

MINUTES
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

Approved by Commission on
Water Resource Management
at the meeting held on
1-28-15

DATE: November 19, 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. Jonathan Starr, Mr. Michael Buck,
Mr. Kamana Beamer, Mr. Milton Pavao, Ms. Denise Antolini

ABSENT: Ms. Linda Rosen

STAFF: William Tam, Roy Hardy, Dean Uyeno, Rebecca Alakai, Malie Beach-
Smith, Lenore Ohye, Patrick Casey, Jeremy Kimura, Robert Chenet,
Ayrton Strauch, Paul Eyre

COUNSEL: Cindy Young, Esq.

OTHERS: Kevin Hamilton, Leslie Kurisaki, Shannon Wood, Gary Gill, Wil
Yamamoto, Randall Wakumoto, Steven Harano, Tammy Duchesne,
Jonathan Scheuer, Bianca Isaki, K. Aton, Kurt Inaba, Rick Robinson,
Dan Purcell, Quirino Antonio, Riley Smith, JMW

A. APPROVAL OF MINUTES

October 1, 2014

Commissioner Starr requested that the word "move" be changed to "line" the storage tanks at the Red Hill Fuel Storage Facility.

MOTION: (Starr / Beamer)
To approve the minutes with the amendment.
UNANIMOUSLY APPROVED.

B. ANNOUNCEMENTS

Chair William Aila welcomed new commissioner Denise Antolini.

Commissioner Antolini thanked Chair Aila and said she looked forward to learning from the other commissioners and staff.

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)

On Friday, November 21, 2014 the commissioners will meet on Maui to hear objections and testimony from the public on appurtenant rights. A provisional order will be issued following the hearing. If time allows, commissioners may tour the diversions along Iao Stream.

Commissioner Beamer asked if the agreement was being upheld.

Dean Uyeno (Branch Chief, Stream Protection and Management) said CWRM staff has returned to Maui to measure and monitor the stream flow on Iao and Waikapu Stream. Staff is in the process of developing the rating curve. Staff plates will be installed on Iao and Waikapu Streams on Thursday, November 20, 2014.

Commissioner Pavao asked about the conversion to convert cubic feet per second ("cfs") to million gallons per day ("mgd").

Mr. Uyeno said roughly two-thirds.

Commissioner Beamer asked if 5mgd was flowing at the mouth of Iao Stream.

Mr. Uyeno replied that staff is working with Hawaiian Commercial & Sugar ("HC&S") to determine the appropriate release in order to achieve the 5mgd.

Chair Aila said the scientific instruments will help confirm staff's assumptions that the 5mgd is being met.

Mr. Uyeno said there is an un-channelized section on Iao Stream. Some of the water runs into a low-flow channel. Staff is in the process of figuring out how to measure it.

Commissioner Beamer noted the protests by members of the public. He said the Water Commission needs to reinstitute the public's trust in the process. It is the duty of the Commission to meet the terms of the agreement. He said he was uncomfortable with the way things have been handled.

Mr. Uyeno said a basic understanding of hydrology would alleviate some of the fears raised by members of the public. Saturation of the stream bed takes time.

Commissioner Beamer said it is important to think creatively about these issues. Communities can be involved in the monitoring.

Mr. Uyeno said Wailuku Water Company (“WWC”) has expressed interest in sharing their data on a daily basis via Google Docs. The staff plates should be publically accessible so members of the public can help monitor. There were incidences of vandalism after the initial release.

Commissioner Beamer stated that this is our opportunity to get ahead of these issues. The Water Commission will never appease all sides, but we need to be more proactive and transparent.

Commissioner Starr said the protests may be driven by confusion and a hundred years of frustration. He asked Mr. Uyeno to explain the ratings curve and the current measurements.

Mr. Uyeno explained the Instream Flow Standard (“IFS”) point on Waikapu Stream is difficult to access. WWC installed a staff plate downstream of the agreed upon IFS in a place that is easier to get to. The water loss between the actual IFS point and the measurement site need to be accounted for. The intake on Iao Stream feeds the County of Maui. Releasing at the diversion point would make it difficult to meet the County’s water needs. Low rainfall can make it difficult to meet the terms of the agreement.

Commissioner Starr asked if the sluice gates would need to be adjusted depending on the stream flow.

Mr. Uyeno replied “yes.” It is up to WWC to adjust the sluice gates in order to meet the IFS.

Commissioner Starr asked if the IFS diminish when rainfall declines.

