

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

DATE: August 17, 2005  
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 9:04 a.m.

**ROLL CALL**

The following were in attendance:

**MEMBERS**

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

Mr. James Frazier  
Dr. Chiyome Fukino  
Dr. Lawrence Miike  
Ms. Stephanie Whalen

**STAFF**

Dean Nakano, Roy Hardy, Ed Sakoda, Neal Fujii, Glenn Bauer, Dean Uyeno, Kevin Gooding, Ryan Imata, Lenore Nakama, David Higa

**COUNSEL**

Russell Tsuji, Esq.

**OTHERS**

Jeff Mikulina, Jane Lovell, Rick Fontaine, Judith Pettihone, Barry Usagawa, Heidi Guth, Ron Englund, Manabu Tagomori, Mike Gibson, Tom Nance, Patrice Liu, Avery Chumbley, Linnel Nishioka

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

{Note: language for deletion is bracketed, new/added is underlined}

**A. APPROVAL OF MINUTES**

1. July 27, 2005

Commissioner Frazier made a correction to the July 27, 2005 minutes. The amended recommendation should read, “The Commission directed staff to contact the applicant regarding the condition of the Kaneohe Stream channel lining to eliminate structures and excavation, i.e., gardening, along the entire length of the stream banks.”

MOTION: (Frazier/Miike)  
To approve the minutes as amended.  
UNANIMOUSLY APPROVED AS AMENDED

**B. ANNOUNCEMENTS**

Roy Hardy, Hydrologic Program Manager, announced that on September 7, 2005, the Commission on Water Resource Management will be holding a continued public hearing for Iao Water Use Permit Applications at the State Office Building from 1:00 p.m. to 4:30 p.m.

**C. GROUND WATER REGULATION**

- 1. Waiawa Development LLC/Kamehameha Schools, APPLICATIONS FOR WATER USE PERMIT, Gentry Waiawa Wells 1 & 2 (Well Nos. 2658-07 & 08) TMK 9-6-005:003, WUP Nos. 692 & 693, New (Golf Course Irrigation) Use for 0.610 mgd and 0.539 mgd Per Well (Total 1.149 mgd), Waipahu-Waiawa Ground Water Management Area, Oahu

Due to a potential conflict of interest, Commissioner Ching recused herself from agenda Item C-1.

Presentation of Submittal: Lenore Nakama

**DISCUSSION:**

These applications are for Water Use Permits by Waiawa Development LLC in conjunction with the landowner at the source, Kamehameha Schools. The applications are for two water use permits for two proposed new wells to supply two proposed new golf courses at the Waiawa by Gentry Master Planned Community.

A chronology of events is listed in the submittal C-1, beginning with March 8, 2004, the date applications were received, through July 15, 2005, when Waiawa submitted their response to staff’s June 8, 2005 letter requesting more information.

Staff amended the submittal recommendations to delete the second sentence from Special Condition 4 as follows:

AMENDED RECOMMENDATIONS:

The staff finds that the proposed permits meet the criteria in §174C-49(a) HRS to obtain a water use permit and recommends that the Commission approve the issuance of Water Use Permit Nos. 692 and 693 to Waiawa Development LLC/Kamehameha Schools for the reasonable and beneficial use of 0.610 mgd and 0.539 mgd of ground water from the Waipahu-Waiawa Aquifer for irrigation of the North and South Golf Courses, respectively, from Gentry Waiawa Wells 1 & 2 (Well Nos. 2658-07 & 08), subject to the standard water use permit conditions listed in Attachment B and the following special conditions:

1. Should an alternate permanent source of water be found for this use, the Commission reserves the right to revoke this permit, after a hearing.
2. This permit is approved under the assumption that treated wastewater will become available for reuse as an alternative supply source, provided that the Department of Health has no concerns over the use of treated effluent over the potable water aquifer.
3. These permits shall be subject to a review of actual use within four years for possible modification of the permitted amount.
4. The applicant shall contact the Environmental Management Division, State Department of Health, at 586-4304, concerning "GUIDELINES APPLICABLE TO GOLF COURSES IN HAWAII" dated July 2002 (version 6). ~~The applicant shall obtain a written statement from the Department of Health indicating that their concerns have been addressed, and a copy of that statement shall be sent to the Commission within thirty days following issuance of the permits.~~
5. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.

