

**MINUTES  
FOR THE MEETING OF THE  
COMMISSION ON WATER RESOURCE MANAGEMENT**

DATE: May 24, 2006  
TIME: 9:00 A.M.  
PLACE: KALANIMOKU BUILDING  
CONFERENCE ROOM 132  
1151 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813

**CALL TO ORDER**

Chairperson Peter Young called the meeting of the Commission on Water Resource Management to order at 9:03 a.m.

**ROLL CALL**

The following were in attendance:

**MEMBERS**

Mr. Peter Young  
Ms. Meredith Ching  
Mr. Neal Fujiwara

Dr. Lawrence Miike  
Ms. Stephanie Whalen

Excused: Dr. Chiyome Fukino, Jim Frazier

**STAFF**

Dean Nakano, Ed Sakoda, Roy Hardy, Dean Uyeno, Kevin Gooding, Neal Fujii, Lenore Nakama, Paulyne Anakalea

**COUNSEL**

Julie China, Esq.  
Colin Lau, Esq.

**OTHERS**

Kapua Sproat, Dr. Jonathan Likeke Scheuer, Koa Kaulukukui, Gilbert Tam, Manabu Tagomori, Yvonne Izu, Steve Anthony, Delwyn Oki, Karlynn Kawahara, Edsel Yamada, Michael Watkins, Randy Hamamoto, Dricka Brown, Randolph Hara, Kaeo Duarte, Dawn Chang, Willie Lum, Tracy Runnels

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

**A. APPROVAL OF MINUTES**

1. February 15, 2006

MOTION: (Ching/Whalen)  
To approve the minutes  
UNANIMOUSLY APPROVED

2. March 17, 2006

MOTION: (Ching/Whalen)  
To approve the minutes  
UNANIMOUSLY APPROVED

**B. ANNOUNCEMENTS**

Acting Deputy Director Dean Nakano requested that agenda Item E2 be moved up in the agenda.

**E. STREAM PROTECTION AND MANAGEMENT**

**2. Application for a Stream Channel Alteration Permit (SCAP-MO-391), County of Maui, Department of Public Works and Environmental Management, Kaunakakai Gulch, Kaunakakai, Molokai (TMK: 5-3-005: 006)**

Presentation of Submittal: Ed Sakoda

**RECOMMENDATION:**

That the Commission approve a stream channel alteration permit for the Kaunakakai Gulch Force Main Replacement Project (TMK: 5-3-005:006) Kaunakakai, Molokai. The permit shall have a term of two years subject to the Commission's standard permit conditions in Exhibit 2.

MOTION: (Whalen/Fujiwara)  
To approve submittal as recommended by staff  
UNANIMOUSLY APPROVED

**C. GROUND WATER REGULATION**

**1. Request to Enter Into a Contract for Professional Services to Develop a Computer Software Application to Estimate Irrigation Requirements**

Presentation of Submittal: Roy Hardy

**RECOMMENDATION:**

Staff recommends that the Commission authorize the Chairperson to enter a contract for professional services to develop a computer software application to estimate irrigation requirements. The terms of this contract will be subject to the approval of the Chairperson and the department's Deputy Attorney General. Contract execution will be done in accordance with Chapter 103D, HRS, and Chapter 3-122, Hawaii Administrative Rules.

**DISCUSSION:**

Commissioner Miike asked where the tables currently used to estimate irrigation needs came from.

Mr. Hardy stated that they were relying on and giving credence to the counties water use and development plans. Oahu was the only county to come up with numbers in their water use and development plan while the other counties relied on Exhibit B, the Water Systems Standards from the various county departments of water supply.

Commissioner Fujiwara asked if the final software application would be basically inputs of soil applications and you would come out with a figure.

Mr. Hardy stated that staff is looking at that and trying to gather other best available information such as local rainfall. We are also looking at whether this should be Geographic Information System (GIS) based, which provides a higher level of scrutiny.

Commissioner Fujiwara stated that he knows there are figures out there as his former agency, Natural Resource Conservation Service (NRCS), has some of those figures for the different crops for the growing period. This is very important and needs to be included in evaluating the findings.

