

BOARD OF WATER SUPPLY
County of Maui
Regular Meeting
Thursday, June 21, 2007
9:00 a.m.
Planning Department Conference Room
First Floor, Kalana Pakui Building
250 South High Street
Wailuku, HI 96793

I. Call to Order

Chair Kenneth Okamura called the June 21, 2007 Board of Water Supply meeting to order at 9:05 a.m.

II. Attendance

Board Members Present:

Chair Kenneth Okamura
Vice Chair Lee Aldridge
Michael Howden
Marion Haller
Scott Luck
Kui Lester

Also Present:

Jeffrey Eng, Director of Water Supply
Eric Yamashige, Deputy Director
George Andrade, Assistant Fiscal Officer
Alva Nakamura, Engineering Program Manager
Gaye Hayashida, Commission Support Clerk

Excused:

Carl Holmberg
Phyllis Robinson
Edward Kushi, Jr., Deputy Corporation Counsel

III. Announcements

Chair Okamura announced that he will have to leave early but before he leaves he will turn the meeting over to the Vice Chair.

IV. Approval of Minutes

A. May 17, 2007 Meeting

Member Howden stated that the motion for the water reduction gave 60 days to the farmers but the newspaper said 30 days. He wanted to make sure that the minutes reflected that.

It was noted that the minutes of June 12, which is not on this agenda, does state that Member Howden's motion is 60 days.

Chair Okamura stated if there are no corrections or additions to the minutes of May 17, 2007 then it stands approved as read.

V. Testimony from the Public

A. None.

VI. Appeals

A. Appeal by Thomas Rice from the Director's decision/order dated April 28, 2007, denying Agriculture Water Rates for Rice Farms LLC, located at 215 Koheo Road, tmk 2-2-016-003.

Chair Okamura announced that the Director has worked this issue out with the petitioner, Thomas Rice.

Director Eng stated that this was a difficult issue to deal with. But after meeting with the Mayor and Corporation Counsel, the Department concluded that they can grant ag rates to Mr. Rice on the condition that he confirms his ag dedication status since the form that he submitted is dated 1996. The Director also explained to the petitioner that this is also subject to the Council changing the rules. So even if he is granted ag rates at this time, if the Council, through the ordinance, changes things then his situation will be subject to the prevailing rules.

No action was taken by the Board on this matter due to the Department granting Mr. Rice his request.

VII. Unfinished Business

A. None.

VII. Communications

A. None.

VIII. Director's Report

A. Upcountry Water Report for May 9 and 10, 2007.

At this time a graph of the Upcountry Maui Reservoirs was distributed to the Board. A copy is attached and made a part of these minutes.

Regarding the period of May 9 and 10, there is a 10.4 mg drop in one day. If it was due to a mis-reading then it should have recovered the next day but that didn't happen. The increase before this substantial drop is due to the Waikamoi reservoirs

being opened up and the waters were let in to the Kahakapao reservoirs. The reports show that Waikamoi went down and Kahakapao picked it up.

He believes that the little jump before the big drop is due to a reading error. If one were to "trend" the water that is being processed you will find that we are taking about 2 mgd out of the reservoir. The real drop between the 9th and the 10th is somewhere around 5.2 mg. If you say we are treating 2 mg then we really cannot account for 3 mg. It is not as bad as 10mg but it is still 3mg.

If you look at the numbers, there is a big discrepancy and then it starts to come back and towards the end of the table you are back to where 1 and 2 are balanced. That could be a result of opening up the pipes between the two reservoirs to balance the amount of water in each.

The best explanation is that the reading equipment the Department has may have not taken a good reading. But he cannot explain why at the end of the month it seems to have worked this out and is balanced out.

So his explanation is that he has no specific explanation.

Mr. Yamashige suggested that some possibilities could have been that the waters may have gone into the treatment plant, which he doesn't think it could have, or that it could have gone into the ag line. Though the Department doesn't have real control of it and they don't know how much water is going into that, 3 mg is a lot and that's probably not it. There is an opportunity to let water out of the reservoir, in essence dumping the water but no one should be doing that at all. And the final possible explanation is evaporation but that is not likely.

B. Estimated Amount of Water Required Servicing the Upcountry Water Meter Priority List.

Director Eng stated that according to the Department's engineer, Herb Chang, it amounts to an estimated consumption of 2.713 mgd to satisfy the priority list.

Member Howden asked will we be able to produce that amount when Kamole Weir comes up to speed.

