

BOARD OF WATER SUPPLY
County of Maui
Regular Meeting
Thursday, December 20, 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 Lee Aldridge called the December 20, 2007 Board of Water Supply meeting to order at 9:10 a.m.

II. Attendance

Board Members:

Also Present:

Chair Lee Aldridge

Eric Yamashige, Deputy Director

Vice Chair Carl Holmberg

Edward Kushi, Jr., Deputy Corporation Counsel

Michael Howden

Ellen Kraftsow, WR&P Program Manager

Marion Haller

Tui Anderson, Water Conservation Specialist

Kui Lester

Herb Chang, Civil Engineer VI

Scott Luck

Gaye Hayashida, Commission Support Clerk

Kelli Myers (arrived after meeting started)

Kenneth Okamura

Phyllis Robinson (arrived after meeting started)

III. Announcements

A. None.

IV. Approval of Minutes

The minutes of November 29, 2007 were not completed but will be ready by the next meeting.

V. Testimony from the Public

A. None.

VI. Appeals

A. Decision on Appeal 07-02.

Chair Aldridge moved to this item to the end of the agenda to wait for Member Myers and also because if the Board goes into closed session this would be a good time.

VII. Unfinished Business

A. Presentation by the Department of Water Supply on Conservation Measures.

Tui Anderson, Water Conservation Specialist, explained that he will not be going into detail the conservation ordinance at this time but will go over the bold points of handout no. 1.

Water Audit is a detailed accounting of all the water that goes in to the system and leaves the system. The Department looks at all the water that comes in from the source meters and then looks at how much water is billed; then the Department looks at the difference which is the system losses. It is not necessarily lost it is just that it may have gone into fire fighting, leaks, some theft and it could also be lost to meter inaccuracies. But by doing this system by system for all of Maui County you can get an idea of where you want to focus for example leak detection efforts.

Leak detection is something the Department is working on to acquire new equipment and will be actively doing leak detections by surveying the pipes and finding leaks and fixing them before they turn into breaks thereby saving money in water loss and overtime and hazard pay. Though the leak detection equipment can be expensive, it is usually worth it.

Conservation letters have been sent to restaurants asking them to only serve water on request. The letters also included tips on how they can save water and money. The Department has plans to send out letters to hotels, contractors and other businesses as well.

A copy of a draft as proposed by the Water Resources & Planning's (WRP) landscape/water conservation ordinance was distributed to the Board as Handout No. 2. A scaled down version of this is before the Council, which is being discussed right now and some version of it will be passed soon.

The Department will be working on a water conservation plan for county properties. If we are sending letters to consumers to conserve then we want to make sure that we have our "ducks in a row" and get proactive with water conservation within the county, such as landscaping and look into toilet and urinal retrofits and sink retrofits.

Mr. Anderson has set up meetings with different community associations and other interested parties. He has met with Wailea Community Association, Kehalani Community Association, Maui Lani property manger, and gave a presentation to the Pacific Whale Foundation, students at Maui Community College and have spoken to people at the Maui Prince.

Whenever the Department does permit reviews they also include water conservation measures and tips.

The Department has an ongoing fixture giveaway program. These fixtures are available in the WRP office for people to pick up any time. The Department also goes to many community events to give away these fixtures.

The Department has partnered with the EPA in the WaterSense program which is analogous to the Energy Star program. They are going to set up guidelines for water efficient fixtures, toilets, sinks and showerheads and will provide educational and other useful tools to the Department. Soon there will be WaterSense logos and certifications on washers and other things.

Member Howden asked regarding the water conservation ordinance before the council, what did the council trim from this measure?

Ms. Kraftsow stated that they have been working with Council Services staff, Kim Willenbrink. The Council had a very short ordinance that was primarily for landscape, but there is a mandate that there should be a conservation plan. It was pretty much minimal and based on the Board's points as outlined in their letter to the Council last year. The Council was trying to come up with a very simple ordinance based on those points. It wasn't as complete as the landscape ordinance that WRP & Planning had which was sent to the Council. But WRP's version was complicated and very long because it was designed to give people flexibility to either go with a method of having turf restrictions or choose a water budget. There isn't enough data in the state to do the water budget effectively right now so WRP cut their version down and took the Council's findings and measures. Then the Council took their version and combined it with some of WRP's elements. The two versions came closer and closer. And what is being handed out at today's Board meeting is the last draft that WRP has come up with. She stated that Council Member Michelle Anderson felt that for now they should get through something simple and later build on it.

