

MINUTES
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: December 16, 2009
TIME: 10:00 a.m.
PLACE: Paia Community Center
Paia, Maui

Chair Laura Thielen called the meeting of the Commission on Water Resource Management to order at 10:03 a.m.

The following were in attendance and/or excused:

MEMBERS: Ms. Laura Thielen, Dr. Chiyome Fukino Dr. Lawrence Miike, Mr. Neal Fujiwara, Mr. Sumner Erdman, Mr. William Balfour, Jr.

STAFF: Deputy Ken Kawahara, Ed Sakoda, Dean Uyeno, Chui Ling Cheng, Diane England

EXCUSED: Ms. Donna Kiyosaki

COUNSEL: Linda Chow, Esq.

OTHERS: Charles Kau Maalea; Heather K. Ganancial; Stephen Gingerich (USGS); Emily Sullivan (Akaku); Jane Lovell (County of Maui, Dept. of the Corporation Counsel); Brian Kau (HDOA); Linda Howe; Claire Gibo (Realtor); Bill Kauakea Medeiros (Maui county Council Member, East Maui); Patrick Simmons (Peahi); Jeff Pearson (ML& P); Brian Mofo (CIM-Corp. Counsel); Michael Couich ; Iheki Keahi; Jill Richards; Moses Kapan (DHHL); Benjamin Pahukoa (NaMoku Aupuni O Kooluu Hui); Dick Mayer (Howard Davis); Skippy Hau; Robin Fernandez (HC&S); Fed Kuhia; John W. Galacia (HC&S); Nancy Fishi (HC&S); Glynnis Nakai (USFWS, Maui NWR complex); Doug Joug; Kolea Schonwalter; H.G. Chestnut; Richard English; Jonah Jacintho; Federick Ponu (HC&S); Wesley Kalariano (HC&S); Janice Hill; Wyonette Walle ; Lezley Jacintho; Eileen Carvalho, Dan Polhemus, Administrator for DLNR Division of Aquatic Resources

TESTIFIERS: Dr. Jim Anthony (Hawaii-Laieikawai Assoc. Inc.); Sean Lester; John Blumer Buell (Hana Community Assoc.); Walter Ritte (Hui Hoopakele Aina); Sean Loa (American Machinery); Camille Kalana (NHIC); Lyn Scott; Kevin K. Walle; Raymond Kapani; Majorie Walle; Jacob R. Mau (Na Kupuna O Maui); Chris Benjamin (HC&S), Charlie Maxwell; Sandra Kunimoto (HDOA); Mike Ribao (MECO); Jonathan Starr; Willie Kennison (ILWU); Guy Fujimura (ILWU); Kimokeo Kapahulehua; Warren Watanabe (Maui County Farm Bureau); Grant Arnold (OHA); Jason Jeremiah (OHA); Sheldon Biga; Dean Okimoto (Hawaii Farm Bureau Fed.); Brian McCafferty (Teens on Call); Kelii Taua;

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Sandy Baz (MEO); Janet Ashman; Elaine Wender; Michael Howden (Chair, Maui Board of Water Supply); Daniel Kanahale; Jan Yagi Buen; Yolanda Dizon (HC&S); Darla Palmer (Sugar Museum); Tony Kreig (Hale Makua); Harry Cambra (HC&S); Mike Jensen (HC& S); Joe Pueshcel (Hawthorne Pacific); Rodney Chin (HC&S); Tom Cook; Esther Bugtong (HC&S); Robert Luuwai (HC&S); Steve Onaga (HC&S); Mark Beers; Kawewehi Pundyke; Joycelynn Costa; Doug MacCluer (Farm Bureau); Victor C. Pellegrino; Alex Davis; Jimmy Haynes; Sean OKeefe (HC&S); Hokua Pellegrino; Kapali Keahi; Victor Kosatchkow; Rob Parsons; Lloyd Taguchi; Keith Pocock; Clyde Anakalea; Jennifer McDonald; Darrell Yagodich (DHHL); Derek Heafey (HC&S); Bruce Wu; Koa Martin (HC&S); Dick Mayer; Wili Wood; Vicki Shertell; Fred Kuhia; Raynette Matsuoka; Scott Lewis; Glenda Mawae; Pete Sayer; Irene Bowie (Maui Tomorrow); Doug Sheehan; Gaylord Kuboto (Sugar Museum); Gerard Cambra (HC&S); Tehani Biga (HC&S); Stephen West; Richard McCarty; Mayor Tavares; Robin Knox (Aquanimity Now); Ivan Navarez (HC&S); Roland Perreira (HC&S), Adam Trevino (HC&S); Elle Cochran; Randall Moore (HC&S), Keith Watimer (HC&S); Amanda Martin (Na Moku); Foster Ampong; Wes Bissen; Adreil Tanaka; Leonard Pagan; Jared Carvalho Cambra; Carol Reimann; John Oliver; Mahealani & Ventura Oliver; Kainoa Kaauamo; Kaliko Lems; Benjamin Pahukoa; Janet Yagi Buen; Aric Nakashima (Puaklani Superette); Alex Frances (Maui Cattle Co.); Lee Jekeway (HC&S); Doug Jones; Rosemary Robbins; Yolanda Dizon; Albert Dizon; Kari Luna (Hawaii State Democratic Party); Christina Hemming; Damien Carbauet; Ely Natividad (HC&S); Pam Tumpap (Chamber); Beatric Kekahuna; Roland Perreira; Rodney Ohiu (HC&S); Benny Ramos; Hannah Bernard (Hawaii Wildlife Fund); Charles Jennings; Megan Powers; Diana Loomis Dahl; H. Gary Chestnut; Richard English; Jonah Jacintho; Bob Roggasch; Third Order Franciscan Christopher Fishkin; Jeff Eng (Dept. of Water Supply, Maui); Nikhilawanda; Leilani Miranda; Hannh Kaauamo; Wesley Bissa; Tony Krieg (Hale Makua); Lucienne deNaie (Sierra Club Maui); Daniel Grantham; Mark Sheehan; Patrick Simmons; Nelson Armitage; Guy Kiahia; Steve Slater; John Umeno (HC&S); Bruce Devenow (HC&S); Solomon Kaauamo; Noe Kaauamo; Scott Lewis (HC&S /Hawthorne CAT); Craig Rasmussen (Paradise Flower Farms Inc.); Bruce Uu; Anastasia Kniatt; Albert Young; Jason Medriro; John Brooks; Rick Volner (HC&S); Kelly Ruidas (HC&S); Tia Chistinsen (StiTV); Harold Keyser (DTAHR); Kenneth Okumura (Okumura Farm); Ivan Lay (Hawaii Carpenters Union); Bruce Mir; Camille Kalama; Meghan Powers; Clave Apana; Johanna Kamaunu

(Note: language for deletion is ~~strikethrough~~; new/added is underlined and/or italicized.)

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

Chair Thielen gave a brief overview and the timetable, and explained that the Commission staff would be presenting to the Commission with the interim instream flow standards (interim IFS) recommendations for 19 of the east Maui streams. She reminded those people that were at the 2008 September Commission meeting that the Commission made the decision on eight (8) of the east Maui streams, and that this presentation and meeting would not address those eight (8) streams. She added that the decision on those eight (8) streams would remain. However, staff could be providing updates to the Commission and the public could discuss with the staff during breaks about the status of the implementation of streamflow restoration to those eight (8) streams.

Chair Thielen noted some people wanted to get right into the public testimony; however, the Commission must hear the staff recommendation and ask them questions. The agenda was posted to start the meeting at 10:00 a.m. with the staff submittal and recommendations, followed by question and answer period. The public testimony would not begin before 1:00 p.m. and that testifiers may leave and return at that time. Chair Thielen encouraged testifiers to stay so they may understand the details of the staff recommendation, and warned that the presentation may be a couple of hours with a break for the Commissioners to have lunch.

Chair Thielen introduced the Commissioners.

A. APPROVAL OF MINUTES

1. November 18, 2009

MOTION: (Miike/Erdman)

To approve the minutes.

UNANIMOUSLY APPROVED.

B. ANNOUNCEMENTS

Commissioner Erdman submitted for the records and read his statement:

“Dear fellow Commission members, after discussing my participation and the eventual voting on the recommendation by the staff, I believe that it is in the best interest of this Commission that I remove myself from these deliberations, testimony and voting. Furthermore, being that any abnormal body language or non-verbal actions could be construed as an attempt by myself to influence a decision one way or another, I have decided that it is best that I also leave the premises during all discussion, testimony and deliberations.”

Chair Thielen stated that Commissioner Erdman recused himself from the meeting.

Deputy Ken Kawahara shared a resolution that Branch Chief Ed Sakoda, would be retiring at the end of the year. Mr. Sakoda started in 1977 as a geologist with the Department of Land and Natural Resources and rose through the ranks to his present position which is chief of the Stream Protection and Management (SPAM) Branch and thanked him for his years of service.

C. STREAM PROTECTION AND MANAGEMENT

1. **Petitions to Amend the Interim Instream Flow Standards For the Surface Water 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), Maui**

Presentation by: Stream Protection and Management Branch (SPAM)

Deputy Ken Kawahara introduced Ed Sakoda, Dean Uyeno, Chui Ling Cheng and the newest SPAM member, geologist Diane England. Deputy Kawahara thanked all other agencies who provided comments and data, and for their help and support. He also thanked the people who took staff around to site visits and helped gather information. Deputy Kawahara provided a brief outline of the staff presentation, which included: 1) a brief update on the status on the first five (5) hydrologic units for the eight (8) streams; 2) planned next steps for those eight (8) streams; and 3) summary of the staff submittal and recommendations for the remaining 16 hydrologic units. The recommendations were developed in consideration with last year's Commission decision in the attempt to factor in the various needs from the diverse community in Maui.

Deputy Kawahara recapped that the first five (5) hydrologic units comprised of eight (8) streams and the remaining 16 hydrologic units comprised of 19 streams. He emphasized that the staff recommendation was specific to the 19 streams and should not be interpreted to set precedence on other decisions regarding streams in the future, especially on Maui. The staff used the best available data that could be gathered and evaluated, and would provide greater detail on the reasons for focusing specifically on these 19 streams.

Deputy Kawahara wanted to reiterate something that Chair Thielen mentioned at the October 15 public fact gathering meeting in Paia. He quoted, "there are really no bad uses for this water. If everyone can work together, it is possible to seek a balance of the needs of both instream and off-stream uses."

Dean Uyeno gave a brief overview and outlined the background, implementation update, overview of the interim Instream Flow Standards (IFS) process being followed, issues and analysis, instream uses, assessment summary, and presented the interim IFS values and the adaptive management strategies for the first eight (8) petitions.

Mr. Uyeno recapped that in the September 2008 Commission meeting, the Commission was presented with recommendations for the eight (8) stream petitions and five (5) surface water hydrologic units that included Honopou, Hanehoi, Piinaau, Waiokamilo and Wailuanui. At that time, the Commission approved staff recommendations to set interim IFS values at specific locations within the five (5) units. In some cases, staff determined that the numerical flow standard could not be adequately determined or was not necessary, such as the case with Piinaau Stream and Kualani Stream. However for most cases, meeting the interim IFS required the release of water past stream diversions upstream of the interim IFS sites as in the case of Honopou, Hanehoi, Palauhulu, and Wailuanui. In the case of Waiokamilo, East Maui Irrigation (EMI) had shut all the diversions.

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Mr. Uyeno noted that the Commission added three (3) amendments to last year's staff recommendations. They were: 1) moving forward on the first eight (8) petitions was the first step in an integrated approach to addressing all 27 stream petitions; 2) the staff should provide to the Commission regular updates on the implementation of the established interim IFS (Staff have been reporting updates over the last year and will continue to maintain the Commission website with various instream related activities); and 3) the staff and the public should monitor streamflow and wherever water was returned to losing reaches. All staff site visits have been posted on the Commission website.