Mr. Uyeno said the IFS will not be met in low flow conditions. HC&S has created a plan to address the issues at the Spreckels Ditch to maintain connectivity. CWRM is drafting a grant proposal to improve upstream migrations for stream biota along Iao Stream.

Commissioner Starr asked about the U.S. Army Corps of Engineers’ (“USACE”) plans to make the channelized sections of Iao Stream friendlier to stream biota.

Mr. Uyeno said USACE has expressed an interest in deepening the low flow channels, but the status of the proposal is unknown.

Commissioner Beamer asked if there was an alternative to adjusting the sluice gates every time there is a change in stream flow.

Mr. Uyeno said staff is bound by the terms of the agreement. Staff was never consulted before the decision and order was issued. Balancing the needs of both sides is important.

Commissioner Starr commented on the need for an open and honest discussion to lay the ground work for a long-term structure for managing the streams and water use in Na Wai Eha.

Deputy Tam lamented the lack of funding from the Legislature.

Commissioners Beamer and Pavao thanked Mr. Uyeno and staff for their hard work.

Commissioner Antolini asked if visual evidence (e.g. web camera) of stream flow could be provided to members of the community in an effort to build trust. She asked what grant opportunities might exist.

Mr. Uyeno said the location of the staff plates will be accessible to the public.

Commissioner Antolini reiterated her suggestion for web cameras.

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

Hearings are scheduled for early 2015.

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

A briefing by the Hawaii County Department of Planning and the Department of Water Supply will begin after today's meeting. A decision on whether to continue the designation process will be made on December 10, 2014 in Kona. A decision on the merits of the petition will occur in 2015.

1d. West Kauai surface water investigation

The consultant, Steve Spengler has done a preliminary site inspection and will present his findings to the parties in early December. A future site visit for the commissioners will also be arranged.

2. Response to Office of Information Practices (OIP) Notice of Appeal of Sunshine Law Complaint (S APPEAL 15-8) regarding Keauhou Site Investigations

A complaint was filed regarding the Keauhou site investigations. OIP will prepare an answer to CWRM's response.

Chair Aila asked about the testimony provided to the commissioners regarding the complaint.

Deputy Tam clarified that the letters were provided to give context to the complaint. He said videos from the Keauhou site investigations have been posted to the CWRM website.

Deputy Attorney General ("AG") Cindy Young said the letters would not be viewed as testimony.

Tammy Duchesne, Superintendent, Pu'uhonua o Honaunau & Kaloko-Honokohau National Historical Parks, handed out supplemental information regarding Item 1c.

Dan Purcell voiced his concerns about the public's exclusion from portions of the Keauhou site visits. He asked why it took so long to post the videos.

D. PRESENTATIONS AND BRIEFINGS**1. "Hawaii Regional Climate Model." Kevin Hamilton, PhD, International Pacific Research Center**

Neal Fujii (CWRM, State Drought & Water Conservation Coordinator) introduced Kevin Hamilton.

Dr. Hamilton spoke about the Hawaii Regional Climate Model and his work at the International Pacific Research Center ("IPRC") at the University of Hawaii ("UH"). Historic records are used to generate different models and projections. The annual average temperature is expected to rise throughout the 21st century.

Commissioner Beamer asked if the projections are based on a 1 percent increase.

Dr. Hamilton said the projections are based on a whole range of possibilities. The Hawaii Regional Climate Model is based on mid-level warming projections. The rate of warming varies based on various growth scenarios. The rate of warming is intensified by fast growth scenarios. The problem with the global model is the scale of the grid and resolution which is too large to account for changes in Hawaii. Small models must be embedded into the global model to create higher resolution projections. Rainfall rates in Hawaii vary greatly within 10 to 15 kilometers. There are many microclimates. The Hawaii Regional Climate Model forces boundary conditions to produce more accurate projections at a 3 kilometer resolution. Projections for future climate runs are based on present day observations and global warming increments projected in the models. This mixes present day variability with the long term changes. The increments are based on a multi-model mean that averages the existing models. There is intensified warming at higher altitudes (~6 to 7 degrees Fahrenheit). If the projections are correct, Mauna Kea will have no snow by the end of the century. The percentage change in mean rainfall rates by the end of the century is expected to change. Dry areas will become drier. Wet areas will become wetter. This overall pattern is true throughout the Hawaiian Islands. Warmer temperatures will also lead to higher rates of evapotranspiration and more trade wind inversion days.

