifying water body classifications can be found in its October 1987 Water Quality Standards Maps, available at:
http://hawaii.gov/health/about/admin/health/environmental/water/cleanwater/wqsmaps/pdf/maui-h.pdf).

This misclassification has been applied to multiple stream segments where water diversions are present. In eleven of the sixteen Draft IFSARs, Figure 10-1 misidentifies a lower segment of each stream (in most cases, the segment makai of the Conservation District, Protective Subzone boundary and mauka of the lower Forest Reserve boundary) as Class 1a where in fact it should be classified as Class 2. The vast majority of the East Maui Irrigation Company (EMI) ditch system diversions are located below or just above the makai boundary of the Protective Subzone; that is, the majority of stream areas potentially affected by EMI diversions (areas at or downstream of the diversions) are properly classified as Class 2 streams, not as Class 1. As is correctly noted in the Draft IFSARs, among the objectives of Class 2 waters is to protect their use for agricultural water supplies. The existing agricultural water uses are therefore wholly consistent with the objective of Class 2 waters, and this should be conveyed in the reports.

2. All "Existing Uses" are protected under the Clean Water Act.

The reports all contain a discussion of "existing uses" of water bodies that are protected under the Clean Water Act, whether or not they are specifically included in the water quality standards. Each report stresses that "uses tied to the exercise of traditional and customary Hawaii rights" are protected under the Clean Water Act and the Water Quality Standards as designated and/or existing uses. Not mentioned is the fact that the existing uses for agricultural water supplies are similarly protected under the Clean Water Act and the Water Quality Standards, whether these uses occur in Class 2 or Class 1 waters. This point should receive equal emphasis in the discussion of "existing uses".

3. Discussions of stream classifications for specific streams and related figures must be revised for consistency with the State Water Quality Standards.

In addition to the general revisions applicable to all reports discussed above, the following specific changes need to be made to reflect the correct water body classifications under HAR Chapter 11-54 for individual streams:

1. For hydrologic unit 6047, Waikamoi, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 79 accordingly. All streams shown should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
2. For hydrologic unit 6048, Puohokomoa, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 73 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
3. For hydrologic unit 6049, Haipuaena, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 73 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
4. For hydrologic unit 6050, Punalau, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 67 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
5. For hydrologic unit 6051, Honomanu, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 75 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
6. For hydrologic unit 6052, Nuaailua, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 69 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
7. For hydrologic unit 6054, Ohia, no additional changes are required as the stream is correctly classified as Class 2 in its entirety.
8. For hydrologic unit 6057, West Wailuaiki, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 70 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
9. For hydrologic unit 6058, East Wailuaiki, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise

the text on page 70 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.

10. For hydrologic unit 6059, Kopiliula, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 73 accordingly. The streams should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
11. For hydrologic unit 6060, Waiohue, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a reflects the correct classification as Class 2, and revise the text on page 71 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
12. For hydrologic unit 6061, Paakea, no change to Figure 10-1 is needed because the stream is correctly classified as Class 2 makai of the boundary of the Protective Subzone. However, the text should be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
13. For hydrologic unit 6062, Waiaaka, no change to Figure 10-1 is needed because the stream is correctly classified as Class 2 makai of the boundary of the Protective Subzone. However, the text should be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
14. For hydrologic unit 6063, Kapaula, no change to Figure 10-1 is needed because the stream is correctly classified as Class 2 makai of the boundary of the Protective Subzone. However, the text should be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
15. For hydrologic unit 6064, Hanawi, no change to Figure 10-1 is needed because the stream is correctly classified as Class 2 makai of the boundary of the Protective Subzone. However, the text on page 73 needs to be revised so that it does not imply that the stream is Class 1 by virtue of being located within the Koolau Forest Reserve. A short segment of this stream located within the forest reserve near its makai boundary is outside of the Hanawi NAR and within the Resource Subzone, so it is classified there as Class 2. The text should also be amended to clarify that diverted portions of streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.
16. For hydrologic unit 6065, Makapipi, modify Figure 10-1 so that the makai portion of the unit currently shown as Class 1a due to being within the forest reserve reflects the correct classification as Class 2 in this area, and revise the text on page 69 accordingly. The stream should be Class 2 from the makai boundary of the Conservation District, Protective Subzone to the sea. The text should also be amended to clarify that diverted portions of

streams within the unit are primarily Class 2, for which objectives include protection for use as agricultural water supplies.

Conclusion

Again, thank you for the opportunity to present these comments. If you have any questions, please feel free to contact me.

Sincerely,

Sean M. O'Keefe
Director, Environmental Affairs
Alexander & Baldwin, Inc.

cc: G. Hew, EMI
M. Ching, A&B
L. Lau, HDOH

74.0 ISI Hawaii Water Solutions, Ken Ota

ISI HAWAII water solutions

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Ken Ota, General Manager at ISI Hawaii Water Solutions. I am very concerned about the impacts of upcoming East Maui IIFS decisions on HC&S and agriculture as a whole in Maui.

Our company provides irrigation supplies (pipes, valves, fittings) to HC&S for the past 24 years. We have supplied HC&S with the most advanced irrigation systems to improve on conservation.

ISI Hawaii Water Solutions has a staff of 31 employees. We rely on HC&S's business.

I respectfully request that you consider the impacts on businesses such as ISI Hawaii Water Solutions in your evaluations. We are all part of the Maui Community and would appreciate your understanding of the impacts on all of us in your final determination.

Thank you.

Ken Ota

ISI Hawaii Water Solutions, General Manger

368 Lehuakona Street * Kahului, HI 96732 808-871-5459

75.0 Elaine S. Wender

TO: Commission on Water Resource Management
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawai'i 96809
dlnr.cwrm@hawaii.gov

FROM: Elaine S. Wender
HC 1 Box 93
Ha'ikū, Hawai'i 96708
249-2370

DATE: October 30, 2009

RE: Comments on Instream Flow Standard Assessment Reports for 16 East Maui Hydrologic Units

Thank you for this opportunity to comment. The following is submitted in addition to the written and oral testimony which I gave at the public fact gathering meeting on October 15, 2009 at the Pā'ia Community Center. I have only been able to review three of the 16 reports: West Wailuaiki, East Wailuaiki and Kopiliula. However, to the extent that information in those reports is repeated in others, my pertinent comments are meant to apply to all. I will also make brief comments on the cultural importance of a fourth unit, 'Ōhi'a. I have also attached a copy of my oral testimony, as it differed somewhat from the written testimony submitted at the meeting.

Since the online pagination is confusing, I will refer instead to the numbered sections of the reports.

1.1 Each of the three reports states that the "population within the hydrologic unit is about 139 people." I am not aware of anyone living in any of these units, except for perhaps a few part-time residents on parcel (2) 1-2-001:004 (Kalia'e).

1.2 The current interim IFS has been treated as if it is zero.

Figure 1-1 Riparian rights should also be included in this figure.

2.3 Based on rain measurements I have recorded for over 24 years at the makai end of Waiokamilo, less than a mile west of West Wailuaiki, the total rainfall at the coast is

overstated for all three reports. The highest annual rainfall I have recorded was 186 inches in 1990. However, totals in recent years have been much lower, with a 24 year average of about 120 inches. Only nine years had over 120 inches of rain.

In contrast, the monthly rainfall figures are understated. The reports for West Wailuaiki and Kopiliula state that during the driest months only 2-3 inches of rain fall at the coast; for East Wailuaiki the figure stated is 2 inches. I assume these are meant to be monthly averages. My records show that from 1985-2008, out of the total of 288 months, only 15, or 5%, had less than 3 inches of rain. February, May and June had the most instances, and are generally the driest months. Eleven years had no months with less than 3 inches; 11 years had one month, and two years had two months. In no year were there more than two months with less than 3 inches of rain. The lowest monthly average for the entire period was for June, with 7.76 inches. Rainfall increases from Waiokamilo east to Nāhiku; thus it can be assumed that Wailuaiki and Kopiliula get even more rain.

4.3 The reports correctly state: "Upstream of Koolau Ditch where there are no diversions, the stream has no reduction in flow and thus, retains 100 percent of the natural habitat." However, only the Kopiliula report states that "Downstream from the ditch where Kopiliula Stream is diverted, the stream is dry (no available habitat) until more ground water is gained..." This information should be included in all of the other reports to emphasize that immediately below the ditch, on all streams, there is no flow and thus no habitat.

The last sentence incorrectly includes the Maui DWS Upcountry System, which in fact does not extend this far east, as a factor in the dewatering of East and West Wailuaiki.

Figure 4-5 The map defines the native Hawaiian forest habitat range as being above 3,500 feet. While it is true that native birds are found in greater numbers at higher elevations, some species, especially ʻamakihi and ʻapapane, also are found at lower elevations, even along the ditch road.

5.0 All the streams are used by area residents for recreation, including hiking, swimming and gathering. Recreational activities are not limited to the ocean, as Figure 5-2 would imply, but take place in and along the streams themselves.

Keʻanae School is located in the area.

6.0 Wailuaiki is home to the endemic loulu (fan palm) *Pritchardia arecina*, which is found only within the wet forests of East Maui. The black-flowered Cyanea (*Cyanea atra lobata*), is infrequently encountered and usually at high elevations, but in Wailuaiki there is a plant found much lower; other unusual Cyanea are also present.

Table 6-8 The entries for "Subsistence" and "Hunting" are confusing. Both seem to refer only to pig hunting. For East Maui, the value of subsistence gathering including native stream animals and plants used for food, fiber and ceremonial use should be included. For ʻŌhiʻa, the incalculable value of the spring water, gathered and used by cultural practitioners, should be included.

7.0 Papiha Point is located in the westernmost, not easternmost, end of the Kopiliula hydrologic unit.

There are indeed "opportunities for scenic enjoyment" where each of these streams crosses the highway, especially if the streams are flowing. But there are also many other locations which provide these opportunities while hiking into the valleys and along the streambeds from various entry points. However, I have observed that the low flow in the streams and the lack of care of the watershed have seriously degraded the aesthetic experience over the years. Alien plants grow rampant, making it difficult to traverse many areas for gathering or recreation.

9.0 The report by W.A. Hirai & Associates, Inc. (1981), *Hydroelectric Power in Hawaii: A Reconnaissance Survey*, prepared for the Department of Planning and Economic Development, State of Hawaii, is cited for the claim that the potential for hydropower generation on the three streams has not been identified in previous reports. In fact, in commenting on east Maui streams, the report stated: "Streams with good hydropower potential include the East and West Branches of Wailuaiki Stream, Hanawi Stream, Kolea Stream and Nailiilihaele Stream. Together these sites have a potential of over 3,200 kilowatts of capacity." (p. 23) The technical data summary (Table D-17) of the report estimated a plant capacity of 2,750 kw and an average annual energy production of 15,080,000 kwh, based on a water diverted above the Koʻolau Ditch "at high elevation from East and West Branches of stream into single powerhouse." (p. D-42)

Based on this survey, Hirai in March, 1985 completed two reports for the County of Maui: *Final Report, East and West Wailuaiki Streams Hydroelectric Project, Phase I; Preliminary Engineering Study* and *East and West Wailuaiki Streams Hydroelectric Project, Phase I; Environmental Assessment*. The EA identified East and West Wailuaiki as the site

with the greatest potential for hydro production on Maui. (p. 6-1) The county decided not to proceed with the project due to capital costs involved, but the reports were made available to private developers.

Garratt-Callahan Company repackaged the environmental assessment and submitted it in October, 1985, followed by a draft EIS and then a final EIS in September, 1986.

The proposed project would have dewatered an additional eight miles of stream above the ditch and would have been an environmental disaster because of this and many other impacts. The Keʻanae-Wailuanui Community Association, representing most of the community, strongly opposed the project, and along with the Sierra Club and a coalition of many varied community and environmental groups succeeded in defeating the project: the Board of Land and Natural Resources found the EIS to be unacceptable.

The controversy did not die then, however. Garratt-Callahan sold its "rights" to the project (which were nonexistent) for over $1 million to another company, which sold them again, and we had to fight the proposal once more. Ultimately the plan was abandoned.

We were told by developers that if they were successful at Wailuaiki, they would propose extending the project to Kopiliula.

Surely with such an abundance of water available in these streams, which are heavily used by local residents, they should be prime candidates for restoration.

HC&S hydro: Figures should be given for actual power production for the various hydraulic turbine generators, not just their potential production.

The last sentence is misleading: "Therefore, an order to reduce ditch flow may release HC&S and MECO from this agreement, thereby reducing the amount of power that MECO can provide to its customers." Actually, it would simply mean that either HC&S would use another source to provide the power (bagasse or coal) or that MECO would obtain the power from another source--either a renewable source, or oil. In any event, overall electric demand on Maui has decreased.

Table 12-1 For West Wailuaiki and Kopiliula, the first entry in the table, "Kalaie" should be "Kaliaʻe" (or "Kaliae").

12.0 (after Table 12-6) ʻŌhiʻa: The discussion of the historical use of these waters should include this reference from Martha Beckwith's *Hawaiian Mythology*:

> LEGENDS OF KANE AND KANALOA AS WATER FINDERS
>
> Kane and Kanaloa go into the precipitous mountains back of Keanae on Maui and lack water. They discuss whether it can be obtained at this height. "Oi-ana (Let it be seen)!" says Kanaloa; so Kane thrusts in his staff made of heavy, close-grained kauila wood *(Alphitonia excelsa*) and water gushes forth...Two holes are pointed out just below the road across Ohia gulch beyond Keanae on Maui where Kane dug his spear first into one hole and then into the other with the words, "This is for you, that for me." The water gushing from these apertures is called "the water of Kane and Kanaloa." p. 64-65

This spring water is still of great cultural importance.

West and East Wailuaiki, Kopiliula: It is well-recognized that the Koʻolau region was densely settled in ancient times, but that very little archaeological research has been conducted in this area. It should be mentioned that there is a heiau at the shoreline at Wailuaiki, and that Ke Alanui o Piʻilani (King's Highway) traverses through this entire area and is still used.

In *Ruling Chiefs of Hawaii*, Kamakau tells us that four centuries ago, Kiha-a-Piʻilani returned to East Maui from the island of Hawaiʻi to reclaim his kingdom. So numerous were his war canoes that the first ones reached Hāna while the last ones were still on Hawaiʻi. Arriving at Kaʻuiki, the warriors found it well-defended, and after losing both men and canoes they fled to the open ocean. Kiha-a-Piʻilani led them to the small harbor at Wailuaiki and it was there that they beached their canoes, dismantling them and setting them upright so that they could all fit. They then walked overland on Ke Alanui o Piʻilani to the site of victorious battle.

Figure 12-3 Most of the map is colored purple, which the key says is "private." Tax maps show that most of this area is Koolau Forest Reserve land which is in the hands of the state. The gray areas are coded "other". What does that mean? The triangular piece at the extreme northeast boundary of the West Wailuaiki map is Kaliaʻe, which is privately owned.

13.2 The last sentence before Figure 13-1 is incorrect. Water from east Maui irrigates east and central, not west, Maui; thus no reduction in recharge in west Maui would

result from east Maui stream restoration. At any rate, such unnatural recharge comes at the expense of the natural recharge in the east Maui hydrologic units which would occur if streamflow was not diverted. This would help to improve the degraded condition of the watershed.

13.4.2 In modern times the demand by downstream users that BLNR enforce their appurtenant and riparian water rights and protect minimum stream flows began in 1981. Members of the Keʻanae Wailuanui Community Cooperative and the Hāna Community Association petitioned to intervene in proceedings for the issuance of east Maui water permits to EMI, and asked that a contested case be scheduled. Their petition was denied, and a lawsuit (Civil No. 5684, Second Circuit) was filed on behalf of two downstream users in 1981. Petitions to intervene continued to be denied by BLNR, and in 1985 another lawsuit (Civil No. 85-0939, First Circuit) was filed on behalf of a number of east Maui farmers appealing the board's denial. In 1986 the court ruled in favor of the farmers and instructed BLNR to allow intervention. Eventually a contested case was noticed, and many other downstream users, including myself, filed and were accepted as parties. The contested case was originally scheduled for November 12, 1986, but was postponed so that research could be conducted on the needs of downstream users. Negotiations between some of the parties took place, but the contested case was neither held nor dismissed.

13.4.3 The report states that "HC&S uses drip irrigation for most of its fields." At hearings in years past, I have heard HC&S personnel testify that they save 30-40% on water use by using drip rather than furrow irrigation, as in the past. However, they have continued to take all of the water they can out of east Maui.

The report gives figures for HC&S water use, but this is irrelevant. As demonstrated in the Nā Wai ʻEhā contested case, it is the figures for water <u>need</u> that should be considered. The plantation overwaters fields when water is available, and wastes water in other ways. The CWRM should take formal notice of the Proposed Findings of Fact, Conclusions of Law and Decision and Order of the hearing officer in the Nā Wai ʻEhā case, as well as the exceptions filed by the petitioners and intervenor concerning these calculations, since the hearing officer acknowledged at the oral arguments that the exceptions concerning these figures have merit.

HC&S blamed its week-long 2008 furlough of 88% of its workforce on drought, but ILWU representative Willie Kennison claimed poor farm management practices had hurt the company's sugar production:

> "We are concerned about the direction of the company," Kennison said. "They have roughly the same amount of acreage, but the crops have dropped every year and the yield has gone down drastically. Instead of utilizing their pumps to properly irrigate their fields, they are selling too much electricity to Maui Electric...I've [sic] concerned that if the company doesn't fix its underlying problems that workers may see more furloughs, layoffs or even closures." Honolulu Star-Bulletin. December 13, 2008.

The report mentions that HC&S has about 800 employees. In l981 that number was 1,450. Thus the plantation's workforce has been cut almost in half in less than thirty years.

13.4.6 The report states that "Maui DWS receives an average of 7.1 million gallons per day from the EMI system", including water for the Kula Agricultural Park. At 13.4.1 the report states that the EMI system "delivers an average of 165 million gallons per day." Thus the county uses, on average, 4.3% of this amount, and the remaining 95.7% is used by the plantations.

13.5.1 The well referred to in the last paragraph is Kaupakalua (not Kuapakalua).

13.5.2 and Tale 13-12 The text states that "Table 12 is a detailed look at the estimated counts and water needs for cattle and other livestock agriculture in Maui that depend on east Maui (between Waikamoi and Makapipi) water." The table, however, is titled: "Estimated counts and water needs for cattle and other livestock for cattle operations in Maui." Thus it appears that it is not limited to east Maui. It is astounding that feral animals are included in this census; 22% of the animals counted are feral. The implication is that these animals drink from the ditch or from streams above the ditch. But as populations of these animals are more numerous in the lower reaches below the ditch, it is likely that they drink from springs. At any rate, why should we be concerned about providing water for feral animals? The water needs for domesticated animals is included in Figure 13-8.

14.0 The following resources should be included in the bibliography:

Beckwith, Martha (1940). Hawaiian Mythology. Yale University Press. 571 p.

Garratt-Callahan Company (October, 1985). East and West Wailuaiki Streams Hydroelectric Project, Environmental Assessment.

Garratt-Callahan Company (September, 1986). East and West Wailuaiki Streams Hydroelectric Project, Final Environmental Impact Statement.

Interisland Design Group, Inc. (February 23, 1994). Conservation District Use Application Environmental Assessment Report for Private Residential Ranch, TMK 2-1-2-01:04, Kaliae, Maui, Hawaii; Prepared for Fred Levy & Michael Boteilho.

Kamakau, Samuel M. (revised ed. 1992). Ruling Chiefs of Hawaii. Honolulu: The Kamehameha Schools Press, 512 p.

State of Hawai'i, Department of Land and Natural Resources (October 20, 1986). File No. MA-2/20/86-1852; Document No.: 0825C; letter from Susumu Ono, Chairperson, Board of Land and Natural Resources finding Garratt-Callahan Final EIS (above) unacceptable, 9 pages.

W. A. Hirai and Associates, Inc. (March, 1985). East and West Wailuaiki Streams Hydroelectric Project, Phase I; Environmental Assessment; Prepared for County of Maui.

W. A. Hirai and Associates, Inc. (March, 1985). Final Report, East and West Wailuaiki Streams Hydroelectric Project, Phase I; Preliminary Engineering Study; Prepared for County of Maui .

ORAL TESTIMONY OF ELAINE S. WENDER
PUBLIC FACT GATHERING MEETING OF CWRM STAFF RE IFSAR FOR 16 HYDROLOGIC UNITS OF EAST MAUI
Thursday, Oct. 15, 2009 Pā'ia Community Center

Good evening. My name is Elaine Wender.

Thank you for being here tonight, and many thanks to the Commission and staff for your hard work. I regret that I was unable to attend your meetings last year as I was off-island.

I appreciate that you sent me a CD of the draft reports, as I was unable to download the files from the Internet, but I have found it very difficult to review them. The largest is 245 pages long. Trying to read the documents on my tiny laptop makes me weary.

Much of the information in the various reports is the same, but there is no way to ascertain that without reading each report. It would be very helpful if you published the common material in one document, and then the information particular to the individual streams in separate reports. Also, hard copies should be made available at least in libraries. I will be submitting written comments later on some of the reports.

For too many years the pleas of East Maui residents to restore streamflow have gone unheeded. Ancestors of current residents of Ke'anae-Wailuanui protested the taking of stream water 130 years ago. Those in power ignored them. That has been the pattern for over a century. For over 25 years I have testified along with many others at countless hearings asking for restoration of streamflow. Recently, finally, we have seen the beginning of change, and I hope that the staff and the commission will continue to listen, and to act in accordance with your legal mandate.

Twenty two years ago, in November, 1987, the Ke'anae-Wailuanui Community Association submitted comments, signed unanimously by all 11 directors, on the original proposed interim instream flow standards, specifically recommending that a continuous flow from the mountain to the sea be reestablished in area streams, including streams being considered today. Similar comments were submitted to the Commission in April, 1988, as then reported in The Maui News. Since that time, five of the 11 who signed have died: President Harry Kūnihi Mitchell, Vice-President Ruth Hanson, Harry K. Pahukoa, Jr., Samuel E. Kaauamo and Harry O. Mitchell, Jr. Sarah Kaauamo, who earlier was a director, has also passed away.

The community's input was rejected, and the Commission set the interim instream flow standards for over a hundred streams in East Maui which are diverted by East Maui Irrigation at... **ZERO**. Since EMI takes everything at the ditch, the flow immediately below, except during times of big water, (when the ditch cannot accommodate all the flow), is ZERO. And THAT is what we've received.

As you know, the endemic stream species which are gathered in our community need continuous fresh water to complete their life cycles. Often this does not exist, because the stream water is taken. The often too-warm water which IS in the streams provides breeding grounds for the apple snail, a terrible pest for taro, as well as various diseases.

The EMI system removes over 60 billion gallons a year from East Maui. It is the largest private water delivery system in the U.S. MORE THAN 90% OF THIS WATER GOES TO SUGAR CANE. Over 20 years ago A&B completed conversion to drip irrigation.

They acknowledge that this saves them at least 1/3 on water needs. Yet they continue to take EVERY DROP.

Commissioner Sumner Erdman rightfully admonished us this morning that the health of the watershed is paramount for all of us. If the watershed continues to be degraded, there will be little or no water to argue about. There is an East Maui Watershed Partnership to which EMI belongs. I am aware that they assist in facilitating access to the watershed area, and the A&B Foundation is listed as a contributor to the partnership efforts. However, in reading the foundation's Review of Giving for 2008 I find no mention of the partnership, and believe that no monetary contribution is made.

The excessive withdrawal of water from the streams degrades the watershed, hindering the percolation of water. Invasive alien species grow rampant. If you hike in East Maui, you see banyans, whose roots eventually sink deep into the water table, growing out of native ʻōhiʻa trees; clidemia is everywhere. Every year it gets worse.

I ask you to imagine for a moment what East Maui would look like if the streams flowed free. Then imagine a company coming in to try to build the system which now exists. I do not believe that ANYONE in this room would allow it to happen. It is only because it has existed for so long that some are numb to the devastation that it creates.

This community has been waiting far too long for justice. In just the time that I've been involved, a whole generation has passed. Looking through the list of petitioners in this proceeding, I see the names of several who are no longer with us, including Mary Kaauamo, Puanani Holokai and Willie Kaipo Kimokeo, who died last month. The inaction of the commission in the past for so many years is shameful and contrary to the requirements of the law. The commission has the power, the obligation and all the necessary information to amend the interim instream flow standards and put water back into these streams. I hope that I live long enough to see it happen.