Chair Aldridge asked if there were some numerical goal in terms of water conservation of percent reduction from the present for capital consumption that the Department is shooting for.

Ms. Kraftsow stated that the Department has not set a standard numerical goal yet but what Carl Freedman, Water Use and Development Plan consultant, has done a few chapters on the department's website. Among them is Resource Options and Candidate Strategies. In the Evaluation of Candidate Strategies is the popular Large Scale Conservation for Central Maui. He's looking at if you finance it at this level what kind of savings would you have? If you do this suite of measures at this level of financing you could maybe attain this savings. If you do that suite at that level you

might obtain another savings. The consultant is in the process of doing more in depth analyses and soon the Department will be able to make some policy decision about what target they will be going for but first they want to look at an analysis of what the potential were for different kinds of conservation programs and different levels of funding and then it will be a policy call. So at this time the Department does not have a numerical target but one will be developed as a result of the analysis.

Member Haller asked, what is your time line that you are trying to achieve this by?

Ms. Kraftsow replied that the final candidates of the strategies have been identified then those need to be screened and then compiled into strategies that focus on some kind of primary goal such as maximizing conservation and efficiency. Another one might be characterized as utilizing surface water from Na Wai Eha. Still another one might be going east for wells. Then 5 or 6 candidates are chosen for more in-depth analysis. The Department is at point where they have chosen the top 5 or 6 candidates and this would be a good time to update the Board on the Water Use and Development Plan. One of the top candidates is maximizing conservation and hopes to have preliminary results of the in-depth analysis at the January meeting.

Chair Aldridge stated that you have to have a pretty good idea of where you are currently to tell where you are going to go and how well you're doing in the future in terms of conservation. He asked Ms. Kraftsow what she thought the current knowledge is in terms of the existing water consumption and the existing unaccounted for use water and water losses. What is the Department's state of knowledge in that area?

Ms. Kraftsow replied that Carl and Tui both have been looking at that and she has looked at it some. It's very strange because it has gone up and down a lot. When they did the first analysis of Central Maui, it was 12% and then it went down to 5 or 6 when they got the new radio read meter but then it went back up. She guesses that it is running about 11%, but there are a lot of gaps in their knowledge. Part of what Carl has done is going through all the Department's old demand records and reapportioning the demand to fit the estimated pumpage time.

Because the Department pays for water that is treated rather than metering what is taken from the source. That's great from a cost perspective but from what they are trying to look at as far as overall efficiencies there are some gaps.

Chair Aldridge asked whether or not the water audit will take into account some of the losses between the point of source and treated water.

Ms. Kraftsow stated it would if they could get meters in some of those locations.

Mr. Anderson added that he would have to say eventually but not at this point. There are a lot of fine tuning to be done before they get there, but he definitely wants to go there.

Member Okamura asked regarding the water conservation ordinance, the Council is aware of this?

Ms. Kraftsow replied yes, in fact they kind of liked it, but they feel they should get something easier through first.

Member Okamura asked, what do they do in terms of the water audit? What is done and how often do you do it? Is done once a year?

Mr. Anderson replied that it is an annual thing. Once they have it set up and in place then they will be able to do it every year and it won't be as difficult. The first in-depth one may not be for the entire county. It might just be for Central.

Member Okamura asked if the Department is trying to improve on the water conservation measures included in the permit reviews?

MS. Kraftsow stated that this is something they have been doing for years. Every time they review a permit they include conservation measures for that use as well as information on what region the project is located and a list of drought tolerant and native plants for that zone. This is done for every project.

Member Okamura asked if any state or federal facilities have complied or are making an effort to comply with water conservation.

Mr. Anderson stated that actually the DLNR has a state water conservation plan, so every state facility is supposed to implement a water conservation plan. They are all supposed to come up with their own accounting for it and have someone in charge at each facility to look at conservation. There is also a 250 page report from the DLNR on a prototype water conservation plan to get the facilities to use less water and be more water conserving. The state has already mandated all of things. He will be pulling and using a lot of things from this report for water conservation for county properties.