Ms. Patrice Liu, Project Director for Waiawa Development LLC representing the applicant, emphasized a few points: 1) the request is for Water Use Permits for irrigation of two golf courses in the Waiawa by Gentry Project which is a Master Planned Community in Central Oahu; 2) the requested use for the golf courses is less than the Commission's guideline for golf course irrigation, which is 4,000 gallons per acre per day; 3) the request is for an interim use. Also, regarding Special Condition 4, Ms. Liu requested that climate factors be taken into account in the four-year review.

Commissioner Miike asked if the applicant proposed to put in a dual system, and whether the amounts that would be potable and non-potable have been identified? Staff responded

that a master plan with known quantities of potable water has been approved by the Honolulu Board of Water Supply (HBWS).

Commissioner Miike asked if a water budget was done for a normal rainfall year vs. the lower quartile year. Staff responded that it was done and is shown in Exhibit 4. Using their consultant's method, the irrigation demand for a normal year is only increased by about 6% at most.

Regarding the use of the lower quartile year, Commissioner Miike asked the applicant's consultant, Tom Nance, why the Commission should allocate water that will not be used? Mr. Nance responded that if the current regulatory approach, which is to use the 12-month moving average withdrawal, is revised to a 3- or 5-year average for compliance review, then he would agree that using the median rainfall would be acceptable.

Commissioner Miike noted that the applicant had provided no evidence to support their assertion that Pearl Country Club and Mililani Golf Club are not comparable to the proposed golf courses. Regarding the development agreement prohibition, Commissioner Miike also stated that an applicant just couldn't refuse to consider an alternative (i.e., Waiahole Ditch water). Is the agreement enforceable? Does it meet the practicality test? This is the first that the Commission is hearing about a restricted covenant. There is already about 0.17 mgd being provided to a nursery and Hawaiian Food Products on Kamehameha Schools (KS) land; therefore, it would seem Waiahole Ditch water is a practical alternative.

Commissioner Whalen asked about the timetable for HBWS to supply R-1 water. She also asked what the golf courses would do if the Commission were to revoke the permit to provide for public trust uses in the future.

Ms. Liu stated that there is no timetable. HBWS is just completing its aquifer test study (on the impacts of R-1 water application over a potable aquifer). If the Commission revokes the permit, the golf courses would need to look for another alternative or fold up.

Commissioner Fujiwara said that he had researched water use at Kapalua Golf Course, which has a similar climate to Waiawa. For July, a dry month, actual use at Kapalua was very similar to Pearl Country Club's and Mililani Golf Club's usages.

Jeff Mikulina, Director of the Sierra Club Hawaii Chapter, stated that his organization has four objections to this project: 1) lack of an updated Hawaii Water Plan or an Oahu integrated water resources plan, 2) the use of potable water is inappropriate for golf course irrigation, 3) lack of comprehensive water Plan for the Waiawa development, and 4) what is the current water situation on Oahu?

Barry Usagawa, HBWS, Water Resources Division, stated that the golf course would be using potable water with the understanding that recycled water would be available at some point in time and that the golf course would be switching to recycled water.

Mr. Usagawa stated the concern about the effects of pumping water from the mauka wells to the makai wells that was also stated by the Sierra Club. A way to resolve this is to continue to monitor the chlorides in well yields.

Mr. Usagawa stated that the Pearl Harbor Groundwater Monitoring Working Group, consisting of the Commission on Water Resource Management (Commission), HBWS, and USGS, will continue to assess the Pearl Harbor Aquifer.

Mr. Usagawa talked about bringing recycled water down from the Wahiawa Wastewater Treatment Plant to Central Oahu to serve the Central Oahu Regional Park located across the freeway from the Waiawa Gentry Project. The Department of Environmental Services will be completing their Wahiawa Facility Plan with recommended actions. HBWS will then do the design and construction, which will take about 5 years.

Another alternative to the proposed irrigation wells would be for the developer to use the existing potable wells at the 595-ft. reservoir sites that are intended to be dedicated to the HBWS for potable use. It's the same potable water but the cost of constructing a private well is deferred. In order to encourage recycled water use on Oahu it is important that the golf course not have it's own private wells. It becomes more difficult to convince users to convert to recycled water if they have their own private source.

Mr. Usagawa spoke of their experience with the golf courses in Ewa, where there is a big difference in the cost of pumping groundwater to the cost of recycled water. The Ewa golf courses have an interim water use permit and they have chloride limits; however, when the HBWS completed installation of the recycled water pipeline bringing the water to their course, they still had to negotiate costs and ended up subsidizing the recycled water use. For example, the rates started out at 25 cents per thousand gallons of recycled water and was supposed to go up to the government rate of \$1.23 per thousand gallons. However, the current negotiated rate is 40 cents per thousand gallons, and HBWS is not recovering its cost.