Thank you.

76.0 Hawaiian Commercial & Sugar Co., Kelly Ruidas, Petitions to Support Water for Sugar Cane Production, Agricultural Production, and Community Use

KELLY RUIDAS
P.O. Box 1947
Wailuku HI, 96793

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

At the October 15, 2009 meeting in Paia on the East Maui interim instream flow standards, you asked for copies of the petitions that I had as part of my testimony. I had responded that there were still more signatures coming in, and that I wanted to wait. I am enclosing now copies of petitions signed by 4,575 individuals asking the State Commission on Water Resource Management, when setting interim instream flow standards for Maui streams, to ensure that sufficient water is made available to sustain off-stream uses. These off-stream uses include sugar cultivation by HC&S, farms and ranches in Upcountry Maui, and essential water for our homes, businesses, and community facilities such as schools, parks, and community centers. The use of stream water is key to ensuring that we --- and our children --- will be able to continue to enjoy a strong economy and healthy society on Maui, now and in the future, thus providing the greatest good to the community as a whole.

Your consideration and support is greatly appreciated.

Should there be any questions, please feel free to contact me at (808) 264-0739.

Sincerely,

KELLY RUIDAS
Internal Combustion Engine Mechanic
Hawaiian Commercial & Sugar Company

cc: Members of the Commission on Water Resource Management (without enclosures)

To view all of the petitions submitted, please refer to the Compilation of Public Review Comments Appendix (PR-2009-18 APPENDIX)

Due to the large volume of submissions contained in the appendix (PR-2009-18 APPENDIX), this file will only be distributed electronically. Hardcopies will not be made available to the general public.

77.0 Maui Electric Company, Ltd., Aris Aceres, Kerstan Cabral, Glenn deSilva, Shane Evans, Scott Hirata, John Mauri, Charles Oliveira, Shane Phillips, Abraham Quipotla, Sherryl San Agustin, Alexander Segovia

Aris Aceres

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Aris Aceres and I am a maintenance electrician at Maui Electric Company. I graduated from Quezon high school (Phillipines) I was hired by HC&S as an apprentice electrician.

Then, in 2003, I joined Maui Electric Company as a maintenance electrician. I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Name ARIS ACERES
Position MAINTENANCE ELECTRICIAN

cc: Members of the Commission on Water Resource

Reynaldo Ballesteros

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Reynaldo Ballesteros and I am a machinist at Maui Electric Company. I graduated from Maui high school. I was hired by HC&S as an apprentice millwright and entered the apprenticeship program. I joined the program because I wanted to learn metal working trade.

Then, in 2005, I joined Maui Electric Company as a machinist. I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely, Reynaldo Ballesteros

Name Rey Ballesteros
Position Machinist

cc: Members of the Commission on Water Resource

Kerstan Cabral
Maui Electric Company
200 Hobron Ave
Kahului ,HI 96732

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Kerstan Cabral and I am a Certified Welder at Maui Electric Company. I graduated from Saint Anthony High School . I was hired by HC&S as a welder apprentice and entered the apprenticeship program. I joined the program because it was and is a good opportunity to learn a trade. I enjoy doing this type of work and looked forward to becoming a journeyman.

Then, in 2005, I joined Maui Electric Company as a Certified Welder. I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Name Kerstan Cabral Kerstan Cabral
Position MECO/ Certified Welder

cc: Members of the Commission on Water Resource

Glenn deSilva

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Glenn deSilva and I am a Control Tecnician at Maui Electric Company. I graduated from Castle high School (Kaneohe). I was hired by HC&S as a mud truck driver and entered the apprenticeship program. I joined the program because I wanted to learn a trade.

Then, in 2005, I joined Maui Electric Company as a Control Tech.I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Name Glenn deSilva
Position Control Technician I

cc: Members of the Commission on Water Resource

Shane Evans
Maui Electric Company
200 Hobron Ave
Kahului, HI 96732

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Shane Evans and I am a Power Plant Maintenance Supervisor at Maui Electric Company. I graduated from Baldwin High School then spent 4 years in the Navy. In the USN, trained and worked in the field of Pipefitting, Welding, Sheet metal fabrication , boiler maintenance . I was hired by HC&S as a Welder apprentice and entered the apprenticeship program. I joined the program to gain more experience in industry and become a Journeyman Welder with a reputable company in the state. Several years following that I held positions of Millwright Supervisor then Shift Production Engineer at HC&S.

Then, in 2000, I joined Maui Electric Company as a Power Plant Maintenance Supervisor I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with work experiences and their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Name Shane Evans
Position MECO/ Plant Maintenance Supervisor
cc: Members of the Commission on Water Resource

Scott Hirata

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Scott Hirata and I am a welder at Maui Electric Company. I graduated from Baldwin high school and Maui community college. I was hired by HC&S as an apprentice welder and entered the apprenticeship program and worked there for 20 years.

Then, in 2006, I joined Maui Electric Company as a welder. I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Scott Hirata

Name SCOTT HIRATA
Position WELDER

cc: Members of the Commission on Water Resource

John Mauri

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is John Mauri and I am the station Manager for Maalaea at Maui Electric Company. I graduated from St. Anthony's High School. I was hired by HC&S as a Shift production engineer. I joined HC & S to return to Maui after graduating from University of Southern California as a Mechanical engineer.

Then, in 2004, I joined Maui Electric Company as a combined cycle plant supervisor. I was then promoted to the position of Maalaea generating station Manager. I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S, opportunities such as I had would not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

John Mauri

Name JOHN MAURI
Position MAALAEA GENERATING STATION MANAGER.

cc: Members of the Commission on Water Resource

Charles Oliveira

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Charles Oliveira and I am a maintenance electrician at Maui Electric Company. I graduated from King Kekaulike high school. I was hired by HC&S as an apprentice electrician. I joined the apprentice program to learn a different field.

Then, in 2008, I joined Maui Electric Company as a maintenance electrician. I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Name Charles Oliveira
Position Maintenance Electrician

cc: Members of the Commission on Water Resource

Shane Phillips

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Shane Phillips and I am a machinist at Maui Electric Company. I graduated from Maui high school. I was hired by HC&S as an apprentice millwright and entered the apprenticeship program. I joined the program because I wanted to learn a skilled trade

Then, in 2008, I joined Maui Electric Company as a machinist.I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Name Shane Phillips
Position machinist

cc: Members of the Commission on Water Resource

Abraham Quipotla
Maui Electric Company
200 Hobron Ave
Kahului, HI 96732

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Abraham Ouipotla and I am a Machinist at Maui Electric Company. I graduated from Baldwin High School . I was hired by HC&S as a Blacksmith apprentice and entered the apprenticeship program. Awhile after becoming a Journeyman Blacksmith , I went back into the apprenticeship to became a Millwright Journeyman . I joined the program because I love to work and gain more knowledge in the Industrial trades .

Then, in 1998, I joined Maui Electric Company as a Certified Welder and latter took the position of Machinist . I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

.

Sincerely,

Name Abraham Quipotla
Position MECO / Machinist

cc: Members of the Commission on Water Resource

Sherryl San Agustin

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Sherryl San Agustin and I am a control technician at Maui Electric Company. I was hired by HC&S as an apprentice electrician and entered the apprenticeship program.

Then, in 2007, I joined Maui Electric Company as a control technician.. I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

.

Sincerely,

Name SHERRYL SAN AGUSTIN
Position Control Technician

cc: Members of the Commission on Water Resource

Alexander Segovia

October 29, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

ATTENTION: Laura Thielen, Chair

Dear Chair Thielen and Members of the State Commission on Water Resource Management:

My name is Alexander Segovia and I am a Control Technician at Maui Electric Company. I graduated from Carson high school (California), I was hired by HC&S as a apprentice instrument technician. I joined the program because I wanted to make use of my military experience as an avionics technician.

Then, in 2007, I joined Maui Electric Company as a Control Technician .I have heard about the IIFS proceedings and its' potential impact to HC&S. I know without HC&S opportunities such as I had with their apprenticeship program will not exist.

I respectfully request your consideration of the impacts HC&S has not only as a sugarcane company but as a training ground for the various trades critical to Maui businesses. I know the path to the position I have today would have been more difficult or not possible if it were not for HC&S.

Sincerely,

Name ALEXANDER SEGOVIA
Position CONTROL TECHNICIAN

cc: Members of the Commission on Water Resource

78.0 Hawaii Agriculture Research Center, Lance T. Santo

October 30, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Chair Thielen and Members of the Commisions:

I am providing some brief inputs on two issues to consider when allocating sufficient amount of water for sustainable agriculture on Maui using water from streams of East Maui.

Groundwater Recharge and Soil Salinity

The conversion of sugarcane fields from furrow to drip irrigation resulted in more efficient use of water but less groundwater available to recharge in the Pearl Harbor basin, Kaanapali area, and at HC&S. The consequence was increasing levels of salinity in irrigation wells especially those close to the coastline. Irrigation wells by the Kaanapali Airport (Pump 6) and Well 16 at HC&S resulted in excess seawater intrusion and electrical conductivity levels as high as 6 mmhos/cm, especially in times of drought in the 1980's until more water was applied via the drip system. The ideal amount was determined to be about 1.2 ratio to Class A pan evaporation from several HSPA field trials. Most crops cannot tolerate salinity levels above 2 mmhos/cm and will result in yield losses of 10 to 100%. Most vegetable crops are by far more sensitive to salinity than sugarcane.

Water in excess of the evapotranspiration is necessary to recharge the groundwater, and to leach accumulated in the soil. Without adequate leaching, crop production will not be sustainable or possible. Hence, more than the crop's potential evapotranspiration should be considered when allocating water for agriculture.

Crop Water Requirements Considerations

Most of the crops currently grown in Hawaii will use about that of open pan evaporation with the exception of pineapple. Farms with higher solar radiation, low relative humidity, higher temperature and greater wind speed will have a higher potential evapotranspiration requirement. Several factors will influence water use:

1. Planting patterns affecting plant density. The more plants per acre, the greater the leaf surface area per acre, which is directly related to water use. Hence orchard crops with wide row spacing for tractors will use less water per acre. Water use will approach that of row crops when the orchard develops a full canopy.

2. Growth stage of the crop is correlated to water use. At the early stages, less water is required than when approach the mature phases. Not having enough water at the critical stage may result in 100% yield loss. Most of the crops in demand for local consumption require that of open pan evaporation. Water for cooling the leaf surfaces is essential for some crops at certain growth stages and should be included as necessary for crop production.
3. Some plant species, such as pineapple, will use less water to produce normal yields. However, many crops may be tolerant to less water or drought, but yields will be reduced. For example, irrigations experiment at HARC with jatropha (crop which is said to use less water) resulted in higher yields with more water equal to pan. Jatropha is tolerant to droughts, but production will significantly be reduced. High yields are necessary to offset the high input cost, such as fertilizers, labor and land in Hawaii; else the farmer will not be profitable.
4. Field fallowing practices are dependent of the amount of land available to each farmer. For the small farmer, fallowing is not an option and continuous cultivation is requires to be profitable. The large Oahu farms water requirement may use 3000 gallon per acre per day when averaged on the annual basis with 50% of the area being fallowed. Without fallowing, the water use will be about 6000 gallons per acre per day.

If I could be of further assistance to the Commission on Water Resource Management, please contact me at the Hawaii Agriculture Research Center (telephone 677-5541 (office) or 228-0162 (cell); email: lsanto@harc-hspa.com). I have 35 years of agricultural research experience in tropical agronomy in Hawaii.

Sincerely yours,

Lance T. Santo
Hawaii Agriculture Research Center
P.O. Box 100
Kunia, HI 96759-0100

79.0 Maui Farmers' Cooperative Exchange, Gilbert Silva

MAUI FARMERS' COOPERATIVE EXCHANGE
Distributors of Fresh Island "PRIDE OF MAUI" Produce

October 26, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI. 96809

RE: In Stream Flow Standard Assessment Reports

My name is Gilbert Silva and I am the General Sales Manager for the Maui Farmers Cooperative Exchange. I represent 16 farmers (11 full time and 5 part timers) on the Island of Maui, and I market their produce throughout the State of Hawaii. Some of the produce I market for them is head cabbage, Chinese cabbage, various varieties of lettuce, broccoli, vine ripe tomatoes, cucumber, zucchini, yellow corn, bell pepper, and the well known Maui Kula Sweet Onion.

Our farmers have been undergoing many difficulties; such as, higher chemical cost to fertilize their crops, labor cost, insurance cost, shipping cost, fuel cost. In addition, food safety requirements are increasing meaning higher costs of production. In conclusion, farming is a high risk business and further risks may push some farmers over the edge as they barely make a profit. Hence, I anticipate some of my farmers discontinuing farming.

Because of the change in our global climate, I've seen the farmers try to modify their planting in preparation of drier times. This is not good from a marketing perspective and many vendors are hesitant in buying from the local farmers citing lack of consistency as a reason. Risks in water availability will ultimately result in closures for some farmers.

I believe data from our farmers have been submitted. Please recognize their challenges and concerns as decision are made.

Sincerely yours,

Gilbert Silva
General Sales Manager

970-B Lower Main Street • Wailuku, Maui, Hawaii 96793 • Phone (808) 242-9767 FAX (808) 244-1606

80.0 Dick Mayer

POTENTIAL USES of EAST MAUI STREAM WATERS

October 30, 2009

(NOT necessarily in any priority order)

Prof. Dick Mayer tel 808-878-1874
dickmayer@earthlink.net

NOTE: This 1st page is revised from the one I submitted at the hearing.

In addition to evaluating each stream separately, the following potential uses of East Maui stream waters need to be fully described, analyzed, and quantified in a summary study which will make a cumulative appraisal of the relationship between the streams and the potential uses:

1. Restoration of natural stream flows and transport of nutrients to the ocean
   (Maui's natural environment is a foundation of our traditional + modern economy)
   (How many MGD are needed as a minimum?)

2. Provide dependable water supply for East Maui's taro farming
   (Historical agricultural activity utilizing the East Maui stream waters)
   (Appurtenant and Riparian rights)

3. Hold in reserve adequate water for the growing Hawaiian Homelands development
   (near Keokea in the southern area of upcountry Kula)
   (300+ homes now; 2,800 homes expected within 20 years)
   (Present allocation of 0.5 MGD will be inadequate over the long term,
   especially for the many farm lots within the Hawaiian HomeLands)

4. Continue providing dependable water supply for Upcountry's diversified farmers
   (Grazing animals, vegetables, fruits, flowers, existing and future ag. parks, etc.)
   (Do NOT use average daily demand. Determine minimum "drought season" needs)

5. Continue providing for the domestic water needs of the Upcountry Maui region
   (Determine minimum "drought season" needs at each elevation
   Upper Kula, Lower Kula, Olinda, Makawao, Pukalani, Haiku, Haliimaile)

6. Continue providing some of the needed irrigation water for the HC&S sugar plantation
   (29,000 acres from EMI System)
   (Consider alternative, less water intensive crops that would allow
   for higher employment and potentially higher revenues)
   (Since HC&S plantation has one of the best wind regimes in the world,
   require HC&S to utilize windmills to pump ground water up a mere 50' - 200')

7. Determine accurate present and future needs of ML&P's Upcountry Pineapple plantation
   (Much ML&P land has recently been sold; their acreage is being rapidly decreased)

8. Reserve water supplies for future Upcountry residential development
   (1,300 names on upcountry water meter list; much land in "rural" land-use classification)

9. Consider delivering potable water to Maui Island's major towns in Central Maui
   (Maui Island Plan designates central valley area for significant population growth)

10. Begin delivering water for the resort developments and golf courses in South Maui
    (Location of Maui's largest industry: tourism)

RECOMMENDATIONS:

A. Put all of these conflicting uses into a matrix that will make clear for decision makers the scale of demand by the various potential water users.
   - Include wet season and drought season demands.
   - Include water delivery cost estimates.

B. Prepare cost estimates for annual and long-term maintenance costs of the East Maui System.

C. Consider a "water management authority" or a division of the Water Commission to operate an integrated East Maui system, fairly and efficiently.

SUGGESTED CORRECTIONS to the Reports

NOTE: The following are suggested corrections.
The "Section Numbers" and "Page Numbers" refer to just one of the stream studies, Honomanu Stream, but probably can be used in all of the studies.

13.4 Stop referring to the irrigation system as the "EMI" irrigation system. Refer to it with "small capitals" as "east Maui's irrigation system." **The system does NOT belong to EMI (a private company), but to the public.**
This fact is demonstrated in Section 13.4.2 where it states that, "Originally the rates charged for the water were low, to allow for construction costs." (Honomanu Report, Section 13.4.2, Page 116, last paragraph). This clearly means that the public paid for the construction, because A&B (EMI) was paid for constructing the system in the form of their reduced payments to the kingdom/territory for the use of the public's water.

13.4.1 Page 115 2nd Paragraph Giving a maximum flow of 450MGD and an average of 165 MGD, is far less relevant than giving the average and minimum flow for each and every month.

13.4.2 Table 13-5 What is the total + relative water supply coming from each of the 4 licenses?

13.4.2 Page 118 Table 13-6 Include TOTALs for both Acres and Monthly Rents.

13.4.3.1 It is important to include in the discussion of "Sugar Production", what are the various alternative sources for HC&S water supply. What percent can potentially come form East Maui and West Maui surface water and from pumping ground water in Central Maui. It may be helpful to point out that HC&S has significantly decreased its use of Central Maui ground water. The 1990 Water Use and Development Plan indicate that HC&S depended on ground water for 45% of its water needs. The current Honamanu Stream Assessment Report notes (Page 121) that currently only 29% is from pumped ground water. This reduction is a big difference and offers a potential alternative to the use of East Maui surface water!

Obviously, if the Commission decides to restore more water to the East and West Maui streams, HC&C could increase its pumping of Central Maui water. Energy to operate the pumps could be inexpensively obtained from windmills located on HC&S's wind-rich plantation lands in Central Maui. Therefore, there would be no decrease in the energy output from the sugar mill.

13.4.3 Page 123 middle Although Kula Agricultural Park could potentially use more, it uses 0.55 MGD, NOT 1.5 MGD.

13.4.3 Page 123 This page indicates HC&S expenses as $47+$100 = $147 million, but previous page indicates $124+$12.9 = $137 million. Which is correct?

13.4.4 Page 123 Maui Land and Pine has sold of much of its upcountry land (including pineapple lands) in the last 4 years. There is also a need to mention the Awalau intake (Opana Tunnel) water (above Makawao); it is available to ML&P.

13.4.6 Page 126 This section should be included in 13.5 Upcountry System.
Why have the Reports separated the Makawao System (Page 116) from the Upcountry System (starting in 13.5 on Page 128)? They are tied together, especially during the critical dry season when the Wailoa ditch water is pumped up to take care of the shortages in the Lower and Upper Kula pipelines. The term *Upcountry System* should include what the reports refer to as the *Makawao System.*

13.4.6 Page 126 bottom 4.5MGD or 8 MGD? Why the difference in the capacity reported for Kamaole Weir? If the capacity of the plant is 8 MGD, the capacity should not be any lower during droughts? If it is lower, what is the explanation.

13.4.6 Page 127 3rd Paragraph The metered usage data on the Upper and Lower Kula regions is very incomplete. Both these areas depend heavily on East Maui water during much of the year, not just during drought periods. There should be a separate table indicating the water demand during winter months and during dry months for each sub-system: Haiku, Makawao+Pukalani, Haliimaile, Lower Kula, Hawaiian HomeLands, and Upper Kula.

13.4.6 "Economic Impacts" In addition to discussing reservoir options the Reports should include a possible "Drought Period Surcharge" on water. +25%, or +50%, or +100%

Table 13-11 Page 130+131 Just as Table 13-12 gives GPD water usage per head, there should be a water usage per acre in Table 13-10. Also include total water consumption for each crop.

13.5.3 Page 131 3rd Para. The Makawao+Pukalani+Kula Community Plan District does NOT include Haiku. What is Haiku's use?

The word "each" should be inserted before the word constitute on the 5th line of the 3rd paragraph.

13.5.3 Page 131 last Para. Each of the 3 wells should be discussed more fully since they provide potential alternatives to East Maui stream use. It should include an estimate of the electricity cost to pump the water up to the surface in "cents/1,00 gallons". Carl Freedman has that info.

13.5.3 Page 134 **# of units in 2030 is NOT 4,374. That would be half the present number! Perhaps the Report means 4,374 is the expected increase.**

Page 135 Top **MISTAKE. The new non-potable "Dual Line" in Upper Kula will NOT provide an extra drop of water. Rather, the new line will allow some of the existing, scarce Waikamoi water supply to by-pass the Olinda Water Treatment facility and go to the farmers for irrigation. Any further growth in the demand for water from the Upper Kula Line will cause serious problems in supplying water to the new non-potable "Dual Line".**

81.0 Mayor Charmaine Tavares

CHARMAINE TAVARES
MAYOR

OFFICE OF THE MAYOR
County of Maui

200 South High Street
Wailuku, Hawaii 96793-2155
Telephone (808) 270-7855
Fax (808) 270-7870
e-mail: mayors.office@mauicounty.gov

October 30, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Commission Members:

SUBJECT: INTERIM INSTREAM FLOW STANDARDS FOR EAST MAUI

I am writing to respectfully ask the Commission to act carefully and cautiously in setting instream flow standards for East Maui. The domestic water supply serving existing Upcountry residents and farmers depends on East Maui water flow. Without sufficient surface water from East Maui, our local Upcountry residents and farmers cannot survive. These are the plain facts. Our Maui County Department of Water Supply has provided technical information to show our dependence on the East Maui streams.

Crops grown by our local farmers, the kalo grown in lo'i by families, and the sugar cane grown by Hawaii's last plantation are the products of a community with roots in agriculture. Disruptive changes in the flow of water will have significant impacts on our community and our way of life. Very small, incremental changes in stream flow could help us see the impacts of those changes. Significant changes could bring both cultural and economic dislocation to our entire island.

Stream restoration has already occurred for a number of streams in East Maui. Several years of serious drought has depleted water reserves and negatively affected the watershed. As you consider any further changes in the stream flow, may I request that you consider the potential social and economic impacts of any further action.

If you need any further information from the County of Maui, please feel free to contact my office or Jeff Eng, Director of our Department of Water Supply.

Thank you for your consideration.

Sincerely,

CHARMAINE TAVARES
Mayor, County of Maui

CT:SM/gi
c: Jeff Eng, Director, Department of Water Supply
Clark Hashimoto, Agricultural Specialist, Office of Economic Development
Council Chair Mateo and Members of the Maui County Council

82.0 Derek Heafey

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Re: Maui Stream Flow Decision

Chair Thielen and Members of the Commission:

My name is Derek Heafey and I work for Hawaiian Commercial & Sugar Co. I'll keep this letter brief and get right to the point. HC&S is in serious financial difficulty and if you decide to significantly reduce the supply of irrigation water to the plantation eight hundred families would lose their main source of income. Most of the workers at HC&S have skills (machinists, welders, industrial electricians, etc.) that are not of use to any other employer on Maui so most would have to leave the island to find new jobs. Due to the state of the economy, any that choose to remain on Maui would be hard pressed to find any kind of work at all. The exodus of laid-off employees would further drive down property values and reduce county and state tax revenue streams for years to come. Plantation closure would also result in a dry, dusty, fire-prone central valley as irrigation came to an end. MECO would need to rush to obtain a new power source as they lose seven to eight percent of their energy supply.

I can sympathize with the water needs of legitimate East Maui taro farmers, or at least the ten or twenty growers not actually raising pakalolo (the Committee really should have insisted on visiting more "taro" fields last year). However, if "traditional" water users are to be granted special status, HC&S is just as deserving as taro farmers since the plantation has been utilizing these waters for over a hundred years. I am also sure that everyone would like to see the East Maui streams run full all the time, but a "restore the streams from mauka to makai" approach would result in an unconscionable waste of an irrecoverable and precious resource when the fresh water enters the ocean.

Is the Commission willing to disrupt hundreds of people's lives and throw away good, well paying jobs in an attempt to satisfy the whims of a few radical activists? It is incredible that a handful of fanatically anti-business, professional complainers have such a large influence in this process given their total "lack of skin" in the game. If your decision goes against them, they are not out anything. If your decision goes against the plantation, an entire Hawaiian industry will fail and eight hundred HC&S employees and hundreds of other local workers employed by HC&S-dependent vendors and contractors will lose their livelihoods. Please carefully consider all impacts when making your decision on this extremely important matter.