Member Holmberg asked if the current mechanism intends to allow some way for people to report water waste.

Mr. Anderson replied not quite yet.

Ms. Kraftsow stated that the existing rules do have water waste prohibitions and a person can be fined or have their meter taken away. The Department very rarely get calls but when they do someone goes out to investigate it.

There is a trouble call line but not in the way Member Holmberg is referring to. In the Department's conservation ads they do give out the WRP Division's main number but nothing like a water waste hotline.

Member Okamura stated that he thinks it would be helpful to have something like that.

Member Luck asked regarding conservation measures, do you have any other examples of types of measures.

Ms. Kraftsow stated that historically there is a low-flow fixture ordinance, there are existing water waste prohibitions, the Department has a tiered rate structure geared to discourage waste. The Department has participated in and was funded retrofit the entire community in Kaunakakai. And the Department has been giving out low-flow fixtures for decades.

Chair Aldridge stated that when he reads the policy statement that says, "A water conservation plan is essential to preserve water resources and to reduce the risk and severity of water shortages", this is not entirely true. Unless the county does everything it can to secure firm supplies of water with known sustainable yields and know what they are, this will not by itself reduce the risk of shortages. In fact the irony is that the more successful the water conservation plan is, the next time there is water shortage there is less water to reduce. He believes the Department's obligation is to insure adequacy of supply along with this conservation plan.

Ms. Kraftsow agreed with the Chair but the policy statement is already in the code.

VII. Communications

A. None.

VIII. Director's Report

A. None.

IX. Other Business

A. Discussion on the Board's Proposed Water Conservation Plan (WR-14) Dated December 26, 2006.

This item was deferred until the Board receives Council's proposed water conservation plan and is able to compare it with the WRP's version.

B. Discussion/possible action on the Upcountry Water System.

Deputy Director Yamashige stated that the Kahakapao, Waikamoi and Piiholo reservoirs are all at about 98% full and that the forecast from the National Weather Service is for wetter than normal conditions through Spring '08. He stressed that this is not due to the recent Kona storm which rained only on the south side, but rather the tradewind rains that came after. The Department asks for the Board's recommendations and is open to removing the mandatory restrictions.

Motion: By Member Okamura to recommend to the Department to lift, remove or rescind the mandatory drought warning/watch for Upcountry Maui.

Second: By Member Lester

Discussion: Member Okamura stated that the situation has improved and people have cooperated.

Member Haller agreed and further stated that we all can see the weather. We are acknowledging to the community that the Board is not even going back to a watch. We're considering this drought over.

Mr. Kushi stated that for the Board's information, by doing this, not only is the Board rescinding the drought warning, the Board is also "undeclaring" a drought in essence. The operational effect on the Department is that water will be turned on for those who had meters installed and were ready to be hooked up. But this does not affect the priority rule.

Deputy Director Yamashige stated that during the drought meters were not installed. He asked that when speaking to people the board members should help them understand that the storm event isn't the reason that we have the water we have now. The source of our water is on the north side of the island.

Member Haller stated that the rain we have had subsequent to the storm has been north shore, tradewind traditional rain.

Deputy Director Yamashige stated yes, once the trade returned.

Vote: Unanimous. Motion carried.

Member Howden stated that he had suggested to the director that perhaps the Upcountry system could be split to a 3 tiered system the Waikamoi intake, the Piiholo and then Kamole. He asked, what are the demands on the system for each of these 3 tiers and what are the potential demands in terms of the meter list? Are these meters on the upper tier, middle tier or lower tier? We may want to reconfigure the meter list depending on the water that is actually available in the system.

Deputy Director Yamashige agreed that we have 3 tiers in the Kula system, the Upper, Lower and the Makawao. The Department's efforts are to consolidate those 3 systems because the Upper system can go dry. If we separated the system you would not have the redundancy of the other systems to help. For operations, the best thing to do is to have the ability to move water up or down to where you need it.

Member Howden explained that he was not talking about redundancy but rather limiting in the long term how much pumping the Department does other than in states of emergency. He believes it would be helpful in the long term to look at what the demands will be on the 3 tiers of the Kula system.