Immediately following the Commission's decision last September, staff began conducting site visits, including a total of nine (9) field trips and 72 individual field investigations. Restoration actions were taken at the Haiku and Lowrie-Side Ditches on Honopou Stream; at the Haiku Ditch on Hanehoi and Puolua Streams; and at Koolau Ditch on Palauhulu and Wailuanui Streams. These actions generally involve the opening of bypass sluice gates to allow water to continue to flow past the diversions.

Most recently, U.S. Geological Survey (USGS) installed staff gages at five (5) sites; two (2) on Honopou Stream, one (1) on Hanehoi, one (1) on Palauhulu, and one (1) on Wailuanui. In regards to next steps, USGS would continue to collect streamflow data at the five (5) gage sites and develop rating curves for each gage. These rating curves would be used to accurately determine streamflow based on the measured gage height. Staff would continue its evaluation on interim IFS values as implementation and monitoring efforts continue. Staff would also focus on restoration at the upstream diversions on Honopou and Hanehoi Streams. The impact of restoration would need to be evaluated from a hydrologic and biological perspective, with help from the Division of Aquatic Resources (DAR).

Ed Sakoda explained that the Commission is required to balance various needs regarding the interim IFS. Those needs were highlighted in what the staff commonly referred to as the chart with the red and blue boxes. The Water Code does not mention hydrology; however, is it one of the key elements for determining IFS. Mr. Sakoda stated that the Commission shall weigh the importance of the present and potential instream values, the present and potential uses of water for noninstream purposes, and the economic impact of restricting such uses.

The interim IFS process as modified by the Commission was shown on the presentation. Staff evaluated the various needs for the streams and compiled the information into instream flow standards assessment reports (IFSAR). These reports were sent out to different agencies for public comments. Staff also held a public fact gathering meeting in October, compiled the information gathered at the meeting, and prepared the recommendation.

Issues and Analysis: Chui Ling Cheng discussed some of the values of having water in the stream. Those values included recreation (waterfalls, swimming holes, hiking), traditional gathering of the oopu, opae and other stream animals, and cultural value of taro cultivation.

Ms. Cheng provided a map of the remaining 16 hydrologic units and explained that only Ohia (Waianu) has active taro cultivation out of the 16 units. In contrast, substantial taro cultivation exists in the hydrologic units of Honopou, Hanehoi, Piinaau, Wailuanui, and Waiokamilo.

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Ms. Cheng discussed other instream uses, including the restoration and maintenance of stream habitats. Most of the diversions capture a majority of the baseflow, leaving the stream dry. As a result, these animals are restricted to living in disconnected pools of water from not having continuous streamflow. In addition, these animals are also not able to migrate up the dry reach.

Ms. Cheng explained that contrary to the previous five (5) hydrologic units, water from these 16 hydrologic units is mostly used for agricultural and domestic purposes. The two (2) largest diversion systems in east Maui include the Maui Department of Water Supply (Maui DWS) Upcountry System and the EMI System. The Maui DWS Upcountry System consists of the Upper Waikamoi Flume which is served by the Olinda water treatment facility (WTF), and the Lower Kula System which is served by the Piiholo WTF. The Makawao System is served by the Kamole Weir WTF and it is the only system that Maui DWS does not divert the water from the stream itself but instead, the main water supply is from EMI's Koolau/Wailoa Ditch. The EMI System diverts water from Makapipi Stream to Maliko Gulch. The main ditches of the EMI System are Koolau Ditch or Wailoa Ditch, Spreckels Ditch, New Hamakua, Lowrie Ditch and the Haiku Ditch.

Ms. Cheng presented a diagram illustrating the users in the Maui DWS Upcountry System and the EMI System. The diagram also illustrated how the two systems are interconnected. The main uses in the Upper and Lower Kula community, and the Ulupalakua-Kanaio regions are for domestic and agricultural purposes. As for the Makawao System, the major users are the Haliimaile, Makawao, and Pukalani regions. The Kamole Weir WTF also serves as a backup for the Haiku region for their domestic needs. The major users of the EMI System are Hawaiian Commercial & Sugar Company (HC&S), Maui DWS, and Maui Land and Pine (MLP).

Ms. Cheng reviewed the average water uses of the Maui DWS and EMI Systems. The total average water use of the Maui DWS System is 5.7 million gallons per day (mgd). As for the EMI System, the biggest water user is HC&S and it is using 166.4 mgd. Ms. Cheng pointed out this figure was a correction to the submittal (page 11, HC&S 201 mgd) and the total average water use is 177.9 mgd.

Table 5. Average water use of the EMI System.

[mgd = million gallons per day]

Water Users	Average use (mgd)
Hawaiian Commercial & Sugar Company	201 166.4
Maui Land & Pineapple Company	4.4
Maui County DWS (includes Kula Agricultural Park)	7.1
Total Water Use	212.5 177.9

Ms. Cheng explained that averages could be misleading and presented a graph with a 30-day moving average of a ditch flow in the EMI System. Averages may commonly be thought of as the amount of water that is available in the ditch at all times. That is not true because ditch flow varies every day. It can go as low as 20 mgd (minimum) or as high as 317 mgd (maximum).

Since HC&S is the largest user of the water delivered in the EMI system, Ms. Cheng touched upon the economic impacts of limiting the water supply to HC&S and also highlighted the economic impacts of limiting water supply to Maui DWS. A more detailed explanation is included in the submittal. She stressed that less water available in the Upper and Lower Kula Systems means higher power costs because Maui DWS would need to pump water from the Kamole Weir WTF to supplement the Upper and Lower Kula Systems.

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Ms. Cheng listed some of the other users which divert water directly from the stream that may also be impacted by setting interim IFS. These users included Haleakala Ranch which diverts from Honomanu Stream; MLP which diverts from Hanawi Stream; State Parks which diverts from Haipuaena and Waiohue Streams; and other private individuals that divert from Wahinepee, Ohia, and Makapipi Streams.

Ms. Cheng discussed the concept of gaining and losing reaches as it complicates streamflow, and it also explains why some parts of the stream have flow and other parts are dry. When the water table intersects the stream bed, the stream is gaining; meaning water is seeping into the stream. The stream is losing when the water table is below the streambed and the water is being lost or infiltrated into the ground. During a rainfall event, water level in the stream rises. In the losing section of the stream, rain water infiltrates into the ground to recharge ground water. With adequate rainfall, the water table is high enough to return baseflow to the stream. During the drier periods, the rainfall component of streamflow disappears and streamflow is again maintained by baseflow. Ms. Cheng stressed that flow restoration was not analogous to turning on a faucet. In flow restoration, there may not be continuous flow from the point of release to the ocean because of these losing reaches. Once the restored flow reaches the losing reach, the water may infiltrate into the ground and the stream would remain relatively dry.

Ms. Cheng presented an overview of the hydrology of the 19 east Maui streams. Additional information is included in Table 6 (page 15) in the staff submittal. The streams east of Keanae Valley, starting from West Wailuaiki, are mostly gaining streams because of ground water input from springs. One exception was Makapipi Stream due to the limited information available for that stream. The only information on Makapipi Stream was the presence of a dry reach below Koolau Ditch. Ohia has spring in the headwaters but loses water all the way to the ocean. Honomanu Stream has a spring near the mouth of the stream which maintains the estuary.

Ms. Cheng presented an overview of the instream uses for the 16 hydrologic units. Additional information is included in Table 6 (page 15) in the staff submittal. Since the streams east of Keanae Valley are mostly gaining streams, the biological rating (on a scale of 0-10) are generally higher (above a rating of 5) with the exception of Kapaula Stream. This stream has a biological rating of 4 because of the presence of a terminal waterfall which restricts some of the animals from climbing upstream. In addition, there are a series of cascading waterfalls leading to the mouth which also restricts upstream migration of native biota. For the streams west of Keanae Valley from Waikamoi to Ohia, the biological rating is generally lower with the exception of Honomanu and Nuaailua because of the presence of an estuary in both streams. Honomanu has springs near the mouth of the stream that supports the estuary, where most of the biota can be found. Ms. Cheng added that West Wailuaiki, East Wailuaiki, and Hanawi have the potential to generate hydropower. In regards to the cultural value of taro cultivation, only Ohia and Makapipi are reported to have that value.

Ms. Cheng presented an overview of the noninstream uses for the 16 hydrologic units. Streams east of Keanae Valley are only diverted by EMI's Koolau Ditch. Both EMI and Maui DWS divert from Waikamoi, Puohokamoa, Haipuaena, and Honomanu Streams. Ohia Stream is the only stream of these 19 streams that is not diverted by either EMI or Maui DWS.

Proposed Interim IFS Values: Dean Uyeno stated that based on their assessment of hydrology, instream uses and noninstream uses, staff has made recommendations on each of the 19 IFS petitions. Mr. Uyeno stated that there are two editorial changes that apply to recommendations in the submittal. The first is in the Waikamoi recommendation in which staff recommends that

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measureable IFS be established with “no modification to existing diversions” on Waikamoi and Alo Streams” (page 48, 2nd paragraph, 2nd line). The phrase “no modification to existing diversions” should be added to all interim IFS recommendations with the exception of Makapipi Stream. The second change pertains to the locations of the proposed interim IFS along Hana Highway. Staff attempted to identify these locations in relation to the highway based on a single site visit; however staff realized that the location may change as more field investigations are conducted, so whenever the recommendation refers to “just above, at, or just below Hana Highway” (page 48, 4th paragraph, 3rd line) should be changed to “near Hana Highway”.

Mr. Uyeno commented that staff stands by the recommendations that are presented in the submittal. In the interest of time, staff only presented the values of the interim IFS as indicated below:

Waikamoi/Alo	0.2 cfs	East Wailuaiki	0.2 cfs
Wahinapee	0.5 cfs	Kopiliula	0.5 cfs
Puohokamoa	0.4 cfs	Puakaa	0.6 cfs
Haipuaena	0.1 cfs	Waiohue	0.8 cfs
Punalau/Kolea	2.1 cfs	Paakea	3.2 cfs
Honomanu	0.0 cfs	Waiaaka	0.6 cfs
Nuaailua	0.3 cfs	Kapaula	2.0 cfs
Ohia	4.6 cfs	Hanawi	17 cfs
West Wailuaiki	0.2 cfs	Makapipi	0.93 cfs

Staff explained the schematic diagram for Makapipi Stream (page 46) and noted that the schematics for all the streams are included in the submittal. Mr. Uyeno said that Makapipi Stream marks the start of the EMI system. The stream has two (2) inactive USGS gaging stations (illustrated by the yellow boxes), one (1) just above Hana Highway and the other above the confluence. Long-term statistics are indicated next to each gage. Makapipi Stream also has many springs as denoted by the squiggly lines. USGS acknowledges that Makapipi Stream is a losing intermittent stream. Mr. Uyeno said this was observed in the November staff site visit. Staff recommended (page 54) an estimated interim IFS of 0.93 cubic feet per second (cfs) or 0.6 mgd. Correction to page 54, Proposed Interim IFS: The interim IFS below all EMI diversions and just above and near Hana Highway, near an altitude of 935 feet, shall be established at an estimated flow of 0.93 cfs (~~0.32~~ 0.6 mgd).

Dean Uyeno also noted a correction to page 11, Table 5. See page 6.

Due to the uncertainty of existing hydrologic conditions in Makapipi Stream, the interim IFS would be subject to a conditional release of water by EMI and monitored by staff. Should an estimated flow of 0.93 cfs be unattainable, the interim IFS may be revised by a future Commission action.

Adaptive Management Strategies: The first step of adaptive management is to establish objectives which is essentially setting interim IFS and identifying strategies. The next steps would be management of these strategies, monitoring the effectiveness, evaluating the results, and then revise the management strategies as needed. Staff would go back and implement the revised management strategies and continue to monitor and evaluate.

Hydrologic Unit-Specific Management Strategies: Dean Uyeno said staff is proposing for Waikamoi, Puohokamoa, Haipuaena, and Punalau Streams, that Maui DWS in coordination with Commission staff shall work towards system improvements of the Upper and Lower Kula Systems

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to reduce system inefficiencies and waste that is currently occurring. A considerable concern is the loss of water from the wooden Upper Waikamoi Flume.