Commissioner Whalen asked about the interaction between the NRCS and the Soil and Water Conservation Districts, and Commission staff. Are irrigation water management plans required? Commissioner Whalen stated that this is the agency that is mandated by Congress to work with the farmers.

Mr. Hardy replied that staff has not included NRCS in any review of irrigation requirements for water use permits but there may be some interaction through the Hawaii Water Plan.

Acting Deputy Director Dean Nakano stated that the Commission's intent is to work with all agencies and integrate all available information. The intent is not to exclude any one agency from this process. As part of the water use permitting process, it is incumbent upon the applicant to get the data to support their irrigation request. Mr. Nakano introduced Dr. Ali Fares who has been hired by the Department of Agriculture to do the Ag Water Use and Development Plan.

Commissioner Whalen asked about their interaction with the NRCS since they are also involved with Soil and Water Conservation Districts, applications for conservation plans, and irrigation water management plans.

Dr. Ali Fares, Associate Professor of Watershed Hydrology, Natural Resources and Environmental Management Department stated that he works closely with NRCS on different aspects of water management. Dr. Fares stated that he would be glad to work with them and make sure that they get feedback on the process. The evaluation of methodology and process of the model development would be welcomed. The NRCS method uses a monthly average although a daily mass balance is preferable.

Commissioner Whalen stated that she was referring to the private sector, not an agency that has developed water balance methods for irrigation. It was the industry that tried to utilize the water effectively.

Dr. Fares explained that what they are using is specific to their conditions. A particular industry uses a certain irrigation calculation for their specific site. As long as you supply the model with correct data, that would give you the requirement that you need for that specific site. Dr. Fares stated that they need reliable rainfall data, and reliable infrastructure data and any viable water use and irrigation requirements from particular crops that would be beneficial. We look forward to cooperating and interacting with any entities that can assist us in this process.

Commissioner Ching asked how the Commission would be using the information from the software. Will it be used for water use permits?

Mr. Hardy stated that they would be using it for that purpose.

Commissioner Ching also asked about the situations where there is a lot of empirical data, how much water is being used and what is coming out of the equation. Mr. Hardy stated that they would consider both pieces of information. Depending on what the information is, staff is hoping the model provides a reasonable estimate of the

gross irrigation requirement. If there were differences it may indicate that empirical data may be inefficient.

Commissioner Whalen stated that this model needs data input, if the data is poor or has a wide range associated with it, then it is garbage in, garbage out. Commissioner Whalen also stated that trying to put agriculture into a box to fit a nice model has never worked; it won't work, as we tend to get comfortable because we have a nice model that we can use and rely on. Commissioner Whalen also stated that in regulation it's one size fits all but in agriculture it doesn't fit in. This is just another tool, and we should not get locked into this as better data than the actual data coming off the site. If the data off the site is predicting something different, we need to know why there is a difference and validate these models.

Mr. Hardy stated that the staff would not ignore the empirical data.

Dr. Fares added that the validation of the model is a very important component in any modeling experience. This will be based on data from the field. The quality of the data is the key. The decision should be based on the data from the model.

Commissioner Whalen stated that she would want a commitment from the staff to get better data because the garbage data going in would only give garbage results, not the model necessarily but the inputs that are put in. Commissioner Whalen stated this is really highlighted on the next submittal report on the Sandwich Isles Communication. If we use that model Commissioner Whalen stated that she has a lot to say about the data that went into that.

Dr. Fares stated that instead of the staff taking the data and calculating by a spreadsheet, data that is going to be used anyway, put it in a nice efficient way, use it in a different format, for different combinations with different crops. The data for the model will be used anyway and the quality of the data is the key here. It is crucial to have a good database, whether you use the model or calculations from a spreadsheet.

Commissioner Whalen asked whether or not we should be spending \$100,000 on getting good quality data or spending it on a theoretical model.

Commissioner Miike stated that when it comes to Water Use Permits the model should be enough that when you take the regional data or the site specific data that's available, the model will come out with a rough estimate of what is needed. On the other hand, the water permit applicant has the burden of saying how much water they want.

Dr. Fares stated that the answer for the model is not truth until it is validated, if the model gives you an amount of water you must evaluate the data input assumptions and see how reasonable this is.

