

Approved by Commission on  
Water Resource Management  
at the meeting held on  
8-20-14

MINUTES  
FOR THE MEETING OF THE  
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: July 16, 2014  
TIME: 9:30 am  
PLACE: DLNR Board Room  
Kalanimoku Bldg.  
1151 Punchbowl St., Room 132  
Honolulu, Hawaii 96813

Chairperson William Aila called the meeting of the Commission on Water Resource Management to order at 9:35 am.

The following were in attendance:

**MEMBERS:** Mr. William J. Aila Jr., Mr. Milton Pavao, Mr. Jonathan Starr,  
Mr. Michael Buck, Mr. Kamana Beamer

**ABSENT:** Ms. Linda Rosen

**STAFF:** William Tam, Roy Hardy, Dean Uyeno, Paul Eyre, Jonas Burgon,  
Rebecca Alakai, Neal Fujii, Malie Beach-Smith, Lenore Ohye, Ryan  
Imata, Patrick Casey, Charley Ice, Jeremy Kimura, Robert Chenet

**COUNSEL:** Cindy Young, Esq.

**OTHERS:** Dan Purcell, Shae Kamakaala, Kaleo Manuel, Jonathan Scheuer, Tammy  
Duchesne, David Schulmeister, Elijah Yip, Caroline Ishida, Laura  
McIntyre, Larry Miike, Summer Silva, Ashley Obrey

**A. APPROVAL OF MINUTES**

June 18, 2014

Chair Aila asked to defer the approval of the minutes because not enough members from the June 18 meeting were present.

**MOTION: Deferred until August 20, 2014.**

**B. ANNOUNCEMENTS**

**1. Welcome new Commissioner Michael Buck**

Chair Aila welcomed Michael Buck to the Commission and remarked on his long history with the Department of Land and Natural Resources ("DLNR"). He lamented the resignation of Commissioner Ted Yamamura.

**2. Financial disclosure statements SB2682 (Act 230)**

Deputy Director William Tam commented that members of other boards have chosen to resign as a result of the new financial disclosures law.

**3. Subscription to BC Water News**

Deputy Tam encouraged the commissioners to subscribe to Brown & Caldwell's online water news for daily updates on the California drought.

**4. Parking protocol for Commission members**

Private Assistant Katie Erbak explained the parking protocol for Commission members and the appropriate use of the blue parking permits.

Commissioner Pavao asked why the state would not provide parking to members of boards and commissions.

Deputy Tam said he would talk to the Department of Accounting and General Services ("DAGS").

**5. Joint State Water Conferences in August**

Lenore Ohye (Planning Branch Chief for CWRM) gave details about the Joint State Water Conferences sponsored by CWRM and the Department of Health ("DOH") Safe Drinking Water Branch. The conferences provide an opportunity for networking, input and feedback. Conferences will be held on Kauai, Maui, Hilo, Kona, and Oahu throughout the month of August. The morning sessions will provide updates on the Water Resources Protection Plan ("WRPP"), Water Quality Plan and County Water Use & Development Plans. The afternoon sessions will focus on reclaimed water and a panel discussion on wastewater reuse.

**6. Native Hawaiian Law Boards and Commissions Training – scheduling a future training for commissioners**

Deputy Tam said a special session for members of the Water Commission on Native Hawaiian Law Boards and Commissions training will be arranged in the next few months.

**C. UPDATES****1. Status of Proceedings: Na Wai Eha (Appurtenant Rights); East Maui Instream Flow Standards (after remand); Petition to Designate Kona as a Ground Water Management Area, West Kauai surface water investigation**

Deputy Tam gave an update on the following proceedings.

**1a. Na Wai Eha (Appurtenant Rights)**

There are tentative plans to return to Maui in November to proceed with the appurtenant rights hearing.

Dean Uyeno gave an update on the Na Wai Eha stream restoration agreement. Wailuku Water Company ("WWC") has a proposal to put water back into the streams. Implementation of the agreement is expected in early to mid-August. Construction is required at certain sites and will take time to complete. The release point at Waikapu Stream also needs to be fine-tuned. Due to heavy rainfall there is currently water flowing in the streams. Iao and North Waiehu are the focus areas. It could take 2-3 months to complete construction of the weir.

Commissioner Beamer asked to be informed of the official release date.

Mr. Uyeno said he would keep the commissioners informed.

Commissioner Starr asked about a potential site visit.

Mr. Uyeno said he would look into it.

**1b. East Maui Instream Flow Standards (after remand)**

The East Maui contested case is being discussed between the parties and the hearings officer.