Commissioner Beamer asked if the new patterns of rainfall would have implications on recharge.

Dr. Hamilton replied there will be heavier and more intense rain events.

Commissioner Starr asked about similar conclusions made by the USGS.

Dr. Hamilton said there are limitations to what we can learn. The climate will change over time, but the natural scale of change is less certain. In the Pacific there is a lot of variability over time. The Hawaii Regional Climate Model is a reasonably good representation of climate into the future given the predicated changes.

Commissioner Buck asked if the extreme global predictions were incorporated into the model.

Dr. Hamilton said the overall pattern will be similar.

Commissioner Beamer asked about condensation.

Dr. Hamilton said everything will get warmer, which puts more water vapor in the boundary layer. Large storm events will be less frequent.

Deputy Tam asked if rainfall patterns would impact the location of wells.

Dr. Hamilton said the results were shared with the USGS. There will be practical implications for the model. Problems will likely be exacerbated in the dry areas of the state.

Commissioner Starr asked if fewer storms will mean less flash flooding.

Commissioner Antolini asked if there is cooperation between Water Resources Research Center ("WRRC") and IPRC.

Dr. Hamilton said the model has connected various researchers at UH. USGS has the most direct interest in the hydrology.

2. Report on Red Hill Task Force. Gary Gill, Deputy Director, Hawaii Department of Health

Gary Gill, Deputy Director at the Department of Health ("DOH") summarized the history of the Red Hill Fuel Storage Facility. In January 2014, the Navy reported a leak from one of the fuel tanks. Steps have been taken by the Navy to address the situation. First, the Navy emptied the tank and tried to contain the leak. The Navy drilled 12 holes into tank 5 to assess the extent of the leak and look for "free product" of jet fuel residue between the tank and the concrete liner. No fuel has been found nearby, which means the fuel has likely leaked and been absorbed into the bedrock.

Commissioner Pavao asked if the Navy knows what part of tank 5 had leaked.

Deputy Gill replied that it took 4-5 days to drain the tank. More than 600 anomalies were reportedly found in the tank. 50 of those anomalies were tested and approximately 17 failed. The Board of Supply ("BWS") is concerned about seepage and contamination of nearby wells and drinking water sources. Trace levels of petroleum have been reported in the Navy's drinking water supply. The leak has penetrated approximately 80 feet of bedrock and has reached the water table. The Navy has drilled two additional monitoring wells between the tanks and Halawa Prison. The Navy has reported no staining in the rock cores of the monitoring wells and has not found any petroleum product in those two locations. DOH is asking for additional monitoring wells to be drilled along the perimeter of the tanks in areas where contamination has been detected. A minimum of six monitoring wells is required to adequately assess the extent of the contamination. Petroleum staining has been discovered under all 20 tanks, which means that contamination of the groundwater precedes this most recent spill. BWS wells remain pristine at this point. They continue to test on a quarterly basis.

Commissioner Pavao asked if anyone else has reported contamination.

Deputy Gill said not at any drinking source. Trace amounts have been detected at the Navy's drinking water source.

Commissioner Starr asked if leakage has been discovered in any of the tanks that are currently in service.

Deputy Gill said the Navy had not reported any leaks prior to January 2014, but DOH knows that all of the tanks have leaked at some point in their lifetime. The technology to detect leaks is rudimentary. None of the tanks have leak detection or lining which is standard for any gas station. All of the tanks are slowly leaking. The bedrock below each tank is acting like a sponge and absorbing what is leaking from these tanks, some of which is contaminating the groundwater. The tanks are all connected through a pipeline but each tank is encased separately.

Commissioner Beamer asked about the fuel tank standards for gas stations and why the Navy is exempt from these basic regulations.

Deputy Gill replied that the tanks are field constructed and one-of-a-kind. Nothing this big exists anywhere else on Earth. It is an engineering marvel. However, the welding technology from the 1940s is prone to leaks. The Navy's attempt to locate the "free product" has not been successful. Identifying the amount of fuel in the groundwater will take time, but progress has been made. The Navy needs to decide whether they want to repair and upgrade the tanks or shut them down. Neighborhood gas stations require double-lined leak technology that can employ a sensor to report leaks and identify the quantity of fuel released. These requirements are not part of federal law. The best security measure would be to take the tanks out of commission. The Navy is unlikely to do that. If the Navy decides to keep the tanks, they must identify how they plan to protect the groundwater.