Commissioner Miike stated that there are two ways of modeling things; 1) the top down and 2) bottom up.

MOTION: (Miike/Fujiwara)  
Approval of staff recommendation  
UNANIMOUSLY APPROVED

**2. Sandwich Isles Communications APPLICATION FOR A WATER USE PERMIT SIC-01 Well (Well No. 2801-03), TMK 9-5-002:003, WUP No. 765 New (Agriculture and Landscape Irrigation) Use for 0.576 mgd, Wahiawa Ground Water Management Area, Oahu**

Presentation of Submittal: Lenore Nakama

RECOMMENDATION:

Staff recommends that the Commission defer action on this application for a period not to exceed sixty days. If the applicant does not provide the following information to establish consistency with the legal criteria for obtaining a water use permit, then this application will be deemed automatically denied without prejudice due to the failure of the applicant to meet its burden of proof:

1. address relevant issues raised by the Office of Hawaiian Affairs;
2. provide irrigation system type for each of the fourteen proposed end uses;
3. provide row spacing (in feet) for the proposed orchard;
4. identify measures that will be implemented to ensure efficient water use; and
5. provide an analysis of the use of Waikakalaua Stream as an alternative to the use of Well No. 2801-03.

DISCUSSION:

Ms. Nakama distributed additional information letters from Kuiwalu, amended comments from the Office of Hawaiian Affairs, and a letter of additional support from Master Hong Liu.

Ms. Nakama stated that, in the light of the information that has been provided subsequent to the date that the submittal was prepared, the only unresolved issues at this time are related to reasonable-beneficial use.

The first issue concerns the purpose of use. The amended application indicates about 117,000 gpd will be used for landscaping, and the remaining water, about 418,000 gpd will be used for dual landscaping/agriculture purposes.

The applicant has since clarified the proposed agricultural uses: SIC plans are to offer the agricultural products to SIC's staff, their families, and needy Hawaiian groups. SIC

has no plan to market its products or lease the land to a third party, however, the landscaping, other plants and livestock would be available to interested parties if and when a viable offer was made to SIC.

Staff is not sure if this is still considered agriculture and whether it is consistent with the agriculture land use district and AG-1 zoning designations. Representatives from the Land Use Commission and Department of Planning and Permitting were asked to attend the meeting in case the Commissioners have any questions regarding land use consistency.

The second issue concerns the quantity of water needed. The applicant has recently provided the additional irrigation inputs needed for Dr. Fares to refine his analysis of water needs. Staff is recommending deferral to the next Commission meeting to provide some time for Dr. Fares to recalculate the irrigation demand.

The other outstanding issues identified in the submittal recommendation have been addressed. The applicant met with OHA and OHA now supports the landscaping uses. OHA supports the agricultural uses if they reflect actual agriculture, but is still concerned about potential water banking and ensuring that allocated quantities are reasonable. OHA still requests that a special condition limiting the transfer of the water use permit be attached so that this permit cannot administratively be modified for future urban use.

The applicant has also identified efficiency measures. They include: 1) use of part circle irrigations heads, particularly along boundaries, to minimize overspray, 2) routine monitoring of the long term weather forecasts to reduce irrigation in advance of a storm conditions, 3) shutting off the irrigation system on rainy days, and 4) reuse of loi discharge water to help irrigate the pasture. This water reuse results in an estimated reduction of 41,250 gpd of water needed for the pasture irrigation.

Lastly, additional information provided by the applicant shows that Waikakalaua Stream does not border the property. The stream is separated from SIC's property by Waikalani Drive and the Ridgecrest Condominium complex. Streamflow is intermittent.

Therefore, most of the issues have been addressed and staff requested to amend the recommendation.

#### STAFF AMENDED RECOMMENDATION:

The staff recommends that the Commission defer action on this application until the next meeting on Oahu to allow Dr. Fares time to recalculate the water use quantities and provided that the application is shown to be consistent with State and County Land Use plans, policies, and designations.

#### DISCUSSION:

Commissioner Miike questioned the amount of proposed water usage compared to that found to be reasonable in the Waiahole case.