The Director replied no, and even with all the improvements to Kamole we are still subject to the ditch levels. Hopefully some meters can be issued when the retrofit of the membranes and the other improvements are made at Kamole. During times of drought like now he would hate to over commit with the issuance of meters. In the near future, when the Piiholo well is brought on-line they could issue meters then.

Member Howden stated that Paul Seitz said that we only have the capacity to pull 5.2 from Kamole.

Director Eng stated that he should have asked to make this correction earlier in the meeting. At the last meeting he had explained, and which Mr. Seitz had supported, that the limitations of the Kamole Plant of 5.6 mgd was due to the inability to adjust the pH. After visiting the Wailoa Ditch the next day and speaking to some of the operators he realized that is not the cause of the limitation. We have the ability to adjust the pH with larger quantities of water. The limitation is basically achieving the proper ct value for disinfection purposes. This is the amount of contact time when you disinfect the water with chlorine before it is sent to the distribution system. The current size of the clearwell limits our production to 6 to 7 mgd. When the new clearwell is on-line, 3 mgd in size, that ct value issue will not be a limitation. The limitation will still be the ditch capacity.

Member Howden asked what will be the production capacity under the planned capital improvement for this coming year. What will be the limit?

Director Eng stated that we can always get a minimum of 7 mgd, depending on the Department of Health's approval of our request to increase the production capacity. Our flux rate or how many gallons per square foot per day that we can push through the membrane is determined by the Department of Health. He would expect a minimum of 7 mgd and with proper approvals he doesn't see why we can't get up to 9 mgd.

The higher limits will only be achieved when water is available, when maybe another source is out of service or when demand is extremely high. Though, he doesn't think that it would be pushed to the upper limits of production on a continuing basis.

Member Howden stated that our agreement with HC&S is that we can pull considerably more water than we are taking. But we seem reluctant to take the water. Last week Mr. Seitz indicated that we can only treat 5.6, but if we can treat more then why are we reluctant to pull more?

The Director stated that per our agreement we can actually pull up to 12 mgd. Why the plant was designed as it is, could be based on the historical ditch level and cost in capital to design and construct a plant that maybe would be over capacity a good amount of time.

Member Howden stated that he has this nagging concern that we seem to be reluctant to pull what we need and it is so small as compared to what HC&S is using. It seems to him that we continually are short-changed and it might behoove the Board and the Department to really look at this situation in cooperation with EMI and HC&S.

Vice Chair Aldridge stated that to issue meters, it would be prudent to know what the safe yield in the system is. He recalls from the meeting during the drought

consideration that the minimum flow recorded in the Wailoa Ditch was 10 mgd. That would affect what the Department could take at that point in time.

He further stated that the agreement is not very clear on any of those matters because there are so many different amendments and addendums to it. Nevertheless, what would the Department consider to be the safe yield from the Wailoa Ditch, a yield that you can always expect under the worse conditions that you could still issue meters.

Director Eng stated that he was not familiar with the data. He would have to check on the historical records.

Vice Chair Aldridge stated that it is one thing to have existing customers that might be impacted by the drought but it is quite another to make a commitment to add new customers when you don't know what the safe yield is of your supply.

He continued by saying that there are several limitations on that plant. One is the filters which will be upgraded, the other appears to be contact time for required disinfection, and the constant speed pumps.

Director Eng stated we have to look at how much we take from the ditch. There may be some limitations when the level goes real low.

Vice Chair Aldridge stated that perhaps when all the items are completed then the constraint will actually be the filtration capacity of the plant or the flow from the ditch, whichever is less.

C. Meeting with the State Department of Agriculture and NRCS regarding the Dual Line project.

Director Eng stated that he met with the State Department of Ag and NRCS for a couple of things. One was to get an update on the Upcountry Dual Line. Contracts are being issued and they are bringing down the laterals from the main line. The Kimo lateral is now 75% completed. Contracts have been awarded for the Pulehuiki lateral. To date, the State has spent about \$15 to \$20 million and they anticipate spending another \$10 million to complete the project. Right now they are planning to terminate the line just at Keokea Hawaiian Home lands and they will have to work with Hawaiian Homes to decide how far it will go from there.

The Department of Ag expressed a little bit of confusion regarding the project. It looks like they are getting funding on an annual basis but they don't have an anticipated date of completion.

The Water Department has expressed its concern over the need to have a master meter at the Kahakapao reservoir which was not included in the project. The State

has assured the Department that it will get a meter to monitor and control what happens when the line is placed into service.

