

MINUTES
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: December 17, 2003
TIME: 9:00 am
PLACE: DLNR Board Room
Kalanimoku Bldg.

A. CALL TO ORDER

Chairperson Peter T. Young called the meeting of the Commission on Water Resource Management to order at 9:05A.M.

B. ROLL CALL

The following were in attendance:

MEMBERS: Mr. Peter T. Young, Dr. Chiyome Fukino, Ms. Meredith Ching, Mr. Clayton Dela Cruz, Ms. Stephanie Whalen, Mr. James Frazier

STAFF: Ernie Lau, Roy Hardy, Ed Sakoda, Glenn Bauer, Lenore Nakama, Kevin Gooding, Debbie Ward

COUNSEL: Yvonne Izu

OTHERS: Kapua Sproat, Rosemary Liu, Steve Anthony, Dick Cox and Jim Wood

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

C. ACCEPTANCE OF AGENDA

D. APPROVAL OF MINUTES

December 17, 2003.

MOTION: (Frazier/Dela Cruz)
To approve the minutes.
UNANIMOUSLY APPROVED

E. CORRESPONDENCE/ANNOUNCEMENTS by Deputy Director Ernest Lau

Deputy Director Ernest Lau updated the Commission on correspondence from Representative Dwight Takamine regarding the Lalakea Ditch System. Mr. Ed Sakoda from the CWRM staff stated that Rep. Takamine is asking that the Commission consider maintaining the Lalakea System and that the Hamakua community be allowed to participate in future meetings. One suggestion was to send Commissioner Frazier over to one of the monthly meetings and get input and report back to the Commission.

Deputy Director Lau also mentioned that the "Identification of Rivers and Streams Worthy of Protection" report was sent to the State Legislature and was also forwarded to the Governor.

F. OLD BUSINESS

Acceptance of the two Executive Session minutes from October 29, 2003 and November 19, 2003

MOTION: (Frazier/Dela Cruz)
UNANIMOUSLY APPROVED

G. NEW BUSINESS

H. REPORTS

1. As requested by the Commission in October, Kevin Gooding reported on the status of work in the Waihe'e Aquifer. Staffs' most recent work on the aquifer was to update the elevation benchmarks at existing wells. Information by the USGS and NGS (National Geodetic Survey) showed that the measured benchmark elevation at the Kanoa Test hole changed by 2 feet. This means that the calculated water level at the Kanoa Test Hole is about 2 feet lower but that the actual water level has not changed, only the calculated water level. This change in calculated water level brings the Kanoa Test Hole water level below the 6 foot 12 month moving average water level trigger set by the Commission at the November 2002 meeting.

However, the Commission has decided to defer designation action on the Waihe'e Aquifer System and directed staff to continue coordinating and working with the Maui Department of Water Supply, USGS and NGS to further investigate the water level changes. Also recommended was that the Maui Water Supply should not pump the Waihe'e Aquifer System at more than 4 mgd.

Mr. Gooding stated that we do not know the well head elevation yet but should know by the following week. After this information is gathered staff can determine whether the actual water levels have changed in the Waihe'e and Iao Aquifers.

In conclusion, USGS, NGS and staff have completed the initial fieldwork and calculations for determining Waihe'e elevations. Also, a teleconference is scheduled for December 18, 2003 with USGS and the Maui Department of Water Supply to arrange details for an aquifer recovery test. A request for funding to drill a deep monitor well in the Waihe'e Aquifer System was initiated.

Deputy Ernest Lau welcomed the presence of all 6 Commissioners at this last regular meeting of the Commission in 2003. Also, an honored guest in the audience, former Water Commissioner Dick Cox, was recognized.

2. State Geologist Glenn Bauer presented a report on "A Study of the Ground Water Conditions in North and South Kona and South Kohala Districts, Island of Hawaii, 1991-2002".

Two rain gauges were established, one at Puu Kemole and the other at Naohueleelua on the 1859 lava flow. We have been collecting 15 minute rainfall data from these 2 gauges for about 10 years. A large scale housing and hotel development proposed in the early 1990's created a greater demand for water that resulted in competition among private developers, the County, and State agencies for the ground water resource. This created tension among the water developers and an explosion of new water wells, many of which were too close to one another, resulting in well interference.

User groups were established to discuss and resolve the problems of well placement including the Hualalai User's Group that consisted of developers and County and State people from North and South Kona and the Lalamilo User's Group which is located in South Kohala. We solicited help from landowners and the public utilities consultants for access and received cooperation that allowed us access to go in and measure wells. We established a very good relationship for the past 10 years that is ongoing.

The first steps to develop a ground-water monitoring network is to locate as many wells as possible so that you can connect those points and make water level elevation maps. Other data can also be collected and analyzed. We set up a schedule to monitor water levels. It takes 2 - 3 days to measure the monitor wells because of the distances and driving conditions. Also, many of these wells are greater than 1,000 feet to water.

The work over time has included 10 high level wells and 30 basal wells that resulted in 171 individual measurements in the high level wells and 636 individual measurements in the basal wells. We used an accurate water level sounder to measure down to the water surface from an accurate benchmark. We recorded the date and time of measurement, temperature, water samples and other useful data to increase our knowledge and database.

We put together a basal ground-water map that showed contours of equal elevation based on the average water levels taken over the entire 10 years. Because of the lack of a caprock formation, ground-water levels are pretty low, varying between less than 2 feet to greater than 12 feet.

In conclusion, “the data compiled strongly suggest a decline of water levels in some of the high level wells and an apparent relationship to water level decline and climatic conditions as recorded in the Lanihau and Huehue Ranch rain gauges.”

“The data suggest that there is a water level pattern as observed in the high level wells with Keopu being the “drain” for the ground-water flow system. The ground-water flux south of Keopu is to the north, and to the north of Keopu, the ground-water flow is to the south.”

“The data suggest the influence of climate over long-term trends in the basal aquifers. Because this area is experiencing tremendous growth in population, hotel construction and the development of large acreages of land, the ground-water monitoring network will continue to provide knowledge and will be the basis for better management of the resource by both public and private entities. The ground-water monitoring network described is actually a partnership between government and the private entities.”

It is recommended that this monitoring work continue and new hydrological and geological information (i.e. drill cuttings, water samples, water level measurements) be analyzed and incorporated into our current understanding of West Hawaii geo - hydrology.

Acknowledgements were given to Mitchell Ohye, Neal Fujii, Lenore Nakama, Kevin Gooding, Richard Jinnai (retired), Dean Uyeno, and Ryan Imata, USGS-HVO and Water Resources Division, private consultants and landowners.

Deputy Director Lau recognized the good work of Glenn Bauer and Kevin Gooding of putting these reports together.

Commissioner Frazier acknowledged the memo that was received from Chairman Young on the direction that DLNR and CWRM is taking, a positive proactive direction.

I. TOPICS FOR FUTURE COMMISSION MEETINGS

J. NEXT COMMISSION MEETINGS

1. January 13, 2004
2. February 18, 2004

K. UPCOMING EVENTS

L. ADJOURNMENT

The meeting was adjourned at 10:00 a.m.

MOTION: (Frazier/Ching)
UNANIMOUSLY APPROVED

Respectfully submitted,

PAULYNE ANAKALEA
Secretary

APPROVED AS SUBMITTED:

ERNEST Y.W.LAU
Deputy Director