For Hanawi Stream, staff shall seek to meet with MLP officials to determine the disposition of surface water diversions and ground water wells. This is in response to the recent announcement that MLP will end pineapple production on Maui. Of particular concern is the Nahiku pump on Hanawi Stream and Kuhiwa well adjacent to Makapipi Stream.

For Makapipi Stream, staff recommends that EMI in coordination with Commission staff allow water to bypass the Makapipi stream diversion to determine the attainability of the proposed interim IFS. Adjustment to ground water development tunnels would not be required.

General Recommendations: Mr. Uyeno said the following general recommendations apply to all 16 hydrologic units: 1) Staff shall seek to enforce the provisions of the State Water Code should any unauthorized, non-registered or non-permitted diversions be discovered in the course of its fieldwork. Staff recommends that all owners of unauthorized diversion work structures contact staff to file the necessary applications to seek compliance with all permitting requirements set forth by the Code; 2) Staff shall continue to coordinate with EMI to identify and determine appropriate actions with regard to attaining the proposed interim IFS values downstream of existing diversion structures; 3) Staff shall continue to assess existing conditions and the status of all EMI diversions in coordination with EMI and the Division of Aquatic Resources (DAR), to determine if any modifications are possible to improve habitat conditions for stream biota; 4) Reasonable efforts shall be taken by any party diverting water from a stream to reduce system inefficiencies and losses, and minimize impacts to the natural stream resource.

Monitoring: 1) EMI and Maui DWS, on forms to be provided by the Commission, shall notify Commission staff when any considerable repairs to maintenance to existing stream diversions structures are performed in the future. Any alternations to the exiting stream diversions that will substantially change the divertible capacity will still be subject to the provisions of the State Water Code, Hawaii Revised Statutes, Chapter 174C; 2) Within one year EMI, in coordination with Commission staff, shall develop a monitoring plan to provide the amount of water diverted from the EMI System from east Maui streams. This shall include identifying existing gaging stations and possible installation of additional gaging stations; 3) Within one year the Maui DWS, in coordination with Commission staff, shall develop and implement a monitoring plan to accurately determine system losses on the Waikamoi Upper Flume. This may include installing gaging stations to measure flow of water into and at the premise of the upper flume; 4) EMI and Maui DWS, in consultation of the Commission staff, shall regularly report monthly water use or related monitoring data (e.g., ditch flow, reservoir levels, pumpage amount, etc.) on forms to be provided by the Commission; 5) Staff shall monitor stream flow by taking periodic flow measurements, subject to available funding, at the proposed interim IFS locations as weather permits. These will be point-in-time measurements; however, the installation of stream gaging stations remains an option for long term management. Mr. Uyeno added that there is a contract with USGS to install ten staff gages. 6) Periodic biological surveys shall be conducted subject to available funding to monitor the response of stream biota to post-interim IFS implementation; 7) Any party claiming to be negatively impacted as a result of the adopted interim IFS shall monitor and document, in cooperation with staff, the impact upon instream or noninstream uses, including economic impacts. Data shall be provided to staff to substantiate any claims; 8) Likewise, any party claiming that negative impacts are a direct result of actions (i.e., diverting too much water, violating the interim IFS) caused by another party, shall monitor and document the impact upon instream or noninstream uses, including

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economic impacts. Data shall be provided to staff to substantiate any claims; 9) All claimants shall cooperate with staff in conducting appropriate investigations and studies, particularly with regard to granting access to stream channels and private property related to such investigations, subject to the provisions of the State Water Code, Chapter 174C, HRS.

Evaluation Strategies: 1) Within one year of the date of adoption of an interim IFS, staff shall report to the Commission on the progress of implementing the interim IFS and the application of the adaptive management strategies outlined above, and the impacts of the interim IFS upon instream and noninstream uses; 2) Within one year, EMI shall report to the Commission on the status and implementation of their monitoring plan, the locations of the gaging stations and provide data on the volume and end use of water delivered to the EMI System; 3) Within one year the Maui DWS shall report to the Commission on the status and implement of their monitoring plan, condition of the Upper and Lower Kula Systems, results of monitoring system losses and steps being taken to improve system inefficiencies, and continue to provide data on volume and end uses of water delivered to Maui DWS; 4) Staff shall assess the implementation of these strategies on an as-needed basis, as may be necessary upon consultation with the affected parties; 5) Staff shall continue to provide quarterly updates to the Commission during the course of the year; 6) Should there be changes to the operational status of HC&S; changes to the current water uses declared by HC&S; and/or any substantial changes in water needs as determined by the Commission or Commission staff, staff shall reassess the interim IFS for streams affected by the EMI System.

RECOMMENDATION (as taken from the submittal):

WAIKAMOI (6047) RECOMMENDATIONS:

The balance of instream and noninstream uses for Waikamoi and Alo Streams weighs heavily on the importance of diverted streamflow for the Maui DWS Upcountry System and the EMI System. With both streams generally gaining from their headwaters and the presence of a terminal waterfall, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petitions to Amend the Interim Instream Flow Standard for Waikamoi and Alo Streams, staff recommends that one measurable interim IFS be established with no modifications to existing diversions on Waikamoi and Alo Streams:

- Proposed Interim IFS A: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 550 feet, shall remain as designated on October 8, 1988. This location is downstream of the confluence of Waikamoi and Alo Streams. This is equivalent to an estimated flow of 0.2 cubic feet per second (0.13 million gallons per day) based on USGS estimates of total flow at Q_{95} (TFQ_{95}).

The balance of instream and noninstream uses for Wahinepee Streams weighs heavily on the importance of diverted streamflow for the EMI System. Unlike Waikamoi and Alo Streams, the drainage area for Wahinepee is small and short with one major EMI diversion located near its headwaters. With the stream generally gaining along most of its course to the ocean and the presence of a terminal waterfall, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Wahinepee Stream, staff recommends that one measurable interim IFS be established for Wahinepee Stream:

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- Proposed Interim IFS B: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 575 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.5 cubic feet per second (0.32 million gallons per day) cfs based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

In addition to the General Recommendations listed below, staff recommends approval of the following adaptive management strategies for the hydrologic unit of Waikamoi:

- Maui DWS, in coordination with Commission staff, shall work towards system improvements of the Upper and Lower Kula Systems to reduce system inefficiencies and waste that is currently occurring. Of considerable concern is the loss of water from the wooden Upper Waikamoi Flume.

PUOHOKAMOA (6048) RECOMMENDATIONS:

The balance of instream and noninstream uses for Puohokamoa Stream weighs heavily on the importance of diverted streamflow for the Maui DWS Upcountry System and the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Puohokamoa Stream, staff recommends that one measurable interim IFS be established for Puohokamoa Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 565 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.4 cubic feet per second (0.26 million gallons per day) based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

In addition to the General Recommendations listed below, staff recommends approval of the following adaptive management strategies for the hydrologic unit of Puohokamoa:

- Maui DWS, in coordination with Commission staff, shall work towards system improvements of the Upper and Lower Kula Systems to reduce system inefficiencies and waste that is currently occurring. Of considerable concern is the loss of water from the wooden Upper Waikamoi Flume.

HAIPUAENA (6049) RECOMMENDATIONS:

The balance of instream and noninstream uses for Haipuaena Stream weighs heavily on the importance of diverted streamflow for the Maui DWS Upcountry System and the EMI System. With the stream generally gaining along most of its course to the ocean and the presence of a terminal waterfall, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Haipuaena Stream, staff recommends that one measurable interim IFS be established for Haipuaena Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 510 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.1 cubic feet per second (0.07 million gallons per day) based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

In addition to the General Recommendations listed below, staff recommends approval of the following adaptive management strategies for the hydrologic unit of Haipuaena:

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- Maui DWS, in coordination with Commission staff, shall work towards system improvements of the Upper and Lower Kula Systems to reduce system inefficiencies and waste that is currently occurring. Of considerable concern is the loss of water from the wooden Upper Waikamoi Flume.

PUNALAU (6050) RECOMMENDATIONS:

The balance of instream and noninstream uses for Punalau Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining below the lowest major diversion, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Punalau Stream, staff recommends that one measurable interim IFS be established for Punalau Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 40 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.2 cubic feet per second (1.36 million gallons per day) based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

No unit-specific adaptive management strategies for Punalau are proposed at this time.

HONOMANU (6051) RECOMMENDATIONS:

The balance of instream and noninstream uses for Honomanu Stream weighs heavily on the importance of diverted streamflow for the Maui DWS Upcountry System and the EMI System. With the stream generally losing below the EMI System, suitable instream habitats were limited to the stream mouth that is fed through spring input. It is also likely that restored flow would not result in continuous streamflow from the headwaters to the stream mouth. The current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Honomanu Stream, staff recommends that one measurable interim IFS be established for Honomanu Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 20 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0 based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

In addition to the General Recommendations listed below, staff recommends approval of the following adaptive management strategies for the hydrologic unit of Honomanu:

- Maui DWS, in coordination with Commission staff, shall work towards system improvements of the Lower Kula Pipeline to reduce system inefficiencies and waste that may be occurring. Of considerable concern is the loss of water from the wooden Upper Waikamoi Flume.

NUAAILUA (6052) RECOMMENDATIONS:

The balance of instream and noninstream uses for Nuaailua Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

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In the matter of the Petition to Amend the Interim Instream Flow Standard for Nuaailua Stream, staff recommends that one measurable interim IFS be established for Nuaailua Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 110 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.3 cubic feet per second (0.19 million gallons per day) based on USGS estimates of total flow at Q_{95} (TF Q_{95}).

No unit-specific adaptive management strategies for Nuaailua are proposed at this time.

OHIA (6054) RECOMMENDATIONS:

The balance of instream and noninstream uses for Ohia Stream considers that the stream is not diverted by the EMI System. With the stream generally losing below Hana Highway, and only one small registered diversion, the current streamflow believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Ohia (Waianu) Stream, staff recommends that one measurable interim IFS be established for Ohia Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 195 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 4.6 cubic feet per second (2.00 million gallons per day) based on USGS estimates of total flow at Q_{95} (TF Q_{95}).

No unit-specific adaptive management strategies for Ohia are proposed at this time.

WEST WAILUAIKI (6057) RECOMMENDATIONS:

The balance of instream and noninstream uses for West Wailuaiki Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for West Wailuaiki Stream, staff recommends that one measurable interim IFS be established for West Wailuaiki Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 1,185 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.2 cubic feet per second (0.13 million gallons per day) based on USGS estimates of total flow at Q_{95} (TF Q_{95}).

No unit-specific adaptive management strategies for West Wailuaiki are proposed at this time.

EAST WAILUAIKI (6058) RECOMMENDATIONS:

The balance of instream and noninstream uses for East Wailuaiki Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for East Wailuaiki Stream, staff recommends that one measurable interim IFS be established for East Wailuaiki Stream:

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- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 1,235 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.2 cubic feet per second (0.13 million gallons per day) based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

No unit-specific adaptive management strategies for East Wailuaiki are proposed at this time.

KOPILIULA (6059) RECOMMENDATIONS:

The balance of instream and noninstream uses for Kopiliula and Puakaa Streams weighs heavily on the importance of diverted streamflow for the EMI System. With both streams generally gaining along most of their course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Kopiliula Stream, staff recommends that one measurable interim IFS be established for Kopiliula Stream:

- Proposed Interim IFS A: The interim IFS below all EMI diversions and just below Hana Highway, near an altitude of 1,270 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.5 cubic feet per second (0.32 million gallons per day) based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

In the matter of the Petition to Amend the Interim Instream Flow Standard for Puakaa Stream, staff recommends that one measurable interim IFS be established for Puakaa Stream:

- Proposed Interim IFS B: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 1,235 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.6 cubic feet per second (0.39 million gallons per day) based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

No unit-specific adaptive management strategies for Kopiliula are proposed at this time.