Member Howden stated that his concern is that at Middle Road and Polipoli Road the design of the line drops down to follow the existing County line, instead of staying mauka. So you lose the potential for hundreds if not thousands of acres of agricultural land to be supplied by the Dual Line. As a Kula resident and as a person who was engaged in farming, he is very concerned of the design for phases 4 and 5 of this line. We need input from this end. It doesn't really make sense that this line is designed entirely in Honolulu. We really need to have better interface with these people.

Director Eng stated that the Department begs to differ on expanding the service areas of this Dual Line. The reason is because this line is taking water from Kahakapao. His concern is that if they expand and add additional service areas it would mean that it will be drawing more from Kahakapao. This project was to supply the existing farmers with untreated water. Right now all that water is being treated at the Olinda treatment plant. It was never intended to expand ag water off the Kahakapao reservoir.

Member Howden stated that he is not talking about expanding water demand. He is talking about the potential to really serve that area. The whole point of the Dual Line was to serve that area.

Director Eng stated it is based on anticipated service area and if we are given the opportunity in relocating that line then we have to look at additional storage. The State is not looking at design or construction of additional storage though he wished they would. He believes their primary goal is to complete this project and get it operational. But the Department's concern is for times like now.

Member Howden asked is the design of this project really viable. Or is it just the easiest thing that serves our needs for the moment? Are we looking at the future needs for Upcountry Maui? The truth is we aren't. Does it take a motion from this Board that they be better informed on what's going than they have been?

The Director suggested that the Board invite the Department of Ag to come to a meeting, because he doesn't get regular communication and they know that project better than the Water Department. It might be enlightening to invite Brian Kau of the State Department of Ag.

Note: Chair Okamura called for a 5 minute recess and left the meeting. The rest of the meeting was conducted by Vice Chair Aldridge.

C. Meeting with the State Department of Agriculture and NRCS regarding the Dual Line project. *Continued.*

Director Eng stated that in his meeting with the NRCS and Department of Ag, he mentioned to them that he would like to initiate a large storage reservoir at the Piiholo treatment plant. Because it would be a significant amount of money he wanted to see if they had any monies or any ideas.

They advised him to go out and seek the funds any way he can at this time, whether through the state legislature or through congress. This might even help with some of the ag issues too.

Member Howden stated that historically many of the farmers had domestic storage. Back in the 70's and 80's the soil conservation service actually funded reservoirs and storage. He further stated that it is not his intent to drain the system but to set up adequate storage.

Motion: By Member Howden to have the Board invite the representatives from the State Department of Agriculture and the NRCS to attend the Board's next meeting to give a presentation on their plans for the Dual Line.

Second: By Member Haller

Discussion: None.

Vote: 5 ayes – Members Howden, Haller, Luck, Lester and Vice Chair Aldridge

Vice Chair Aldridge asked if the Department could provide each of the board members a simple schematic of the Upcountry System. It used to be on the website until the homeland security concerns deleted all of that information.

IX. Other Business

A. Verbal Update on Pookela Well.

Director Eng stated that Pookela Well is in operation and is producing about 1.3 mgd of high quality water. The Department hopes to get Kapakalua's pump and motor back as soon as possible from Texas. That would be about 800,000 to 900,000 gallons per day (gpd).

B. Report on Hawaii Section AWWA Conference (May 23 – 25, 2007) by Chair Kenneth Okamura and Vice Chair Lee Aldridge.

Vice Chair Aldridge stated that it was a good session. But it is unfortunate that most of these American Water Works sessions run all of the presentations concurrently.

He attended one presentation given by Mike Miyahira of the State Department of Health on his perspective on the new groundwater rule. One of the issues was the EPA's requirement which included some assessment of not just the physical characteristics of the groundwater table and drainage basin, etc, but also on the financial capability of the water department or utility. Mr. Miyahira commented that he didn't know how he would do it with a staff one.

He also attended a presentation given by Paul Seitz and commended the Department on having that kind of advanced water treatment system and having a person like Mr. Seitz interested in looking at and pushing for a state-of-the-art system.

C. Discussion on Upcountry Drought Situation

Director Eng stated that the drought warning is still in effect. The most recent data shows that most of the triggers are still there. He does have concerns about going to the next step but he believes we are still hanging in there. The 25% mandatory cut-back would be a significant hardship for most of the community and definitely for the farmers, who will receive no waivers.