Commissioner Pavao asked if the Navy is responsive.

Deputy Gill answered that the Navy is a bureaucracy. They don't agree with everything. It will take several more months to reach an agreement. Hawaii's congressional delegation has been briefed on the issue.

Commissioner Pavao asked about the aquifer under the tanks.

Deputy Gill said it is a basal aquifer. There has been some groundwater modeling for the area.

Commissioner Buck asked how DOH would handle the issue in light of the change in administration.

Deputy Gill said continuity will remain on the Water Commission and at the BWS. The Water Commission should stay involved and interested.

[Deputy Gill excused himself but said he would return to answer more questions after his meeting].

Commissioner Starr thanked Deputy Gill for returning to answer questions. It is a very serious issue that affects Honolulu's water supply. He asked what the Commission can do.

Deputy Gill said EPA and DOH are attempting to get the Navy to agree on a statement of work and negotiated consent order to identify time, conditions, authority and the amount of work to be done by the Navy. The existence of the tanks constitutes a threat to groundwater. This negotiated settlement agreement is ongoing. EPA will come in December to meet face-to-face with the Navy. The final agreement will be made public. There is the possibility that the negotiations will fail. The Commission should continue to ask for reports, participate in the task force meetings, and discuss the issues. A report will be submitted to the Legislature prior to the 2015 session. He encouraged the commissioners to stay involved and hold the Navy accountable.

Commissioner Pavao asked if a letter of concern from the Commissioner to the Navy would be helpful.

Deputy Gill said it would be helpful. Realistically, the improvements needed to upgrade the system will cost a lot of money.

Commissioner Pavao asked if the tanks could be relocated above ground.

Deputy Gill agreed. The feasibility of storing millions of gallons of fuel could be more cost effective in above ground tanks.

Commissioner Pavao said the tanks would be more vulnerable above ground.

Deputy Gill said the Navy is unlikely to give up the tanks.

Commissioner Pavao reiterated his interest in writing a letter.

Commissioner Starr supported the idea of a letter.

Commissioner Antolini said there are opportunities to comment on the consent order. Also, the Legislature will likely have an interest in the issue.

Deputy Gill said Commission staff is represented on the task force.

Commissioner Starr asked the Deputy AG about the legal authority of the Commission.

Chair Aila suggested having the discussion in Executive Session.

Deputy Tam proposed a letter from the staff recommending pathways forward.

Dan Purcell said it is unfortunate that more commissioners do not attend the task force meetings. He said Gary Gill and Ernest Lau (HBWS) are well represented at the meetings.

Commissioner Pavao said the commissioners are not knowledgeable enough to attend the meetings. Commission staff is well-versed on the issues and should continue to attend.

Commissioner Starr made a motion to draft a letter on behalf of the Department, the Commission, and staff expressing the concerns and the importance of Oahu's ground water. He also asked that copies be sent to State legislators and state representatives in Congress and the U.S. Senate.

Chair Aila asked if the commissioners should sign the letter.

Commissioner Antolini suggested that the Chair sign the letter.

MOTION: (Starr / Pavao)
To draft a letter to the Navy.
UNANIMOUSLY APPROVED.

E. PLANNING

1. Request to Authorize Chairperson to Enter Into an Agreement to Investigate the Water-Energy Nexus in Hawaii

Neal Fujii (State Drought and Water Conservation Coordinator) said the Commission is responsible for protecting fresh water in Hawaii. The statewide Water Conservation Plan identified BMPs for different sectors. The price of water is relatively cheap in Hawaii. There is little incentive to conserve water. Energy cost savings can encourage greater water conservation. There is a need to accurately quantify the water-energy nexus in Hawaii. By learning the true cost of water the Commission can better understand the benefits and costs related to implementing water conservation programs and measures by the water utilities. Mr. Fujii discussed the objectives of the project. No studies on the water-energy nexus have been conducted in Hawaii.

RECOMMENDATION:

Staff recommends that the Commission:

1. Authorize the Chairperson to enter into consultant contract agreement and to approve funding not to exceed \$200,000 to complete an investigation of the water-energy nexus in Hawaii. Commission funding would be from general funds or special funds or a combination of both, subject to the availability of funding.
2. Staff also recommends that the Commission authorize the Chairperson to further amend or modify these contract agreements provided that such amendment or modification does not include any additional funding.

The agreements will be subject to the approval of the Chairperson and the Attorney General's office.