WAIOHUE (6060) RECOMMENDATIONS:

The balance of instream and noninstream uses for Waiohue Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Waiohue Stream, staff recommends that one measurable interim IFS be established for Waiohue Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 1,195 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.8 cubic feet per second (0.52 million gallons per day) based on USGS estimates of total flow at Q₉₅ (TFQ₉₅).

No unit-specific adaptive management strategies for Waiohue are proposed at this time.

PAAKEA (6061) RECOMMENDATIONS:

The balance of instream and noninstream uses for Paakea Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

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In the matter of the Petition to Amend the Interim Instream Flow Standard for Paakea Stream, staff recommends that one measurable interim IFS be established for Paakea Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 1,265 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 3.2 cubic feet per second (2.07 million gallons per day) based on USGS estimates of total flow at Q_{90} (TFQ₉₀).

No unit-specific adaptive management strategies for Paakea are proposed at this time.

WAIAAKA (6062) RECOMMENDATIONS:

The balance of instream and noninstream uses for Waiaka Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Waiaka Stream, staff recommends that one measurable interim IFS be established for Waiaka Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and at Hana Highway, near an altitude of 1,235 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 0.6 cubic feet per second (0.39 million gallons per day) based on USGS estimates of total flow at Q_{90} (TFQ₉₀).

No unit-specific adaptive management strategies for Waiaka are proposed at this time.

KAPAUOLA (6063) RECOMMENDATIONS:

The balance of instream and noninstream uses for Kapaula Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Kapaula Stream, staff recommends that one measurable interim IFS be established for Kapaula Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 1,194 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 2.0 cubic feet per second (1.29 million gallons per day) based on USGS estimates of total flow at Q_{90} (TFQ₉₀).

No unit-specific adaptive management strategies for Kapaula are proposed at this time.

HANAWI (6064) RECOMMENDATIONS:

The balance of instream and noninstream uses for Hanawi Stream weighs heavily on the importance of diverted streamflow for the EMI System. With the stream generally gaining along most of its course to the ocean, the current streamflow below existing major diversions is believed to be sufficient to support existing instream uses.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Hanawi Stream, staff recommends that one measurable interim IFS be established for Hanawi Stream:

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- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 1,045 feet, shall remain as designated on October 8, 1988. This is equivalent to an estimated flow of 17.0 cubic feet per second (10.99 million gallons per day) based on USGS estimates of total flow at Q_{90} (TFQ₉₀).

In addition to the General Recommendations listed below, staff recommends approval of the following adaptive management strategies for the hydrologic unit of Hanawi:

- In response to the announcement that MLP will end pineapple production, Commission staff shall seek to meet with MLP officials to determine the disposition of surface water diversions and ground water wells. Of particular concern is the Nahiku pump (REG.772.6) and the Kuhiwa well (4806-48).

MAKAPIPI (6065) RECOMMENDATIONS:

The balance of instream and noninstream uses for Makapipi Stream considers both the importance of diverted streamflow for the EMI System and the Nahiku community which relies on the stream for cultural practices, recreation, and other instream uses. With the uncertainty of gaining and losing reaches along most of the stream's course to the ocean, it is not known whether restored flow would result in continuous streamflow from the headwaters to the stream mouth. A coordinated study of a short-term release of water past the one major EMI diversion should be sufficient to determine the sustainability of the proposed standard.

In the matter of the Petition to Amend the Interim Instream Flow Standard for Makapipi Stream, staff recommends that one measurable interim IFS be established for Makapipi Stream:

- Proposed Interim IFS: The interim IFS below all EMI diversions and just above Hana Highway, near an altitude of 935 feet, shall be established at an estimated flow of 0.93 cubic feet per second (0.32 million gallons per day) based on USGS estimates of total flow at Q_{70} (TFQ₇₀). Due to the uncertainty of existing hydrogeologic conditions of Makapipi Stream, this interim IFS will be subject to a conditional release of water by EMI and monitoring by Commission staff. Should an estimated flow of 0.93 cubic feet per second be unattainable, the interim IFS may be revised by a future Commission action.

In addition to the General Recommendations listed below, staff recommends approval of the following adaptive management strategies for the hydrologic unit of Makapipi:

- In response to the announcement that MLP will end pineapple production, Commission staff shall seek to meet with MLP officials to determine the disposition of surface water diversions and ground water wells. Of particular concern is the Nahiku pump (REG.772.6) and the Kuhiwa well (4806-48).
- EMI, in coordination with Commission staff, shall allow water to bypass the Makapipi Stream diversion (REG. 298.6) to determine the attainability of the proposed interim IFS of 0.93 cubic feet per second for Makapipi Stream. Adjustments to ground water development tunnels will not be required.

GENERAL RECOMMENDATIONS:

Staff recommends approval of the following adaptive management strategies for all sixteen of the hydrologic units being considered:

IMPLEMENTATION

- Staff shall seek to enforce the provisions of the State Water Code should any unauthorized, non-registered or non-permitted diversions be discovered in the course of its fieldwork. Staff recommends that all owners of unauthorized diversion works structures contact staff to file the necessary applications to seek compliance with all permitting requirements set forth by the Code.
- Staff shall continue to coordinate with EMI to identify and determine appropriate actions with regard to attaining the proposed interim IFS values downstream of existing diversion structures.
- Staff shall continue to assess existing conditions and the status of all EMI diversions, in coordination with EMI and the Division of Aquatic Resources (DAR), to determine if any modifications are possible to improve habitat conditions for stream biota.
- Any party diverting water from a stream shall be responsible to maintain system efficiencies, minimize offstream water losses, and minimize impacts to the natural stream resource.

MONITORING

- EMI and Maui DWS, on forms provided by the Commission, shall notify Commission staff when any considerable repairs or maintenance to existing stream diversions structures are performed in the future. Any alterations to existing stream diversions that will substantially change the divertible capacity will still be subject to the provisions of the State Water Code, Chapter 174C, HRS.
- Within one year, EMI, in coordination with Commission staff, shall develop a monitoring plan to provide data on the amount of water diverted by the EMI system from east Maui streams. This shall include identifying existing gaging stations and the possible installation of additional gaging stations.
- Within one year, Maui DWS, in coordination with Commission staff, shall develop and implement a monitoring plan to accurately determine system losses on the Waikamoi Upper Flume. This may include installing gaging stations to measure flow of water into and at the terminus of the Upper Flume.
- EMI and Maui DWS, in consultation with Commission staff, shall regularly report monthly water use or related monitoring data (e.g., ditch flow, reservoir levels, pumpage amounts, etc.) on forms provided by the Commission.
- Staff shall monitor streamflow by taking periodic flow measurements, subject to available funding, at the proposed interim IFS locations, as weather permits. These will be point-in-time measurements; however, the installation of stream gaging stations remains an option for long-term management.
- Periodic biological surveys shall be conducted, subject to available funding, to monitor the response of stream biota to post-interim IFS implementation.
- Any party claiming to be negatively impacted as a result of the adopted interim IFS shall monitor and document, in cooperation with staff, the impact upon instream or noninstream uses, including economic impacts. Data shall be provided to staff to substantiate any claims.
- Likewise, any party claiming that negative impacts are a direct result of actions (i.e., diverting too much water, violating the interim IFS) caused by another party, shall monitor and document the impact upon instream or noninstream uses, including economic impacts. Data shall be provided to staff to substantiate any claims.
- All claimants shall cooperate with staff in conducting appropriate investigations and studies, particularly with regard to granting access to stream channels and private

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property related to such investigations, subject to the provisions of the State Water Code, Chapter 174C, HRS.

EVALUATION

- Within one year from the date of adoption of an interim IFS, staff shall report to the Commission on the progress of implementing the interim IFS and the application of the adaptive management strategies outlined above, and the impacts of the interim IFS upon instream and noninstream uses.
- Within one year, EMI shall report to the Commission on the status and implementation of their monitoring plan, the locations of the gaging stations, and provide data on the volume and end uses of water delivered through the EMI system.
- Within one year, the Maui DWS shall report to the Commission on the status and implementation of their monitoring plan, the condition of the Upper and Lower Kula Systems, results of monitoring system losses, steps being taken to improve system inefficiencies, and continue to provide data on volume and end uses of water delivered through the Maui DWS system.
- Staff shall assess the implementation of these strategies on an as-needed basis, as may be necessary upon consultation with the affected parties.
- Staff shall continue to provide quarterly updates to the Commission during the course of the year.
- Should there be changes to the operational status of HC&S, changes to the current water uses declared by HC&S, and/or any substantial changes in water needs as determined by the Commission or Commission staff, staff shall reassess the interim IFS for streams affected by the EMI System.

Deputy Ken Kawahara mentioned a letter (copies were distributed) was received yesterday near the close of business from DAR. In this letter, DAR made their recommendations on eight (8) streams for the Commission to consider. The recommendations focused solely on the native aquatic biota and did not consider other factors that the Commission considers when amending interim IFS. Staff is in agreement with DAR that modifications to the existing diversion structures may increase suitable instream habitat and allow for animal passage. However, as evidenced in the third bullet of staff's implementation section (page 55), staff believes that this action should be coordinated with EMI in consideration of the hydrology and all instream and noninstream values.

Chair Thielen reminded the Commissioners that public testimony would begin at 1:00 p.m., and that it was time for Commissioners' discussion and pose questions to staff about the presentation and recommendations. The submittal is a summary of the information contained in the reports and that staff could provide more information on the recommendations. The Commission could also hold discussions with staff after public testimony and during deliberation.

Dr. Miike had a couple of concerns and/or questions regarding the staff recommendation. First, similar language is used in all of staff assessments and he didn't understand why the current streamflow below existing major diversions is sufficient to support existing instream uses (page 48). He explained that the staff recommendation should address whether the current streamflow below major diversions could support the instream uses in which the staff and the Commission believe to be instream uses. Second, all of the recommendations use the phrase "heavily on the side of diversions." Dr. Miike looked at the 18 streams and agree the balance being toward the diversions for nine (9) of the streams. The other nine (9) streams were varied, three (3) of which he would restore flow. He thought that the staff recommendation gave an impression of an "all-or-nothing"

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concept with EMI offstream uses. Dr. Miike mentioned flow restoration in slight increments that would not substantially impact offstream uses. He calculated the HC&S water use to be between 5 and 7 thousand gallons per day (gad), which he believed to be reasonable. However, the underlining point was that HC&S may not be viable if water was unavailable.

Dr. Miike continued that in the case of east and west Wailuaiki Streams and Waiohue Stream, he believed the staff assessment suggests the presence of a hole in the stream mouths leaves adequate flow. For this reason, he felt no need in changing that recommendation. However, the assessment also stated that increased streamflow would increase stream species. In the case of Kapaula, Haipuaena and Waikamoi Streams, the only reason for no restoration was the presence of terminal waterfalls that would impede recruitment. For the two (2) cases Dr. Miike mentioned, he did not believe the stream water use weighed heavily on the side of diversions, rather there were some arguments of why putting water back into the stream may only lead to minimal or no increase in stream life. In the case of Puohokamoa, Punalau, and Honomanu, he believed there was a case for restoring some water but he did not know how much water should be restored. He further added that the assessment did not mention any impediments to restore, which would most likely lead to an increase in stream species. Yet, staff does not recommend any restoration in these three (3) streams. Dr. Miike believed that of the 18 streams, there was doubt that increasing flow in six (6) of them would lead to minimal beneficial results. However, the other three (3) streams seemed to have no impediment to restoring. He emphasized that diversions would not be stopped, but to release some amount of streamflow below the diversions of those three (3) streams.

Chair Thielen asked staff about the basis for the recommendations on Puohokamoa, Punalau and Honomanu Streams. Ms. Cheng explained because of the losing section below Spreckels Ditch and the dry section below Koolau Ditch (page 24, Figure 6) on Honomanu Stream, restored flow may not reach the ocean. Dr. Miike noted staff had previously stated full restoration would likely improve the diversity of biota in the stream. He also added flow restoration may increase the ground water level to a point that some flow may permanently become baseflow. While a stream where flow has been restored may remain intermittent in the drier periods, flow restoration increases the chance of recruitment. There are many streams in the State that contain dry reaches under diverted conditions. However, the hydrologic condition of the streams under undiverted conditions remains unknown.