The Department is trying to re-distribute water through-out the system, minimizing the draw-down at Kahakapao by pumping water up from the lower Piiholo/Lower Kula system.

Things seem to be pretty much balanced right now and it is still proper to maintain the drought warning. But if the demand doesn't go down then we may have to go to the next step and declare a drought emergency.

Member Howden asked the Director if the Department could issue a correction to the Maui News article, that the 30 days really should be 60 days and in cases of hardship the farmers could apply for exemption.

Vice Chair Aldridge asked how can you enforce the restriction if it became effective in the middle of the billing cycle?

Director Eng stated that it cannot be enforced in mid-stream, you have to do a meter read then do another bi-monthly meter read. That is what the Department is looking at right now. Before the Department pulls a meter, they will do everything right. This is the last thing they want to do. However they do want to send the message out that they do have that authority to enforce.

D. Discussion regarding Current Conditions of the Kaupo Water System.

Member Haller stated that she was curious about the claim that came to the Board's attention regarding the Kaupo water system not being in proper working order since the earthquake.

Director Eng stated that the Department has not received any direct communication or complaint. He received the same e-mail that the Board received. He further stated that the Kaupo system has always been what it is. The Department of Health views it as not being a public water system because it serves so few people. It is primarily a surface system that the Water Department chlorinates and is not being regulated by the Department of Health.

Right now the Water Department is making certain that the disinfection is maintained. His staff does go out there periodically and they have worked out an agreement with the Kaupo Ranch foreman to make sure it is properly chlorinated.

He believes that the residents out there have always boiled water. It has always been the requirement and practice to boil water.

The Director stated that the Department is planning to meet with the owners of Kaupo Ranch. Because of its location it would be desirable for the Department to have Kaupo Ranch take over. The County's safety officer wants to prevent county employees to drive out there, though the Department's supervisors have access.

Member Haller asked if the Department tests the water regularly or do they just declare a boil water condition and leave it at that.

Director Eng stated that the Department does not test it regularly because there is no requirement by the State Department of Health.

E. Discussion regarding the Piihola Well Agreement.

Director Eng stated that he has reviewed this agreement a couple of times and there is nothing more he can add. Maui Land and Pineapple Company, Inc. (MLP) is going to design and construct the well and a control tank. MLP will pay for those facilities. There is a transmission line that the County will go in as a partner to develop. As he understands the agreement the County will receive roughly up to 2/3 of the available capacity.

He stated that he has the same concerns as Member Howden regarding the service area. In the future if he becomes involved in negotiations he would make sure that we are not taking from another source. Ideally, you would want any commitments to serve the service areas from that new source.

Member Howden asked how many meters could be allocated to MLP.

Director Eng stated that they won't know for certain until they test pump the well. If it is comparable to Pookela which is at the same elevation, at 1.3 mgd and assuming the water quality is great, and if it was maxxed out then they would get 1/3. For example, if they get 430,000 gallons, with a residential meter of 600 gpd then they would get an equivalent of 700 odd residential meters. But that means the County would get 1,400 meters. This would be a nice way to address the priority list. But these are just rough numbers and this agreement indicates an estimate of 1.5 to 2 mgd.

Member Howden stated that his concern is that in order to serve some of those tax map keys they would need to pump up from our system.

Director Eng agreed though most likely it would be taking away from other sources like the upper Kula system, coming off of Kahakapao reservoir but he hasn't exactly verified what system would serve these more mauka tmks.

Vice Chair Aldridge asked if the reference to 120,000 gpd on page 7, paragraph 9 is part of MLP source reservation.

The Director stated yes. For example if they have 430,000 gallons total allocation, of that amount 120,000 gpd can be utilized at these other tmks.

Vice Chair Aldridge stated that the agreement has a provision for covering any potential contamination from DBCP, do we expect that to be found in this well.

Director Eng stated no, given the results of Pookela it should be fine. It is above any ag.

F. Discussion regarding the Memorandum of Understanding with A&B.

Director Eng stated that he hoped Deputy Corporation Counsel Edward Kushi would take the ball on this one but unfortunately he is ill today. He asked if this could be deferred to a future meeting. If there were any pressing concerns he could convey them to Mr. Kushi.

Member Howden stated he wanted to express a few concerns. Throughout the agreement there is the phrase "in exchange for an appropriate allocation of water for its participation". One of the things that the Vice Chair had mentioned before was the vagaries of this agreement. In one area we have it this way and in another area it changes. He thinks that the agreement, even if we keep it in substance the way it is right now, really needs to be re-visited, just for the issues of clarity. Other than allotments this is his primary concern.