**1c. Petition to Designate Kona as a Ground Water Management Area**

Two days of site visits are scheduled for Kona in September and October.

Commissioner Starr asked if the site visits could occur on consecutive days.

Deputy Tam explained that the site visits are dependent on scheduling and venue availability. A regular Water Commission meeting is scheduled for October 1, 2014. The decision to proceed is set for December 10, 2014. If the decision to proceed moves forward, the Commission must make a decision about designation within 90 days.

Jonathan Scheuer a consultant with the National Park Service and Tammy Duchesne, Superintendent, Pu'uhonua o Honaunau & Kaloko-Honokohau National Historical Parks read their testimony aloud and expressed their preferred dates for the site visits.

Dan Purcell asked if video conferencing could be used for the meetings in Kona.

**1d. West Kauai surface water investigation**

A site visit to West Kauai is tentatively scheduled for the end of August with the investigator, parties and CWRM staff.

**D. PRESENTATIONS AND BRIEFINGS**

**1. DOH Draft Water Quality Plan Update**

Caroline Ishida (Coordinator for DOH's Environmental Planning Office) and Laura McIntyre gave an update on DOH's Draft Water Quality Plan ("WQP"). In March 2014, DOH met with staff at CWRM to brief them on the initial planning phase and

discuss how the WQP fits within the WRPP. The first preliminary draft is complete. It has been distributed to agencies for review and comment. DOH will incorporate comments into the draft plan and present those findings at the Joint State Water Conferences in August. The public unveiling of the draft will be presented at the Joint State Water Conferences and public comments will be accepted through October 15, 2014. A final draft of the plan will be available by January 2015. The WQP is consistent with the statewide framework for water use and protection. Technology updates and information sharing is expected to enhance data sharing across departments. Water quality maps are currently being updated. The safe drinking water portion of the plan covers the groundwater protection program and strategies, underground injection wells, groundwater contamination, and details the statewide safe drinking water revolving fund. DOH's waste water reuse guidelines are also being updated. The plan details how other branches at DOH manage issues related to water quality.

Commissioner Pavao asked if old plantation sites are the most susceptible to groundwater contamination.

Ms. Ishida said there could be a correlation, but further investigation is needed.

Commissioner Starr said the update is needed and appreciated. He thanked the DOH for creating a framework to deal with accountability for groundwater contamination. He asked how the public could provide input and suggestions.

Ms. Ishida said the public will have ample time to provide comments from mid-August through October. The viewer has been designed using Google maps so the public will have access to the different layers of information.

Commissioner Pavao recommended that DOH work with the local water municipalities on each island. He suggested that the scope of the revolving fund be tightened to deal exclusively with water quality.

Commissioner Buck proposed that the plan address the values at risk and the types of expenditures needed to ensure the success of the plan.

Commissioner Starr agreed and said resources are necessary to guarantee follow through. It is essential to identify potential problem areas and proactively pursue mitigation measures.

Ms. Ishida said the DOH would look into addressing those comments in the plan.

Dan Purcell commented on DOH's strategic plan for the next legislative session and requests for funding.

## **2. Low-Flow Characteristics of Streams in the Lahaina District, West Maui, Hawaii**

Chui Ling Cheng (USGS Hydrologist) described the results of a low-flow study conducted by USGS. The study was funded in part by CWRM to ascertain instream flow information for streams in West Maui. The study sought to quantify streamflow under low-flow and natural conditions. The report is available online at the USGS

website. The study area includes 10 watersheds in West Maui. Streams north of Lahaina tend to flow in response to rainfall, while streams south of Lahaina are perennial in the upper regions and flow mauka to makai 90 percent of the time during natural flow conditions. Mean annual rainfall at Puu Kukui is 366 inches. Development tunnels are found in the upper watershed in dike impounded areas. The study sought to address four major questions 1) what is the surface water availability under natural flow conditions? 2) how does streamflow vary along the streams (how much is gained or lost)? 3) do the streams naturally flow mauka to makai? 4) how can we use this information?

Commissioner Starr asked if the "natural" mauka to makai flow included the man-made development tunnels.

Ms. Cheng replied "yes, with the tunnels in place."

Surface water availability is quantified using probability (aka: low flow duration discharges). Over the course of one year, natural flow was measured at each gaging station. Q95 = the flow that is equal to or exceeded 95 percent of the time. In other words, 5 percent of the time, the flow at a given gaging station is going to be lower than "x" million gallons per day ("mgd"). The study sought to quantify a range of low flows between Q95 and Q50. Correlations could be enhanced with an increase in the number of gaging stations. Measurements sites were located above the diversions. Data was collected over the course of 2 ½ years during a range of flow conditions. A common base period was used to ensure accurate results.