For Puohokamoa Stream, Mr. Uyeno explained that the presence of the Upper and Lower Kula pipelines are important for domestic and agricultural purposes in the upcountry area. Regarding the EMI system, the stream is diverted by Spreckels, Wailoa and Manuel Luis. Dr. Miike reiterated that he was referring to some restoration as opposed to stopping a diversion because the stream has the potential to sustain a larger population of stream biota. Therefore, if the only consideration is Maui DWS, it is a consideration in the balancing, but not diverting all of the water.

Very limited hydrologic information is available for Punalau/Kolea Stream (page 15, Table 6). Ms. Cheng noted that the stream has good habitat availability in the middle reach, below Manuel Luis Ditch (but above Hana Highway) in which the stream is gaining ground water (page 22, Figure 5). Below Hana Highway in the lower reach, habitat availability drops to less than 1% due to low flow.

Dr. Miike questioned that the presence of a hole in east and west Wailuaiki Streams indicated good diversity; yet staff stated that there was opportunity for improvement for the instream species. Ms. Cheng explained that east and west Wailuaiki Streams are mostly gaining streams with a good amount of ground water input, even below Hana Highway. For this reason, more than 50% of the

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habitat is already obtained from the diversion to the stream mouths. For most of the streams, more flow restored to the stream would most likely increase the diversity of native biota and the productivity of the stream.

Dr. Miike noted that for all 19 streams, staff takes the side of diversions even though the information on the each of the individual stream varies. He believed that nine (9) of the streams vary from the other nine (9). He spoke about the water flow required for a holehole and the other three (3) streams that he thought warranted some flow restoration. If staff takes the position that increased flow would increase the potential for improvement but no action is taken, then what was the point? Chair Thielen pointed out that was a decision for the Commission to make, and that the staff just gives the reasons behind the recommendations that the Commission would evaluate.

Chair Thielen referred to west Wailuaiki (page 30 & 31) that the stream is gaining ground water flow below the diversion; thus, the biological rating is fairly high under the current conditions. She asked if this was an example, like in the DAR's recommendation, where a wetted pathway (equivalent of a fish ladder) would then allow species to migrate upstream. Since flow is present in the lower reaches as well as the upper reaches, west Wailuaiki is a stream in which that type of action (to restore a wetted pathway) should be done regardless of what the decision is on the diversion.

Ms. Cheng explained for streams that normally gain ground water it is much easier to wet the streambed, than a stream that normally loses because much more water would need to be restored to keep the losing section of the stream wet.

Chair Thielen asked staff to identify the nine (9) streams that Dr. Miike was referring to, and discuss which are gaining streams in the lower reaches and which are losing streams. Ms. Cheng said the gaining streams were Puohokamoa, Nuaailua, East and West Wailuaiki, Puakaa, Waiohue, Paakea, Waiaaka, and Kapaula Streams. On Table 6 of the submittal, most of the streams east of Keanae Valley are gaining streams. Specifically for Paakea (page 38) and Waiohue (page 40) Streams, the streams are actually gaining below the diversions but little is known in the lower reaches of the streams. With each stream being relatively short, more than 50% of these streams are gaining.

Commissioner Fujiwara said that the Commissioners just received a copy of the DAR recommendation today. He asked, in the eight (8) streams DAR recommended flow restoration. DAR recommended a wetted pathway for Hanawi Stream but no restoration of water is required. He would like staff to clarify the rationale for this recommendation, and why is this different for east and west Wailuaiki Streams. Ms. Cheng responded that there is definitely a lot more water overall in Hanawi Stream than east and west Wailuaiki. Chair Thielen asked for Dan Polhemus of DAR to come forward.

Dr. Polhemus explained that Hanawi is a heavily gaining system with a large amount of instream inflow both above and below the road (Hana Highway) and diversions. DAR staff felt that all that is needed for Hanawi Stream is a way to reduce entrainment in the diversion. Many of these diversions are built in such a way that they take all of the water. Animals migrating either up or downstream, particularly larvae, are sucked into the ditch system and lost laterally from the stream itself. So in many cases, DAR is proposing modifications that would simply allow a small amount of flow over the diversion such that all animals are not inevitably entrained in the ditch system, and significant amounts of the ecosystem could be restored. Commissioner Fujiwara asked why this wasn't the case with other streams. Dr. Polhemus clarified that Hanawi Stream would be a strategic

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modification, whereas other streams may need modification to reduce entrainment in addition to restoring flow, depending on how many kilometers of habitat and amount of ecosystem function in which to recover. At a minimum, preventing entrainment would go a long way for restoring ecological function even if these systems retain connectivity only during a small space in time. In many cases, these streams are only continuous during high water events and all the flow still gets diverted. For many average size floods, all the water goes into the ditch system, leaving the stream dry. Commissioner Fujiwara wondered if a wetted pathway for some of the streams would not be enough. Dr. Polhemus explained that wetted pathways would help but DAR's recommendation included the total amount of habitat that could potentially be recovered in some of these streams. DAR computed ecological space for the species involved and determined the potential available habitat that was missing in the streams. With that, DAR could determine the amount of habitat that could be recovered from certain modifications.

Dr. Miike asked what DAR's recommendation would translate to in terms of flow. Dr. Polhemus clarified to Dr. Miike that the recommendations were in linear kilometers but did not know what that would be in terms of the amount of flow. To determine the flow amount, DAR would need to work with the Commission staff because they are not hydrologists. He explained that DAR used a predictive model in a GIS system that simply worked with 10 meter square boxes that identified potentially suitable habitat if water were restored. The question is how much water does it take to do that. From Dr. Miike's understanding, Hanawi is one particular stream that bypassing the diversion would be enough, while other streams may need flow to increase downstream habitats. Dr. Polhemus agreed.

Commissioner Fujiwara asked staff regarding the absence of active taro diversions except those evidently found. Commissioner Fujiwara also asked if staff searched for any more evidence of taro cultivation in the downstream areas. Mr. Uyeno responded that in each of the reports, there is a table that provides all of the registered diversions followed by the contract with a consultant to go out in the field and verify as many of the stream diversions as possible. Through that effort, staff found many taro diversions that were not active and there was one (1) that was active and some that could not be verified. There was only the one (1) diversion specifically for taro cultivation. The others may be for domestic use or landscape irrigation.

Chair Thielen said during the site visit, the Commissioners heard from a number of people who had some desire to practice taro farming. Thus, she understood from the reports that on one stream, there is an active taro farmer and no (EMI) diversions currently from that stream. She also asked if staff heard from the community of the desire to practice taro farming in the other areas. Deputy Kawahara referenced page 15, Table 6, Noninstream section where one active taro diversion is listed under Ohia Stream, and that this stream is not diverted by Maui DWS or EMI. During the staff site visit with the Nahiku Community Association (NCA), staff sought evidence of historical loi terraces that have been overgrown but did not see any active taro diversions. For the other streams, staff did not see or was not aware of any potential restoration of taro loi and that was something staff were looking for in the public fact gathering meeting. To put into perspective, staff came across thirty (30) registered taro diversions from the first eight (8) streams compared to the one active taro diversions from the 19 streams. Deputy Kawahara clarified that the site visit was in Makapipi, which has a pretty sizeable population compared to the other areas.

Commissioner Fujiwara asked the staff to clarify the climbing abilities of the native fish. Ms. Cheng stated that the oopu alamoo and the opae are able to climb waterfalls. Dr. Miike said that alamoo can climb very far up the stream, but at least two of the edible ones have fused ventral fins

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that allow them to climb, but doesn't know how far they can climb. Dean Uyeno showed a few slides that illustrated the ability of different oopu species that inhabit the different stream reaches (lower, middle, upper).

Dr. Polhemus said there are generally eight (8) species of macrofauna are found in these streams. Of those three (3) do not have climbing abilities and are stopped at the first major barrier; and those are eleotris, stenogobius and macrobrachium (prawns). Then there are five (5) species that can overcome terminal falls and move varying distances up these streams. And that includes lentipes, sicyopterus, awaous, atyoides (opae), and neritina (hihiwai). So five of the eight native species can make a considerable distance as terminal falls are no significant impediment for restoration of aquatic integrity in the stream.

Commissioner Fujiwara asked about the implementation for the last five (5) streams and how long it would take to see whether the wetted pathways are working. Dr. Polhemus said they have not had direct experience in the east Maui area. However, several years ago in the area north of Hilo in the Hamakua coast, DAR staff had created their own stream and found that recruitment occurred very rapidly. He added that the animals in the ocean sense fresh water input and move inland in response to it. The ones that have climbing abilities to varying degree will respond to the wetted pathways. Therefore, these responses would not be in the order of decades, but maybe years and possibly less depending on the total amount of flow. But frequently a very quick response. Dr. Polhemus said that the flow restoration at Wailuanui worked very well in the cultural and biological aspect, and that staff evaluated this internally with CWRM staff to figure out if the implementation was a success or not on these streams and why. He also mentioned that DAR staff restored flow as biota flow and as cultural flows. In most cases, staff were getting better results with cultural restoration. There still exists entrainment issues and breaks in the streams that are still causing some connectivity issues.

Dr. Miike asked if the Commission were to restore waters to some streams as the ones he mentioned did staff have any idea about the kinds of flows they would recommend. The reason he asked was: 1) to see what might be a reasonable return; and 2) determine the cumulative impact on the current offstream uses. Ms. Cheng mentioned that a couple things need to be considered. First of all, both the EMI and Maui DWS are diverting from some of these streams. In the case of Puohokamoa (page 18), many ditches pass the stream, such as the Upper Kula Pipeline, the Lower Kula Pipeline, Spreckels, Koolau and Manuel Luis Ditch. Staff must determine the location of flow restoration in these streams, where to set interim IFS, and where to monitor safely. Once those have been determined, USGS streamflow statistics as well as data from their habitat availability study would be used to determine the interim IFS value. Dr. Miike asked if it was a general proposition that the higher ditches divert more water than the lower ditches. Ms. Cheng agreed. Dr. Miike suggested a stepwise flow restoration, in which restoration would begin at a lower ditch and then determine the level of recruitment after restoration. Working upstream, the flow restoration would have a modest impact on the diversions.

Mr. Uyeno reminded the Commissioners of the implementation action (page 55, third bullet), "Staff shall continue to assess existing conditions and the status of all EMI diversions, in coordination with EMI and the Division of Aquatic Resources (DAR), to determine if any modifications are possible to improve habitat conditions for stream biota." Mr. Uyeno stressed that restoration must be done on a stream-by-stream basis because the diversions can vary. Restoring water at a bypass gate could be done by releasing water. However, an intake grate is a break in the stream where it may be a difficult to restore. Also, there are reporting requirements for EMI and Maui DWS. One option is

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to work with EMI, DAR and USGS, to look at the hydrology in consideration of biology. Staff could then determine which streams, from a priority basis and based on DAR's assessment and the USGS study, which streams are best appropriate for restoration. However, that could be difficult to do at this meeting.

Commissioner Fujiwara asked if the Commission were to accept the recommendation and after the fact, staff carry out the implementation with EMI and DAR, does that change the interim IFS. Mr. Uyeno said the staff would want to come back with a revised proposal which is really the intent of the adaptive management process that staff is applying. Mr. Uyeno stressed that the IFS are interim because staff are aware that based on the application of adaptive management strategy that staff may need to come back based on implementation of the interim IFS.

Dr. Miike asked Deputy AG Linda Chow whether the Commission can restore flow for some of the streams but the amount to be restored would be set at a later date at another meeting. Deputy AG Linda Chow said in that case, if the Commission is not setting an interim IFS, the Commission would be deferring the decision. The Commission would have to come back to make a decision on the amended interim IFS for the other streams. Chair Thielen said if the recommendation on a stream is status quo and the current interim IFS is status quo, it would mean it would stay status quo but the Commission would be directing staff to do an evaluation and come back with a recommendation with a more specific analysis.