(DISCUSSION)

Commissioner Starr suggested adding language about the importance of gravity flow as a means to reduce costs. He mentioned other stakeholders who might like to be involved.

Commissioner Buck asked if agriculture and the connection between food and water could be included in addition to drinking water.

Commissioner Pavao asked who the consultant would be.

Mr. Fujii said the method of procurement would be through the professional services list. Staff is hoping to find someone with expertise in water and energy.

Deputy Tam said there may be several experts.

Commissioner Beamer said he supported the idea. He suggested that the investigation explore people's relationship to the resource. He asked if there would be a focus area.

Mr. Fujii said the investigation would be statewide. County utilities and large-scale agriculture operations would be targeted.

Commissioner Antolini expressed her excitement for the study. She asked if the contract could include a public participation piece so people from across the state can weigh in.

Deputy Tam suggested that the commissioners review the contract and scope before it is finalized.

Commissioner Starr made a motion to approve the recommendation and let the commissioners review the scope prior to release.

Commissioner Antolini asked if the scope would be subject to another vote and approval.

Chair Aila said "no."

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

F. STREAM PROTECTION AND MANAGEMENT

1. Application for a Stream Channel Alteration Permit (SCAP.4032.3), City and County of Honolulu, Department of Environmental Services NPDES Erosional Area Improvements near Keole Place, Kāneʻohe Stream, Kāneʻohe, Oʻahu, TMK: (1) 4-5-072:074

Rebecca Alakai (Planner, Stream Protection and Management) said the SCAP proposes to stabilize an eroding section of Kāneʻohe Stream with a product similar to a bio-sock. The project will repair existing infrastructure, an eroding stream bank, mitigate non-point source pollution, maintain the stream's natural appearance, and protect the residential subdivision from flood erosion. The project is part of the County's National Pollutant Discharge Elimination System ("NPEDS") Erosional Area Improvements

Program to reduce sediment through erosion control measures. The erosion is due to continuous runoff that shoots flows from the back of residential properties. Stream hardening has negative impacts. Stabilization with a bio-sock is considered more environmentally sound. Native plants will be used in the project.

RECOMMENDATION:

Staff recommends that the Commission:

Approve a Stream Channel Alteration Permit (SCAP.4032.3) Application for the City and County of Honolulu, Department of Environmental Services, NPDES Erosion Area Improvements near Keole Place located in the Kāneʻohe Stream in Kāneʻohe, Oʻahu, TMK (1) 4-5-072:074, subject to the standard conditions in Exhibit 4.

(DISCUSSION)

Commissioner Buck asked if the comments submitted by the U.S. Fish and Wildlife Service ("USFWS") will be a requirement and part of the final recommendation.

Mr. Uyeno said the comments from USFWS are not part of the staff recommendation.

Deputy AG Cindy Young said the staff recommendation is to approve the SCAP subject to the standard conditions in Exhibit 4.

Commissioner Buck said condition number six says the applicant shall develop their own best management practices ("BMPs").

Chair Aila asked if the BMPs deal directly with water quality issues.

Commissioner Buck said it is unusual to ask the applicant to develop their own BMPs. He questioned the standard language used in the permit conditions.

Deputy Tam said the language can be amended.

Commissioner Starr suggested using the phrase "implement best management practices."

Commissioner Buck said he likes the project, but recommended that staff look at changing the standard language.

Commissioner Pavao commented that changing the word "develop" to "implement" is unnecessary.

Commissioner Starr made a motion to change the word "develop" to "implement" best management practices.

Commissioner Antolini asked if the 100 foot buffer was part of the staff recommendation.

Mrs. Alakai said it was part of the USFWS comments.

Chair Aila said the comments are a recommendation from USFWS and not part of the staff recommendation.

MOTION: (Starr / Buck)
To approve staff's recommendation and amendments.
UNANIMOUSLY APPROVED.

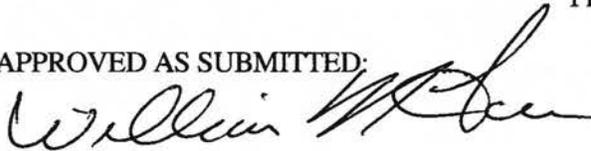
Chairperson William J. Aila, Jr. adjourned the meeting at 12:45 pm.

Respectfully submitted,



KATIE ERSBAK
Private Secretary to the Deputy

APPROVED AS SUBMITTED:



WILLIAM M. TAM
Deputy Director