Thank You,
Derek Heafey

83.0 Maui Petroleum, Inc., Steve Wetter

Maui Petroleum, Inc.
385 Hukilike St.
Suite 101
Kahului, HI 96732
Phone: (808) 270-2800
Fax: (808) 270-2801

Date 10-30-09

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: Instream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Steve Wetter, General Manager at Maui Petroleum. I am very concerned about the impacts of upcoming East Maui IIFS decisions on HC&S and agriculture as a whole in Maui.

Our company supplies petroleum products to HC&S and they play a very important role in the economics of our business. Please consider carefully the impact of your decision on the Maui community. If HC&S's viability is reduced, the impact will reach far beyond the agriculture community.

I respectfully request that you consider the impacts on businesses such as Maui Petroleum, in your evaluations. We are all part of the Maui Community and would appreciate your understanding of the impacts on all of us in your final determination.

Mahalo,

Steve Wetter

Steve Wetter
General Manager
Maui Petroleum Inc.

84.0 Hawaii Farm Bureau Federation, Janet Ashman

Hawaii Farm Bureau
FEDERATION
2343 Rose Street, Honolulu, HI 96819
PH: (808)848-2074; Fax: (808) 848-1921
e-mail hfbf@hfbf.org

October 30, 2009

Mr. Ken Kawahara, Deputy Director
Commission on Water Resource Management
P. O. Box 621
Honolulu, Hawaii 96809

Subject: Additional Comments on the Public Review Drafts of the Instream Flow Standard Assessment Reports for certain Maui Streams

Dear Mr. Kawahara:

The Hawaii Farm Bureau Federation (HFBF) appreciates the opportunity to comment on the Draft Instream Flow Standard Assessment Reports for surface water hydrologic units in east Maui. These comments concern Section 10 of each of the Reports, Maintenance of Water Quality, and are being submitted in addition to the HFBF comments submitted to you earlier this week.

HFBF is extremely concerned that because of significant errors and apparent misconceptions regarding stream classification in each of the reports (and in previously finalized Instream Flow Standard Assessment Reports for East Maui streams), a reviewer will have the mistaken impression that agricultural uses of water from these streams are somehow less protected than other uses, specifically, uses tied to the exercise of traditional and customary Hawaiian rights. This is certainly not the case. Both the federal Clean Water Act and State Water Quality Standards (Hawaii Administrative Rules Chapter 11-54) explicitly protect agricultural water supplies from these streams.

The reports do not make clear that ***all*** existing uses of water are protected under the federal Clean Water Act and the state rules. Although all of the reports discuss "existing uses" of water bodies that are protected under the Clean Water Act, none of them even mention that the existing use for agricultural water supplies is one of those protected uses. Instead, each report emphasizes only that uses tied to the exercise of traditional and customary Hawaiian rights are protected under the Clean Water Act and the Water Quality Standards.

Furthermore, each of the reports erroneously describes inland water classifications under the State Water Quality Standards and then applies those mistaken interpretations to the streams in eleven of the sixteen draft reports. The reports wrongly assign Class 1a designations to waters within forest reserves, stating "streams that run through natural reserves, preserves, sanctuaries, refuges, national and state parks, and state or federal fish and wildlife refuges are Class 1a". This is not the intent of the State Water Quality Standards.

Under the Hawaii Administrative Rules Section 11-54-5.1(a)(1)(A)(i), Class 1a waters include all flowing waters within the natural reserves, preserves, sanctuaries, and refuges "*established by the department of land and natural resources under chapter 195, HRS, or similar reserves for the protection of aquatic life established under chapter 195, HRS*" (emphasis added). The draft reports have omitted this important qualifying language, thereby broadening the scope of the Class 1a classification, and have inaccurately assigned Class 1a designations to all waters within any reserves.

Under the state water quality standards, unless a stream is within a Natural Area Reserve System, within a national or state park, within a state or federal fish or wildlife refuge, within a Protective Subzone, or within the Waimanu National Estuarine Research Reserve, or it has been identified as critical habitat for threatened or endangered species, that stream is not a Class 1 stream. Accordingly, stream segments identified in the draft reports as Class 1a solely by virtue of their location within the forest reserve should instead have been identified as Class 2. **This is significant because as a Class 2 stream, agricultural water supplies are a specifically protected use of these waters.**

Because many of the stream segments have been classified incorrectly, reviewers of these documents will not realize that the East Maui Irrigation Company diversions for agricultural water uses are protected not only as existing uses under the federal Clean Water Act, but they are also ***explicitly*** protected under our state water quality rules.

Thank you again for the opportunity to comment on these reports.

Sincerely,

Janet Ashman
Chair, Environmental Stewardship Committee
Hawaii Farm Bureau Federation

85.0 Sierra Club Maui Group, Lucienne de Naie

Sierra Club Maui Group
PO Box 791180
Pa'ia, HI 96779

October 28, 2009

Commission on Water Resource Management
State Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809.
Facsimilie: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Re: Comments on IFS for19 East Maui streams

Aloha e water commission members and staff:

On behalf of Sierra Club Maui, Group and our more than 600 members in Maui County, we wish to thank the Water Commission staff for doing an excellent job on these assessments. You have coveried so many aspects of the complex task of assessing Maui's streams and their potential uses.

We have the following comments to offer. It is our hope that this additional information could improve the overall depth of information available to decision makers in the final Stream Assessment Reports.

Comments are organized by section of the Report:

Section 1.3 **Instream Flow Standards**

Three additional concepts should be included in Fig 1.1:

1. Riparian rights, under non-stream uses (riparian rights are also exercised by non-Hawaiians and not always for agriculture)

2. .Potential for riparian restoration of streams should be included under Ecosytem Maintenance. If riparian state of stream channels is allowed to degrade, all users suffer. If it is improved- all benefit.

3. Adequate water flow to promote public health standards for residents or visitors living by, recreating or gathering from the streams. This applies to the incidence of water-born illnesses such as giardia, leptospirosis, dengue fever, dysentery, typhoid etc.

4.1 Impacts on Native Species Distribution

The Commission is correct to insist in this section that merely releasing ditch flows will not restore healthy streams. It is important in all proposals for restoration of east Maui streams to find a solution which allows the natural stream flow to bypass the diversion

and continue a more natural course down the streambed.

Additionally, it should also be acknowledged in this section that the lack of sufficient flows to act as natural cleansing forces in many East Maui streams has resulted in stream channels choked with invasive grasses, shrubs and even frequent fallen trees.

If these stream channels are relied upon to transport water from one section of stream to a ditch or a lower portion of stream, they must be restored to their more natural unobstructed state. If only small releases of water for restoration are made by the Commission's decision, they will not provide enough regular force to clear away stream channels. This will mean released water will be used up by water hungry roots and shrubs competing with the stream itself.

Since it has been human activities, like a century of stream diversion that have changed the stream's natural cycles, there should be a discussion in this section of the commitment needed to remediate this situation and rebuild healthy streamsbeds and riparian zones. Watershed partnership activities do not extend below 3000 ft elevation, but stream channels need to be managed from the ocean to the watershed partnership levels.

Waikamoi stream, for example, has numerous alien fish species- swordtails, goldfish etc that we have observed on Sierra Club hikes between Hana Hwy and Manuel Luis ditch. This situation could be remedied with greater flows.

In 2000, stream studies were done 6 months before and after the release of 4 to 5 mgd of water into the Waikane and Waiahole streams on O'ahu. Researchers discovered that with adequate flows, habitat was created which placed alien fish and invertebrates at a disadvantage and greatly benefited reproduction and recruitment of native species. The parsites which attacked native species were also swept away with the increased flow levels.

This needs to be our goal in east Maui. Streams such as Waikamoi, Wahineepe'e, Haipuaena, Puohakamoa, Palauhulu, Hanawi, Makapipi, Puaka'a, etc that have regular use by residents and visitors as swimming areas, desperately need to have adequate flows restored as a mater of public health and safety.

During the dengue fever outbreak in East Maui, residents were put at great risk because healthy stream flows were not present to discourage the breeding mosquitos who transmitted the disease.

4.3 Analysis of Habitat Availability

We would like to take exception to the statement attributed to John Ford and the SWCA study- that no data exists to suggest

"any of the nine native Hawaiian amphidromous species is at risk of either endangerment and/or extinction in east Maui streams or else where in the State, and that dry reaches in diverted streams are periodically wetted by freshets, allowing streamflow continuity and the upstream migration of native species."

It is a well known fact that the Federal listing process for threatened or endangered species is long, complicated and subject to political whims. The fact that native streamlife species (with the exception of the Pacific and the Earwig damselflies) are not listed as threatened or endangered, is no proof that continued habitat degradation due to dewatering of east Maui streams will not irrevocably damage the species' ability to survive.

The USFWS listing notice was issued in July of this year for the two damselflies whose last remaining habitat is among exactly the east Maui streams being considered for restored stream flows by the Commission.

Information on the damselflies' current proposed threatened status should be included in the final version of the Stream Assessments for Haipuaena, Hanawi and Wailuaiki.

Denbow's research on West maui streams (c. 2001-2006) illuminated the important relationship between the population numbers of various species of damselflies and the health and population levels of native stream species which depend upon the creatures for food. If we are seeing the disappearance of the more vulnerable species of damselflies, what aquatic native species may follow suit if habitat degradation continues, brought on by lack of natural stream flows?

Megalagrion nesiotes (the earwig damselfly) was found historically on the islands of Hawaii and windward eastern Maui (Haipuaena, Honomanu, Kailua, and Keanae). It is currently known only from a single population.

This population was found along east Wailuaiki Stream, upslope of a busy highway, in what was considered sub-optimal habitat for the species. Additional colonies could be present at intermediate elevations, but these may have escaped detection because the topography of the area makes sampling difficult, as does the tendency of adults to fly low into tangled undergrowth when disturbed. M. nesiotes is thought to have been extirpated on Hawaii (USFWS, 2007).

Historically M. pacificum (Pacific Damselfly) was found on most of the major Hawaiian islands, including the following localities: Lihue and Waimea on Kauai; Honolulu and Kawailoa Stream on Oahu; Kalae and Waialua Stream on Molokai; Hahalawe, Haipuaena, Iao, Palikea, Puaaluu, Puohokamoa, and Waikamoi Streams on Maui; Lanai; and Hilo on Hawaii (USFWS 2007).

Populations of M. pacificum have declined drastically since the early 1900s, and the species is extinct on Lanai, Kauai, and Oahu. Recent surveys have found only small populations at restricted locations in streams on Molokai (Pelekunu and Waikolu streams) and Maui (Haipuaena, Hanawi, Keanae, Palikea and Kuhiwa Streams). An additional single population may be present from Maili Stream on Hawaii. Its limited habitat and small population size may affect long-term stability. The species is susceptible to the effects of habitat loss and introduced species
(Source for above discussion: http://www.xerces.org/flying-earwig-hawaiian-damselfly/)

Factually speaking, native streamlife is currently practically non-existent in many Maui streams. Yet a few decades ago it was still a natural resource, which was once so abundant that it contributed millions of tons of food a year to the life cycle of the nearshore fish species (Benbow, 2001)

Researchers, and this assessment, should not confine their evaluation to whether or not a species has been designated "threatened or endangered." They need to consider the impact of severely reduced native fish habitat leading to a gradual collapse of populations in the larger ecosystem of Maui's fisheries.

For example, over the past several years, fishers in the Maui Nui Marine Resources Council have consistently supported restrictions (bag limits, size limits, etc) on their "take" of various fish species in Maui waters as the only tool they have to keep whole populations of popular local eating fish from declining to disasterous levels. To a man, they will state that the only real long term solution to this problem is restoration of stream flows and with restored flows, restored population levels of native fish that are needed for the nearshore food-chain to function.

Mr. Ford, principal investigator of SWCA, has served as a consultant recently on another Maui project where he failed to observe and document an endangered species, consistently mischaracterized the state of health and abundance of other native species and in general, used language in his report that diminished the existence and importance of any of the 20 species of native flora and fauna that utilized the land as their habitat. His research and conclusions should not be taken unquestioningly.

6.0 Maintenance of Ecosystems

Table 6-8. Estimated Net Present Value (NPV) for Koolau (Oahu) Forest Amenities (Source: Kaiser, B. et al., n.d.).

It is appreciated that the economic worth of natural areas is discussed in each report through this O'ahu based model. Although there may not have been data included in this model on the value of subsistence gathering of stream species and watershed area plants, this is a factor in Maui streams and should at least be mentioned as an economic benefit for rural families.

The report could also include the specific information that several Maui eco-tour companies have applied to BLNR for a right of entry permit to one West Maui stream that has mauka-makai flows and several ponds and waterfalls. They are proposing to pay the state $5 per participant or an average of $60,000 a year for 12,000 participants. This is potentially more than the state collects for the annual payment for an entire East Maui water lease area.

Since this information is now in the public record, it is important that decision makers have solid evidence that a free flowing stream has a considerable worth that can be assigned a recognized value.

It is an oversite that no value was assigned to public health benefits that would be possible if stream flows were allowed to have a natural eco-cycle, mauka-makai. This important feature is discussed in Section 10 of the report, but it should also be reflected in the discussion of net value. For rural residents facing exposure to water borne diseases, warm, torpid flows are a breeding ground for health threatening organisms. This was well illustrated by the dengue fever outbreak in Nahiku a few years ago. More information is certainly needed on the relationship infectious of water borne cyst organisms, coliform bacteria, etc to consistent volume of stream flow.

Because of the widespread use of East Maui streams for recreation, hunting and subsistence gathering activities, all of the streams which possess Class 1 waters along a significant length should certainly be considered highly recommended candidates for steam restoration to promote public and ecosystem health, whether or not they have significant human population centers nearby.

Section 7.0 Aesthetic Values

The scenic Hana Hwy route to Hana town is the second most frequented natural attraction on Maui, right after Haleakala National Park, and one of the most visited sites in the state according to HTA statistics (c. 2004). Tour guides along Hana highway report that one of the most frequent comments they get from visitors who take the Hana Hwy tour is "why aren't the waterfalls running? Numerous travel websites advise visitors driving along Hana Hwy of scenic streams and waterfalls to visit and a number of them have comments about the fact that stream diversion can mean the waterfall view is disappointing.

Representatives of the Maui Hotel and Lodging association testified to commission staff that a loss of water to HC&S would mean brown fields in Kahului and a subsequent loss of visitors with all the attendent economic impacts that would bring .It was not noted however, that although sugar fields have not been irrigated in much of Lahaina since 1998, did not lead to any direct drop in visitor counts to the area. In fact, the new trend in West Maui is to offer visitors adventure tours of local streams, waterfalls and hiking trails in the watershed. (see Kapalua Nature Society www.trekaroo.com/hotels/ritz-carlton-kapalua-lahaina-hawaii).
The economic value of the natural stream environment is only beginning to be realized.

While the report rightfully acknowledges the aesthetic values of streams based upon their visibility from the Hana Hwy, many east Maui streams offer spectacular vistas from off-highway as well. Some of these involve coastal views of the stream meeting the ocean, hidden pools and waterfalls further upstream or distant mountain slope wallerfalls.

It is important that the full range of aesthetic enjoyment of the streams be acknowledged in the report. Some streams, such as Puohakamoa, actually have businesses associated with offering view spots of the off highway portions of the stream.

Waikamoi Roadside park also offers visitors the opportunity to enjoy off highway mauka stream vistas for a short hike as does Puaka'a roadside rest, Honomanu campground, Keanae and Wailuanui pennisulas and Piinau forest trail. Lower Nahiku Rd.is popular for its views of Makapipi and Hanawi streams meeting the ocean.

Section 9.0 Hydropower Potential

This section should acknowledge that new trends and technologies for harnessing potential renewable energy sources, such as stream flows, could make locally

distributed hydropower a feasible use of various east Maui streams if they had reliable mauka-makai flows as once existed.

These technologies include traditional ram style pumps already utilized by individual homeowners throughout East Maui to pump water from streams to uphill holding tanks due to the lack of both electricity and public water supplies in many areas.

The flow carried in diversion ditches themselves could provide local electric generating potential. While the EMI/HC&S generating stations have supplied power to the MECO grid for many years, they are also based upon a much older and less flexible technology. A consideration of other power technologies could help the company remain profitable, even with reduced water flows. We would like to see this point of view offered in the final assessment report.

While it is often cited by the company that any loss in available stream flow could affect HC&S's power contract with MECO, in fact the company does burn coal to generate firm power a considerable proportion of the time. In the interests of clear decision making, an actual specific breakdown of amounts of power generated through hydro power and coal/bagasse should be provided in the report.

Additional opportunities would most certainly exist for certain East Maui streams to produce energy if they had natural flows restored. A few of the more current technologies are summarized below.

Low head hydro power applications use natural current and tidal flows to produce energy. These applications do not need to dam or retain water to create head. Using the current of a river or the naturally occurring tidal flow to create electricity may provide a renewable energy source that will have a minimal impact on the environment. Damless hydro capture the kinetic energy of rivers, channels, spillways, irrigation systems, tides and oceans without the use of dams.
Source; "Increase of the efficiency of small hydroelectric stations" (PDF). Springer New York. 1991-01. pp. 1-4. doi:10.1007/BF01428128. http://www.springerlink.com/index/U682W3R3650P1V41.pdf.

A "Hydrokinetic" tubine is an integrated turbine generator to produce electricity in a free flow environment. It does not need a dam or diversion. **Instream Energy Generation Technology or IEGT** places turbines in rivers, man made channels, tidal waters, or ocean currents. These turbines use the flow of water to turn them, thus generating electricity for the power grid on nearby land. In effect, IEGT is like planting windmills in the water and is environmentally friendly. While hydrokinetic includes generation from ocean tides, currents and waves, many researchers believe its most practical application in the near term is likely to be in rivers and streams.

Osmotic power or salinity gradient power is the energy retrieved from the difference in the salt concentration between seawater and river water. Two practical methods for this are Reverse electrodialysis [1] (RED), and Pressure retarded osmosis [2] (PRO).

Both processes rely on osmosis with ion specific membranes. The key waste product is brackish water. This byproduct is the result of natural forces that are being harnessed: the flow of fresh water into seas that are made up of salt water.

The technologies have been confirmed in laboratory conditions. They are being developed into commercial use in the Netherlands (RED) and Norway (PRO). The cost of the membrane has been an obstacle. A new, cheap membrane, based on an electrically modified polyethylene plastic, made it fit for potential commercial use.

10.0 Maintenance of Water Quality

As noted in earlier sections, this is a very important issue for most of East Maui's streams. It would seem useful that beyond just reporting the water quality standards the state DOH has set for inland waters used for human recreation etc, it should also be noted that information must be gathered on the state of such waters.

If the stream waters continue to be diverted, that loss of water should be mitigated by baseline studies and ongoing monitoring which test for water quality parameters in streams with high public use This information would seem a vital part of setting adequate stream flow standards. Let's not ignore public health needs in relationship to our streams.

Most streams seem to have their water rated as Class 2 in their more makai reaches, where flows are probably the lowest? Is there a correlation between flow levels and the DOH designation??? If so, suggested flow levels should be set with the goal of improving the water quality of the stream.

12.0 Protection of Traditional and Customary Hawaiian Rights

Respected cultural consultant Kepa Maly made the cultural importance natural stream flows clear in his landmark ethnographic study of East Maui watersheds commissioned by HC&S. Maly's study states:

"There is a great traditional significance of water in Hawaiian beliefs and cultural practices...The flow of water from mountain to sea is integral to the health of the land. A healthy land makes for healthy people, and healthy people have the ability to sustain themselves (Kumu Pono Associates, 2001b, p.II:8)."

We hope the Water Commission staff and members will realize that the court decision that led to the current stream assessment and ISF amendment process is asking them to provide for the health of not just one venerable company, but also the longterm health of the biological services of our watersheds, Hawaiian culture and the public health needs of all who enjoy East Maui streams. These needs have been long ignored.

While this section usually lists many LCAs under the jusridiction of EMI, it should be noted that ongoing disputes over clear title to many such parcels are underway in east Maui. The key issuesoften revolve around whether a family in earlier times had a lease agreement with HC&S/ EMI or one of their earlier subsidiaries or whether the land was actually sold or traded with the knowledge of all family members. This was such a pervasive theme in public testimony from east maui residents during the county's General Plan update process (2006 ongoing) that specific language was included in the General Plan Vision Statement suggesting that such title disputes needed to have a method to be resolved.

13.0 Non-instream Uses

13. 4.2 History of East Maui Irrigation System Water leases

Table 13.7 indicates the large amount (70%) of EMI water diverted from public lands.

This is a trigger for an EA/EIS process, which should be a condition of any ongoing lease arrangements for East Maui stream water between the state and A&B/ HC&S/ EMI.

The EA completed long ago (c. 1986) is outdated and did not include current conditions such as the renaissance of kalo growing in east Maui, current scope of agricultural commitments of HC&S, recent stream life, kalo water needs and water budget studies of east Maui or the possible impacts of future climate change. One of the original mitigating conditions for continuation of the EMI leases was the formation of the East Maui Watershed partnership and the development of an East Maui Watershed Management Plan.

A new EA/EIS should examine the need to extend the management activities of that partnership (now limited to lands above 2,500 ft or so) to include the makai reaches of the streams. A Watershed Plan that only includes half the watershed, is not the model needed going into the 20th century. Possible new management tools for East Maui streams such as water trusts should also be discussed.

Table 13.8 discusses the EMI water lease structure. The surrounding commentary explains past formulae were basing "ownership" of stream water upon the percentage of rainfall originating on state or EMI land. The assumption that rain falling on a particular piece of land is actually directly absorbed into that land would seem to need considerably more factual proof ,considering the many variables involved.

It is possible that the majority of rain falling at one elevation is actually absorbed and stored thousands of feet downslope and its availability to the stream would be more pronounced in that region. The old methods of calculating EMI's stream lease rates based upon costs of ditch construction, price of sugar, amount diverted etc.also appeared to favor the private party over the public interest.

The one method that seems to have not been employed is a metering system which would record the daily amount of water taken from each diversion and the amount of water that arrived at the other end of the ditch in central Maui locations such as the Wailoa ditch forebay.

.
Members in Huelo community where I live, who are actively using the stream water for their homes and agriculture concur with NHLC clients that the interim relief is a start, but it still not adequate and has a number of challenges, including:

• lack of continuing maintenance of stream channels, resulting in blocked flows
• disparity of flow levels between upper release locations at Hanehoi and Puolua stream

and lower reaches of the stream
• use of flow-limiting PVC pipes to transport streamflows designated at Hanehoi stream instead of a spillway system
• continual diversion of Huelo stream and the West branch of Hanehoi stream, which both eventually join Hanehoi. This deprives the main branch of Hanehoi of needed flow.

Section 13.4
Figure 13.4 map of EMI lease areas does not make it clear that the colored lease areas are all State lands. Of course this is implied, since it is the lease of these lands that is the subject of this report, but the addition of one word "State" Water License Areas to the legend would end any doubt.

In one of the reports (E. & W. Wailua iki, Map 12.3) the maps show large chunks of the hydrological unit which lay mauka of Hana Hwy as owned by A&B, when in truth, the majority of those lands are state-owned

13.4.3 Hawaiian Commercial and Sugar Company

What is A&B's/ HC&S's commitment to agricultural use of its vast landholdings? This question needs to be answered honestly by the company.

The view from a 1996 A&B stockholder's report; "*Thanks to the richness and quantity of its land, A&B is committed to sugar growing in Hawaii. In fact, the HC&S plantation has added 740 acres of new sugar plantings in the past 3 years."*

Five years later, a 2001 A&B stockholder report shows a photo of waving cane fields, but shares a different view:… "expanse of land for ag and , ultimately, for other uses… " The core A&B businesses named in the report are shipping (Matson) and property development..

While an elaborate case is made for HC&S having need of all the East Maui stream water, it is not made clear at what point the company's stockholders will cease to support the agricultural sector. This information should not be the subject of dire predictions with unsubstantiated basis as are now found in the report.

Sugar production:

"The contention that around 12-14 TSA (Tons of Sugar/ Acre) is necessary for HC&S to remain economically viable appears to be borne out by an empirical investigation of the plantation's minimum efficient scale." (Quote from A&B's 1996 10K report)

Based upon fig. 13.9, HC&S sugar yields between 2000 and 2008 have been at 12 tons/acre or less for most of the past eight years. This was a period when HC&S had full use of East Maui stream water, with no restrictions.