Deputy Kawahara wanted to understand the basis of the discussion and asked if the flow restoration in consideration for biota is the premise for traditional gathering. If so, staff should also work with the community to access those streams that are more accessible to the community. Dr. Miike answered that in addition to traditional gathering, flow restoration is also done for aesthetics and for the restoration of the stream itself.

Chair Thielen wanted to identify where there are overlaps in comments and verify information on particular streams that Dr. Miike, CWRM and DAR staff mentioned. Honomanu was one of the three (3) streams that Dr. Miike identified for flow restoration. This stream is also identified in the DAR recommendation, and CWRM staff has identified it as a losing stream. Puohokamoa Stream is in the DAR recommendation and was also one of the three (3) streams that Dr. Miike considered. Staff has identified this as a gaining stream. For Waikamoi Stream, Dr. Miike noted that one of the justifications for not restoring flow was the presence of a terminal waterfall. Dr. Polhemus and staff identified that this is not a gaining stream. Kopiliula Stream is identified in the DAR recommendation but has not been pointed out by Dr. Miike as one of the nine (9) streams, and not noted by the staff as one of the gaining streams. Dr. Miike did not identify East Wailuaiki Stream as one of the three (3) primary streams but pointed out that flow restoration may have some benefit. Similar to West Wailuaiki Stream, staff has identified them to be gaining streams. For Makapipi Stream, everybody was in agreement with staff's recommendation to do some flow restoration, and it is also in the DAR recommendation. Since Hanawi is a heavily gaining system, DAR recommended only the changes in the infrastructure (to reduce entrainment). It is not one of the nine (9) streams identified by Dr. Miike.

The other stream Dr. Miike mentioned was Waiohue Stream, due to the presence of a holehole and that it is a gaining stream. Chair Thielen said that Punalau/Kolea Stream was not in DAR's recommendation and asked Dr. Miike why he was focusing on Punalau. Dr. Miike referred to the staff's assessment which stated that flow restoration would improve instream biota; however, the recommendation was no change. It was the same reason that he picked on the other two where the

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assessment did not seem to match up with the recommendation. Ms. Cheng said that staff did not recommend restoration for Punalau/Kolea Stream because there are three diversions on the stream (Spreckels, Koolau and Manuel Luis Ditches) and there is very little instream use of water. However, as Dr. Miike pointed out it is not all or nothing and it does have the potential to have a greater diversity in population of native biota. Chair Thielen asked staff that from the hydrology perspective, which would be more effective in making sure water stays in the streams: 1) to spread flow restoration in small amounts across multiple streams; or 2) to concentrate restoration in a fewer number of streams in terms of instream uses.

Mr. Sakoda said “hydrologically, you would have to know what your goal is.” As mentioned before, hydrology is not one of the needs to balance. Other instream and noninstream uses must also be considered for possible improvements. Chair Thielen reiterated that restoring water is not like turning on a faucet, and continuous flow to the ocean is not guaranteed to occur because of the losing reaches where the water goes sub-surface. If the goal was to have wetted streambeds, should flow restoration be done by spreading restoration among a number of streams or concentrating it in fewer streams. Mr. Sakoda said the purpose for wetted streams, from the source to the ocean, is to allow aquatic resources to pass. The issue of flow restoration is site specific and depends on the purpose of the restoration, either for a waterfall (aesthetic) or for biota. In the case of biota, one may want to begin with the streams with the best biota or the best conditions. Ms. Cheng added that it is more beneficial to restore water in the streams that is gaining. For example, east and west Wailuaiki Streams have good biota and from DAR’s studies, there is a potential for improvements in diversity and population. Ms. Cheng said, “you would want to be focusing on restoring streams that have potential rather than restoring streams that are losing or dry even under normal conditions which you are not going to get an increase in biota or diversity of population.”

Mr. Uyeno said from his understanding of DAR’s studies is that one critical aspect in their assessment is the embayments and estuaries, and the impact of restoring streams on the nearshore waters. This was one of the reasons that Honomanu Stream is the highest priority on DAR’s recommendations. However, this is a specific case that requires coordination from USGS because of the losing reach. Staff has discussed with USGS and they’ve mentioned that even after rainfalls, water in the stream rises but quickly disappears into the ground. In this case, restored flow may not reach the ocean. In regards to spreading out the restoration, it must be done in coordination with DAR. Mr. Uyeno further added that this decision is a policy call.

Chair Thielen asked if the restoration efforts in one of the first eight (8) streams with the losing reach occurred and if the restored water is going past the losing section. Mr. Uyeno clarified that the stream in discussion was Waikomilo Stream, which is heavily used by the taro farmers on the west side of Wailua Valley. No action has been taken as far as trying to divert water away from the losing reaches, and that the stream is not diverted by EMI. Most of the flow is getting past the losing reach while some water is dropping into the sink hole. Where it reappears is unknown and requires further study. The other stream is Palauhulu where EMI released water up at the Kano Stream diversion. Since the restoration, staff has not seen considerable flow increases in the stream due to a losing reach.

Chair Thielen asked Dr. Polhemus to answer the question about the restoration of a small amount of water in a large number of streams or pick fewer streams to achieve higher ecological impact. DAR’s recommendation clearly went with the later route. They calculated across the 19 streams as a whole, the total of predicted habitat loss amounted to 67.3 kilometers. By addressing eight (8) of the streams, DAR believes that 68% of that habitat loss could be recovered. DAR staff was well

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aware of the gaining and losing reach aspects and that the tiny amount of water in small pools are not adequate for certain species. DAR felt that a certain minimum depth is going to be necessary for ecosystem function integrity including depth of reaches.

Dr. Miike added that for the same amount of water impact on offstream uses, there is a better return on the instream uses. Dr. Polhemus agreed. Since staff only recommended restoration on Makapipi Stream, Dr. Miike wanted to find a way to prioritize restoration efforts. He felt that was missing from the staff recommendation and he cannot accept no restoration efforts.

Dr. Fukino asked if DAR looked at Waiokamilo and Palauhulu Streams. Dr. Polhemus said they are seeing certain levels of recruitment but, as not noted previously, there has not been modification of the diversion structures that would reduce entrainment. Dr. Polhemus was referring to all the streams governed by the Commission. Dr. Polhemus noted that better results are occurring in Wailuanui Stream.

Chair Thielen gave an overview of what is expected that afternoon. They would run through the public testimony and testifiers were to sign in. Staff will calculate how much time each person can testify, and would like to finish public testimony that afternoon or early evening. Chair Thielen asked that people try to modify their remarks and stay within that timetable so everybody can get a chance to speak their peace. Staff will take down any questions the testifiers have for the Commission and staff will be called back up after the testimony to answer those questions. Deliberations will follow. Under the Sunshine Law, Commission members are not allowed to talk about the issue in private, and must discuss in a publicly noticed meeting. Thus, the Commission members have not had an opportunity to discuss the issue. Chair Thielen ask that during the one hour break, staff should assess the information presented and see where there's agreement on certain streams that were discussed as questions may arise during the meeting. Those streams include east and west Wailuaiki, Puohokamo, and others given in the testimony and public comments.

RECESSED: At noon.

Chair Laura Thielen called the meeting of the Commission on Water Resource Management to order at 1:05 p.m.

Chair Thielen introduced herself and reintroduced the Deputy AG, the Commissioners and mentioned that Commissioner Sumner Erdman recused himself from this meeting and that Commissioner Donna Kiyosaki is out of town, and then continued with the introduction of the Commission staff. She explained that the staff presented the details of their recommendation between 10:00 a.m. and 12:00 p.m, which was given to the Commissioners in writing and posted seven (7) days ago. The Commission had a number of questions and information for staff and the administrator of DAR. Public testimony would begin, then at the end of public testimony the Commission would deliberate. The Commission could either make a decision, or refer the matter back to staff for further work, or make a deferral. Under the Sunshine Law, the Commissioners have not been given the opportunity to discuss the matter. The Commission members are required by law to have the discussion in front of the public. The Commission cannot get to that discussion or any decision making until after the public testimony.

Chair Thielen continued that there were 104 people who signed up to testify and there were probably two more pages of names. That meant if every person that signed up to testify spoke for two minutes, public testimony would continue until tomorrow. Chair Thielen reminded people that

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in last year's decision, the public testimony lasted a day and a half, and a decision was reached for the eight (8) streams in the east Maui. In this year's meeting, the Commission would only discuss the remaining nineteen (19) streams and the decision on the eight (8) streams still stands. Chair Thielen asked the testifiers to keep their remarks very specific and she would give a minute and a two minute signal to stop the testifier. Chair Thielen asked the public to trust that they've gone over the information in detail. After all the public testimony and questions that the public may be asking the Commission, staff would take notes and list them, and then begin the Commission deliberations during which the Commission may have discussions with staff in response to some of the questions that were raised during testimony. Chair Thielen wished to finish public testimony that night so everybody could testify and the Commission would appreciate the public's cooperation. One exception to the two minute rule applied to the representative for the petitioners who filed the petition before this Commission requesting to set IFS for this watershed. So that's going to be the first person up, Alan Murakami who is the representative for the petitioners.

TESTIFIERS:

1. Alan Murakami took the position to defer the staff's recommendation and submittal. While Mr. Murakami was appreciative of the staff's work, he believed that the staff did not apply the appropriate legal burden. Since east Maui is not a designated water management area where some of the staff's analysis may apply, the common law applies to a non-designated area. He said Dr. Miike would understand that concept. Mr. Murakami mentioned the massive out-of-watershed transfers of water. He also stressed that the legal burden clearly favored his client and the Supreme Court decisions have proven that in the last ten years. Using the Waihole decision as an example, the events that occurred in Maui over the past couple weeks may turn this issue into an economic and political contest, or a popularity contest of who favored diversions more than who might favor preservation and restoration of streams. The Supreme Court was clear that there is public trust over the resource, the water in the streams, that compels the State to duly consider the cumulative impact of existing and proposed diversions on public trust purposes and to implement reasonable measures to litigate this impact. This was a key point that favors the public policy over the private or commercial interests. He also stated that with private diversions and allocation, there is and always has been a superior public interest.

Mr. Murakami cited the HC&S case in 1904 that established the same proposition. Back then, HC&S sued Wailuku Sugar because, as a downstream owner, it was being injured by a diversion of Wailuku water. And HC&S succeeded in showing its right was being compromised and therefore, had the right to stop Wailuku Sugar from diverting the water upstream. He stated, "we are basically utilizing the same burden in this instance where the common law applies and to say basically that the staff report flips this burden on its head by essence adopting a bias toward the commercial and private interest at stake for the use of this water and trying to find and carve out a reason for perhaps exceptions for that bias. That can't be. That is simply not the law." He also believed the submittal inappropriately adopted that legal burden, which was making those who favor restoration bear the burden of showing that they would be harmed. Even in the adaptive management strategy, those harmed have the burden to record and to document the injury to them as users of water in the streams and the instream uses. He said, "this is exactly the opposite of what is supposed to happen under many cases now, starting with the Waihole case. Basically affirming the public trust in the water and the superior right over any private commercial interest."

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Mr. Murakami mentioned an obvious omission in the staff submittal to be the observation and the documentation of the actual need of HC&S that was reported in the September 2008 staff submittal in which the staff, on page 9, stated a potential 40% savings if the staff's estimated actual water needs for HC&S was adopted over the actual water use. He said, "if there's a 40% possibility of savings of diversions and not affect the actual needs of HC&S then we should be on the same side as the County, we should be on the same side as Hawaii Farm Bureau in respect to Kula farmers, there is 40% margin here of sharing this amount of water under the staff submittal that was submitted a year ago not mentioned in this report (submittal)." Mr. Murakami also stated another problem of the staff submittal to be the absence of an alternative analysis to show the actual water need of HC&S. Mr. Murakami noted the almost 35 to 40 million gallons per day error (in the staff submittal) in what the actual use was between 2003 and 2009 by HC&S. He questioned the 22% error between the 166 and 201 MGD of water use presented in the staff submittal.