Commissioner Starr asked if the majority of the Q95 flow was coming from development tunnels.

Ms. Cheng answered "no." You can assume it for some streams, but not others.

During surveys, several streams were dry. Researchers went back to observe the streams during high flow events and discovered that the streams were dry 50 percent of the time. These streams tend to lose most of their water to the water table which is located below the streambed. Seepage runs were taken for all the streams with flow to estimate gains and losses. The data results indicate that many of the streams are dry and do not flow to the ocean. However, certain streams flow mauka to makai 90 percent of the time and tend to gain flow in the upper reaches and lose flow in the lower reaches. The information can be used to establish instream flow standards, quantify surface water availability for downstream use, estimate ground water recharge, and promote additional investigation at the hot spots.

Commissioner Buck asked how the information could be used to help establish instream flow standards.

Ms. Cheng said instream flow standards encapsulate many of the beneficial issues outlined in the Water Code. The data provides a numerical foundation from which to make decisions about diversions and how much water needs to remain in the stream to support biological life.

Commissioner Beamer said it was helpful to see which streams have mauka to makai flow and the conditions needed to ensure flow to the ocean.

Commissioner Starr said it was interesting that many of the mauka to makai flow occurs in the drier areas. He asked if the development tunnels were contributing to the flow.

Ms. Cheng said certain streams capture most of the water in the upper reaches, leaving others with very little flow. The streams in the north tend to be longer and more susceptible to water loss.

Commissioner Pavao asked if the local municipality utilizes the dike water.

Ms. Cheng said the Maui Department of Water diverts from the stream and treats the water. They also use wells.

Commissioner Beamer asked about the number of development tunnels.

Ms. Cheng said certain areas were difficult to access and they do not know the exact number.

Commissioner Starr asked if the CWRM staff could arrange a presentation about the development tunnels in West Maui.

Ms. Cheng said the report has a summary of the historic and current diversions.

Commissioner Beamer asked if USGS worked with Kamehameha Schools ("KS").

Ms. Cheng replied "yes." KS recently installed a new gaging station and wanted to know if the USGS numbers matched the numbers from the KS gage. The results were very similar.

### **3. USGS Cooperative Agreements**

Stephen Anthony (Director of USGS Pacific Islands Water Science Center) gave an overview of the various branches at the U.S. Geological Survey (USGS) in Hawaii. Typically state and local agencies contribute two-thirds of the total cost of a project. USGS primarily focuses on data collection and interpretation. Projects and studies are driven by the needs of external stakeholders. The mission of the USGS Pacific Islands Water Science Center ("USGS PIWSC") is to help manage and protect water resources.

Commissioner Pavao asked if the USGS PIWSC was still operating a well drilling program.

Dr. Anthony said "no." USGS PIWSC used to do exploratory drilling to help the local municipalities understand their resources. That program shifted away from the county water departments with Senator Inouye's passing.

Focus areas include ground water availability, quantity and variability of streamflow, water quality related land use, and climate variability and change. External funding partners include CWRM, the Honolulu Department of Environmental Services, Department of Transportation ("DOT"), the county water departments, the National Park Service ("NPS"), and the Department of Defense ("DOD").

Commissioner Buck asked if there were any active DOD projects in Hawaii.

Dr. Anthony replied "no." USGS PIWSC is engaged in smaller monitoring and interpretive projects involving ground water.

Commissioner Starr asked who was responsible for the hydrological monitoring at the Navy's Red Hill fuel storage facility.

Dr. Anthony said there are consultants working for DOD and the USGS PIWSC is cooperating with the Honolulu Board of Water Supply ("BWS").

Current projects funded by CWRM are statewide water monitoring, long-term data collection, water resource assessment sites, and stream gaging stations. There are large data gaps in the network of monitoring stations. Funding gages is a challenge. Other current programs include estimating ground water recharge on Maui and Oahu, which helps CWRM update ground water availability models and sustainable yield estimates.

Commissioner Beamers asked if the USGS publications are peer reviewed.

Dr. Anthony replied that the USGS scientific investigation reports go through a formal peer review process and are approved by the Director of USGS. The reports must have at least two peer reviewers. One reviewer must be outside of the USGS.

Commissioner Beamer asked if the recharge studies can inform other study areas.

Dr. Anthony said the recharge estimates for Kauai and Molokai are underway. Recharge estimates for the Big Island have already been completed.

Commissioner Starr asked what additional data needs to be collected.