It is not a question of small agriculture versus large corporate/industrial agriculture. It is simply a question of public trust waters and that is something that we really need to visit.

He just wants to express and believes that the Board is in general agreement that it would be helpful if there was some level of interface with EMI. We could then find out what's going on. What their concerns are and how we could all work together jointly rather than just leaving the whole thing to them. We need to have a better understanding of long range goals.

Vice Chair Aldridge asked to pass on one concern to Mr. Kushi. As he read through the initial agreement, the amendments and addendums and finally the last MOU dated April 13, 2000, he wonders if there actually is an agreement in effect and enforceable at this point in time. Because it seems like everything has expired. The MOU dated April 13, 2000 states specifically that implementation of this memorandum will be pursuant to one or more agreements to be negotiated and agreed upon as a package. But nothing has taken place as far as he knows. He would like to know where we are.

The Director stated that he is right. There is no sunset date on this agreement.

Member Haller stated that it is her understanding that MOU's are not binding. It is operating so the intent is there, but this an interesting situation for the County.

G. Discussion on Long-term Plans for Upcountry Water Shortage.

Director Eng stated that the Department is looking into additional storage and this is his primary focus. We do need to develop some additional deep wells. As far as any immediate long range solutions, there is the Piiholo Well, and A&B is looking into developing a well.

There has to be a multi-faceted type of approach to new development in order to address the water situation. He is open to recommendations and insights the Board may have.

Vice Chair Aldridge asked if there are sites that are being evaluated for potential reservoirs.

The Director replied yes, there is the Piiholo 300 mg site. They have selected a preliminary site in the forest reserve. It is in the same area as the Piiholo water treatment facility but deeper in the forest and would be using existing transmission lines.

He would like to look into an old surface source that may be able to produce about 1 mgd. Back then as an untreated source it was piped into the Maluhia tank, just mauka of the Pookela tank. We could treat and utilize it now.

H. Discussion on Brackish Water Intrusion on Molokai.

Deputy Director Eric Yamashige distributed two graphs, Kawela Production and Kawela Chlorides. Copies are attached and made a part of these minutes. The chloride data and the production data didn't match up by the day so he couldn't put it on the same graph.

Somewhere around January 2002 there is a substantial rise in the chlorides, but it doesn't relate to the rise in consumption. It stays up until July 2005 where there is a substantial drop. That relates to a drop in consumption. Again in July 2006 there is a rise in chlorides which relates to the rise in consumption. In March of 2007 it is back to about 100 parts per million.

They are looking into whether another well in that area was drawing water and causing this rise in the chlorides.

He further stated that all of Molokai is experiencing a rise in chloride levels.

I. Receipt of Board Member request for agenda items to be placed on future agendas.

1. Monthly update on the Upcountry system to replace the update on the Pookela Well.

X. Division Reports

A. Division Reports for May 2007

B. Financial Summary as of March 31, 2007

Vice Chair Aldridge noted that a third of the operating expenses are for energy. Over the previous year there is a significant rise. He also noticed under the capital improvements line item there is a GAC treatment for Honokahua well on page 17 and there are also 2 line items for Upcountry GAC filter construction and testing. He asked where is the Honokahua well?

Director Eng replied it is one of the West Maui wells and the money for that project will lapse as well as the Upcountry line items.

Deputy Director Yamashige explained that because the Department was specific in identifying the funds for GAC, they couldn't use the money for anything else. So in

the '08 budget they have identified it as organic carbon reduction so they can use to investigate the appropriate measures.

Vice Chair Aldridge asked about the Honokahua well, will that be treated?

Mr. Yamashige explained that we cannot use to the Hamakuapoko wells and this is similar technology and similar contamination.

Member Howden asked who is responsible for the contamination at Honokahua.

Mr. Yamashige explained that all of this goes back to the DBCP settlement.

Member Howden asked if the Department could provide information on where the regulated contaminants are.

Director Eng stated certainly. The Department produces annually a consumer confidence report that is distributed to all their customers. The report gives information on the water systems and also on any of the regulated contaminants.

Member Howden asked for a copy of the DBCP settlement.

XII. Adjournment

The June 21, 2007 Board of Water Supply meeting was adjourned at 10:55 a.m.

Prepared and submitted by:

Gaye Hayashida
Commission Support Clerk

Approved on: _____