NHLC filed a complaint based on sworn testimony by many individuals who showed that HC&S was using massive amounts of water in excess of 17,000 gallons per day per acre. EMI filed a rebuttal indicating the use was only between 5 to 10 thousand gallons per day per acre. He added, "even if you use that figure there is that 40% savings, if you use my figures which I think is justified, we're up to 80-90% savings, so it depends on how you look at it but even if you take the most conservative approach there is a good deal of water that's not accounted for that should be put in the newer decision on these petitions and is a major reason why we are seeking deferral..." Mr. Murakami stressed that many questions need to be answered before making a decision. Furthermore, the waste complaint filed over a year ago must be resolved. He believes the water belongs in the streams and HC&S must come forward and show that no one is being harmed.

Mr. Murakami said the analysis of the instream values was very distorted and that there were many reasons to the economic benefits of water. However, the Waiahole decision urges the people to revisit even past diversions to uphold the public trust and this should be done by the Commission. He also stated that there was no mention, in the staff submittal, of how having water in the streams, in the waterfalls, and the Maui coast would support tourism. The staff submittal also did not survey the extent on the traditional and customary practices in the area. The Kapaa Kai case required an analysis, an affirmative investigation, and affirmative inventory by the staff of this Commission on what the impacts were from a constitution to protect the rights. That should be the first step. The second step was to prove what the harm is to those rights should they exist. NHLC have provided numerous declarations in their submission documenting the use of the east Maui streams by numerous cultural practitioners and the staff did not investigate this matter to assess what the impacts are.

Mr. Murakami mentioned the viability of HC&S, and that the company lost 13 million dollars in 2008 and is projected to lose 27 million dollars in 2009. This was when they had the water for irrigation and HC&S should not be claiming that the lack of water was the reason for their loss. He believed that the bigger problem was price supports, in terms of HC&S' global markets and their management decisions that have led to these losses. A&B and HC&S should be thinking about less than 5% for their total income and 6% for agribusiness of which HC&S is only a part. Thus, HC&S has a very minor stake in their total revenue generation.

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Finally, Mr. Murakami discussed the adaptive management strategy and that he and his clients had some serious problems with communications regarding last year's decision for the eight (8) streams. There were repeated complaints, especially for Honopou, that the interim IFS was not being observed and that there was not enough water flowing in the stream over the past year. There has been no attempt to amend the interim IFS to address the needs for the taro farmers in Honopou. Mr. Murakami feared that this lack of diligence on the part of implementing the interim IFS would follow this recommendation as well. Again, Mr. Murakami urged the Commission to defer and hold a meeting once again on Maui with the answers to the questions that he has in the testimony as well as others.

2. Dr. Jim Anthony – Executive Director of Hawaii Laieikawai Association, comes from Oahu, opposes staff submittal and told the Commission they are not obligated to rubberstamp the recommendation. Streams have a right to be streams. The Commission should not make excuses despite lack of funding, and it should defer decision in the public interest.
3. Sean Lester – Electricity for the HC&S Puunene mill is generated year-round primarily by anthracitic coal, rather than biomass from sugarcane. Water has been diverted for 150 years very efficiently, and has also been used as a form of oppression upon the people living near the streams. Ask to defer.
4. John Blumer-Buell, Hana Community Association, Board of Directors – Referred to Makapipi Street, wants the Hana community to be included. The meeting staff had with the Nahiku Community Association was not opened to all.
5. Walter Ritte, Hui Hoopakele Aina – Speaking as a Hawaiian, once again the Hawaiian is being screwed, the ignoring of the water rights of the Hawaiians and their rights have not been recognized in this report. Ask to defer.
6. Sean Loa, Account representative at American Machinery and of Hawaiian decent – Upcountry Maui customers depends on EMI for their water; urges the Commission that people of Hawaiian decent also depend directly and indirectly on the economic viability of HC&S. I see value in both instream and off streams uses and would like to see a solution addressing both needs.
7. John V. Duey – Referred to staff submittal and recommends leaving 4.4 million gallons in the stream, that it's not going to harm HC&S because they are not using the water, let the residences of east Maui decide which stream it goes into. Ask to defer.
8. Jacob R Mau, Na Kupuna O Maui, Native Hawaiian – Worked for DLNR, Forestry and Conservation Enforcement for 40 years, talked about reservoirs, no water, taro farmers stopped growing taro. Would like the water restored to the streams.
9. Chris Benjamin, HC&S – Strongly urge the Commission to support staff's recommendation which is a fact driven balance of instream and off stream uses. Water is absolutely critical for HC&S recovery. The decision that we face and our Board of Directors will make in January depends entirely or on a great part of the outlook of water. It's not about commercial enterprise; it's about 800 people and their jobs. Support adoption.
10. Charlie Maxwell – Asked to defer action, because the recommendation wrongly shifts the burden to the public. Charlie Maxwell told the Chair that he needed more than.

RECESSED: 1:52 p.m.

CALLED back to order: 1:55 p.m.

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Chair Thielen said there are a couple of groups that would like to consolidate their times into a spokesperson. If any person wants to waive their right to speak and give up their time to another person, they need to come out and see the Chairperson to remove their name from the sign-up sheet.

RECESSED

CALLED back to order: 2:06 p.m.

Chair Thielen announced that several people gave up their time to Uncle Maxwell.

- Charlie Maxwell continued that HC&S is a dying industry. The staff recommendation allows HC&S and MDWS to continue wasting water through their leaking. The recommendation coincides that HC&S has alternative water sources in the form of ground water wells but fails to require HC&S to use it; it even fails to balance competing uses by keeping the status quo for the streams. Even the HC&S employees asked the Commission to share the water. Defer this action. Charlie Maxwell apologized for his outburst but said “when you put a Hawaiian in the corner he rebels”.
11. Sandra Kunimoto, Chair of the Department of Agriculture – The Department supports the approval of the petitions based on staff’s recommendation and believe that approval of these petitions would be in consonance with Article 11, Section 3 of the Hawaii Constitution that declares that the State shall conserve and protect agricultural lands, promote diversified agriculture, increase agriculture self-sufficiency, and assure the availability of agricultural suitable lands. Central Maui has been declared important agricultural lands by the Land Use Commission. Over 27,000 acres were designed such on June 29, 2009. Approval of this petition will also assure the water for the Upcountry farmer and this is again, key to the State’s interest in improving our food self-sufficiency as well as our energy through bio-energy.
 12. Mike Ribao, Manager of the Power Supply Department at Maui Electric Company – supports agriculture and HC&S.
 13. Jonathan Starr – Request to defer.
 14. Willie Kennison, Maui Division Director of ILWU – Supports staff recommendations.
 15. Guy Fujimura, Secretary/Treasure of ILWU 142 –Supports staff recommendations.
 16. Warren Watanabe, Executive Director of Maui County Farm Bureau – Supports staff recommendations.
 17. Grant Arnold, Office of Hawaiian Affairs – Request to defer.
 18. Sheldon Biga, Employee of HC&S – Supports staff recommendations.
 19. Dean Okimoto, President of the Hawaii Farm Bureau Federation and farmer on Oahu – strongly supports staff recommendations. Submitted written testimony from Roy Yamaguchi, in support of staff recommendations.
 20. Brian McCafferty, Teens on Call – Supports staff recommendations.
 21. Kelii Taua (pule/chant) – Calls on the Commission to make a good decision that will keep this community of people working together.
 22. Sandy Baz, Chief Executive Officer of Maui Economic Opportunity – Supports staff recommendations.
 23. Janet Ashman, Chair of the Hawaii Farm Bureau Environmental Stewardship Committee – Supports staff recommendations.
 24. Elaine Wender, East Maui resident – Does not agree with staff’s recommendations.
 25. Michael Howden, Chair of Maui County Board of Water Supply – Strongly urge to defer.

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26. Daniel Kanahele – Asks to share the water.
27. Yolanda Dizon, HC&S – Families work for HC&S, families on east side who plants kalo, where's the balance, asks to share the water.
28. Darla Palmer, Museum Director of Alexander & Baldwin Sugar Museum, and farmer – Supports staff recommendations.
29. Tony Krieg, CEO for Hale Makua – Supports A & B and HC&S; loss of water for offstream users will have negative impact on the entire community of Maui.
30. Harry Cambra, HC&S – Supports staff recommendations.
31. Michael Jensen, HC&S – Strongly supports staff recommendations.
32. Joe Pueschel, Hawthorne Pacific Corporation – Supports staff recommendations.
33. Rodney Chin, HC&S – Strong support for staff recommendations.

Chair Thielen suggested that they continue with testimony and if any Commissioner needed to take a break, that only one commissioner leaves at a time to keep quorum.

34. Robert Luuwai, HC&S – Strongly supports staff recommendations.
35. Steve Onaga, Manager, purchasing and inventory for HC&S – Strong support for staff recommendations.
36. Kawewehi Pundyke – Request to defer action.
37. Joyclynn Costa – Request to defer action.
38. Doug MacCluer, farmer – Supports staff recommendations.
39. Victor C. Pellegrino – Request to defer.
40. Alex Davis – Supports staff recommendations.
41. Sean O'Keefe, Director of Environmental Affairs for Alexander & Baldwin – Supports staff recommendations.
42. Hokuao Pellegrino, Kalo farmer – Request to defer action.
43. Kapali Keahi – Request to defer action.
44. Rob Parsons, Hawaiian liaison for consumer group in Washington, D.C., Food and Water Watch – Request to defer action.
45. Lloyd Taguchi – Strongly supports staff recommendations.
46. Keith Pocock, HC&S – Share the water and supports staff recommendations.
47. Jimmy Haynes – Supports HC&S use of water.
48. Clyde Anakalea, HC&S – Supports staff recommendations.
49. Derek Heafey, HC&S – Strongly supports staff recommendations.
50. Dick Mayer – Request to defer.

Commissioner Lawrence Miike presiding.

51. Vicki Shartell, HC&S – Strong support of staff's recommendations.
52. Glenda Mawae – Restore all streams to their natural flow.

Chair Thielen presiding.

53. Scott Lewis, CAT, Products Equipment – Support staff recommendations.
54. Pete Sayer – Restore the streams.
55. Irene Bowie, Executive Director of Maui Tomorrow Foundation – Request to defer action.

Chair Thielen thanked Maui Tomorrow for putting together word for the alternative language for their proposals on the recommendations.

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56. Doug Sheehan, Vendor for HC&S – Water is vital to all the people, don't be responsible for closing the last sugar mill.
57. Gaylord Kubota, Director and Manager of Sugar Museum – Explained why diversions are necessary.
58. Gerard Cambra, Sr., HC&S – Third generation working for and in support of HC&S.
59. Stephen West – Supports staff recommendations.
60. Robin Knox, on behalf of Aquanimity Now – Supports water for everyone; Reject recommendations unless compliant with all water quality standards.
61. Roland Perreira, HC&S – Supports HC&S and farmers, make it equal.
62. Tehani Biga, father works for HC&S & interned at HC&S – Supports HC&S.
63. Elle Cochran – Request to defer action.
64. Randall Moore, HC&S – Strongly support staff recommendations.
65. Keith Watimer, HC&S – Supports HC&S.
66. Amanda Martin, President of Na Moku, and representing brother, Bush Martin and ohana – Rhanked staff for their time meeting with the farmers; Request to defer action.
67. Benjamin Pahukoa – Request to defer action.
68. Wes Bissen, HC&S – Taro farmers should have their water.
69. Leonard Pagan, HC&S – Water is not being wasted; supports HC&S.
70. Esther Bugtong, HC&S – Against water going down the stream and into the ocean; not against taro growers getting water; request to balance water for all.
71. Carol Reimann, Executive Director of Maui Hotel and Lodging Association (HLA) – HLA supports staff recommendations.
72. John Oliver – Submitted CD titled 'Trading the Dead'.
73. Mahealani Ventura Olive – Speaking on behalf of family who have interest as judicial divided deeds, which do not come under the Commission's non-judicial proposal; recommends to not touch, stay away, and know position with respect to treaties.
74. Kaliko Lewis – Put the water back into the streams; all are affected, all should benefit.
75. Kainoa Kaauamo – Restore the water; request to defer action.
76. Atreil Tanaka, both parents work at HC&S – Supports HC&S.
77. Jared Carvalho–Cambra, both parents work at HC&S – Supports HC&S.
78. Alex Franco, Manager of Maui Cattle Company – Strong support for staff recommendations.
79. Lee Jakeway, Director of Energy Development and Planning at HC&S – Asks for consideration to continue flow of east Maui water and importance of this resource for renewable energy production.
80. Rosemary Robbins, member of Water Oversight Advisory Committee – Recommends that HC&S grow other crops and seek alternative sources of water.
81. Darrell Yagodich, on behalf Director Kalani Park, Department Hawaii Home Lands (DHHL) – Consider a reservation of one million gallons per day to DHHL so they can withdraw water as needed and transfer water to the County as they proceed with DHHL's plan.
82. Kari Luna, vice chair of the Hawaii State Democratic Party – Read resolution; supports the continuation of well paying jobs, agriculture and multi-culture tradition of sharing and support of sharing of water for agriculture communities.
83. Christina Hemming, from Connecticut – Strongly recommend to defer.
84. Damien Carbaue – Supports HC&S.
85. Beatrice Kekahune – Supports water in all streams.