Mr. Usagawa suggested that everyone work together in order to better leverage the use of recycled water. In addition, the good work of the Pearl Harbor Groundwater Monitoring Working Group should continue.

Ms. Patrice Liu responded that she was astounded by the HBWS's statements with regards to using the potable wells to irrigate the golf courses. She informed the Commission that Waiawa has been in discussion for several years with the HBWS regarding their water use permit applications prior to coming to the Commission, and it was always with the understanding that there would be two onsite wells that would be utilized for the golf course irrigation. The potable wells that they are suggesting be used to irrigate the golf course are needed for the development of the residential and commercial uses within the project. If 1 million gallons per day were used for the golf courses, there would not be sufficient water to do the project within the time frame as planned; therefore, the use of the potable wells is not a feasible alternative.

Ms. Liu stated that the developer has drilled the two wells because they are needed to begin the project that will break ground next year and start serving homes and businesses in 2008. There is not enough room at the 595-ft. site to drill an additional two wells for the golf course. There are a total of three wells planned at that location, two of which have been drilled with a third to be drilled in few years to provide the additional water that is needed to serve that particular zone. The use of potable wells is not a feasible alternative to consider with respect to the golf course use.

Ms. Liu also stated that the HBWS approved earlier this year the water system master plan for the project. It specifically addressed the non-potable aspect of irrigation for the golf courses and street landscaping. It stated that the golf courses would initially be irrigated by private onsite wells that are not part of the potable system. When R-1 quality wastewater effluent becomes available for irrigation in Central Oahu, R-1 water will be used to irrigate the golf courses, and the private onsite wells will be retained as backup sources of supply. A separate appropriately-sized non-potable pipeline will be installed in the main access road at the developer's cost to facilitate conversion from groundwater to R-1 effluent. The applicant is building the pipeline from the H-2 freeway Waipio Interchange to the Waipio Golf Course, in anticipation of this R-1 water being provided. and it will remain a dry pipe until it is provided.

Ms. Liu stated that the applicant has done everything possible to demonstrate their integrity with respect to utilizing the R-1 effluent when it becomes available. The alternative that the HBWS suggests is not feasible in this instance.

Commissioner Fujiwara asked if there was a City ordinance requiring R-1 use. He said that all islands encounter the same problem and that it's a cost issue.

Commissioner Whalen asked who actually bears the cost. She also questioned Mr. Usagawa's statement regarding the subsidizing of recycled water use because no cost figures have been provided. She noted that residential water rates are always cheaper than the business rate. Should businesses be subsidizing general community waste? What is the incentive for HBWS to put in the most cost-efficient systems if HBWS is going to pass the costs on. Regarding the leveraging of businesses to take R-1 water, users are actually doing a service.

Commissioner Frasier asked if there were mauka wells that have a history of chlorides. Can HBWS look to the historic data?

Mr. Usagawa replied that more pumping experience is needed to calibrate 3-D models.

Commissioner Miike asked why has the applicant changed from KS in 2002 to Gentry in 2005 with a prohibition on Waiahole Ditch water? Ms. Liu stated that under the terms of their development agreement they are obligated to apply for water for the project.

Commissioner Miike asked for a deferment because of some concerns: 1) the amount of water being requested is an issue; it seems that the consultant is trying to force the Commission to change its way of monitoring or measuring use by questioning the 12 month moving average; 2) the applicant's lawyers should provide a legal analysis of why KS's prohibition against using the ditch water meets the "no practical alternative" test. Commissioner Miike noted that in the Waiahole decision, there were some restricted covenants about drilling on certain lands that the courts endorsed. However, in this situation, the timing and circumstances seem peculiar. If the Waiahole Ditch is found to be a practical alternative to drilling in the aquifer and the aquifer is a practical alternative to the ditch water, then a decision has to be made as to which one to select.

Chairman Young added that there is also the HBWS's alternative, which is to use existing wells and the third well that is planned. This could work into the phasing system without drilling these two additional wells. Ms. Liu stated that it would be needed for the development of residential uses and not planned to irrigate golf courses. There will not be sufficient water to serve both homes and golf courses in that service zone. The time frame for this would be 5 to 10 years.

Mr. Usagawa asked that they be given more time to investigate the alternatives with Gentry and the Commission staff.

Commissioner Frazier moved that the Commission defer submittal C-1 until a more comprehensive alternatives analysis is presented to the Commission.