For this reason, this section of the report should answer the question: Is the HC&S business model viable? Is HC&S as currently structured likely to collapse, irregardless of the amount of stream water available to its plantation, due to unavoidable natural restraints?

As noted below, HC&S, even 18 years ago, reported that it had "…insufficient water" for

"irrigation needs 24% of the time, roughly 90 days a year." This was also in a time when stream water was being supplemented with almost an equal amount of well water.

Is there enough water available in the east Maui watershed to supply all of HC&S's current needs, given the deteriorated state of the ditch delivery systems? If not, would it not be wise to devise a balanced water plan for east Maui that included a reduced demand by HC&S as a realistic fact of life?

Energy:

HC&S used a portion of the energy it produced to run its two mills. Did the closing of the Paia mill in 1998, mean more or less electricity was available for water pumping or MECO sales?

When hydro-power and bagasse not available, coal is burned, so it is unlikely that HC&S would not be able to fulfill its contract. It would just have a lower profit in doing so. This should be clearly stated and the economics discussed.

Can HC&S find investors to partner with and utilize newer technologies to generate electricity from even lower ditch water flows?? Can data be provided on the economics of HC&S growing cane specifically as bagasse to generate energy and expand the HC&S contract with MECO??

Water Use:

HC&S built its agricultural operations on cheap water. Cheap water is usually wasted water, with no incentive to repair ditches or combat waste until there is a direct need. One of the most important issues that needs to be discussed in this report is how to quantify the amount of system losses and waste of east Maui stream water incurred by the EMI ditch system every day.

This section would benefit if it was expanded to include a discussion on the viability of the current water consumption patterns of HC&S, given the stated information they have consistently provided about their ongoing shortages of water. Section 13.4.3 discusses elaborate technology that appears to be available to HC&S to calculate irrigation application, evaporation rates etc.. Can Commission staff request figures to establish the amount of system losses that occur throughout the delivery system, including the County's Kula Pipeline flumes, which are maintained by HC&S??

A few facts;

• It appears that HC&S's entire crises in water resource management may be a chronic condition, confined to a 3-month period each year.

In Maui County's 1990 Water Use and Development Plan, HC&S reported: "…insufficient water to meet HC&S's irrigation needs 24% of the time, roughly 90 days a year."

• The same report noted that in the 1980's, stream water supplied 55% of HC&S 's

irrigation needs while "more expensive" pumped well water accounted for 45%.of irrigation use.

• Currently, HC&S relies on 71% stream water and only 29% pumped ground water, which has resulted in lower crop yields, due to declining stream water levels, that remain unsupplemented by groundwater sources.

• HC&S has the ability to pump more ground water with its own renewable power by utilizing a larger portion of the electricity generated by its 3 hydro-electric plants and its bagasse and coal burning Puunene Mill power generator plant..

HC&S has chosen instead to sell the available power to MECO rather than use a portion of it to pump groundwater. This was alleged by HC&S employee unions when the company announced a one week furlough of 88% of their workers in Dec.2008. The Star Bulletin article reported:

While the company told Local 142 that the furloughs were drought related, Kennison said poor farm management practices have hurt the company's sugar production.

"We are concerned about the direction of the company," Kennison said. "They have roughly the same amount of acreage, but the crops have dropped every year and the yield has gone down drastically. Instead of utilizing their pumps to properly irrigate their fields, they are selling too much electricity to Maui Electric."

If the company does not change its farm management practices, Kennison said that it does not bode well for workers.

• In the 1990 Maui county Water Use and Development Plan, HC&S reported it had 35.800 acres under sugar cultivation, of which 10,000 were located where they could only be irrigated by the EMI ditch system.

• In 2008 HC&S maintains it has 34,000 cultivated acres and of those, 13,000 acres are "located where it is physically or economically impossible to serve them with pumped water" and can only be served by the EMI ditch system.

• The 13,000 acres dependent on EMI ditch water, would use an average of about 65 mgd , or 40% of the average capacity of the total EMI ditch system each day.

Source: information provided by HC&S S during the Na Wai Eha contested case, indicated a water demand from "low of 4,619 gallons per acre per day in 2008 to a high of 6,858 gallons per acre per day in 2005. Averaging these figures, a use of 5,000 gal/acre/day was presumed, which would equal 65 mgd .

• Why would the chronically water-short HC&S INCREASE BY NEARLY ONE-THIRD the amount of land that was completely dependent on EMI ditches over the last 18 years, thereby boosting its demand on EMI diverted stream water demand by 15 mgd??? Was it to replace prime ag land lost to development with more marginal land, further from its well infrastructure system?

Many other unresolved questions remain about this pivotal 13,000 acres.

.• The location of the 13,000 acres is not specified. This information should be provided in the final version of the report.

•The cost of providing a well to the 13,000 acres is not specified. A discussion of costly storage reservoirs concludes they are an impractical alternative. Wells are relatively affordable.

• A&B has partnered with others to drill several wells in central Maui recently. Can the assessment discuss the feasibility of A&B drilling new ag wells to relieve demand on stream waters?

• Were any of the 13,000 acres among the 8,000 acres of HC&S land that were LEFT OUT OF the Important Ag Lands designation HC&S submitted to the State Land Use Commission in April 2009? This also was not specified. If these lands were not designated IAL. Will they be farmed in future years? If not, will HC&S water demands decrease? By How much?

•What lands will be in the HC&S Plantation farm use by 2015?
• Will future HC&S business decisions also be based on the need for increasing amounts of stream water to keep more marginal lands profitable?

Commission staff should get more factual information about this major demand on the stream waters of East Maui to help the Commission determine if it truly is a reasonable and beneficial use.

A reduction of water demand through restructuring of plantation cultivation areas or investment in appropriate technologcal infrastructure could make stream restoration practical and low impact to HC&S.

13.43 Economic Impacts
The majority of information in this section appears to be provided directly by HC&C/A&B or their consultants. It would benefit the public and the commission if a broader viewpoint was incorporated, based upon reasoned, verifiable data.

For example, a number of assertions or claims are made regarding the probable outcomes of adopting IFS that return water to the streams. A typical statement reads:

"The adoption of interim IFS may result in the restriction of water in the system, which could cause severe economic impacts to HC&S."

This statement does not specify what amount of reduced ditch flows in what months would result in what economic restrictions.

We believe that variable factors affecting the viability of HC&S's economic health should be analyzed along with the impacts of reduced ditch water flows.

Key areas that have traditionally affected HC&S's economic fortunes are:

impacts of future farm policy legislation;
amount of acreage committed to agriculture;
energy production goals and technological improvements;
crop yield production;
share of domestic and world markets for sugar;
changing percentages of ground/surface water use;
labor negotiations.

While HC&S is telling employees that they can't make commitments about the future because of uncertainties about the water commission's decision, it was a different story 13 years ago. In their 1996 10-K report to the SEC, A&B, Inc noted different challenges, which may still be valid.

"Labor negotiations are under way at HC&S with the sugar production and clerical units of the International Longshoremen's and Warehousemen's Union. In recent years, these contracts have been renewed for short periods due to the uncertainty over farm legislation."

The same year the company had a record harvest and profits but also conducted *"the orderly phase-out of sugar operations at our nearly century-old sugar plantation, McBryde Sugar Company, Limited, on the island of Kauai. Because of chronically poor yields, the sugar operations at that plantation had been a drain on profits for several years."*

The Commission and its staff should clearly understand the full set of rules under which HC&S's parent company A&B will decide to continue agricultural operations. It may have little to do with water availability.

The following unverified claims were made in the Economic section

Employment and local economy. Restricting water availability to HC&S will result in possible reduction of sugar production and sales, which will affect HC&S' ability to maintain and support its present staff. HC&S provides approximately 800 full-time jobs out of the estimated 1,750 agriculture-related jobs on Maui (Department of Business, Economic Development and Tourism DBEDT], 2007). This amounts to $47 million annually in wages and benefits to employees and retirees. HC&S also spends approximately $100 million annually in the local economy to support its operations, primarily in Maui (HC&S, 2009).

Comment: with no reduction in available ditch flows over the last 20 years HC&S has dropped from around 1200 employees to 800 employees. The company also enjoys considerable tax benefits from having land in agricultural production. If a higher basis of value needed to be paid on that land with agricultural operations shut down, it may cost A&B more than the losses being sustained by HC&S.

Renewable energy. The loss of hydroelectric and biomass fueled electric generation would greatly affect MECO's ability to comply with its statutory obligation to generate electricity from renewable resources, as well as supply adequate energy to the local

residents, especially during black-outs. This will also undermine the State's Clean Energy Initiative (HC&S, 2009).

Comment: It is not discussed if HC&S could feasibly continue to grow some size crop of cane purely for energy production (as Gay and Robinson has chosen to do on Kauai). It is also not discussed what the minimum amount of ditch flow is needed to generate what amount of hydro-power. These facts should be supplied to allow a rational decision to be made.

Kahului Trucking & Storage, Inc (KT&S). KT&S is a subsidiary of A&B. Its primary purpose is to provide trucking services like hauling sugar and molasses, mobile equipment maintenance and repair services, and self-service storage facilities for HC&S. In effect, KT&S depends on HC&S to remain a viable business. If HC&S were to downsize its operations, KT&S may have to do the same.

Comment; A&B has along history of adapting its various subsidery companies to changing conditions. Kahului Trucking & Storage, Inc. was founded in 1964 after the Kahului Railroad was phased out. A tremendous opportunity currently exists in Maui to expand the freight consolidation business.
A short term agreement by Matson and others to cease shipment of less than full container sized loads, will expire in the next 18 months. A&B, as the major landlord in the harbor area, could be poised to utilize unoccupied industrial spaces and the expertise of Kahului Trucking company in providing freight forwarding services to local businesses, irregardless of the success or failure of HC&S.

Other users. Kula Agricultural Park (Park) is directly dependent on the viability of HC&S. The Park receives water from the Hamakua Ditch. While the Hamakua Ditch was described in Section 13.4.1 as part of the EMI System for simplicity, the jurisdiction of this ditch resides with HC&S because the ditch lies within the plantation. Restricting water availability to HC&S will affect its contractual obligation to provide the Park with 1.5 million gallons of ditch water per day. Maui Land and Pineapple Co. (MLP) is another entity that is dependent on HC&S for the delivery of water.

Comment: Kula ag park has a reported use of .55 mgd, a tiny fraction of the many millions of gallons EMI imports to central Maui. If stream flows are restored, it is likely that HC&S will look for more efficiency in its existing system rather than cut off small users such as the ag park.

Section 13.4.4 Maui Land and Pineapple Company

MLP estimates their water requirements from the EMI System at 4.5 million gallons per day from 2004 through 2009, and a reduction to approximately 4.4 million gallons per day from 2009 to 2016 (2007).

In the 1991 Findings of Fact, Conclusions of Law, ML&P who were farming 1,700 acres of pineapple in Upcountry Maui at the time, declared a water use of 1.5 mgd. All of this water was independently harvested by ML&P from a pump in Hanawi stream and the Kuhiwa well and then transported through the EMI ditch system to Upcountry fields.

Current information in ML&P stockholder reports indicate that they still own less than 500 acres of pineapple fields Upcountry and lease around an additional 1,000 acres. Thus it would appear that the information being provided to the commission is claiming that ML&P, who now farms 300 acres less pineapple than they did 19 years ago, will now require 3 times the amount of water they required then. This and a number of the other specifics about their use just doesn't make sense. Please review the numbers.

Figure 13-14

Water uses in this chart include 85,000 gal/day for feral animals. Is there any verification for data provided in the Maui Farm Bureau chart?

Is there any proof offered that these animals are utilizing water derived from East Maui streams. What percentage of feral animal use is taken directly from natural springs or pools, rather than diversion ditches or domestic water supplies?

End of general comments.

SPECIFIC REPORT COMMENTS

1.1 General Overview Waikamoi
Has there been a field check of the accuracy of this statement? "Population in the hydrologic unit is about 517, with over 70 percent of the people living near Wahinepee Stream (Coral Reef Assessment and Monitoring Program, 2007). "

We hike the entire Waikamoi unit: Wahinepe'e stream, Alo stream etc from Hana Hwy to above the 800 ft elevation as well as the Waikamoi preserve trail along the upper Kula pipeline (4,5000 ft elevation.) We do not see evidence of any significant residences in either of these areas. The trail from Hana Hwy to the coast in the vicinity of Waikamoi and Waihinepe'e streams is also rugged and uninhabited.

Section 6 Maintenance of Ecosystems- Waikamoi

Comments on Table 6.4

Although critical habitat for native plants may be greater above the 1300 ft elevation in Waikamoi, the area from 600 ft elevation on along the Wahinpe'e Trail has a great representation of native endemic plants, with more variation in species than most of the other mid-level ditch system trails. This is an area where Sierra club has lead educational hikes, often with biological resource guides, for over two decades.

The well developed trail system associated with ditch maintenance provides exception opportunities for educational nature study in the Wahinepee-Alo-Waikamoi region. It is important that there be sufficient water allocated to Waikamoi/ Wahinepee/Alo streams during this review process to allow the ongoing health of this mixed, but important native plant habitat to continue.

Kamaaina Sierra Club hike leader, Mary Evanson, has called the Wahinepee trail "her favorite" due to its beautiful scenic views and abundance of native plant species.

Although the lower portion of the trail (near Hana Hwy) has invasive bamboo forest, it is also an important area for edible bamboo shoot harvesting by local families.

Section 7 **Aesthetic Values - Waikamoi**

The report states: "Though there are no state parks located in the hydrologic unit, it is assumed that where Waikamoi Stream crosses Hana Highway there may be opportunities for scenic enjoyment. "

In fact there exists the extremely popular state-managed Waikamoi Roadside Park at Hana Hwy between Kolea and Waikamoi streams. The park offers vistas of Waikamoi stream and access to an upper section of the stream.

The bridge where Waikamaoi stream crosses the Hana Hwy is a popular spot for visitors to stop and take photos. The report should reflect that not only the upper elevations, but also the lower portions of Waikamoi are high value attractions for residents and visitors. Travellers along Hana highway value the presence of water in Waikamoi stream and are disappointed when it is lacking.

To illustrate this, here is a quote from Maui Guidebook: one of the many travel websites which refer to Waikamoi stream. <http://mauiguidebook.com/road-to-hana/waikamoi-stream-waterfalls/>.

Waikamoi Stream & Waterfalls

Rating: 4.5 stars (out of 5)
In a nutshell: A drive-up stop, one waterfall and pool are right next to the road. The second, larger waterfall and pool just upstream are impressively beautiful, and tragically underrated by other guidebooks.
Minuses: Unpredictable flow; also unpredictable visitor count (can be packed or empty, with no rhyme or reason.)
Sound-bite: "This is all I wanted to do in Hawaii."

DETAILS:
A popular, user-friendly (but frequently under-rated) stop on the Road to Hana. The reason this is so underrated by the other guidebooks is that they came to see it on the wrong day. **The water source is heavily tapped and diverted above and these falls can be essentially "turned off" by EMI to feed thirsty sugar plantations**. You can tell if this is worth a stop by looking at the waterfall closest to the road. If it is flowing, then you're in for a treat.

The first waterfall is literally steps from the road, and has a beautiful pool tailor-made for swimming. The bigger second waterfall has multiple places to sit at the bottom and let the water fall on you. The last time I was there, a family was sitting under the waterfall,

and I overheard the father blissfully claim "this is all I ever wanted to do in Hawaii." I don't know if I personally would be satisfied with just Waikamoi – but it is a really sweet place, that is so easily accessible without any serious hiking, that for someone doing an unplanned drive-thru, it could be the nicest waterfall they swim in.

Thank you for all your hard work. We hope these comments are useful.

Lucienne de Naie

Conservation Committee
Sierra Club Maui Group

86.0 Kathy Morris

MauiKat24@aol.com
10/31/2009 04:08 PM

To laura.thielen@hawaii.gov, dlnr.cwrm@hawaii.gov
cc
bcc
Subject Maui Stream Water Use

Dear Members of the Commission on Water Resource Management,

I support HC&S being able to continue to divert the stream water needed to support agriculture and other users on Maui. The water should be used in a way that benefits the most people in the best way. Taking water away from the current users would be equivalent to killing agriculture on Maui.

What is happening here is very similar to what happened recently in the San Joaquin Valley in California. Bureaucrats shut off the water the farmers were using and now the fields are dry and barren and unemployment in that area is out of control.

I urge you to seriously consider the consequences of your decision and the impact it will have on the people of this island. Consider the approximately 800 jobs in jeopardy at HC&S. Consider all the local suppliers that rely on HC&S' business. If your decision cripples HC&S, these businesses will suffer adverse effects. Consider the Upcountry residents served by the EMI ditch system and the Kula farmers. Please consider allowing the continued diversion of stream water necessary to support the needs of the people of Maui County.

Sincerely,

Kathy Morris
28 Laumakani Loop
Kihei, Maui

87.0 Hawaiian Commercial & Sugar Co., Robert Luuwai

"Luuwai, Robert at HCS"
<rluuwai@hcsugar.com>
11/02/2009 09:04 AM

To <dlnr.cwrm@hawaii.gov>
cc
bcc
Subject

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809
Facsimile: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov

Re: In stream Flow Standard Assessment Reports

Chair Thielen and Members of the Commission:

My name is Robert Luuwai, Vice President for Factory and Power Plant Operations at HC&S. I am also of Hawaiian descent. As such, I respect and understand the cultural aspects of the issue while being concerned about our employees, some of whom of Hawaiian ancestry.

Being responsible for the Power Plant, I am very familiar with our relationship with Maui Electric Company.
Maui electric has been an important part of our operation for many years. They rely on our ability to supply emergency power when they experience issues with the grid. Our supply of consistent power to the grid helps Maui electric balance the system and gives them the ability to adjust rapidly to changes in the islands demand. We also help main the island reactive power grind as well.

Being Hawaiian, supporting Kalo cultivation is important both for my people and the island. I support that, but I also believe that, there has to be a compromise for the water that allows for both to co exists.

I hope during the deliberations, consideration can be given to those of us who have chosen to go on to other career choices beyond that following traditional and customary Hawaiian practices. I believe there is a way to respect both choices for the interest of everyone. Thank you.

88.0 Ernest J. Schupp

Oct 28, 2009

To: Commission on Water Resource Management
From: Ernest J. Schupp

On Tuesday, October 28th, 2008, the Commission on Water Resource Mangement personnel, along with personnel from East Maui Irrigation (EMI), on a site visit, did a documented release of stream flow on the Puohua & Honehoi. The sluice gates where opened about 10 to 12 inches.

February 11, 2009, on this site visit, the stream flow, just above my auwai (Puohua stream) was estimated around 230,000 gpd. Also at this time EMI personnel closed the opening in the sluice gate to about 6 inches high. Days before, from 10/3 to 10/10, total rainfall was measured at 3.7 inches. The ground was thoroughly saturated. This pattern held until May & June, when rainfall dropped off. During those months, I estimated stream flow around 60,000 gpd, roughly splitting the difference, leaving half in the stream for aquatic life and the rest going into the Loi's. Water temperature in the first Loi, is usually 69° at 8am, by 1:00 pm can reach 75°, by 6pm would drop back to 70 degrees.

Daily temperatures in each Loi would progressively increase, with the last Loi reaching the low 90's at midday.

With stream levels dropping, sediments build up on streambeds, often becoming inches deep. Indigenous aquatic life cannot exist under these conditions. They need clear, clean rocky bottoms,

so they can move through on their migratory paths.

Unfortunately, alien species can thrive in these conditions - crayfish, apple snails, etc. - which do considerable damage to taro crops and to Loʻi bank and their rock walls. If water temperatures remain high for a long period of time within the Loʻi, mud will start to hold these warm temperatures a few inches deep, even with cool nighttime waters passing over it. Crayfish will burrow in the mud next to the taro corm, unfortually, they can scar the out side of these corms. When this happens, rot takes over quickly.

On November 19, 2008, CWRM did a site visit, along with Garret Hew from EMI. On this visit, regarding the Puohua stream, Mr. Hew stated at the Lowrie ditch, the two pipes which cross the ditch were to be replaced with one 8-inch pipe, and tie into an existing eight inch pipe under the Lowrie ditch road. To supply water to the Lower part of the Puohua str.

In January of 2009, I went up to the Lowrie ditch, to clean out the two pipes, I noticed two wooden boxes on each side of the ditch.

On February 11, 2009 CWRM personnel visited, along with Garret Hew. When asked about the boxes, he stated that they were forms for concrete

to hold a bridge of some sort, in order to cross the ditch safely to clean debris that might block the 8-inch pipe, once it was installed.

On April 27, 2009 I went up to the Lowrie to clean out the two pipes, after we received 12.2 inches of rain from April 21 through the 24th. The box mauka side of the ditch was gone - probably washed into the ditch.

September 4, 2009 there were heavy rains, and Huelo water system - a 2-inch pipe that supplies water for most of Huelo community - was washed out. We stopped and cleaned out the two pipes on the Puohua str, at the Lowrie ditch. At present, nothing has been done to increase stream flow at the Puohua str, on the Lowrie. Why? its been one year, already.

I had four inch pipes connecting my Loʻi to Loʻi, but after, realizing the reduction and restrictions these pipes can cause (as exemplified by EMI's actions). I replaced them with 2 foot wide gates (see attached photo) to help move water faster through each Loʻi, with the exception of a few pipes in certain Loʻi to expel excess waters from heavy rains, directly back into the Puohua str.

At this time, I would like to clear up a misunderstanding on the identity of the

Puohua stream. The Puohua str, is <u>not</u> the Huelo stream, as indicated on the USGS maps.

The USGS maps are delude. This has happen with in the Hanehoi hydrologic unit, an could be happening in other units. Some-one needs to make these corrections. The Puohua stream is Located in the "Ili'aina" of Puohua, a principal Land divion in the ahupuaa of Hamakualoa, which can be Located on tax Key map zone 2 sec 9 plat 8. Huelo stream is Located in the "Ili" aina of Huelo. Tax Key map zone 2 sec 9 plat 9, between the Hanehoi & Puohua streams.

The Huelo str, and anothe stream that feeds into it (probably ~~East~~ West Hanehoi) are both diverted at the Lowrie ditch. These diversions are about half the size of the one the (west) Hanehoi str. No water can pass over these diverions, unless there is heavy rains. ~~East~~ West Hanehoi diversion has a 6 inch pipe to release water through this wall, but it's buried under rocks. These diverions where covered over with trees & brush. On a site visit with, Hearing Officer & Attorneys, on October 10, 2005. We walked right on by these diversion, and didn't even know they were there.

On August 15, 2009 Lucienne DeNaie and I went on a fact-finding mission. We found that the West Hanehoi empties into the East Hanehoi str, about 150 feet to 200 feet above the

New Haiku ditch intake. The stream (Huelo) empties into the West Hanehoi about halfway up, from the Hana highway to the Lowrie ditch.

On further investigation, upstream, we found remains of stone Lo'i walls. Most of these sites have been heavily damaged from human and animal intervention on both streams. Mauka of these streams at the Lowrie ditch are Lo'i terraces that are in relatively good shape. Both of these streams show that considerable amounts of water were once moving through them for crop cultivation, and both supplied the East Hanehoi with more stream flow than at the present.

The Hanehoi stream is diverted at the Waikoa, New Hamakua, Lowrie, and Haiku ditchs. The Huelo & West Hanehoi are diverted at the Lowrie, and since they feed into the Hanehoi above the New Haiku ditch, this stream water is also subjected to that diversion. The Puohua str is diverted at the Lowrie & Haiku ditches. So in reality, the waters that supply the Hanehoi with life are being diverted four times on the East Hanehoi four times, three times on West Hanehoi & Huelo str. Two times on the Puohua str. The Hanehoi is being diverted nine times of its potential flow.

When is "Enough, Enough?"

I have personally explored the Puohua stream from where it empties into the Hanehoi to its begining Mauka. It starts from an underground stream just above the 1000-foot Level, about three-tenths of a mile from the New Hamakua ditch. At the 600-foot Level, facing mauka and coming in on the Lefthand side of the Puohua str, is a feeder stream that extends for about 400 feet. Here there are about twenty Lo'i terraces stretching from one side to the other.

These are small to medium size, from about 10 to 15 feet wide to 15 to 20 feet Long. On the Puohua stream i estimated around 300 Lo'i, some as Large as 30 to 40 feet wide to 40 to 50 feet Long. This is a conservative estimate, as some are covered over with hau and can't be seen, and some are flood-damaged. We know that all of these Lo'i were not in use at the same time; because of crop rotation, some remained fallow. But their number and size indicate a sufficient amount of water was available for extensive taro cultivation.