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86. Ely Natividad, HC&S – Supports HC&S and staff recommendations.
87. Benny Ramos – Use land in better ways for all people; where’s the water?
88. Hannah Bernard, Hawaii Wildlife Fund – Request to defer action.
89. Charles Jennings, HC&S – Farmers and plantation workers fight among each other, shouldn’t be. Only decision is to move forward; respect and work together.
90. Robert Roggash – This is an occupied nation, genocide.
91. Hannah Kaauamo – Did EMI ever come to talk to the people, no; request to defer action.
92. Lucienne de Naie – Look to avoid the waste; Request to defer action.
93. Christopher Fishkin – Request to defer action.
94. Daniel Grantham – All the good that is expected from HC&S per gallon of water, can be provided better by the east Maui residents; return water to the streams.
95. Patrick Simmons, student – Supports to let the water flow.

RECESSED at 6:00 p.m.

BACK IN SESSION at 6:38 p.m.

Chair Thielen announced that the Commission will continue to take public testimony through 8:00 p.m. and then close out testimony. She explained if people abide by the two minute timeframe, then everyone that signed up could testify. She would also allow additional people that signed up to testify before 8:00 p.m. Chair Thielen does not want to short change the Commissioners from discussion in consideration of all the information they received in the public testimony and in the staff submittal. Commissioners will return the morning of the next day to meet in open session for the Commission deliberation. She explained that when a State Board meets, the Sunshine Law states that two or more of the board members cannot talk outside of the open public meeting. Thus, the Commissioners have not had a chance to talk over the staff recommendations and obviously not the public testimony. Chair Thielen explained that the same meeting room will be open at 9:00 a.m. and board deliberations will begin at 9:30 a.m. People in the public are welcomed to watch the deliberation. However, the meeting is a chance for the Commission members to discuss and they may also ask questions. In addition to the Commission staff, the attorney and the petitioners are to be at the meeting, representatives from EMI, HC&S, County of Maui, and staff DAR should also be present at the meeting. Chair Thielen anticipated that the Commission members may have questions for the different parties and may call them up to the front for a discussion that would not be open to public testimony. Ultimately, the Commission decision can range from deferral, a decision, or sent back to the Commission staff with instructions.

Chair Thielen read the names of people and continued hearing testimony.

96. Jeff Eng, Director of the County of Maui, Department of Water Supply – Mayor Charmaine Tavares regrets that she could not be here today. Supports the staff recommendations and adaptive management strategy.
97. Guy Kioha, Jr., HC&S – Everyone deserves the right to water; supports HC&S.
98. John Umeno, HC&S – Formerly a farmer, water needs to be shared by all.
99. Bruce Devenow, HC&S – Request to defer action.
100. Solomon Kaauawo, Farmer and gatherer – People holding signs says ‘water for the people’, but what about the people from the east Maui side. Request to defer action.
101. Craig Rasmussen, Kula Ag Park – Water supplied by EMI for 30 farms; supports staff recommendations.

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102. Bruce U'u – Has family who works for HC&S and family who grows taro; those personally affected directly who shared their manao should weigh more than those not affected.
103. Lyn Scott, Taro farmer – Keep the water in the streams; request to defer action.
104. Jason Medeiros – Supports HC&S and the taro farmers, they should share the water.
105. Kimokeo Kapahulehua – Share the water.
106. John Brooks – Evident if the water is not allowed to flow into the ditch, there will not be water available; submitted written testimony.
107. Rick Volner, HC&S – Supports staff recommendations.
108. Jennifer McDonald – Worked for and supports HC&S.
109. Koa Martin, HC&S – Families works for HC&S and families are farmers. There is enough water for everybody, share.
110. Eric Nakashima, Pukalani Superette – 75% of produce is from local farmers; supports staff recommendations.
111. Pamela Tumpap, President of the Maui Chamber of Commerce – Submitted written testimony; supports staff recommendations.
112. Leilani Miranda – Water is vital to sustainability of this island.
113. Kelly Ruidas, HC&S – Supports kalo farmers; thanks staff.
114. Tia Christianson, StiTV – Request to defer action.
115. Harold Keyser, University of Hawaii, DTAHR – Supports staff recommendations.
116. Kenneth Okamura, Okumura Farm –Need water available for future generations.
117. Ivan Lay, Field representative for the Hawaii Carpenters Union – Share the water, work together.
118. Johanna Kamanu – Request to defer action.
119. Megan Powers – Support to defer action.
120. Claire _____ (did not sign up) – Water should go to the people of east Maui; we all need water.

Chair Thielen announced that a couple of people donated some time to Camille Kalama.

121. Camille Kalama, NHLC – Request staff to go back and provide actual needs of HC&S and the impact it will have; request to defer action.

The following names were called throughout the meeting. These people signed up to testify but may have left during the meeting.

122. Jan Yagi Buen
123. Mark Beers
124. Tom Cook
125. Wili Wood
126. Mayor Tavares
127. Doug Jones
128. Albert Dizow
129. Rodney Ohill, HC&S
130. Meghan Powers
131. Diane Loomis Dahl
132. Nik Hilawanda
133. Nelson Armitage
134. Steve Slater
135. Scott Lewis
136. Anastasia Kruatt

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137. Albert Young
138. Mark Sheehan
139. Kevin K. Wallett – pass
140. Raymond Kepani – pass
141. Marjorie Wallett – pass
142. Kiaaokeo Kapahulehua
143. Jason Jeremiah – OHA
144. Victor Kosatchkow
145. Raynette Matsuoka
146. Ivan Navares
147. Richard McCarty
148. Juan Navarez – HC&S
149. Adam Trevino – HC&S
150. Foster Ampong
151. Janet Yagi Buen
152. H.G. Chestnut
153. Wesley Bisson
154. Noe Kaauamo

CLOSED PUBLIC TESTIMONY: at 7:55 p.m.

Chair Thielen explained again that two or more of the commissioners cannot talk away from public meeting on something that will be voted on at the meeting. Thus, the Commissioners did not have a chance to discuss this among themselves. She announced that the public testimony is closed until tomorrow morning when the meeting will start at 9:30 a.m. At the deliberation, Commissioners would sit around the table and face each other and talk back and forth in front of the public. Commissioners will have questions for staff and those people who testified. Ultimately, whatever the Commissioners decide, they will decide in the public meeting tomorrow. Chair Thielen did not know how long the deliberation will be but there will not be public testimony. The Commission can do a number of things at the meeting tomorrow after deliberation: 1) accept the staff recommendations; 2) accept staff recommendations with modifications; 3) defer the staff recommendation; and, 4) send back to the staff for further work. In the first two situations, if the Commission were to accept or accept and amend, the Commission will have made a decision. In the second two situations, if the Commission defers or sends it back to the staff and says it needs more work, the staff would need some direction because they spent a tremendous amount of time coming out to the community, coming out to the streams, working with experts including the USGS, DAR, and community members. In addition, staff has gone on site visits both in the streams and taken a look at the farming that's adjacent to the streams, and also the entire ditch system. They've arranged for the Commission members to go on many of these site visits. Thus, the staff recommendation is an accumulation of about two (2) years of very, very intense work, more intense work that I have seen in anything else in the two and a half years that she chaired the Department of Land and Natural Resources and chaired this Commission on Water Resource Management. If the Commission does not give the staff some very specific guidance as far as what is expected, the staff would not know what to do. Chair Thielen also said, "and what that may mean is we may go over a very, very long time before they put something together, bring it back here and it may or may not be satisfactory. And that wouldn't be fair to them, to the public, to us, to the streams. Similarly I think in my opinion, I think the people of Maui need some help. When we came here about a year ago for the decision on the eight (8) streams there was much more conflict and animosity and acrimony

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when we came here in October for the public fact gathering session. I noticed a real change in the tone of people recognizing that this was farmers and farmers, kalo farmers, upper Kula farmers, central Maui plain farmers, and people recognizing, even when they were worried about their own uses, that there was some legitimacy to these other uses and we encouraged people at the end of the October fact gathering meeting. I don't think this Commission wants to impose an artificial outside decision and if the community could come to us with specific recommendations, I think this Commission and the staff would be welcoming of that. But it hasn't happened and I'm not sure if we walk away now and we do not give specific guidance, I don't think it would magically happen. And so I think, from what I hear tonight, a lot of people in their testimony are asking us for help. Some people support the recommendations, some people oppose the recommendations, but I've heard time and again people saying that they want to find the solution that works for as many people as possible on Maui. So that's why I want the different groups to be here tomorrow when the Commission comes back to do deliberation and that's why Commissioners, this is my goodnight parting words to you guys is I don't want to let you off the hook easy tomorrow to say, deferral and we'll come back later without specific guidance. Because I think the worse think that we could do here is to come this far and to have it fall apart. And to have it go where people are here one year – two years, three years later to say, hey they never came back. I don't know what the right decision is other than to say I think we need to make a decision. It is not an easy decision. Somebody testified tonight and said if this system were not in place now and someone came and proposed it, it would never get approved and you know what, they're probably right. But the fact is this system's been in place for over a hundred years and people have grown up around it and the Water Code went into place after generations have lived it. And the Water Code and many people tonight have said, we've got to find a solution that works for everyone. But at the end of the day Commissioners, we're the ones that have to make that decision. Because the Water Code has said that there is an appointed and confirmed Commission that has to make that balance. And I don't think we would be meeting our responsibility if we walked away without providing some very specific guidance and direction and timetables and requirements so that we can reach a final decision on the instream flow standards with the best information possible before the end of my term. Because there's no guarantee that it will be picked up again later on, because it never has been picked up before; except by the courts. And that's because it is a very hard decision to make. So I want you as Commissioners to think about this tonight and to come back ready to discuss. I encourage the people who are involved in this system to be thinking very hard tonight and come back ready to discuss and let's see where we can get tomorrow because I think Maui has come so far in these past two (2) years and I've heard so much respect tonight and so much understanding on how this community and this island is interrelated and people who've got family members on all sides of this issue, and I think we need to try tomorrow to get closer to a solution that works for this island that's going to be a balance, that's going to be a compromise, but it's going to be some progress.”

Dr. Miike commented on why it has taken so long. He said “I have personally been chafing at the bit to do this decision but as many of you involved in this issue know we were not involved, the circuit court was and until that was resolved, and we never got involved. I always wondered why it was because the Code gives the Commission jurisdiction over water issues and have never been clear why the circuit court was dealing with it. It may have been eight (8) years but I think that it was not because we didn't want to address it, but that it was confused in another jurisdiction in the court system. So I'm with Laura, I want to see this thing done way before she leaves.”

The meeting was RECESSED at 8:05 p.m.