Dr. Anthony said all the data has been collected and they are in the review stage. Improvements could be made to some of the data sets for rainfall and runoff since gaging stations are not located in every watershed. A more complete picture is needed.

Commissioner Starr asked if the lack of gaging stations has led to assumptions that may be inaccurate.

Dr. Anthony replied that funding more gages could improve the data. However, funding limitations make it impossible to gage every stream in Hawaii.

Commissioner Starr voiced his concerns about modeling with limited data.

Dr. Anthony agreed and said more stream gages are needed.

Commissioner Starr asked if the USGS could produce a list of priority gaging sites.

Dr. Anthony said he plans to meet with CWRM staff to discuss priorities for next year.

USGS PIWSC is involved with various studies. Currently USGS PIWSC is studying the connection between the high and low level ground water in Kona. Another study will assess water availability during low flow events. The goal is to develop a statewide web based tool to estimate natural low flow conditions at gage sites. The tool is currently available to estimate peak flows. This information can be used to address instream flow standards. USGS is committed to funding half of their projects and is reaching out to other partner agencies. Other relevant programs to decision-makers include the impact of climate and changes in ground cover on recharge rates. Ground water recharge and availability on Molokai is another ongoing study to be completed next year. Ground water recharge for Pearl Harbor will also be completed within the next year. An assessment of ground water flow related to the Red Hill fuel storage leak is being undertaken in conjunction with the BWS.

Commissioner Starr asked about the Red Hill study.

Dr. Anthony said they are in the first phase of the study and are looking at monitoring wells in the area to get a better estimate of the water level measurements and the slope of the water table. He went on to describe the various other ongoing USGS PIWSC studies. A cooperative agreement for the data collection program is forthcoming.

Commissioner Starr said the USGS PIWSC studies are important. He expressed the need for more funding.

Dan Purcell asked if staff is familiar with similar studies at the University of Hawaii.

Dr. Anthony said there is close interaction with faculty at the University of Hawaii. Recent graduates often seek employment with USGS and they have a summer program that funds three native Hawaiian students.

Mr. Purcell asked if there was a database of current and future studies.

Dr. Anthony replied that the Pacific Regional Integrated Sciences and Assessments program ("Pacific RISA") and the National Oceanic Atmospheric ("NOAA") maintains a website that has data from different studies.

Chair Aila added that the various studies are directed toward the management of the resource.

Dr. Anthony commented that the USGS funding model forces them to undertake studies that are relevant to decision-makers.

## **E. PLANNING**

### **1. Request for Authorization to Initiate Rule-Making Proceedings to Amend Hawaii Administrative Rules §13-167-10(b), §13-168-3(a), and §13-169-3(a) to Increase the Maximum Fine Amount from \$1,000 to \$5,000**

In 2004 the Legislature amended the State Water Code to increase fines up to \$5,000. CWRM needs to revise their Administrative Rules to reflect the new statute.



RECOMMENDATION:

Staff recommends that the Commission:

1. Authorize the initiation of rule-making proceedings to amend Hawaii Administrative Rules, HAR§13-167-10(b), §13-168-3(a), and §13-169-3(a) to increase the \$1,000 maximum fine to \$5,000.
2. Request approval from the Governor to conduct public hearings on the proposed rule amendments.

(DISCUSSION)

Commissioner Pavao asked if the fines involve corrective action.

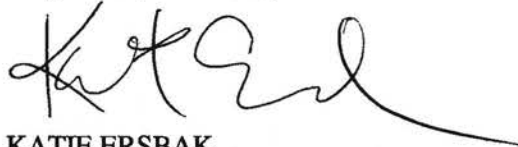
Ms. Ohye said violations are intended as a deterrent.

Deputy Tam said the new rule allows for a maximum fine up to \$5,000.

**MOTION: (Starr / Pavao)**  
**To approve staff's recommendation.**  
**UNANIMOUSLY APPROVED.**

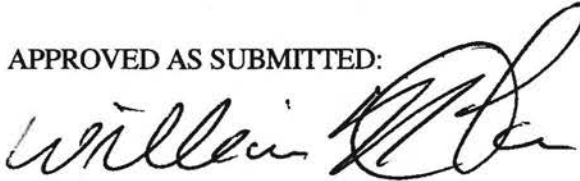
Chairperson William J. Aila, Jr. adjourned the meeting at 11:55 am.

Respectfully submitted,



KATIE ERSBAK  
Private Secretary to the Deputy

APPROVED AS SUBMITTED:



WILLIAM M. TAM  
Deputy Director