I am one of the founders of a non-profit corporation, Teaching and Restoring Opportunity (TARO) and serve as Vice-President. We are in negotiations with John L. Einstberg Est. We are the Last privately owned (taro) Lands on the Puohua stream. It is our hope and dream that the taro culture can be Kept alive within our community, by giving our community and visitors a chance to see

firsthand a working taro farm. And to participate in the growing and harvesting of the taro, which has always been so essential Hawaiian history and culture.

By establishing a Living museum in our community, future generations will always have a Link to their ancestry and ancient culture, through the taro. With the clearing and cutting back of the invasive species, and planting endemic, indigenous, and Polynesian plants, we can restore our watershed, which will help restore the aquatic Life within our streams.

Related to this, there is another problem arising within our streams - invasive species are taking over. Imagine 150 years ago. The Hawaiian had cleared along most of the streams in East Maui for their Lo'i. They kept the forest in check and held it some distance back on each stream, because of the rust virus affecting the trees. With sunLight now filtering through, it has opened a way for even more invasive species to take hold.

Another invasive plant taking over very quickly along our streams is Clydemia, which is Like a miniature Miconia. On Oahu, where it is widespread. Most mountain hiking trails are unusable. It spreads rapidly into any clearing or opening in the canopy, preventing regeneration of native trees.

This is a serious threat to Hawaii's ecosystem. We now have thousands of these plants are popping up, not only on the stream banks, but even in the streambeds. There is also canegrass, gingers, honohono grass plus many more, in all our streams.

How much water do you think these alien plants consume? My estimation is that, about one fifth to one-quarter of each streams potential flow. No wonder there is less and less water. There is no stewardship on East Maui streams.

The Hawaiians, already had them cleared. They only needed maintaining. A few volunteers and I, have managed to clear 300 to 400 feet mauka of the Hana highway, along the Hanehoi stream. On the Puohua stream, I would clear once a year, now it's twice a year, that is changing now to four times a year, with more of the Roseapple canopy coming down.

The roseapple trees are weak or already dead from the virus, with entire trees falling into the streams. Just up from my auwai there are ten of these dead trees, some of them are 2 to 3 feet in diameter. One is lying in the Haiku ditch, blocking off some of the flow through the sluice gate. I called E.M.I.'s office in Late March of 2009 and explained the situation with the dead trees to their secretary. An E.M.I. employee (Mark) called me back and said

Someone would check it out, no one has and the problem is getting worse.

When the diverion ditches were put in, the streams flowed freely, do to lack of obstructions.

Through missapprepriated neglect, came the incursion of alien species. There was no Stewardship in East Maui streams. These Loi' that i have the privilege to mahama are so important to the community. This land has created everlasting memories, and will create many more for future generations. The Hanehoi stream, and the streams which supply it are ESSENTIAL for cultivation, enjoyment, and household needs for this community.

On the Hanehoi stream at the Lowrie ditch diversion, nothing has changed since a year ago. At the Haiku ditch, the sluice gate is now buried under 3 feet of rocks.

The Puohua stream at the Lowrie diversion also remains unchanged from a year ago. At the Haiku ditch diversion, there is now a large dead tree blocking part of the flow from the partially opened sluice gate. Water is flowing through the two pipes as a year ago.

I included rain records for five years. May, June and December being the dryer months. E.M.I could have better prepared for these times. Instead of allways depleting East Maui water supply.

Page 10

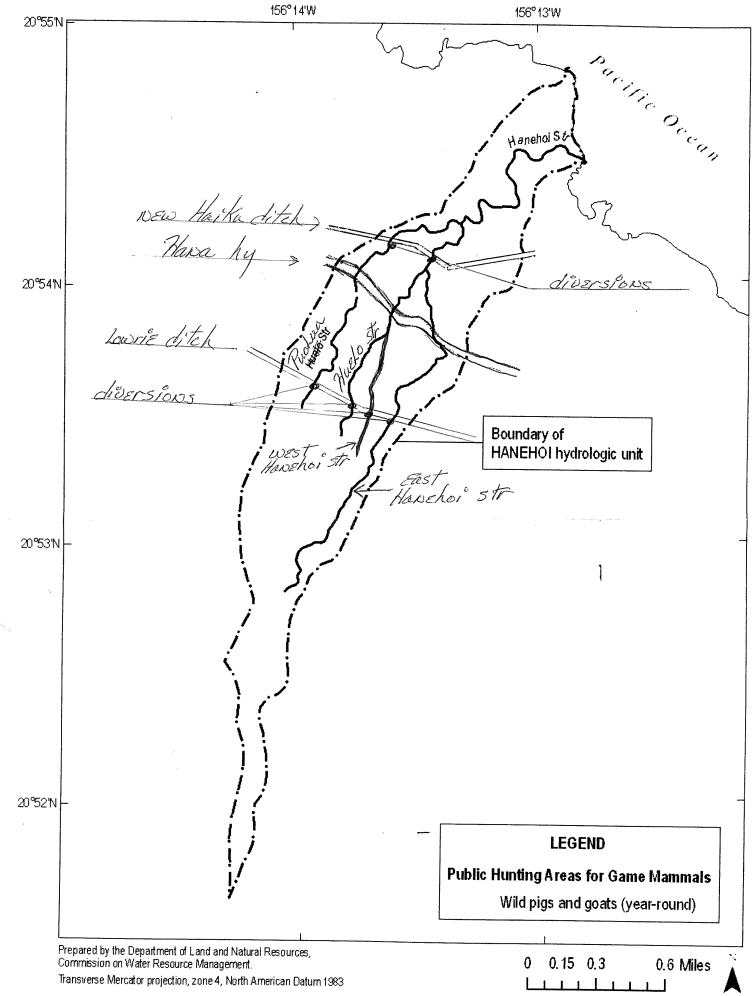
We need water restored to our streams to keep a healthy environment. The hydrologic unit 6037 Hanehoi is not accurate. U.S.G.S. maps, not accurate. Some one needs to research and correct these mistakes. E.M.I. is tapped into more water resources than can be imagine.

Thank you for the dedication your department has demonstrated.

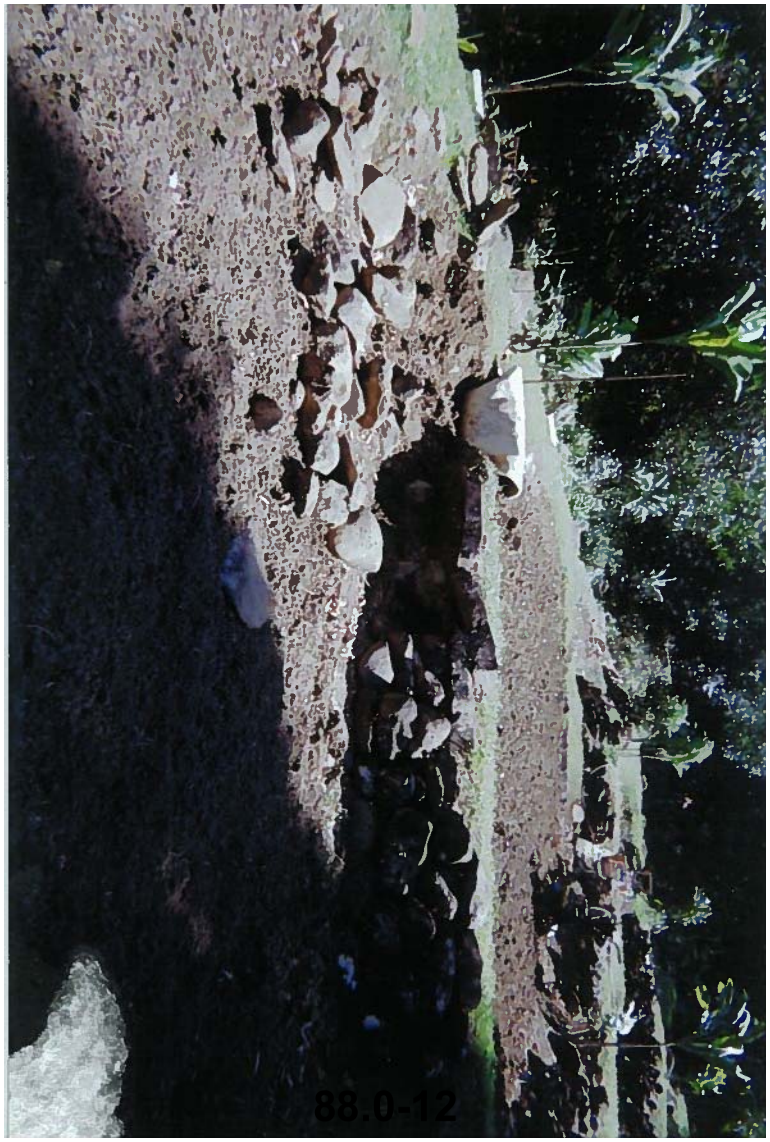
Puohua Kalo farmer:
Ernest Kahy Thupp

88.0-10

Figure 5-1. Public hunting areas for game mammals in Hanehoi hydrologic unit (Source: State of Hawaii, Office of Planning, 2002b).



88.0-11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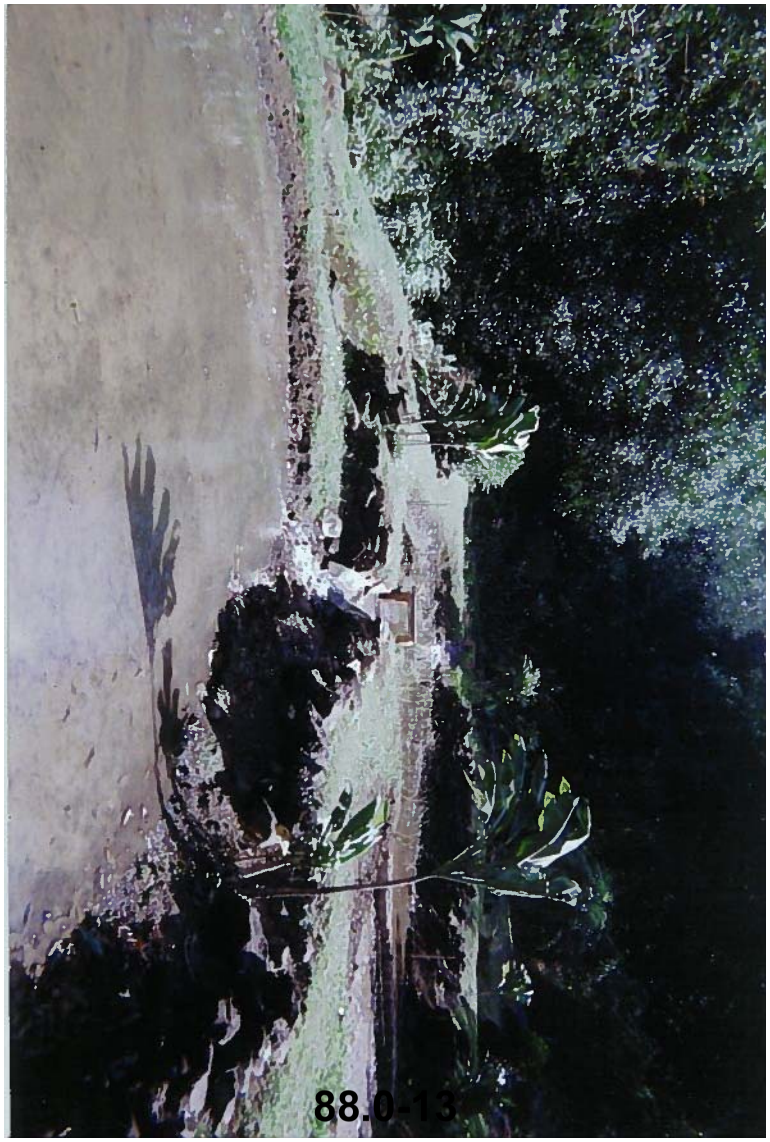
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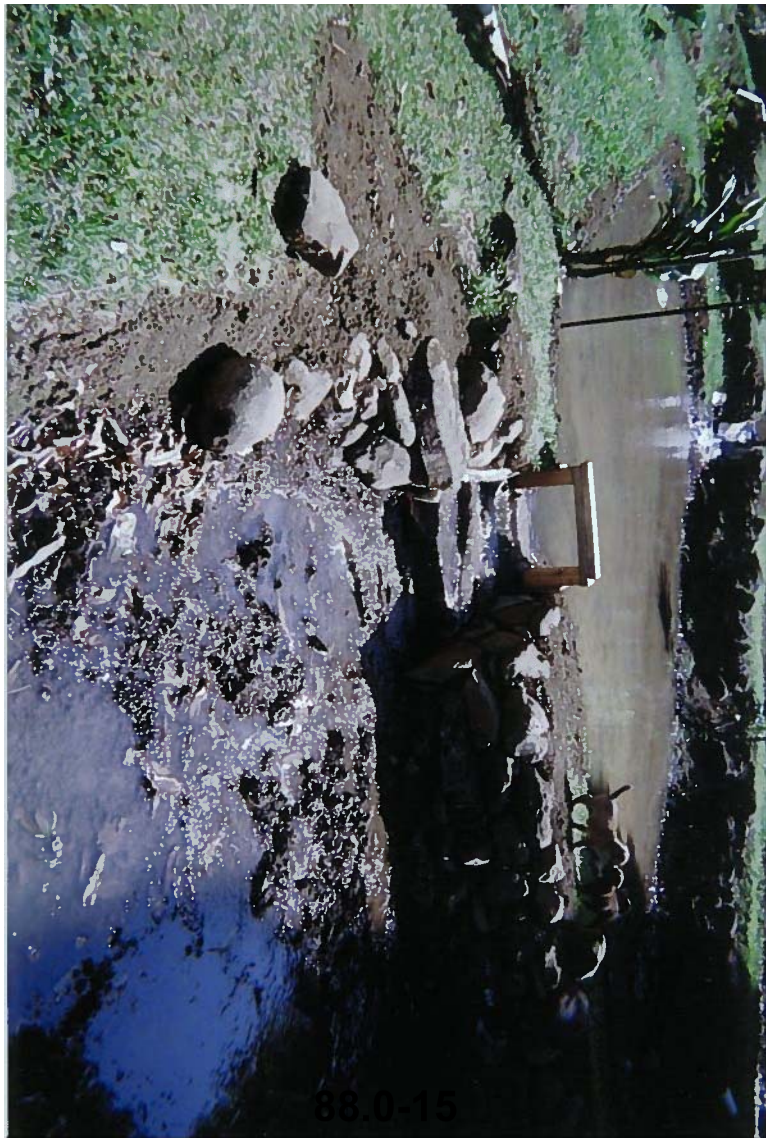

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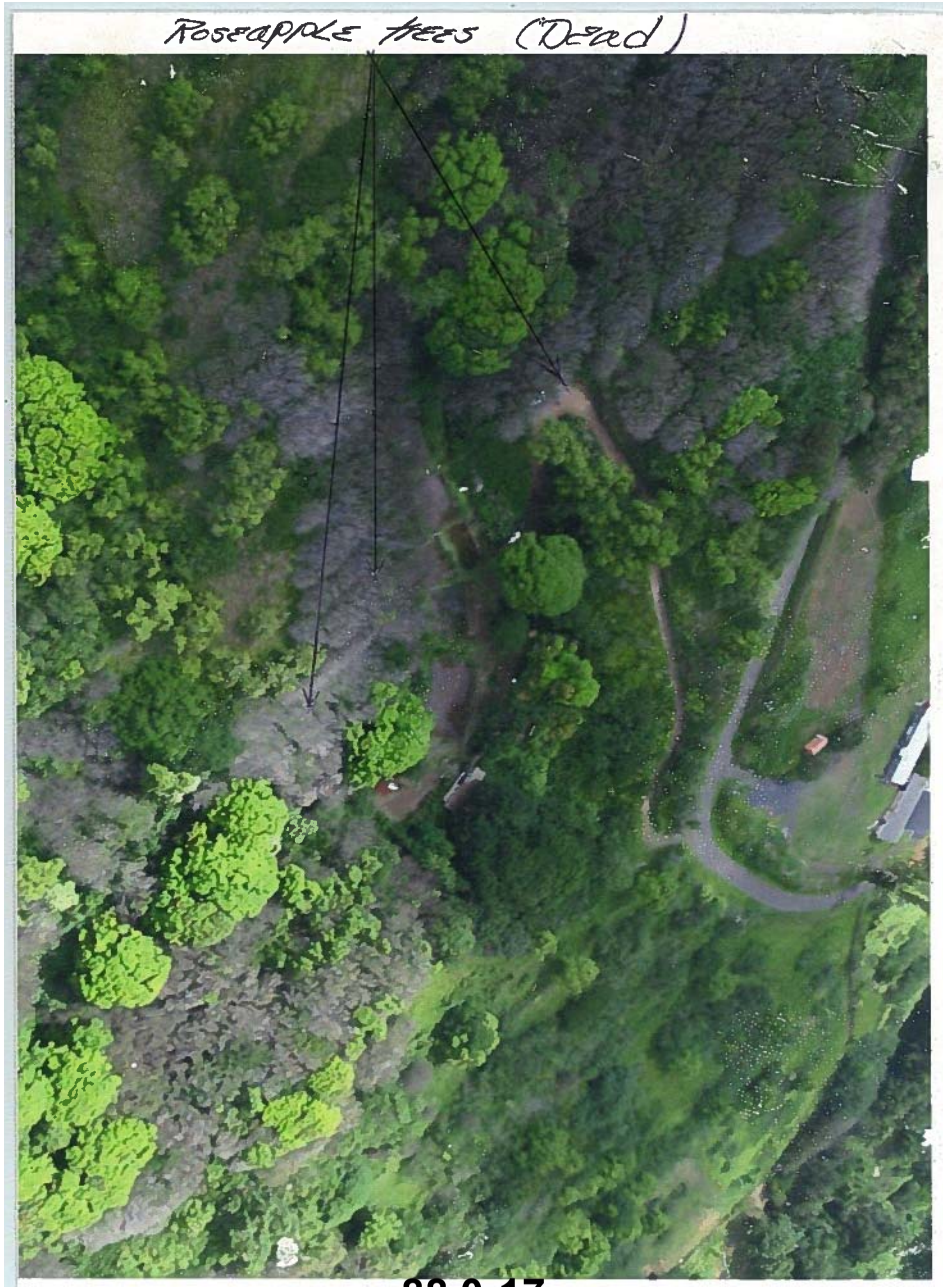

88.0-17

PUOLUA-HUELO RAIN RECORDS

February 2009

1st	NO Showers
2	" "
3	Showers ALL night +
4	Today 3.1 inches
5	NO RAIN
6	" "
7	Showers .2 TENTHS
8	" .2 TENTHS
9	NO RAIN
10	Showers .2 TENTHS
11	NO RAIN (C.W.R.M. Took Readings)
12	morning Showers (very Light)
13	Morning " .6 TENTHS
14	Showers .1 "
15	Light Showers
16	Sunny
17	Sunny
18	LATE night Showers +
19	morning RAIN 1.1 Inches RAIN ALL night +
20	Showers ALL DAY + night
21	Cloudy with Showers 1. Inche
22	Cloudy with very Light Showers
23	Sunny
24	Cloudy
25	EARLY morning showers .2 TENTHS
26	" " " .3 "
27	Cloudy
28	Cloudy

Estimation OF RAIN FALL FOR MONTH

7 Inches

March 2009

1	Showers	.2 TENTHS
2	Showers	
3	Showers	.6 "
4	S "	.4 "
5	HEAVY RAINS LAST night	.8 TENTHS
6	EARLY morning showers	.4 "
7	HEAVY RAINS LAST night	1.6 Inche
8	Eary Showers	.3 TENTHS
9	HAZY + showers	.1 "
10	HEAVY showers EARLY morning	2. INCHES
11	SUNNY, HEAVY LATE RAINS +	
12	morning RAINS, ALL DAY Showers	1. Inch
13	Early morning Showers	.3 TENTHS
14	SUNNY	
15	EARLY morning showers (KONA winds)	.2 "
16	Cloudy (KONA winds)	
17	Cloudy (winds CALM)	
18	SUNNY (winds CALM) EVENING SHOWERS	
19	EARLY morning showers SUNNY DAY	.4 TENTHS
20	" " " Cloudy, TRADES winds	.1 "
21	RAIN LAST night, DAY Cloudy	.4 "
22	SUNNY	
23	SUNNY	
24	Showers LAST night. SUNNY day	.3 "
25	" " " Showers OFF + ON	.2 "
26	Cloudy	
27	morning Showers Cloudy day	.2 "
28	" " SUNNY day	.3 "
29	" " PARTLY Clouds	.3 "
30	" " " "	.3 "
31	" " Showers OFF + ON ALL day	.9 TENTHS

Estimation OF RAIN FALL FOR MONTH

10.3 Inches

April 2009

1	Rains last night (cloudy day	.2 Tenths
2	Partly cloudy day	
3	Heavy Rains last night (Rainy day	1.6 Inche
4	Cloudy	
5	Showers last night (Cloudy day	.3 Tenths
6	" " " (mostly sunny day)	.3 "
7	Heavy Rains last night, (all day	.9 "
8	" " " (Showers all day)	.7 "
9	Showers off & on	
10	" " "	.6 "
11	Cloudy Showers	.6 "
12	Showers	.6 "
13	Early morning showers (cloudy day)	.2 "
14	mostly sunny day	
15	morning showers (Partly sunny day)	.1 "
16	Cloudy Day	
17	Showers last night (Cloudy day, Kona winds)	.2 "
18	Sunny (Kona winds)	
19	Hazy days (Kona winds)	
20	Clear morning (Kona winds) Evening Rains	
21	Heavy Rains last night & morning, Cloudy Day)	6.1 inche
22	" " " " & day	.5 Tenths
23	" " " " off & on all Day	5.5 Inch
24	Showers	.1 Tenth
25	Sunny	
26	Sunny	
27	morning showers (Sunny day)	.1 Tenths
28	Sunny	
29	Early morning Showers (sunny day)	.3 Tenths
30	Cloudy	

Estimation of Rain Fall for Month

18.9 Inches

May 2009

1	Afternoon Showers	
2	Early morning Showers	.3 Tenths
3	Sunny Kona winds	
4	Sunny " " , Hazy	
5	" " " , "	
6	Sunny	
7	Sunny	
8	morning Showers Sunny Day	.3 Tenths
9	" " " "	.3 "
10	Sunny	
11	Sunny	
12	Sunny	
13	"	
14	"	
15	"	
16	Early morning Showers (Sunny day)	.6 Tenths
17	Sunny (Kona winds)	
18	" " "	
19	" " "	
20	" " "	
21	Hazy (Vog)	
22	" "	
23	" "	
24	Kona winds (Vog)	
25	" " (Vog)	
26	" " "	
27	Kona winds Started Raining (From 2:00pm To 6:00pm)	7 Inch
28	Cloudy	
29	Cloudy	
30	Sunny (Trade winds)	
31	Sunny	

2.5 Inches

June 2009

1	Sunny	
2	Sunny	
3	Early morning Shower	.1
4	mostly sunny	
5	mostly sunny with passing showers	
6	Early morning showers (Day) mostly cloudy	.1 plus
7	showers off+on all night + morning (Day) cloudy	.1
8	Early morning showers (Day) sunny	.1
9	Sunny (Hot) little wind	
10	Early morning showers Day sunny	.1
11	" " " " "	.08
12	Sunny	
13	Sunny, Cloudy afternoon	
14	Ealy morning showers Day Cloudy	.05
15	Sunny	
16	Sunny	
17	morning showers Day Sunny	.08
18	Showers off+on all night + morning (Day sunny)	.5
19	" " " " " Day Sunny	.6
20	Sunny + windy	
21	Late night showers Day Cloudy	.1
22	" " " Day Rainy	.7
23	" " " Sunny afternoon	.5
24	" " " Showers all Day	.65
25	" " " Day Sunny	.5
26	" " " + morning showers Day Sunny	.2
27	Sunny	
28	Late night showers, Day sunny (Earth Quake)	.4
29	" " " + morning, Day sunny	
30	Sunny	
	Total	4.86