MOTION: (Frazier/Whalen)

To defer

UNANIMOUSLY APPROVED TO DEFER

Commissioner Miike also stated the water budget and use amounts are an issue.

MOTION (Miike/Fujiwara)

To amend

UNANIMOUSLY APPROVED TO AMEND

2. Yu-Sen Hwang, Kahuku Shrimp Company, Ming Dynasty Fish Company and Romulo Aquinaldo, APPLICATION FOR WATER USE PERMITS, Various Wells (Well Nos. 4258-18, 4157-11, 4257-01 & 02, 4258-04 and 4258-10), Various parcels, WUP Nos. 658-663, New (Aquaculture) Use for various amounts, Koolauloa Ground Water Management Area, Oahu

Presentation of Submittal: Ryan Imata

The Applicant is applying for six water use permit applications (salt and brackish) for aquaculture use on lands leased from Campbell Estate/Aina Nui Corporation.

Mr. Imata stated that request for Water Use Permits 659, 660 & 661 be permitted as a battery. A clarification was made by the applicant that 4258-18 should be 0.600 mgd instead of 0.050 as originally stated.

A table was listed for each well listing chloride parts per million as well as the type of water used. Also listed were the seven criteria that must be met in order to obtain a water use permit.

There will be no impact on traditional and customary Native Hawaiian Practices/Historical Cultural Features. At present no issues have been raised regarding Historical and Cultural features.

**RECOMMENDATIONS:**

Because the applications meet the requirements for Water Use Permits under Section 174C-49(a), and the applicants have satisfactorily addressed alternatives, traditional and customary Hawaiian gathering rights and historical and cultural features of the area, staff recommends that the Commission approve the issuance of water use permits for the reasonable and beneficial uses as follows:

WUP No.	Permittee	Landowner	Allocation (mgd)	Water Type	Use	Well No.
658	Yu-Sen Hwang	The Estate of James Campbell	0.600	Non potable	Aqua-culture	4258-18
659*	Kahuku Shrimp Company, Inc.	The Estate of James Campbell	12.600	Non potable	Aqua-culture	4157-11, 4257-02 and 4257-01
662	Ming Dynasty Fish Company	Aina Nui Corporation	0.010	Non potable	Aqua-culture	4258-04
663	Romulo Aquinaldo	Aina Nui Corporation	0.500	Non potable	Aqua-culture	4258-10

\* note that 660 and 661 will be voided and the total allocations for 659, 660 and 661 will be combined into 659

These permits are subject to the standard water use permit conditions listed in Attachment B and the following special conditions:

- Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke this permit, after a hearing.

7. In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.
8. Standard Conditions 10 and 16 are waived for WUP Nos. 658, 659 and 663. They are not waived for WUP No. 662.

Commissioner Frazier asked a question on effluent disposal, whether the water will go back into the ocean or is there a ground well that it gets pumped into?

Ms. Linnel Nishioka stated that it would go back to the ocean.

MOTION: (Whalen/Ching)  
To approve as recommended by Staff  
UNANIMOUSLY APPROVED

**D. SURVEY**

1. Cooperative Agreement with U.S. Geological Survey for Statewide Hydrologic Data Collection and Water Resource Investigations for Fiscal Year (FY) 2006

Presentation made by State Geologist, Glenn Bauer.

Mr. Bauer stated that the present agreement is slightly different than the one used now. The reason for this is that the USGS has re-adjusted the operational costs on a per gauge per well basis to reflect program expenditures.

Under this year's FY 06 agreement, the Commission will only pay 51% instead of 55% of the total cost. Because of budgetary constraints we are sharing the cost with other divisions. The Division of Aquatic Resources will be providing \$25,000 for stream data analysis, the Division of Forestry and Wildlife, Natural Area Reserve System (NARS), will continue to pay for 13 stream gauges and 4 rain gauges on their lands. The Waiahole Trust Fund will provide \$35,000 for 4 Waiahole rain gauges and related stream studies.

Mr. Bauer mentioned that Kauai Department of Water has entered into a separate agreement with USGS and will be paying for the monitoring of wells under that agreement.

A correction on page two ~~FY 2005~~ should be FY 2006.

**AMENDED 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.

Commissioner Frazier raised the question of rising cost because of personnel. Mr. Bauer stated it was operational cost due to the gauges as well as personnel. Mr. Frazier asked if we could utilize Natural Resources Conservation Service personnel. They may be able to help monetarily instead of staffing.