Ms. Nakama stated that Dr. Fares' analysis should address that issue because his calculations take into account climatic variability.

Commissioner Whalen noted that the rainfall station used by Dr. Fares is not representative of rainfall at the site.

Dr. Fares stated that he will use a better station for his recalculations. The reason he initially selected the Kunia station is because both rainfall and evaporation data are needed for the same period and both data sets were available for the Kunia Station. However, he has located a more representative site that has both data sets and will redo his analysis with more representative climate data.

Commissioner Miike stated that loi are very site specific and the quantity of leakage is important.

Commissioner Fujiwara asked if there was a map available to show the various areas of cultivation.

Mr. Yamada presented a map and reiterated that the reuse of loi water would reduce the requested quantity by about 41,000 gallons.

Commissioner Miike asked whether this is for an operations center or agriculture or nursery operations.

Ms. Dawn Chang with Kuiwalu, SIC's consultant, introduced Mr. Gil Tam, Vice President, Administration & Community Affairs for SIC, Mr. Willie Lum, project manager, Tracey Runnels, well driller; and Mr. Edsel Yamada, also with Kuiwalu.

Ms. Chang gave a brief description of Sandwich Isles Communications. It is a native Hawaiian owned rural telephone company whose mission is to provide modern telephone services to Department of Hawaiian Home Land (DHHL) properties. Since 1998, SIC has spent over \$150 million in infrastructure costs to install a statewide underground fiber optic system at no cost to DHHL or the beneficiaries. DHHL users will be assessed a monthly user fee. They have received all the permits to do the terrestrial project, which is to connect all the DHHL lands on each of the islands. There is also an undersea cable project that will connect all of the islands.

The Wahiawa land was available and affordable and provided SIC the opportunity to make a commitment to keep this land in agriculture. The main priority is to build this Network Operational Center (NOC) to house the brain of SIC. Ms. Chang further stated that SIC would keep this land in agriculture as it provides a nice buffer between the



various residential developments and the technology park across the street. The plan has been approved but not implemented yet because of the lack of water.

The previous owner, Castle & Cooke, abandoned the use of the land because there was no water available. Without the necessary water, there is no reason to keep this land in agriculture.

Prior to drilling the well SIC looked into other viable alternatives. They looked at the streams and ditches and other available sources to irrigate the site. One of the alternatives was an onsite water well. They spent approximately \$250,000 to develop this well and have found a source of non-portable water that would be used for irrigation. The Conditional Use Permit (CUP) includes a requirement for landscaping. There is a long term commitment by SIC to grow hardwood trees, koa and milo, Buddha Hand trees, herbal and medicinal plants. The plants will have a dual function for personal use and landscaping. There are no plans to re-zone or develop this property.

Ms. Chang stated that they have a long-term commitment with DHHL, OHA and the community to keep this land in agriculture. SIC has improved the land and the community has benefited.

Ms. Chang made some clarifications in Dr. Fares' report. Dr. Fares used rice as an equivalent crop for the loi, but this may not be a good surrogate crop for kalo. The other clarification is that it is a tea garden that is being proposed, not a tea orchard. This should result in a reduction in calculated water use. The water used for the loi will also be used to irrigate the pasture and add to the reduction of approximately 7% of the total amount or 40,000 gallons of water.

Gil Tam stated that this project that has been 5 years in the making and will take approximately 2 years to complete the plans and building, which will be the first priority.

Commissioner Miike asked about the build-out plan, whether the entire acreage was going to be completed in 4 years.

Mr. Tam stated that they were specifically talking about completion of the center, not the entire acreage.

Commissioner Miike noted the 4-year water use permit revocation provision in the Code. Commissioner Miike inquired about SIC's funding sources, whether most of the money comes from federal grants.

Ms. Chang clarified that SIC has secured low interest loans from Rural Utility Service (RUS) USDA. The loans must be repaid. There are no grants given to SIC for this project. They have appropriated approximately \$400 million for this project and the

allocation is not all at one time. The proposal and plan for the construction needs to be submitted and approved prior to receiving the loan.

Commissioner Miike asked about the funding for the proposed uses that are not really related to communications.

Mr. Tam stated that the money for the agricultural side is not coming from the loan as the loan can only be used for construction of the telecommunications project.