July 09

1	Sunny	
2	Sunny	
3	"	
4	Sunny, Very Light passing Showers	.07
5	Sunny	
6	"	
7	Showers Last night + morning, Day Sunny	.5
8	Early morning showers + off+on all Day	.2
9	" " " " " " "	.15
10	" " " , Cloudy Day	.3
11	Rain off+on all night, Cloudy Day	.8
12	" " " " " " "	.3
13	Heavy Rains Last night, Shower all Day	1.4
14	Rains Last night, Sunny Day	.2
15	Showers " " Partly Sunny Day	.2
16	" " " + morning Day, Cloudy	.4
17	" " " , Day Cloudy	.1
18	Showers Last night Day, Sunny	.4
19	morning showerss Day Sunny	.15
20	Sunny	
21	"	
22	Early morning showers, Heavy Rains afternoon	3.5
23	Partly sunny	
24	" "	
25	Cloudy	
26	Sunny	
27	Sunny with passing showers	
28	Early morning showers Cloudy Day	.3
29	" " " " "	.3
30	Sunny	
31	Late night Showers, Heavy showers off+on - all Day	.8
	Total	9.8

Aug 09

1	Showers OFF+ON (Very Light) DAY Cloudy	.
2	LATE night showers DAY, Cloudy	.27
3	Cloudy	
4	Early morning showers, DAY, Cloudy	.4
5	Sunny	
6	Early morning showers, DAY Sunny	.05
7	" " " " "	.
8	Sunny	
9	Early morning showers DAY Sunny	.45
10	" " " DAY partly Cloudy	.65
11	LATE night + morning showers, DAY Rainy	.9
12	Heavy showers LAST night + ALL DAY	1.
13	From yesterdAY TILL 10:00 am Today. Rest of the - DAY Cloudy	4.
14	LAST night showers (DAY Cloudy)	.6
15	Sunny	
16	Early morning showers DAY, Partly Cloudy	.4
17	Sunny	
18	Cloudy	
19	Heavy LATE night Rain DAY Cloudy	1.7
20	Sunny	
21	Showers OFF+ON ALL DAY	.08
22	" " " " "	.06
23	Sunny	
24	Early morning showers, DAY, partly Cloudy	.3
25	" " " " " "	.2
26	" " " " " "	.—
27	Cloudy	
28	Sunny	
29	Cloudy	
30	Sunny	
31	Early morning showers Sunny DAY	.5

TOTAL 11.66

Sept 09

1	morning shower, DAY Sunny	.4
2	Sunny	
3	LATE + Early morning showers, DAY Sunny	.4
4	" " " " "	.3
5	Sunny	
6	ALL night + morning showers, DAY Cloudy	1.0
7	morning showers, DAY Sunny	.17
8	" " " "	.4
9	Sunny	
10	Showers LAST night + Early morning, DAY Sunny	.1
11	Sunny	
12	morning showers + OFF+ON ALL DAY	.05
13	Showers LAST night, DAY Cloudy	.5
14	Sunny	
15	Sunny	
16	Sunny	
17	morning showers, DAY partly Sunny	.2
18	Rains ALL night, DAY Sunny	.6
19	Sunny	
20	Sunny	
21	Early morning shower DAY, partly Sunny	.1
22	Sunny	
23	"	
24	" with AFTERNOON showers	
25	Light Showers	
26	" " LAST 3 day shower TOTAL (DAY Cloudy	1.5
27	morning showers, DAY Cloudy	.1
28	" " DAY mostly Sunny	.25
29	" " " " "	.2
30	" "	

6.27

Average Rain fall in Puokua (Huelo) five years

	2005	2006	2007	2008	2009
JAN	5.9	5.6	5.4	10.4 ~~N/A~~	6.1
Feb	5.9	10.2	8.0	7.24 ~~N/A~~	7.0
Mar	20.3	14.2	3.7	3.3	11.6
Apr	7.3	8.5	5.0	5.3	18.6
MAY	4.7	12.0	3.6	2.7	2.5
JUNE	9.4	3.2	4.7	3.6	4.86
July	10.7	5.3	10.7	6.1	9.8
Aug	5.2	6.2	7.0	9.0	11.66
SEPT	7.5	6.0	11.4	4.4	6.27
Oct	6.5	7.2	13.1	4.8	—
NOV	6.7	12.1	6.1	5.0	—
Dec	1.5	6.9	5.2	21.4	— To end of SEPT
years Ends	91.6	97.4	83.9	~~65.6~~ 83.4 Missing two Months Records	78.26

89.0 Sheldon R. Biga

INSTREAM FLOW STANDARD ASSESSMENT REPORTS (IFSAR)

For the Hydrologic Units of

Waikamoi (6047), Puohokamoa (6048), Haipuaena (6049), Punalau (6050), Honomanu (6051), Nuaailua (6052), Ohia (6054), West Wailuaiki (6057), East Wailuaiki (6058), Kopiliula (6059), Waiohue (6060), Paakea (6061), Waiaaka (6062), Kapaula (6063), Hanawi (6064), Makapipi (6065)

Public Fact Gathering Meeting

Date: Thursday, October 15, 2009
Time: 5:00 p.m. to 9:00 p.m.
Location: Paia Community Center
Hana Highway, Paia, HI 96779

Public Review Drafts Availability

Oahu: Kalanimoku Bldg, Room 227,
1151 Punchbowl St., Honolulu, HI 96813
Website: http://www.hawaii.gov/dlnr/cwrm/

Please provide any comments you wish to offer on the public review drafts of the **INSTREAM FLOW STANDARD ASSESSMENT REPORTS** for each of the hydrologic units:

Aloha My Name is Sheldon R. Biga. I am an employee of Hawaiian Commercial & Suger Company for 33 years here today looking out not just for myself and my family, but also for the future of HC&S co. and our island maui, it's people and it's economy. Although it has been made known that HC&S is losing millons of dollors, a strong effort is being made to continue operations and inprove productivity so as not to add to an already poor economy. It won't happen over night, but it will happen eventually with the right projections and planning for a brigter future in the suger industry. Losing water needed to maintain operations at HC&S will have a major inpact on the already poor economy. Sending the water away from the suger cane fields and down the streams into the ocean will Kill the suger cane fields and close HC&S. There would be no more green feilds, only dry land of dirt and eventually weeds. Enough acres of weeds to create a potential fire hazard, such as the Olowalu fire of 2007 that burned for weeks, closed Honoapiilani Hwy, and had fire fighters working beyond the capacity of what would be expected. Not enough fire fighters and not enough water. Even helicopters with the baskets of water trying to deliver water from the air, road closures, all because the water is going down the stream into the ocean. Water needs to be saved. Some people save money for future projects, activities and rainy days. Rainy days don't come often enough, but when they do, we need to save the rain water. AT HC&S, we try to conserve water by using reclamation in the mill and at certain cane feilds. And even yet, with this conservation in place, stream water required to keep up with normal daily usage. Maui is going to continue to grow. More reservoirs are needed to save water. The more maui grows, the more water will be needed.

(attach additional sheets as necessary)

PLEASE PRINT **Name:** Sheldon R. Biga **Phone:** 808-276-2074

Affiliation: (if applicable) HC&S employee, Born & raised in maui.

Address: 22 Puakala Pl. Kahului, Maui.

Email: sr biga 315 @ g mail . comm

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT
2009 NOV -2 PM 1:32

Submit this form (plus additional sheets, if any) via mail or fax. Comments may also be e-mailed.

Mail: Mailing address located on the back.
Facsimile: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov. (Please include information in the shaded area with the e-mail)

All comments must be received or postmarked by October 30, 2009. Mahalo!

90.0 Yolanda Dizon

10 29 09 21 48PM 1 808 587 0022

INSTREAM FLOW STANDARD ASSESSMENT REPORTS (IFSAR)

For the Hydrologic Units of

Waikamoi (6047), Puohokamoa (6048), Haipuaena (6049), Punalau (6050), Honomanu (6051), Nuaailua (6052), Ohia (6054), West Wailuaiki (6057), East Wailuaiki (6058), Kopiliula (6059), Waiohue (6060), Paakea (6061), Waiaaka (6062), Kapaula (6063), Hanawi (6064), Makapipi (6065)

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Website: http://www.hawaii.gov/dlnr/cwrm/

Please provide any comments you wish to offer on the public review drafts of the **INSTREAM FLOW STANDARD ASSESSMENT REPORTS** for each of the hydrologic units:

My Name is Yolanda Dizon. I am and also my family are Taro growers on our kuleana lands in Kaualu on the West side. We understand the Concerns between our kalo farmers and HC&S Co. Yes the waters should be allowed to flow back in our streams so that our farmers can have water to sustain their Lo'i's and any other ag farming to supply food for themselves and also to sell their product to make a profit for themselves. To be Self Sustainable. HC&S also needs water for their Sugar Canes. We need to share the water for both sides We need to keep the balance. Many of our people will be out of Jobs if HC&S does not have enough water for their Sugar Cane lands. As you all know, our economy is in bad shape as it is we cannot allow for more lost Jobs, homelessness, or hunger for our people. Please allow HC&S to have the water they need but also make sure HC&S does not backslide in their old greedy ways

(attach additional sheets as necessary)

PLEASE PRINT **Name:** Yolanda Dizon **Phone:** (808) 757-1271

Affiliation: (if applicable)

Address: P.O. Box 792 Kahului, HI, 96767

Email:

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COMMISSION ON WATER
RESOURCE MANAGEMENT
2009 NOV -2 PM 1:33

Submit this form (plus additional sheets, if any) via mail or fax. Comments may also be e-mailed.
Mail: Mailing address located on the back.
Facsimile: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov. (Please include information in the shaded area with the e-mail)

All comments must be received or postmarked by October 30, 2009. Mahalo!

91.0 Patricia Nishiyama

INSTREAM FLOW STANDARD ASSESSMENT REPORTS (IFSAR)

For the Hydrologic Units of

Waikamoi (6047), Puohokamoa (6048), Haipuaena (6049), Punalau (6050), Honomanu (6051), Nuaailua (6052), Ohia (6054), West Wailuaiki (6057), East Wailuaiki (6058), Kopiliula (6059), Waiohue (6060), Paakea (6061), Waiaaka (6062), Kapaula (6063), Hanawi (6064), Makapipi (6065)

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Website: http://www.hawaii.gov/dlnr/cwrm/

Please provide any comments you wish to offer on the public review drafts of the **INSTREAM FLOW STANDARD ASSESSMENT REPORTS** for each of the hydrologic units:

My name is Patricia Nishiyama. Representing Na Kupuna O Maui. My kupuna supports this issue in you doing the right decision. We would like to see the water not go to waste. The water needs to be shared. But our culture come first. Please do not divide our people. Farmer need water and Kalo needs water and sugar cane needs water. We don't need new golf course and new Hotels. So please make the right decisions.
God be with you all.

Our Culture has rights.
Our people need their jobs

RECEIVED
2009 NOV -2 PM 1:33
COMMISSION ON WATER RESOURCE MANAGEMENT

(attach additional sheets as necessary)

PLEASE PRINT **Name:** Patricia Nishiyama **Phone:** 808 281 1567
Affiliation: (if applicable)
Address: 320 Kaeo Place Lahaina, Maui
Email:

Submit this form (plus additional sheets, if any) via mail or fax. Comments may also be e-mailed.
Mail: Mailing address located on the back.
Facsimile: (808) 587-0219
E-mail: dlnr.cwrm@hawaii.gov. (Please include information in the shaded area with the e-mail)

All comments must be received or postmarked by October 30, 2009. Mahalo!

92.0 Hana Community Association, John Blumer-Buell

HANA COMMUNITY ASSOCIATION
P.O. Box 202 HANA, MAUI, HAWAII 96713

RECEIVED
COMMISSION ON WATER
SOURCE MANAGEMENT
2009 NOV -2 PM 1:35

October 22, 2009

State Commission on Water Resource Management
Laura H. Thielen, Chairperson
P.O. Box 621
Honolulu, Hawaii 96809

Subject: Instream Flow Standard Assessment Report
* Hydrologic Units 6064 Hanawi Stream and 6065 Makapipi Stream
* Kuhiwa Well

Aloha Chairperson Thielen, Members of the Commission and Staff,

The Hana Community Association was an intervener in the contested case hearing before the Commission on Water Resource Management (MA-CC-91-1) regarding the application for pump installation at Kuhiwa Well in Nahiku. The thirty seven page "Finding of Fact, Conclusions of Law, and Decision and Order" is attached as an important reference. Impacts upon Hanawi Stream, Makapipi Stream and the unnamed stream between Hanawi and Makapipi Streams were the core issues of the case.

Since the granting of the pumping permit for Kuhiwa Well, NEW ISSUES, CONDITIONS, and CONCERNS have arisen which need to be addressed as part of the current instream flow standards process. The new issues, conditions and concerns are important to address in determining the instream flow standards for the subject hydrologic units **in association** with any future pumping and monitoring of Kuhiwa Well.

The Hana Community Association Board of Directors requests a meeting in Nahiku, Keanae or Hana with the commission and/or staff members to review Maui Land and Pineapple Company compliance or non compliance with the "Decision and Order" dated October 2, 1991. We would like the meeting to include the Hana Community Association (intervener), Maui Land and Pineapple Company (applicant), Ned Iliahi Goodness (intervener), the Nahiku Community Association (actively concerned with issues), Na Moku Aupuni O Koolau Hui (actively concerned with issues), Dr. Pang (actively concerned with issues) and other interested parties. We offer to help make arrangements and host the meeting. We hope the meeting will be an honest, constructive and collaborative means to address the issues together.

Proposed agenda:
* Review of the Decision and Order for compliance or non compliance.

* Review of the 1991 "Baseline Aquatic Survey of Kuhiwa Stream, Makapipi Stream and Hanawi Stream" and the 1993 "Aquatic Monitoring Survey of Hanawi Stream, Makapipi Stream an Paluhulu Stream".
* Discussion of new issues, conditions and concerns. This topic should include the recent drying up of several important springs and streams south of Makapipi Stream and Kuhiwa Well. These springs and streams were not addressed during the contested case hearing. Today, many longtime residents think there is a connection between the de-watering of Makapipi Stream and the loss of spring and stream flow to the south. Any future pumping of Kuhiwa well could only make the situation worse. Maui Land and Pineapple Co. have stated the company has pumped Kuhiwa Well on a intermittent basis. However, Maui Land and Pineapple representative Wes Nohara stated at your October 15, 2009, meeting in Paia that the company has changed its plans about moving its pineapple operations to West Maui. That could have an impact on the future use of Kuhiwa well and could impact the surrounding springs and streams.
* Discussion of a methodology to include the community in future monitoring of stream conditions and improvement of the watershed.
* Discussion of possible restoration of Kuhiwa, Makapipi and Hanawi Streams to their natural state.
* The Betsill Brothers well. The use of this well has not been properly monitored. The well may be in the same perched aquifer as Kuhiwa Well and could certainly add to the threat of pumping Kuhiwa Well on Big Springs.
* Land title issues.

The Hawaii Stream Assessment, accepted by the Commission on Water Resource Management, identifies seven streams in the state with the most outstanding aquatic and riparian values which should receive full watershed protection from the mountains to the ocean as "Kapu Streams". Discussion of full protection of Makapipi Stream, Hanawi Stream and the unnamed stream would be a constructive way to explore the "kapu" issues. It appears the watershed is "dying" and loosing its capacity to sustain itself at historic levels.

Mahalo,

John Blumer-Buell

John Blumer-Buell, Corresponding Secretary
on behalf of the Hana Community Association Board of Directors

Tony Angelini, Lehua Cosma, Suzette Cossey,
Lisa Hamilton, Judy Kinser, Guy Lay

cc: Maui Land and Pineapple Company, Ned Iliahi Goodness, the Nahiku Community Association, Na Moku Aupuni O Koolau Hui, Dr. Pang, Skippy Young, Frank James Oliveira

SIERRA CLUB **LEGAL DEFENSE FUND**

FAX TRANSMITTAL MEMORANDUM

TO: JOHN BLUMER-BUELL
HANA COMMUNITY ASSOCIATION
Fax No.: 1-248-7487

FROM: Arnold L. Lum/ceci
[Transmitting from (808) 521-6841]

DATE: October 3, 1991

RE: Maui Pineapple Company, Ltd. Pump Installation
-293-

Number of Pages (including this cover memo): 38

If there are any problems with transmission, please call (808) 599-2436. We are transmitting from a Hitachi HiFax 46.

COMMENTS: Findings of Fact, Conclusions of Law, and Decision and Order

212 MERCHANT STREET, ROOM 202, HONOLULU, HAWAII 96813, TELEPHONE (808) 599-2436, FAX (808) 521-6841

COMMISSION ON WATER RESOURCE MANAGEMENT
STATE OF HAWAII

In Re Application of MAUI PINEAPPLE COMPANY, LTD. Pump Installation Permit Kuhiwa, Nahiku, Maui, Hawaii	)))))	MA-CC-91-1

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER

By application dated August 17, 1990, Maui Pineapple Company, Ltd. (hereinafter "Applicant" or "Maui Pine") requested approval of a permit to install a well pump with the capacity to withdraw up to 1.0 million gallons of water per day (MGD) from the Kuhiwa Well at Nahiku, Maui, Hawaii.

At the December 19, 1990 meeting of the Commission on Water Resource Management (hereinafter "Commission") to consider Applicant's request, the Hana Community Association (hereinafter "HCA" or "Petitioner"), through counsel, requested a contested case hearing on the application.

On March 25, 1991, the Commission published notice of the contested case hearing in The Maui News and the Honolulu Star Bulletin. The notice informed interested parties that the Commission intended to conduct a contested case hearing on the application, and that applications for intervention were to be filed by April 15, 1991.

Subsequently the Commission granted intervention to the HCA and Ned Iliahi Goodness.

On May 30, 1991, the Commission convened a contested case hearing in Wailuku, Maui, Hawaii. The hearing was concluded on June 19, 1991, at Honolulu, Oahu, Hawaii.

Dennis Niles, Esq., and Arnold Lum, Esq., appeared at both hearings as counsel for Applicant and HCA respectively. Mr. Goodness appeared at the first hearing but waived his right to appear and participate at the second hearing.

The Commission, having fully heard and examined the testimony, evidence and argument of counsel presented during the hearing, the proposed findings of fact, conclusions of law, and decision and order submitted by the Applicant and Petitioner, after deliberation hereby makes the following findings of fact and conclusions of law, and issues its decision and order:

I. FINDINGS OF FACT

A. Applicant

1. Maui Pine is engaged in the business of the cultivation, processing, marketing, and distribution of canned

pineapple. Hartley, p. 3[1]. The company employs approximately 900 year round employees, and a number of seasonal laborers. Tr. I, p. 64.[2]

2. The pineapple business is cyclical and very competitive. Over the past 10 years, the company was profitable in the first seven years, but lost money in the last three years. In 1990, the company had a record loss of approximately 6.5 million dollars on gross sales of approximately 70 million dollars. Tr. I, pp. 43-44.

3. The company cultivates approximately 8,000 acres of pineapple on the island of Maui, of which approximately 1,700 acres is under cultivation in Central Maui. Tr. I, pp. 34-35. The 1,700 acres of pineapple crop in Central Maui is supplied with irrigation water drawn from the Koolau Ditch of the East Maui Irrigation (EMI) distribution system. Hartley, p. 3; Tr. I, pp. 18 and 31.

4. Maui Pine use of water from the EMI system is made under an agreement with East Maui Irrigation, Inc, which requires Maui Pine to supply the ditch with a quantity of water equivalent

[1]Citations to the written direct testimony submitted in this proceeding will be to the name of the author, e.g., "Hartley", "Behrens", etc.

[2]Citations to the transcript of the contested case hearing held on May 30, 1991 will be referenced as "Tr. I, p. _". Citations to the transcript of the reconvened contested case hearing held on June 19, 1991 will be referenced as "Tr. II, p. _".

to the amount which it withdraws, plus a factor for transmission losses. From 1956 through 1989, the agreement allowed Maui Pine to accumulate water credits by pumping water into the ditch during rainy periods when withdrawals for irrigation were not required and to use those credits by withdrawing irrigation water during dry periods. Hartley, pp. 3-4.

5. Maui Pine's maximum withdrawal from the EMI system for pineapple irrigation under the pre-1989 agreement was 1.5 MGD. This daily quantity of water was sufficient for periods when irrigation was required. Tr. I, p. 31.

6. Maui Pine's existing source for supplying the Koolau Ditch is the Hanawi Pump Station, located on Hanawi Stream immediately below the Hana Highway. This source withdraws surface water from Hanawi Stream through a pipe which is installed behind a dam on the stream. Tr. I, p. 181.

7. The maximum pumping capacity of the Hanawi Pump is approximately 0.5 MGD. Tr. I, pp. 31 and 74. On an <u>annual</u> basis, this pumping capacity has been sufficient to meet Maui Pine's annual irrigation requirements in Central Maui. From 1983 through 1987, Maui Pine diverted between 110 and 148 million gallons annually from Hanawi Stream through the operation of the Hanawi Pump. Applicant's Exhibit E (Registration and Declaration of Water Use Form).

8. In 1989, Maui Pine and EMI concluded a new agreement, under which Maui Pine will no longer be able to accumulate water credits, and will instead be limited each day to withdrawing the quantity of water it actually puts into the ditch on that same day, less transmission losses. Hartley, pp. 4-5. Maui Pine is, however, presently able to continue accumulating water credits under a two-year extension of its pre-1989 agreement with EMI. This extension will expire on December 31, 1991. Tr. I, pp. 61-62.

9. In conjunction with the new agreement, EMI granted Maui Pine permission to utilize and operate the Kuhiwa Well, located on land owned by EMI. By application dated August 17, 1990, Maui Pine applied to the Commission for a permit to install a 700 gpm (1.0 MGD) capacity pump on the Kuhiwa Well.

10. Maui Pine desires to operate the Kuhiwa Well (1.0 MGD capacity) in addition to the Hanawi Pump Station (approximately 0.5 MGD capacity) such that Maui Pine's total capacity for putting water into the EMI ditch system on a daily basis is approximately 1.5 MGD.

11. Maui Pine claims it needs to operate the Kuhiwa Well. "Pumping from Kuhiwa Well is absolutely essential during dry years to drip irrigate the company's East Maui fields to the extent necessary to keep them healthy and productive." Pyle, p. 6. "We can't reduce our volume and continue to be a reliable

source of supply to the private pineapple trade." Tr. I, p. 35 (Hartley). "It's the kind of thing that can destroy a business. I'm seriously concerned that it would destroy ours." Tr. I, p. 36 (Hartley).

B. Intervenors

12. The Hana Community Association (HCA) is comprised of individual residents of the Hana District of Maui. The HCA does not oppose the issuance of a pump installation permit. Tr. II, p. 84. Rather, HCA's concerns center on the terms and conditions pursuant to which Maui Pine will be allowed to draw water from the Kuhiwa Well. Id.

13. The central issue raised by the HCA relates to the possible effect of well pumpage on the flow of streams and springs in the area, including the Hanawi and Makapipi streams and on the Behren's spring and Big Spring, and the kind of monitoring needed to judge the effects, if any. Minute Order No. 1.

13. Ned Iliahi Goodness claims an interest in a Royal Patent (Grant) 4448, (Parcel 26, Nahiku), located in TMK 1-2-04:03. Kuhiwa Well is also located in TMK 1-2-04:03. Mr. Goodness also appears concerned with appropriate conditions for the issuance of a permit. He urges monitoring of the impact of pumping, the adoption of an allocation system that favors taro

farming, and the cessation of pumping "for cause." Tr. I, p. 188.

C. Nature of Surface Waters in the Vicinity of Kuhiwa Well

14. The Kuhiwa Well is located in the vicinity of three streams which exhibit reaches of perennial flow and which provide aquatic habitat and other instream values. These streams are: 1) Hanawi Stream; 2) Makapipi Stream; and 3) an unnamed stream (hereinafter "unnamed stream") which flows through a property owned by Dr. Michael Behrens.[3] All of these streams discharge into the ocean approximately 10,000 feet makai of the Kuhiwa Well.

Hanawi Stream

15. Hanawi Stream is located approximately 4,000 feet to the west of the Kuhiwa Well at its nearest point. Big Spring, a major spring providing much of the base flow of Hanawi Stream, is located on Hanawi Stream approximately 5,500 feet makai of the well.

16. Hanawi Stream is presently diverted by EMI's Koolau Ditch and by Maui Pine's Hanawi Pump, located about 1,500 feet below the ditch. Hanawi Stream has perennial flow above the ditch. Tr. I, pp. 115, 116.