MOTION: (Whalen/Ching)  
To approved as amended by Staff.  
UNANIMOUSLY AMENDED

#### **E. NON-ACTION ITEMS**

1. Lalakea Alternative Mitigation Project (LAMP) Six Month Oral Presentation by Kamehameha Schools and Bishop Museum

The meeting was recessed at 10:55 a.m.

The meeting was resumed at 11:00 a.m.

Mr. Manabu Tagomori represented the Kamehameha Schools in presenting their semi-annual report to the Commission. In addition to this, a quarterly written report will also be submitted.

Ron Englund from the Bishop Museum presented a PowerPoint presentation on the LAMP. A wide range of cooperative resource agencies are involved and the primary goals are scientific research and to provide educational opportunities in the area of science to native Hawaiian students on the Big Island, specifically in the Waimea-Waipio area.

Highlights of the past months included stream-flow restoration. On March 9, 2005 the main Lalakea Stream was restored, the original done in June 2004. Smaller tributaries were restored on August 12, 2004. Continued data collection from stream flow and rainfall gauges, post restoration data from June 29, 2004 through June 24, 2005 (with a couple of months break due to vandalism), aquatic algae collections, invertebrate collections, fish count surveys and parasite collections. KS is looking at the entire ecosystem to see how the stream recovers after water has been place back in the stream.

Student participation has increased and additional grant for this project has been received.

The largest flow was recorded during this study on March 20, 2005. An estimated 240 cubic feet per second flowed through Lalakea Stream.

Mr. Englund also stated that they are working with Mr. Jim Parham, who is also working with Bishop Museum.

Mr. Englund also touched on the educational side where the students have been doing random sampling, stream flow measurements, designing an invasive species removal project, and fish diet. A symposium was funded and held by DLNR's Aquatic Resources on Hawaiian streams and estuaries. The students that participated from the local charter school in Waimea provided the open ceremony and spoke on the Waipio Restoration Study. The speeches and PowerPoint presentations were well received by the scientists. The students also visited the Bishop Museum and worked with analyzing stream samples, worked with museum scientists and input data that they collected.

Recognition was received and an additional \$50,000 in funding to the Bishop Museum to increase their work in Waipio Valley. This will allow more native Hawaiian students from the Big Island to participate in the studies of stream flow restoration.

This three-year study will be ongoing and field work should be completed by June 2006. Data analysis and final report will be submitted to the Commission by December 2006.

2. Status Report on the Hui o Na Wai Eha and Maui Tomorrow Foundation, Inc., through Earthjustice, Citizen Complaint Against Wailuku Agribusiness Co., Inc., and Hawaiian Commercial & Sugar Company and Petition for Declaratory Order to Immediately Cease Wasting Water Diverted from Waihee, North & South Waiehu, Iao, and Waikapu Streams and Their Tributaries

Commissioner Ching recused herself from this non-action item.

Ed Sakoda made the presentation for this non-action item.

Mr. Sakoda did a brief overview of the ditch system involving the Wailuku agriculture lands and HC & S. Mr. Sakoda also showed slides of Waihee, Spreckels Ditch, Iao Stream, and Waikapu Stream.

Commissioner Miike asked why there was a great discrepancy in usage of water between 2002 and 2003? Mr. Avery Chumbley, President from Wailuku Agribusiness Company, Inc. (WACI) described the change of usage of water because of the decrease in acreage usage for pineapple.

Mr. Sakoda explained that there are variations of water estimates for sugarcane use because of differences in acreage, WACI is in transition, land use is changing, water agreements have been made and some acreage are being developed while others remain agriculture. Mr. Sakoda suggests looking at the gauges for quality control and checked periodically for accuracy.

The second part of the complaint stated that consistent overflow from reservoirs confirm waste. Reservoir numbers 6 and 9 were reported to overflow consistently. To prevent this from happening frequently, the ditch operator has to go to the intake and control some of the valves to stop the water from overflowing.

Staff went out in July to the sites where the complaint was made and there was no excess water exiting at that time. On August 5, 2005 staff made another trip with Earthjustice staff and observed some apparent waste of water out of Reservoir 37. WACI was asked, by letter, to explain the situation.

The final side of the complaint states that WACI and HC & S failed to submit accurate reports. Staff will make recommendations for Commission action at the October meeting.

The meeting was adjourned at 12:20 p.m.

Respectfully submitted,

PAULYNE K. ANAKALEA  
Secretary

Approved as submitted:

DEAN A. NAKANO  
Acting Deputy Director