Mr. Tam stated that they are using operating funds not RUS, although RUS was the funder of the property. Mr. Tam stated that after looking at several sites including Kapolei, Campbell Estate, Manana and the High Tech Park for this particular operations center, this property was offered to us. There is some real natural synergy here because of the National Guard's presence there. Security and infrastructure is important and there was that synergy of surveillance and security. Mr. Tam stated that they saw the opportunity to do agriculture as well as telecommunications and made a commitment to give back to the land as native Hawaiians. Working at the loi is another opportunity to not only appreciate our heritage but to also practice it.

When this opportunity presented itself, SIC took it to the RUS, they approved it knowing that SIC was going to build a network operations site, knowing that this land is in agriculture and that SIC was working with the USDA to make sure that the soil and water conservation was done, all in respect as a receiver of the loan.

Commissioner Fujiwara asked if SIC has a business plan. Having all of these agricultural pursuits within this area doesn't seem to be economically sound.

Mr. Tam explained that they are not in it to make a profit in the short term.

Ms. Chang stated that the critical part is that they cannot move forward without the water. At present they are using BWS water. Ms. Chang asked that they just have the opportunity to implement this plan. If there is a change and we are using too much water we would go through regulations and consult OHA and the Commission.

Mr. Tam also stated that when the City went back to identify prime agriculture lands this property was not included because there was no water. Mr. Tam said they would proceed with the NOC even if no water is allocated. But the CUP requires landscaping so alternative water sources would be explored, such as BWS water or trucking. Mr. Tam also explained that a requirement of their license was that a portion of their profits be placed into education and training and the provision of employment for native Hawaiians. If SIC is able to put the agriculture land into a reasonable production, it's an opportunity to create jobs. Mr. Tam said that SIC chose not to place the NOC on DHHL lands so that DHHL could instead utilize it for affordable housing.

Commissioner Fujiwara asked about the existing pasture grass type and suggested that SIC use some other pasture grass suitable to that area. He also inquired as to how the pasture would be irrigated.

Mr. Lum said that sprinklers would be used.

Commissioner Fujiwara noted that the reused loi water would need to be filtered and that would add to costs. This is in addition to costs for fencing the pasture, purchase of stock animals and feed, etc. The quantity is also a concern because the area receives about 51 inches of annual rainfall. Commissioner Fujiwara also noted that most pastures aren't irrigated in Hawaii. He inquired as to the type and number of animals that would be raised.

Mr. Lum responded that goats would be profitable.

Commissioner Whalen asked whether SIC would be willing to put in a conservation easement to ensure that the land would remain in agriculture?

Ms. Chang responded that if the agriculture is not profitable, SIC may need to abandon the agriculture like the prior owners had.

Commissioner Whalen asked if SIC had requested a water management plan from the Soil and Water Conservation District. SIC should be encouraged to develop one because it would provide more information on reasonable duties. There should be more coordination with Natural Resources Conservation Service, including the development of the irrigation model. Commissioner Whalen stated that helping Hawaiians is a good thing and SIC should think about helping to make agricultural business opportunities for Hawaiians. She noted that it may be better to phase in the allocation and have SIC show some progress, rather than approving the full allocation and then having to come back for refinement.

Commissioner Miike noted that the building is very large, 19 acres, and that building it would be SIC's first priority. SIC will need landscape water for the NOC for the first phase.

Commissioner Whalen suggested xeriscaping like the Board of Water Supply uses in Halawa Valley. Xeriscaping uses very little water and can be very attractive.

Dr. Jonathan Scheuer from OHA made a few clarifications asking for more information from the applicant. Is the water potable or non-potable? Also, is it a perched aquifer or dike impounded? The well driller stated that it was a perched aquifer whereby the application stated that it was dike impounded. Dr. Scheuer suggested that in addition to xeriscaping, they might consider installing moisture sensors so that irrigation will occur only when it is dry, thereby reducing the water usage.

Dr. Scheuer also stated that a condition be placed on the permit that the water cannot be transferred to the BWS for non-agriculture use. The land must be permanently dedicated to agriculture.