[3]Dr. Behrens is a member of the Hana Community Association.

17. Hanawi Stream has perennial flow from Big Spring to the ocean. Nearly 21 years of historical streamflow records are available on Hanawi Stream below Big Spring. These include 15 years at USGS gage station 16509000, Hanawi Stream Below Government Road, near Nahiku, operated from July 1932 through July 1947, and 5-1/2 years of record collected at the same site by East Maui Irrigation from January 1927 through June 1932. The average 15-year discharge recorded by the USGS was 27.1 MGD. The minimum flow recorded during the 21 years of record was 8.2 MGD, occurring in 1936. The second lowest recorded discharge was 9.5 MGD, occurring in both 1931 and 1935. Commission Submittal Item 10, December 19, 1990.

18. Hanawi Stream is generally regarded as one of the most biologically productive East Maui streams for three species of native o'opu, and also provides habitat for the native hihiwai snail and the 'opae shrimp. Yuen, p. 1. It is rated by the United States Fish and Wildlife Service (USFWS) as one of the highest quality streams in the state and by the Hawaii Department of Land and Natural Resources as one of the high quality streams in the State. Tr. II, pp. 38 and 58.

19. Hanawi Stream is used by Hawaiian families for gathering hihiwai, o'opu, and 'opae. Kahookele, p. 1; Bergau, p. 1.

Makapipi Stream

20. At its nearest point, West Makapipi Stream is located less than 1,000 feet west of the Kuhiwa Well. East Makapipi Stream is located less than 1,500 feet east of the Kuhiwa Well. The confluence of these two main tributaries of Makapipi stream is located approximately 2,500 feet makai of the Kuhiwa Well.

21. West Makapipi Stream is presently diverted by EMI's Koolau Ditch. There are no other known existing diversions of Makapipi Stream.

22. Makapipi Stream flows are intermittent, but there are perennial spring-fed pools within the stream below the ditch. Kahookele, p. 1; Bergau, p. 1.

23. Makapipi Stream is described in the Hawaii Stream Assessment as an "outstanding" stream, and supports a diverse assemblage of native species. Tr. II, p. 58. Native fishes and invertebrates are present in the stream. Yuen, p. 1. 'Opae and two species of o'opu have been found in the stream. Kahookele, p. 1; Petitioner's Exhibit "E".

24. Makapipi Stream is used by Hawaiian families for gathering o'opu, prawns, and 'opae. Bergau, p. 1.

Unnamed Stream

25. The unnamed stream is located between Hanawi and Makapipi Streams. It flows through the property at TMK 1-2-01:14 owned by Dr. Michael Behrens, and flows into a pond near the ocean in Lower Nahiku. Behrens, p. 1; Bergau, p. 1.

26. Two springs provide water to the unnamed stream. An upper spring at the head of the stream is located just makai of the highway, and is approximately 4,000 feet makai of the Kuhiwa Well. A second spring is located at a waterfall about halfway between the upper spring and the ocean, and is approximately 7,500 feet makai of the Kuhiwa Well. The property owned by Dr. Behrens is located downstream of both springs. Map by Commission staff; map from Stearns and Macdonald, Bulletin 7, 1942; Behrens Statement of Fact, p. 1.

27. The unnamed stream has perennial flow through the property owned by Dr. Behrens and also where it flows into a pond near the ocean in Lower Nahiku. Behrens, p. 1; Kahookele, p. 1; Bergau, p. 1.

28. On May 24, 1991, Dr. Behrens estimated the flow of the unnamed stream on his property as three (3) gallons per second by placing a five gallon bucket in the stream. This flow rate corresponds to 0.26 MGD. Conditions in the Nahiku area were

quite dry on the date of measurement and streams in the area were at a low level. Behrens Statement of Fact, p. 1.

29. Of the estimated 3 gallons per second flow in the unnamed stream on May 24, 1991, Dr. Behrens further estimated that approximately one half of the flow originated at the (lower) spring at the waterfall and that the remainder of the flow originated from above the waterfall. Tr. I, pp. 155-156.

30. The unnamed stream is the sole source of water for Dr. Behren's property, where it is used for drinking, bathing, and for irrigation of plants, and aesthetics. Behrens, p. 1. The pool at the end of the stream at Nahiku landing is used for recreational purposes by the Nahiku community and has been traditionally used as a source of water in drought periods for residents of lower Nahiku whose homes do not have access to the county water line. Behren's Statement of Fact, p. 1.

31. The unnamed stream contains populations of o'opu and prawns. Kahookele, p. 1.

D. Effects on Surface Water by Pumping Ground Water at Kuhiwa Well

32. When water is pumped from a well, the water taken from the ground has to be balanced by a loss of water from somewhere else. Tr. I, p. 111.

33. If the groundwater body tapped by the well is connected to springs and/or streams, then pumping the well will cause the flow of the springs and/or streams to be reduced. Id.

34. If the groundwater body is not connected to springs and/or streams, then pumping the well would not have any effect on these. Id.

35. Hanawi Stream is generally connected to a groundwater body, as evidenced by perennial flow at a USGS gage above the Koolau Ditch, and by gaining flows and perennial flow below the ditch. Tr. I, pp. 115-116.

36. There is insufficient information to conclude that Makapipi Stream is generally connected to a groundwater body. Tr. I, p. 113. However, reports of perennial pools and springs shown on a map by Stearns and Macdonald indicate that some groundwater connections may exist. Bergau, p. 1; Stearns and Macdonald, Bulletin 7, 1942.

37. There is insufficient information to conclude that the unnamed stream is generally connected to a groundwater body. However, the perennial nature of the stream through the property owned by Dr. Behrens and springs shown on a map by Stearns and Macdonald indicate that some groundwater connections may exist. Behrens, p. 1; Stearns and Macdonald, Bulletin 7, 1942.

38. Two opposing models of groundwater behavior in the Nahiku region were described to the Commission by expert witnesses Doak Cox and William Meyer respectively.

39. Doak Cox has served as director of the University of Hawaii's Water Resources Research Center (1964-70) and Environmental Center (1970-85). Dr. Cox was involved in the original geohydrology studies which led to the development of the Kuhiwa Well in the 1940s. In 1980, he assessed possible downstream effects of diverting water from Hanawi Stream in the area of the Big Spring. Cox, pp. 2, 3 (Exhibit DT-3).

40. William Meyer is the District Chief of the Water Resources Division, United States Geological Survey, Pacific Region.

41. The data and analyses available at this time are insufficient to determine which of the two opposing models of groundwater behavior best describes conditions in the Nahiku region for purposes of predicting effects of well pumpage. However, the two models concur in several significant ways.

42. Due to highly complex geological conditions, neither groundwater model is able to specifically predict the full impact of well pumping in terms of where all impacts would occur, or the expected magnitude of impact at any point along the streams in the region. Tr. II, p. 13.

43. Both groundwater models suggest that well pumping will have some impact on the flow of Big Spring into Hanawi Stream. Commission Staff Exhibit 2. However, neither model can conclude at this time that the impact would be of sufficiently large magnitude in relation to the normal flow of the stream at that point to be detectable.

44. In terms of predicting impacts on streams from well pumping, the only significant difference between the groundwater models is in whether any impact is possible above the elevation of the standing water level in the existing open well hole. This elevation, approximately 1,100 feet, corresponds approximately to the elevation of the Hana Highway in this area. The model presented by Doak Cox suggests that impacts can only occur on streams and springs at elevations lower than this elevation. The model presented by William Meyer suggests that impacts might occur on springs and streams both above and below this elevation. Commission Staff Exhibit 2.

45. Approximately 50 files with information on exploratory wells in the Nahiku area have been located which, if analyzed, might provide more evidence on which of the two opposing models of groundwater occurrence is most applicable in the Nahiku area. Tr. II, pp. 7, 12-13. However, a determination of the more applicable model would likely only answer the question of whether impacts might occur above the Hana Highway in addition to below the highway.

46. After pumping begins, the response time before there is any impact on flows of streams and springs might be anywhere from a few days to as long as ten years. Tr. II, p. 20. The uncertainty of how long it would take for impacts to result is due to uncertainty over the properties of rocks that exist between the well and the streams. Tr. II, p. 19.

47. Because pumping will be intermittent, the maximum possible impact on flows of streams and springs is related to the response time before any impact occurs. Tr. II, pp. 20-23.

48. Maui Pine's historical water usage over the last 15 years suggests that pumping of the Kuhiwa well would occur on approximately 43 days per year on average. In any single year, pumping of the well would occur for anywhere from 0 (zero) days to 100 days during the year. The historical usage data also suggest that continuous pumping (running the pump 24 hours per day) would not occur for more than 50 days consecutively. The greatest use would occur during dry years with low rainfall. Pyle, Exhibit T-2-D.

49. If the response time for an impact to occur is longer than the consecutive days of pumping, then the maximum possible impact on flows of streams and springs should be less than 1.0 MGD, the maximum pumping rate. If the response time is longer than several years, then the maximum possible impact should

approach (1.0 x 43/365) = 0.12 MGD, the average pumping rate. Tr. II, pp. 20-23.

50. The significance (and detectability) of a surface water flow reduction is related to the amount of flow which would otherwise occur. For example, a flow reduction of 0.25 MGD at the springs feeding the unnamed stream or perennial pools along Makapipi stream might cause that stream or the pools to go completely dry and be readily detectable. However, the same 0.25 MGD level of flow reduction at Big Spring would be extremely difficult to detect.

51. Given present information, it is not possible to predict the total impact on surface waters in the Nahiku region which would result from pumping of the Kuhiwa well. Tr. II, p. 13. At one extreme, the impact might be an undetectable loss of flow totalling less than 0.12 MGD. At the other extreme, it might be a highly detectable drying up of normally perennial small springs and streams, and have a total magnitude equal to the pump capacity, 1.0 MGD.

E. Determining Impacts on Instream Flows

52. The only method available to fully predict in advance actual streamflow depletion from pumping of the Kuhiwa well is through construction of a ground water model. Sufficient data

are not available to do this. The time and cost to obtain the data would be prohibitive. Meyer, May 2, 1991, p. 3.

53. Close monitoring of water levels in the well during pumping might answer the question of whether the impact would occur in the short-term or in the long-term, and hence whether the total magnitude of possible streamflow depletion would be closer to the short-term pumping rate, 1.0 MGD, or to the long-term average pumping rate, 0.12 MGD. Tr. II, pp. 23-24.

54. The most direct manner to determine the impact of pumping the Kuhiwa Well on nearby springs and streams is to pump the well and monitor for actual impacts. Id.

55. Any monitoring program requires baseline data on conditions prior to the onset of pumping.

56. It is probably not possible to design a monitoring program which would detect the total impact of well pumping on stream flows. Tr. II, p. 16.

57. Three approaches to monitoring for impacts on stream flows have been proposed to the Commission: a single-gage or observation point flow measurement approach; a paired-gage flow measurement approach; and a biological monitoring approach.

F. Single-Gage or Observation Point Monitoring Approach

58. A single-gage or observation point approach involves monitoring flow characteristics of streams and springs at specific points of interest, such as at Hanawi Stream below Big Spring and at perennial pools along Makapipi Stream and the unnamed stream.

59. Presently available baseline data for a single-gage or observation point approach include:

- 21 years of gaged streamflow records at (discontinued) USGS gage station 16509000, Hanawi Stream Below Government Road;

- more than 70 years of gaged streamflow records at (active) USGS gage station 16508000, Hanawi Stream near Nahiku, located 200 feet upstream from the Koolau ditch intake;

- testimony that the flow of Hanawi Stream at the pump station at Hana Highway rarely drops below 0.5 MGD, which occurs only once every several years and for a period of three or four days (Tr. I, pp. 30, 41, 78);

- testimony that certain pools never go dry along intermittent Makapipi Stream (Kahookele, p. 1, Bergau, p. 1);

- testimony that a pool in Lower Nahiku fed by the unnamed stream never goes dry, although the flow to the pool was lower than usual during a drought (Kahookele, p. 1, Bergau, p. 1, Behrens Statement of Fact, p. 1); and

- testimony that the unnamed stream never goes dry where it flows through the property owned by Dr. Behrens, and that the flow in the stream at that property during a low-flow period on May 24, 1991 was estimated to be approximately 3 gallons per second or 0.26 MGD (Tr. I, p. 156, Behrens Statement of Fact, p. 1).

60. Under a single-gage or observation point monitoring approach, streamflow records at gaged sites would be assessed in terms of low-flow frequency characteristics and/or by correlations with climatic data such as shown by Cox (April, 1980). Other locations with known flow characteristics as described above would be monitored by visual observation and/or spot flow measurements.

61. A single-gage or observation point approach would detect impacts which are of large magnitude relative to the base

flow of the stream or spring at the points being observed. For example, an impact of 1 MGD should be readily detectable at sites with a base flow of 2 MGD or less in the absence of pumping. Tr. I, pp. 143-145.

62. Except for Hanawi Stream below Big Spring, all the sites with gaged or visually determined baseline data described above are believed to have base flows of 2 MGD or less during low flow periods.

G. Paired-Gage Monitoring

63. A paired-gage monitoring approach would directly monitor the groundwater inflow to a reach of stream by constructing a gage at the upstream and downstream end of the reach. Under conditions of steady low flow, the groundwater inflow to the reach is the difference in streamflows between the two gages.

64. Baseline data are not presently available for the paired-gage approach. Collection of these baseline data would require operating each pair of stations for one year prior to pumping. Tr. I, pp. 151-152. Analysis of these data would involve determining the correlation between the flow in the stream and the groundwater inflow to the reach being assessed.

65. The paired-gage approach would not be appropriate for determining whether there is an impact on specific springs, such as on Big Spring, because individual springs represent a single point discharge of water. Tr. I, p. 134.

66. The paired gage approach would be required to identify impacts which are small relative to the base flow in the stream, and hence which require very accurate measurements. Tr. I, pp. 143-145.

67. Installing a new gaging station in the Nahiku area would likely involve an intensive effort due to difficult access. The installation cost for each new gaging station could be in the tens of thousands of dollars. Tr. I, pp. 137-138. Once established, the average cost for the USGS to collect and analyze the data from each gage would be approximately $6,500 per year per station. Tr. I, p. 133.

H. Biological Monitoring

68. A biological monitoring approach would directly monitor the habitat values and indigenous species in the streams potentially affected by pumping of the Kuhiwa well.

69. The biological monitoring approach would require baseline data collection prior to pumping. The U.S. Fish and Wildlife Service has suggested that two to seven months would be

required for baseline data collection, including site selection and replicates of pre-project conditions to develop a statistically valid baseline. Tr. II, pp. 43, 46.

70. The State Division of Aquatic Resources is presently engaged in setting up a statewide stream monitoring program which would provide long-term controls to determine whether aquatic variations observed by a consultant for the applicant on Hanawi or Makapipi Streams are consistent with variations elsewhere. Tr. II, p. 59.

I. Alternatives to Well Pumping

71. Maui Pine considered the alternative of constructing a water storage facility in central Maui as an alternative to withdrawing groundwater from the Kuhiwa Well. However, this alternative was rejected because expected costs in the order of $0.50 to $1.00 per gallon of reservoir capacity was not economically feasible for the company. Tr. I, pp. 28, 86-87.

72. Cost estimates developed by the County of Maui and State of Hawaii for water storage reservoirs in Kula, Maui vary between 7.6 and 20 cents per gallon of reservoir capacity. Petitioner's Motion to Supplement the Administrative Record, Exhibits "A" and "B".

II. CONCLUSIONS OF LAW

After fully reviewing the record, pleadings, and arguments of counsel in this case and based upon the foregoing Findings of Fact, the Commission makes the following Conclusions of Law.

1. The Commission has jurisdiction to consider and authorize pump installation permits to extract ground water pursuant to Hawaii Revised Statutes, chapter 174C and, more particularly, HRS §§ 174C-5, 174C-82, 174C-84, and 174C-86.

2. The Commission has jurisdiction to establish, revise, and require amendments to interim instream flow standards pursuant to Hawaii Revised Statutes, Chapter 174C and, more particularly, HRS §§ 174C-5 and 174C-71.

3. The proposed use of ground water for agricultural irrigation purposes is a recognized beneficial use under the Water Code. HRS § 174C-2(c).

4. While promoting maximum beneficial use of Hawaii's water resources, the Code also requires the Commission to make adequate provision for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of the waters of the State for municipal uses, public recreation, public water

supply, agricultural, and navigation all of which are in the public interest. HRS § 174C-2(c).

5. Maui Pine's proposed use of this water for continued agricultural irrigation will serve the broad public interest in several ways.

First, it will help to sustain a long established pineapple operation and enterprise by insuring a critically needed water source. This is in keeping with the State's declared goal of supporting a diversified agricultural economy (HRS § 226-7(a)(1) and (b)(6)) as well as the maintenance of open green spaces. HRS § 226-11, -12, and -13.

Second, a pump installation permit with appropriate conditions will allow the maximum beneficial use of the water while respecting and not compromising the protection of the resource, both ground and surface, or the other objectives of the Water Code.

Third, a biological and hydrological monitoring system as a condition to a permit could provide information which will guide future decisions and actions of the Commission in managing water resources in the Nahiku region, including the establishment of permanent instream flow standards.

Fourth, faced with inconclusive factual information, the Commission recognizes the need to establish a process to both proceed with a needed use while retaining jurisdiction to monitor and modify the use should subsequent data indicate any injury or harm. This balance may be modified over time as data becomes more accurate, the environment changes, or legal obligations impose different standards.

6. The Commission concludes that the proposed pumping could have some impact on stream flows in the vicinity of the well. However, the magnitude of such an impact remains uncertain. The record does not provide sufficient evidence to conclude that the proposed pumping would or would not harm the stream flows in question, or whether the impact would be greater than an insubstantial modification of the stream flow allowable under Hawaii Administrative Rules, § 13-169-36. However, if the actual impact of the proposed pumping is a de minimis loss of stream flow, the benefits that inure to the public from the proposed pumping outweigh such a minimal reduction.

7. The Commission concludes that approval of this pump installation permit is not inconsistent with the interim instream flow standards established by this Commission on June 15, 1988. Hawaii Administrative Rules, § 13-169-44. However, any detectable and not "insubstantial" reduction of instream flows would require Maui Pine to apply for and obtain an amendment to the interim instream flow standards under HRS § 174C-71 and

Hawaii Administrative Rules, Title 13, Chapter 169. That process would then weigh Maui Pine's proposed use on the basis of more conclusive data showing the magnitude of the reduction and the impact upon the biological environment and other protected interests.

8. The Commission is well satisfied that the concerns raised by the Intervenors may be resolved through the program of biological and hydrological monitoring and by the other conditions established in this Decision and Order. Moreover, the conditions imposed by this Order and by law will reasonably protect the interests asserted by the Intervenors both now and in the future.

9. The Commission concludes that by both proceeding with the pumping of the well and the collection of biological and hydrological data, the development of a permanent instream flow standard will be premised upon more complete data.

10. By retaining the involvement of the Intervenors in the process, their concerns will continue to be heard and analyzed.

11. By granting the permit, the hardship on Maui Pine that would ensue from denying the use of water for irrigation both in the short and longer terms is avoided.

12. Based upon the foregoing, the Commission concludes that the record of evidence and the applicable law warrant and justify the granting of the pump installation permit upon the terms and conditions stated in the accompanying Decision and Order.

13. Any Finding of Fact or Conclusion of Law by either Maui Pine or the Intervenors not specifically adopted by the Commission is hereby denied and rejected.

14. Any Conclusion of Law improperly deemed, construed, or designated as a Find of Fact shall be treated as a Conclusion of Law. Likewise, any Finding of Fact improperly deemed, construed, or designated a Conclusion of Law shall be treated as a Finding of Fact.

III. DECISION AND ORDER

Based on the foregoing Findings of Fact and Conclusions of Law, it is the Decision and Order of the Commission that the application of Maui Pineapple Company, Ltd., for a pump be and the same hereby is granted, subject to the following terms and conditions:

1. The applicant shall provide and maintain appropriate measurement devices in the Kuhiwa well to measure and record the water level in the well. The applicant shall also provide and maintain approved meters or other appropriate devices or means for measuring and reporting well pumpage on a continuous basis and total water usage on a monthly basis. In total, one meter shall record the pumpage from the well, a second meter shall record the pumpage from the Hanawi Pumping Station and a third meter shall record the amount of water taken from the irrigation ditch for pineapple irrigation.

2. The applicant shall submit a Well Completion Report to the Division of Water Resource Management within 30 days after the completion of the work.

3. The proposed use shall not adversely affect existing legal uses in the area, including instream uses and existing off-stream uses.

4. Use of water from the well shall be for pineapple irrigation only.

5. The maximum quantity of water to be pumped on an annual basis from the well and the existing Hanawi Stream Pumping Station combined shall not exceed the annual capacity for withdrawing water from the Hanawi Stream Pumping Station alone under past operating practice. This maximum annual quantity is approximately 180 million gallons per year, based on the 0.5 MGD capacity of the pumping station.

6. In order for the Commission to be able to determine whether the pumping of the Kuhiwa Well is causing a reduction in stream flows, a monitoring program shall be implemented by the Applicant.

7. To ensure that the monitoring program is effective and fair, a review panel shall be established which consists of five members: one person representing each of the involved parties, the Hana Community Association and Maui Pineapple Company, Ltd.; one person representing the Commission; a biologist from the State Division of Aquatic Resources; and, a hydrologist or hydrogeologist from the US Geological Survey. However, it would not be considered a violation of these permit conditions should either the Hana Community Association or US Geological Survey

decline to participate in the review panel. The review panel would meet on a regular basis as it considers appropriate to:

a. Assess the Applicant's compliance with the conditions of this permit.

b. Assess the data collected under the monitoring program, with particular attention to determining whether there is any evidence that pumping may be causing a reduction of stream flows.

c. Assess any additional data or analysis not specifically required by this permit which might be brought forward by any party to provide greater insight into predicting or determining the specific impacts of pumping the well.

d. Report its findings to the Commission.

8. The monitoring program to be implemented by the Applicant, and assessed by the review panel, shall include the following elements:

a. Before the commencement of well pumping, baseline biological surveys of the stream biota of Hanawi and Makapipi Streams shall be conducted, and one or more permanent monitoring sites shall be selected following

the findings of the baseline surveys. The protocol for said baseline biological surveys and selection of permanent monitoring sites shall meet the approval of the State Division of Aquatic Resources.

b. Before the commencement of well pumping, the USGS gaging station on Hanawi Stream below Big Spring shall be re-established with a continuous recording gage in a manner which meets the approval of the USGS. Low-flow stream discharge and water level measurements for the gage shall be made by the USGS.

c. Before the commencement of well pumping, a single gaging station consisting of an appropriate measuring device such as a standard "V-notch" weir and staff gage shall be established along the unnamed stream at TMK 1-2-01:14, by Maui Pine and the USGS in cooperation with the landowner, Michael Behrens. Should the landowner decline to cooperate, this condition would not apply.

d. Before the commencement of well pumping, the locations of perennial pools along Makapipi Stream and the unnamed stream shall be located in cooperation with the persons who testified to their perennial nature, and their characteristics documented to the extent possible. Should the persons who testified as to the

existence of perennial pools along these streams decline to cooperate, this condition would not apply.

e. Maui Pine shall notify or cause notice of the scheduled commencement of pumping date to be given to the Commission and to the Hana Community Association not less than seven days prior to the commencement of pumping.

f. The commencement of pumping shall be controlled as a pump test to determine well yield and drawdown characteristics. The protocol for the pump test shall be determined by the State Division of Water Resource Management in cooperation with the USGS.

g. After pumping has commenced, biological data shall be regularly collected from permanent monitoring sites established under element "a" above. The protocol for the biological monitoring shall meet the approval of the State Division of Aquatic Resources.

h. After pumping has commenced, data from the re-established USGS gaging station on Hanawi Stream below Big Spring shall be continuously collected and analyzed by the USGS.

i. After pumping has commenced, data from the unnamed stream shall be continuously collected and analyzed by the landowner at TMK 1-2-01:14, who shall allow for field verification of low-flow events by Maui Pine and other members of the review panel.

j. After pumping has commenced, perennial pools (if any) along Makapipi Stream and the unnamed stream shall be regularly inspected during low flow periods and their characteristics documented to the extent possible.

k. All biological, streamflow, and other data described above shall be collected at Maui Pine's expense for a period not to exceed 10 years. The duration of the monitoring program may be shortened by the Commission if data collected under conditions of extreme low flow and prolonged continuous pumping do not show any detectable impact on stream flows and biological habitat, if other evidence is brought forward which yields the same conclusion, or if Maui Pine terminates its use of water from the well.

l. All biological, streamflow, and other data described above, including total monthly water usage data, shall be provided to the Commission and to each member of the review panel on a timely basis after being collected.

9. Evidence to be considered by the review panel and the Commission that pumping may be causing a reduction in stream flows includes, but is not limited to:

a. The drying up of historically perennial pools and/or springs along Makapipi Stream or the unnamed stream.

b. The drying up or discernable depletion of the unnamed stream where it flows through TMK 1-2-01:14.

c. Record low flows at either of the two USGS gaging stations on Hanawi stream which are less than the record low flows recorded previously at those stations, and not attributable to extreme climatic conditions.

d. More frequent occurrence of low flows (a shift in the low-flow frequency characteristics) at either of the two USGS gaging stations on Hanawi Stream, and not attributable to climatic conditions.

e. A loss or reduction in aquatic habitat and/or native species as determined by the biological monitoring program.

10. If either the review panel or the Commission finds evidence that pumping of the Kuhiwa Well may be reducing the flow of either Makapipi Stream, Hanawi Stream, or the unnamed stream,

the Commission shall instruct the Applicant to cease pumping, pending a hearing, at which time the Commission shall consider whether said reduction in stream flow is: 1) due to pumping; and, 2) whether an amendment of the Interim Instream Flow Standards would be required before the Applicant could resume pumping.

11. Pumping shall cease immediately if evidence of possible pumping-related impacts is found and if this or other evidence suggests that the response time between start of pumping and impact on streams is six months or less. In particular, pumping shall cease immediately if any evidence of pumping-related impacts is found during the first year of pump operation.

12. If evidence of possible pumping-related impacts is found after the first year of operation and the response time between start of pumping and impact on streams is believed to be more than six months (in which case an immediate stop of pumping would not correspond to an immediate restoration of stream flows), pumping shall cease within six months of this evidence being found.

13. If the unnamed stream at TMK 1-2-01:14 were to go dry or be discernably depleted, the Applicant shall cease pumping in accordance with conditions 11 and 12 above, and, for the period it takes for normal stream flows to be restored, shall furthermore be responsible for providing sufficient water to the property to satisfy domestic needs, and reimburse the landowner

for crop damages and any other financial losses directly caused by the loss of water supply.

14. Total monthly water usage data shall be reported to the Commission on a regular basis.

15. The permit may be revoked if work is not started within six months of the date of issuance or if work is suspended or abandoned for six months. The work shall be completed within two years of the date of issuance.

16. This permit shall not be deemed to diminish or waive the rights granted under Hawaii Revised Statutes section 174C-63 to any person to apply for and receive a water use permit to exercise appurtenant water rights whether or not those appurtenant rights are currently being exercised.

17. The permittee's right to this permit or to withdraw water is subject to diminution and modification by the Commission on Water Resource Management or the courts of the State of Hawaii in order to protect the natural resource, to maintain instream flow standards, and to assure appurtenant rights, riparian and correlative rights and uses under Article XII, section 7 of the Hawaii State Constitution, HRS Chapter 174C, and the common law, and to assure to the Department of Hawaiian Home Lands those rights provided by section 221 of the Hawaiian Homes Commission

Act, whether such rights are or will require the actual withdrawal of water or not.

IT IS SO ORDERED.

DATED: Honolulu, Hawaii, October 2, 1991

COMMISSION ON WATER RESOURCE MANAGEMENT
STATE OF HAWAII

By: _____
WILLIAM W. PATY, Jr., Chairperson

_____
GUY K. FUJIMURA, Commissioner

_____
ROBERT S. NAKATA, Commissioner

_____
JOHN C. LEWIN, M.D.,
Ex-officio member

Approved as to form

_____
William M. Tam,
Deputy Attorney General

93.0 Neola Caveny

TO: Commission on Water Resource Management

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT

2009 NOV -2 PM 1:39

FROM: Neola Caveny

October 29, 2009

UPDATE ON STREAMFLOW CONDITIONS ON HANEHOI STREAM AS OF OCTOBER 2009 AND COMMENTS ON CWRM INSTREAM FLOW STANDARD ASSESSMENT REPORT OF SEPTEMBER 2008

In October 2008, during a site visit by personnel from the state Commission on Water Resource Management, a sluice gate at the Haiku ditch diversion on Hanehoi stream was opened by EMI personnel to a height of approximately 10 - 12 inches. Since that time, there has been a small increase in the frequency and volume of streamflow, as observed at the section of the stream which flows through my property (TMK 2-9-11-14, at the concrete bridge), but the stream is still dry and dusty most of the year. I understand that in February, EMI reduced the opening to approximately 6 inches, where it remains presently.

Rainfall data from the past 5 years, measured at the 420-foot elevation on the stream above my property by Ernest Schupp, has averaged between 84 inches and 98 inches a year, which historically has sustained substantial flow as recently as 15 years ago, according to statements of longtime residents which were submitted in 2005 as part of my testimony in the contested case hearing with HC&S to restore streamflow. The lowest rainfall usually occurs in the months of May and June.

Since the current amount of rainfall appears to be sufficient to have ensured substantial streamflow in the recent past, HC&S's complaints of a drought and lack of water in their system leading to a potential shutdown of their sugar operation appear to be a "manufactured emergency." The main reason there is a large drop in available water appears to be traceable to a major lack of maintenance of the EMI ditch system, in many cases going back decades.

The IFSAR on Hanehoi stream, of September 2008, states, "There have been few changes to the EMI system since the Wailoa Ditch was completed in 1923." To make that statement more accurate, the words "maintenance or repairs" should be added after "changes." As a hike leader for the Sierra Club and a 35-year resident of East Maui, I have seen firsthand many sections of the EMI ditch system, from Huelo to Nahiku, at every elevation. I have seen ancient pipes rusted through so badly that they are open to the air and spill their water over the ground, creating swamps. The flume system, in particular, is so old and in such disrepair that water flows freely through the rotted wood and into the gulches. It is impossible to walk on them any longer without falling through, which explains why they are never repaired.

If this infrastructure were repaired and maintained properly, the demands on Wailoa ditch would be reduced, as the other ditches would be able to deliver more water from their diversions. This would reduce the need for complete diversion at every point in the system, and restore substantial flow to these streams.

EMI's lease fees to the state for the use of state lands were last assessed in 2001. In what other business have costs remained at 2001 levels? We consumers are all certainly paying more for essentials such as gas, food, and utilities than we did eight years ago.

There is a discrepancy on figures of HC&S sources for their water. In the 1992 Water Use and Development Plan report, HC&S stated that **55%** of the water used came from surface sources (stream diversions) and **45%** from ground (wells). In the Findings of Fact, Conclusions of Law, and Decision and Order of 2007, HC&S stated that from 2002 to 2004 **71%** of its water came from surface sources and **29%** from "supplemental ground water" (wells). In that time period of ten to twelve years, why has reliance on stream water increased 16% if we are experiencing, as HC&S maintains, "a severe drought"? It would be more accurate to state that EMI and HC&S have a severe water management problem.

In a related issue, commenting on the one-week layoff of 88% of HC&S's employees in the December 13, 2008 edition of the Honolulu Star Bulletin, Willie Kennison, the head of the Maui division of the ILWU Local 142 stated, "We are concerned about the direction of the company. They have roughly the same amount of acreage, but crops have dropped every year and the yield has gone down drastically. Instead of using their pumps to properly irrigate their fields, they are selling too much electricity to Maui Electric." Is HC&S relying on more stream water now because they can make a profit selling their generated power to MECO, instead of using it to pump wells to supplement what they take from the streams, as they used to?

HC&S's water use figures are unsustainable, if they are accurate. During May to October, the period of lowest rainfall and therefore the highest demand, they state in the Findings of Fact of 2007 that 268 mgd are needed (6,254 to 7,831 gallons per day per acre of sugar). In recent public testimony to CWRM, a coffee farmer in Kula stated that he used approximately 2500 gallons per acre a day during the driest periods. Even taking into consideration the higher water demand of sugar, this difference in projected water use seems excessive. It seems that HC&S is claiming the need for more water because they cannot manage efficiently what they already have.

There is another unrealistic figure in HC&S's claim that they need an increased amount of water. In the list of breakdown of estimated usages of stream water in the 2009 Draft Stream Assessment Report, they have included 85,500 gallons a day used by "feral animals." What is the source of this information? Is it based on hunters' observations of the drinking habits of feral pigs and goats while on their hunting trips?

According to the 2009 Assessment, 65% of water in the EMI system originates on state-owned lands. This alone should trigger an Environmental Assessment report to discuss the impacts these diversions are having on the environment. In the Circuit Court Order of October 2003, reversing the January 2003 BLNR "Findings of Fact and Conclusions of Law and Order," it was stated that " legal precedent suggests that an EA should be required for issuance of a long-term lease, and perhaps an EIS depending upon the result of the EA." (page 107 of September 2008 IFSAR).

EMI's diversions may be technically "a previous action," but its system and usage has actually expanded in the past twenty years. There are now increased impacts to stream life, downstream residents, the ocean, and the watershed itself which need to be discussed, as well as EMI's ability to maintain the system. At the minimum, an EA should be required.

Hanehoi stream and the main streams that feed into it, Puolua and Huelo streams, have a total of nine EMI diversions, which divert nearly 100% of the streamflow by the time it reaches my property, even in times of average rainfall. All the diversions which use pipes to return water to the streams need to be better maintained, since the pipes are blocked by debris much of the time (see Ernest Schupp's comments to CWRM, October 2009). A better solution would be to replace the pipes with larger ones, which would not be blocked as easily. At the major Lowrie ditch diversion of the Hanehoi, the pipes should be eliminated and replaced with a spillway similar to the one in use at the Honopou stream diversion at the Lowrie ditch.

These three streams have a combined maximum divertible capacity to transport 68 mgd. It is likely much more of this capacity could be released into the streams if the EMI transportation system were repaired and then properly maintained, including upgrading the diversions themselves. There would then be enough stream water available for neighborhood use, both through the pipeline which has been the principal source of domestic water for the community since the 1920's, and directly, for taro and other agricultural uses. HC&S would receive all the water it needed to maintain its sugar operation – especially if it managed its usage more efficiently than it has in the past.

The final assessment report should include analyses of:

- Maintenance and repair of the EMI diversions and ditches, and their financial stability to do so in the future
- A reassessment of the water lease rates paid by A&B and EMI to the state
- Allocation of electricity generated by HC&S (percentage sold to MECO vs. that used to pump wells)
- The sources for HC&S's statements of water requirements for crops and other usages
- The need for an EA and/or EIS on the impact of the current amount of streamflow diversion on the environment, as well as on the residents of the area

Mahalo for all of the work which the CWRM personnel have done in the last several years, both in the field here in East Maui and in Honolulu. It is appreciated by all of us in East Maui who live with the streams as part of our home and look forward to seeing them return to a viable level.

Neola Caveny

445 Huelo Road
Haiku, Hi 96708
(808) 573-1451
neolacaveny@gmail.com

94.0 Maui Oil Company, Inc.
Alec McBarnet

MAUI OIL COMPANY, INC.
P.O. Box 66, Kahului, Hawaii 96733-6566
Phone: (808) 871-6220
Fax: (808) 871-7411

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT
2009 NOV -2 PM 1:39

October 30, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: In stream Flow Standard Assessment Reports

Commission on Water Resources

Dear Chair Thielen, and Members of the Commission:

My name is Alec McBarnet and I am president of Maui Oil Company, an independent distributor of Chevron products on Maui. I am concerned about the impacts of upcountry East Maui IIFS decisions and HC& S and agriculture as a whole on Maui.

Both my parents worked for HC&S and both my brother and I spent many summers working in the fields and in the mills as we were growing up. HC&S is a very important part in all our success on Maui.

The proper allocation of water is important and must benefit all of Maui including big and small companies. Their requirement of water to adequately raise cane is needed to compete in this global business. With enough water the harvest total per acre will allow HC&S to be profitable and continue its important contribution to Maui.

I appreciate your role in deciding Maui's future and ask for your consideration of HC&S's needs. Thank you.

Sincerely,

Alec McBarnet
President

Office: 16 Hobron Ave., Kahului, Maui, Hawaii 96732

95.0 Hale Makua Health Services, Tony Krieg

HALE MAKUA HEALTH SERVICES
472 Kaulana Street • Kahului, Hawaii 96732
P: 808.877.2761 • F: 808.871.9262
www.halemakua.org

October 28, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
Box 621
Honolulu, HI 96809

Re: In Stream Flow Standard Assessment Reports

Aloha Chair Thielen and Members of the Commission:

For the past 60 years, Hale Makua Health Services, a non profit organization, has provided health care services to the frail elderly and the disabled on Maui through our nursing homes and home health, rehabilitation, adult day health, and adult foster family case management programs.

I am concerned about the impact of your impending decision concerning streams on Maui and the perhaps-unintended consequences of the loss of irrigation water for Alexander & Baldwin's subsidiary HC&S.

Alexander & Baldwin's Maui businesses are focused on agriculture and transportation. A loss of water for off-stream users will have negative impacts on both Maui and HC&S. The loss of profitability for HC&S may have a serious impact on its business, employees and funding that is available to charities like ours.

A&B and its employees have been generous donors of land and funds to many charities on Maui including Hale Makua Health Services. We believe that A&B has demonstrated consistently that it has an enlightened interest in helping to support our community.

As you make your water allocation decisions, I urge you to consider the character and actions of this company, as demonstrated by its charitable and community support spanning many decades,

Sincerely,

Tony Krieg
C.E.O.

Cc: Alec McBarnet, Chairman
Hale Makua Health Services Board of Directors

96.0 Department of Hawaiian Home Lands, Kaulana H.R. Park

LINDA LINGLE
GOVERNOR
STATE OF HAWAI'I

KAULANA H. R. PARK
CHAIRMAN
HAWAIIAN HOMES COMMISSION

ANITA S. WONG
DEPUTY TO THE CHAIRMAN

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAI'I
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAI'I 96805

TESTIMONY

BEFORE THE

COMMISSION ON WATER RESOURCE MANAGEMENT
STATE OF HAWAII

ON

INSTREAM FLOW STANDAD ASSESSMENT REPORTS

BY

KAULANA H.R. PARK, CHAIRMAN
DEPARTMENT OF HAWAIIAN HOME LANDS
STATE OF HAWAII

OCTOBER 30, 2009

Chairperson Thielen and Members of the State Commission on Water Resource Management, mahalo for the opportunity to testify on the proposed East Maui Instream Flow Standard Assessment Reports.

The Department of Hawaiian Home Lands (DHHL) is affected by Commission decisions regarding the East Maui streams. Significantly, our core mission is affected, that is, our ability to develop and deliver land and homestead opportunities to native Hawaiian beneficiaries. DHHL has the following recommendations to offer:

1. Sufficient surface water be provided to support 800 additional residential units at Waiohuli with an estimated 720,000 gpd [600 gpd x 800 units = 480,000 gpd x 1.5 = 720,000 gpd];

2. Sufficient irrigation water be provided to support 75 acres of farmland at Keokea at an estimated 225,000 gpd [3000 gpd x 75 acres = 225,000 gpd];

3. Sufficient surface water be provided to cultivate an estimated 92 acres of farm land at Wailua and 57 acres of farm land at Keanae and to sustain native stream species to support unique native Hawaiian cultural practices; and

4. With the decline in sugarcane cultivation and related surface water uses, find an alternative source to fund DHHL's Native Hawaiian Rehabilitation Fund to support social, economic, political, cultural, and educational benefits for native Hawaiian individuals and communities.

Discussion

Surface Water for Domestic Uses

DHHL residential and farm developments at Waiohuli and Keokea are dependant on the County water system. The County water system uses about 12 mgd from the East Maui Irrigation System (fluctuates seasonally). Surface water from various sources is treated and combined with groundwater to supply Upcountry Maui which includes 676 residential lots at Waiohuli and 66 agricultural lots at Keokea.

DHHL's Maui Island Plan (adopted 2004) projects further development of 800 residential units in Waiohuli. The option of DHHL drilling wells onsite is very costly due to the high elevation, cost to pump water, and relatively low yields from the aquifer.

The County's Upcountry Maui Water Use and Development Plan shows continued reliance on surface water, gradual addition of new groundwater sources, and system storage and treatment improvements. This implies a continued reliance on East Maui streams as a source in the near term until more wells are drilled.

Under both scenarios, DHHL will continue to rely substantially on the County Department of Water Supply to provide sufficient potable water for its future homestead developments. To the

extent that East Maui streams supply Maui County, DHHL will also rely on these East Maui stream sources.

Surface Water for Agricultural Uses

DHHL recently completed its 66 lot Keokea Farm Lots subdivision. Currently, potable water at the farm subdivision will be limited to 600 gpd restricted to residential use. No irrigation water is available until the Upcountry Maui Watershed Project is completed and extended to Keokea. Both potable and irrigation water systems are dependant on East Maui streams. Homestead farm use of lower cost irrigation water will increase reliance on surface water sources such as East Maui streams.

DHHL acquired about 100 acres of farm land, including lo'I patches, in the watersheds of Wailuanui and Keanae in the past ten years. Part of the intent was to provide taro farming opportunities on Hawaiian home lands, not now available. Hawaiian home lands are typically located in dry areas without sufficient water. Water from these streams will be needed to make taro farming opportunities available to native Hawaiians. It is important that this basic and uniquely native Hawaiian cultural practice be supported. This is part of the process of rehabilitation outlined in the Hawaiian Homes Commission Act of 1920, as amended.

Native Hawaiian Rehabilitation Fund 30% of State Sugar & Water Receipts

DHHL receives 30% of sugarcane revenues from State lands and 30% of receipts from the sale of surface water derived from public lands (e.g. East Maui Irrigation). Total revenues in FY 2009 to DHHL were $289,000. These revenues are deposited into the Native Hawaiian Rehabilitation Fund for the benefit of native Hawaiian individuals and communities. Part of these receipts are derived from payment for use of East Maui Irrigation water.

DHHL receives revenues from the use of Hawaiian home lands at Puunene, Maui, for sugarcane cultivation under RP Nos. 332 and 334 covering about 686 acres for annual revenues of $65,000 (base rent). These revenues are deposited into the Operating Fund for DHHL staff and operating needs, as well as repayment of bond debt.

The reduction in sales of East Maui stream water for sugarcane purposes will reduce the amount of revenues earmarked for DHHL's

Native Hawaiian Rehabilitation Fund. The amount of revenue, however, is not significant compared to support of DHHL's homestead development mission.

Summary

Based on our review, it is recommended that sufficient water be allocated from East Maui streams to support future development of Hawaiian home lands for residential purposes at Waiohuli, irrigation purposes at Keokea, and to open new farm and taro land at Wailuanui and Keanae. It is critical that the State Commission on Water Resource Management support DHHL's core mission to settle native Hawaiians on land set aside for their use and occupancy by the U.S. Congress in 1920 and as confirmed in the State Admission Act and State Constitution.

I appreciate the opportunity to provide comments on this very important matter. If you have any questions, please contact Darrell Yagodich of our Planning Office at 620-9481.

KAULANA H.R. PARK, CHAIRMAN
HAWAIIAN HOMES COMMISSION

10/30/09
DATE

97.0 A Keiki's Dream, Darby Gill

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COMMISSION ON WATER
RESOURCE MANAGEMENT

2009 NOV -4 AM 10: 12

October 29, 2009

Commission on Water Resource Management
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

Re: In Stream Flow Standard Assessment Reports

A Keiki's Dream (AKD) provides a "dream come true" for children who face a crisis and who live full time in Maui County. We have operated on Maui since 1978. Being in the business of fulfilling dreams for the neediest children in our community, it is only natural that we have "angels" supporting us in fulfilling our mission. Among our biggest supporter are the "angels" of Alexander & Baldwin's Maui businesses who have done so much to make our program possible for the neediest children in Maui County.

I am very concerned about the impact of your upcoming decision concerning streams on Maui and how it will affect this Maui community resource and its operations. Clearly, an adverse decision will negatively affect Alexander and Baldwin, its subsidiary, HC & S, and its employees. Such a decision would also greatly affect our community in many other ways - directly and indirectly. The loss of jobs and its impact on our local economy is just one obvious result. With so many more people out of work this will strain the ability of our social service network to support even more needy children and families. Finally, Alexander and Baldwin's historical and generous support of the non-profit sector on Maui cannot help but to be negatively effected. There will be a much greater trickle down effect in our community with an unfavorable decision.

I ask that you consider the impact of an adverse decision would have on all segments of our community. Please consider this as part of the decision making process and find a way to stand up for people throughout our community who work for or benefit from all that Alexander & Baldwin's Maui businesses generously do to support our community.

Sincerely,

Darby Gill

Darby Gill
Executive Director

A Program of the Fun Day Foundation
www.akeikisdream.org
Ph/Fax (808) 242-8476
95 Mahalani Street, Suite 24, Wailuku, Hawaii 96793
Email: info@akeikisdream.org

98.0 Maui Economic Opportunity, Inc., Sandy Baz

Maui Economic Opportunity, Inc.

P.O. Box 2122
Kahului, HI 96733
808-249-2990
Fax: 808-249-2991
www.meoinc.org

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT
2009 NOV -4 AM 10: 14

October 30, 2009

Chair Cynthia Theilen
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Aloha Chair Thielen and Commission members:

Through vision, hard work, and attentiveness to the needs of our community, Maui Economic Opportunity has successfully embarked on numerous initiatives over the past 44 years to battle against the causes and impacts of poverty in Maui County. At MEO, we have always believed that, by understanding and addressing the needs of Maui's low and moderate income community, we make our County a more livable, humane, and pleasant place for the entire community.

The decision that is before your commission on in-stream flow standards is one that is critical and will have long-lasting impacts to so much of what Maui is about. The central valley of our island is prosperous and green due largely to the surface water ditch system in Wailuku along the West Maui Mountains that utilizes water from the streams of Na Wai 'Eha. This water is currently made available for agricultural, businesses and residents alike in the Central Maui area.

While we recognize the significant importance of in-stream flow to the health of the wildlife and traditional farming practices, a balance needs to be set. At this point, the water from these streams represents the single most viable and feasible means by which water is provided to sustain our economy and the environment of Maui. Without enough surface water existing businesses such as HC&S would cease operations. This could have a detrimental and catastrophic affect on Maui.

As one of Maui's largest employers they also drive much of Maui's economy. Clearly, MEO's job of fighting poverty would continue to be more and more difficult. Many of our programs and services are dedicated to helping people help themselves, giving them a hand-up.

Also, Alexander & Baldwin, Inc. and its subsidiaries like HC&S and employees have generously donated land and money to many Hawaii nonprofits including MEO. They continually support the community through volunteerism as well. The management and employees give of their time to sit on nonprofit boards, help in cleanup activities and even give blood.

Your determination of in-stream flow standards will impact this island and its residents. I humbly ask that you consider all the effects such a decision will have and urge you to keep a balance of uses of our precious stream water.

'O wau iho no me ka ha'aha'a,

Sandy Baz
CEO

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Community Action changes people's lives, embodies the spirit of hope, improves communities, and makes America a better place to live. We care about the entire community, and we are dedicated to helping people help themselves and each other.

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99.0 Stan Kum, Inc., Stan Kum

Stan Kum inc
P. O. Box 22713
Honolulu, Hawaii 96823
Phone: (808) 538-6348
Fax: (808) 521-2262
slkum@aol.com

RECEIVED
COMMISSION ON WATER
RESOURCE MANAGEMENT
2009 NOV -4 PM 12: 22

30 October 2009

TO **CHAIR THIELEN and COMMISSION MEMBERS**
Commission on Water Resource Management
Dept of Land and Natural Resources
PO Box 621
Honolulu HI 96809

RE **Instream Flow Standard Assessment Reports**

Your decisions on the EAST MAUI IIFS
Will have major impacts on HC&S and agriculture in Maui

STAN KUM inc has serviced HC&S for more than 30 years
Supplying goods and services for their fields and factorys
If HC&S's viability is reduced "STAN KUM inc will be required to close"
HC&S provides many "small companies" like mine to survive and exist

Please consider the impact of your decision
We are part of the Maui Community and the "Economy of Hawaii"

Mahalo

S. S. Kum

Stan Kum
Slk/md