Ms. Kapua Sproat, attorney for Earthjustice supported a deferral, the phasing in of irrigation water, and a complete irrigation demand and schedule for the agriculture operations.

Chairperson Young summarized that Dr. Fares' recalculation of demand is needed and that the applicant should address the questions raised by the Commissioners.

**AMENDED RECOMMENDATION:**

Defer action pending a recalculation of irrigation demands by Dr. Ali Fares and for the applicant's response to the questions and issues raised by the Commission.

**MOTION:** (Whalen/Miike)

Move to accept staff's amended recommendation for deferral

Chairman Young stated for clarification that the amended recommendation was also for deferral to the next Oahu meeting.

Commissioner Ching stated that the remaining issue was regarding quantity.

Commissioner Miike suggested to just defer without specifying a date for resubmittal.

Chairman Young encouraged more information based on these discussions.

Ms. Nakama stated that staff would draft a letter to the applicant outlining questions.

Chairman Young addressed Ms. Chang and stated that a letter will be forthcoming asking for additional information.

**UNANIMOUSLY APPROVED FOR DEFFERAL**

**E. STREAM PROTECTION**

1. **Mr. Taiwan Gu, After-the-Fact Applications for Stream Channel Alteration and Stream Diversion Works Permits, and Petition to Amend the Interim Instream Flow Standard (SCAP-HA-387), Stream Diversion for Agriculture Use, Alia Stream, Pepekeo, Hawaii (TMK: 2-8-009:045)**

Chairman Young made a note in staff's recommendation, that the last paragraph should be renumbered from 5 to 7.

Presentation of Submittal: Ed Sakoda

**RECOMMENDATION:**

That the Commission:

1. Find the applicant in violation of:
  - a. Hawaii Revised Statutes §174C-71 for not obtaining a stream channel alteration permit for the present diversion system.
  - b. Hawaii Revised Statutes §174C-93 for not obtaining a stream diversion works permit for the present diversion system.
  - c. Hawaii Administrative Rules §169-46 for installing a new diversion system without amending the interim instream flow standard.
2. Impose a fine of \$500 on the permittee, payable in 30 days.
3. Suspend any current, pending or future applications by the applicant until the fine is paid and the applicant completes the permit process for this diversion.
4. Advise the applicant that future violations of the State Water Code or any permit conditions by the applicant may be subject to suspension or revocation of these permits and petition, and fines imposed by the Commission.
5. Approve after-the-fact stream channel alteration and stream diversion works permits for a stream diversion at Alia Stream at TMK: 2-8-009:045. The stream channel alteration permit is subject to the standard conditions for stream channel alterations in Exhibit 6.
6. Approve an after-the-fact petition to amend the interim instream flow standard for a stream diversion at Alia Stream at TMK: 2-8-009:045. The Interim Instream Flow Standard for all streams on Hawaii, as adopted by the Commission on June 15, 1988, is amended to include for Alia Stream, at TMK: 2-8-009:045, that the applicant may divert up to 20,000 gallons per day, at the pumping rate of rate of 40 gallons per minute, for washing harvested produce. The amendment to the interim instream flow standard shall be subject to the conditions for interim instream flow standard amendments in Exhibit 7.
7. A totalizing flow meter, approved by the Chairperson, shall be installed on the

diversion works system to measure the amount of water diverted from Alia Stream.

**DISCUSSION:**

Mr. Taiwan Gu was not aware of the permits that he should apply for to use water for agriculture use. After being notified by staff, Mr. Gu responded quickly and is working towards complying with all requests.

Mr. Sakoda explained that any time one takes water from a new diversion or an expanded, existing diversion, one needs to amend the interim instream flow-standards (IIFS). The IIFS was set back in 1988 by the Commission and it grandfathered all existing diversions to whatever structure was there at the time. Anything above that requires an amendment to that IIFS. Also, because it is a diversion of stream water, one needs a stream diversion works permit as well as a stream alteration permit.

**MOTION:** (Fujiwara/Ching)  
To approve the submittal as recommended by staff  
**UNANIMOUSLY APPROVED**

**3. Application for a Stream Channel Alteration Permit (SCAP-HA-393), State Department of Transportation, Highways Division, Unnamed Stream at Mile Post 19.36, North Hilo, Hawaii (TMK: 3-2-02: 38 & 92)**

Presentation of Submittal: Ed Sakoda

**RECOMMENDATION:**

That the Commission approve a stream channel alteration permit for the relocation and replacement of a box culvert at the unnamed stream at Mile Post 19.36 (TMK: 3-2-02:38 & 92) North Hilo, Hawaii. The permit shall have a term of two years subject to the Commission's standard permit conditions in Exhibit 3.

**MOTION:** (Ching/Miike)  
To approve the submittal as recommended by staff  
**UNANIMOUSLY APPROVED**

The Commission on Water Resource Management was adjourned for a ten-minute break and resumed at 11:13 a.m.

**4. Cooperative Agreement with U.S. Geological Survey and Commission on Water Resource Management for Streamflow and Stream-Macrofauna Characteristics, Central Maui, Hawaii**

Presentation of Submittal: Mr. Ed Sakoda, Mr. Delwyn Oki and Mr. Steve Anthony from the United States Geological Survey (USGS) gave a PowerPoint presentation on the proposed study.

**RECOMMENDATION:**

Staff recommends that the Commission authorize the Chairperson to enter into a cooperative agreement between the Commission and the U.S. Geological Survey to undertake the specified monitoring activities and analyses. The terms of this agreement will be subject to the approval of the Chairperson and the Department's Deputy Attorney General. Contract execution will be done in accordance with Chapter 103D, HRS, and Chapter 3-122, Hawaii Administrative Rules.

**DISCUSSION:**

Mr. Sakoda noted that item E4 is a request for the Chairperson to enter into a cooperative agreement with the U.S. Geological Survey (USGS) to begin the first phase of study of the four Na Wai Eha streams (Waihee River, Waiehu, Iao, and Waikapu Streams). USGS personnel provided the Commission with a brief PowerPoint presentation describing the details of this study.

In response to increased competition for water, a petition to amend instream flow standards, and a water waste complaint – all related to the Na Wai Eha streams, the Commission needs to gain a better understanding of the effects of stream diversions on streamflow characteristics, aquatic habitat, and ground-water recharge in order to make informed decisions regarding these streams.

In this initial phase of what is hoped to be a long-term study, there are seven work elements, which will establish baseline data collection and analysis on the four Na Wai Eha streams in their current flow conditions. Data collected and analysis performed during this initial phase of the study will be made available over the Internet. This study will be completed within the federal fiscal year 2006. A report will not be a work product of this initial phase, but the initial results will be included in a final report for the overall long-term study.

Information from this initial study would be used to support a long-term study of the Na Wai Eha streams and by the Commission towards the eventual development of instream flow standards for these streams. This study would be funded through a cost-sharing partnership between the Commission, USGS, the County of Maui, and the Office of Hawaiian Affairs (OHA).

Subsequent study elements would investigate what effects/impacts there would be to these stream systems by releasing water (which is currently diverted into irrigation ditch

systems) back into these streams. The scope of the overall study will be determined upon further discussions with stakeholders.

The \$230,000 in funding for this initial study will be provided through the cost-sharing partnership members – USGS (\$115,000), County of Maui (\$75,000), Commission (\$25,000), and OHA (\$15,000).

MOTION: (Ching/Miike)  
To approve the submittal as recommended by staff  
UNANIMOUSLY APPROVED

**F. PLANNING**

1. **Request to Provide State Cost-Share Towards a Project Proposal To Update and Publish Climatological Rainfall Stations for Oahu.**

Presentation of Submittal: Neal Fujii

**RECOMMENDATION**

That the Commission authorizes the Chairperson to enter into a memorandum of agreement with the BWS to update and publish climatological rainfall stations for Oahu.

MOTION: (Fujiwara/Whalen)  
To approve submittal as recommended by staff  
UNANIMOUSLY APPROVED

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

1. June 21, 2006
2. July 12, 2006

The meeting adjourned at 11:40 a.m.

Respectfully submitted

PAULYNE K. ANAKALEA  
Secretary

Approved as submitted:

DEAN A. NAKANO  
Acting Deputy Director