Ms. Kraftsow stated that when they do the demand forecast it is broken down by those districts. In fact, Carl broke down Haiku even further. If you go on the Department's website and look at his chapters, it even goes to the point of if we did this set of strategies how much pumping would be needed versus if we did that set of strategies for the Upcountry system. How they operate together will change based on what our decisions are on supply.

Member Howden asked if Carl has looked at the priority list in terms of future water demands.

Ms. Kraftsow replied no, because what he is doing is mostly based on forecasts. Internally, they look at build out and they have analysis of build out and that includes the priority list. But Carl's work is sort of broader and longer term than that.

Member Howden asked if there would be a problem with having some idea of where the demands are on the list itself.

Ms. Kraftsow replied that they could do that but it may change depending upon how they go forward with source development for Upcountry.

C. Discussion/possible action on the Central Maui Water System.

Deputy Director Yamashige stated that the Department has no recommendations for changes regarding the Central Maui Water System.

Member Haller stated that there's a need for community education or the director is not going to be believed anymore. People don't understand why this drought is not over.

Member Howden stated that it is not really a drought in Central Maui and thinks that we need to educate the public about sustainable yield and the aquifers. He doubts that anyone in Central Maui, South Maui and West Maui has any idea about how threatened these aquifers are.

He asked that the Department continue the public outreach and frame it so that people see that it is not a question of drought but a question of inadequate re-charge of our aquifers which can take several decades.

Member Okamura suggested that the Board should recommend to the Department to try to make an effort to educate the public about this specific issue, at least to try to address this issue in the short term.

Member Holmberg suggested that when Director Eng makes his comments to the newspaper that he should re-word it to overdraft rather than drought.

Chair Aldridge agreed. He stated that it is a primary problem of education and informing the public that the 2 systems, Upcountry and Central Maui, are separate systems, not only by distance but by their hydrological connections. The Upcountry System is very severely affected by seasonal drought because it is a surface water system with reservoirs. And many people in Kihei don't know that they're taking water from the Central Maui system and what's happening there is a mining of our resources, a depletion of the groundwater.

So when this Board takes no action and let's the "drought" situation continue, what we're really saying is it's not an issue of drought, it is a matter of the resource that we mine. We need to clarify that for the public.

Deputy Director Yamashige stated that Director Eng's comments to the newspaper has tried to explained that it is not a matter of rainfall or drought but rather it is a matter of managing our resources.

Member Luck suggested that in the press release regarding the lifting of the Upcountry drought the Department should also explain why there is no lifting for Central Maui and talk about long term water shortage as opposed to drought.

Chair Aldridge agreed that it was an excellent idea.

(This portion of the audio recording was lost due to equipment malfunction.)

The Board took no action on this matter and recommended that the voluntary restrictions continue for Central Maui and that the Department should implement community education and to continue outreach programs.

The Board also requested that the Department do a press release announcing that the Upcountry drought restrictions have been removed and at the same time no action will be taken for the Central Maui system.

D. Discussion on a Potential Moratorium for Water Meters.

The Board made no recommendations on this matter. The Board will wait for receipt of the Council's Water Availability bill.

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

1. Water Availability Bill
2. Piiholo Well Agreement
3. Power point presentation by the USGS
4. West Maui water availability
5. Potential impact of private systems
6. Water Use and Development Plan update
7. Upcountry and Central Maui water systems

X. Division Reports

Member Haller requested for totals on the Water Treatment Facility Production and Reservoir Levels report and on the Water Treatment Facilities Production Log.

XI. Appeals (this portion of the meeting was digitally recorded)

A. Decision on Appeal 07-02. An appeal by Cheryl Medeiros of the Director's decision/order dated May 22, 2007, denying her proposed alternatives to satisfy the department's requirements for water service to her property located on Polipoli Road, identified as tmk (2) 2-2-004-098 (lot 35C).

Chair Aldridge read the Board's decision on Appeal No. 07-02.

We believe that the appellant has exercised every reasonable effort to comply with the requests of the DWS. The Department knows that the appellant cannot obtain cooperation from neighbors for placement of a storage tank offsite of their property. As a result, we conclude that the director's decision or order is:

1. Based on a clearly erroneous finding of material fact, improper procedure, or erroneous application of the law:
 - A. The Agreement Authorizing Waiver for Subdivision Water Systems signed by the appellant does not specifically require application of Water Supply Rule Sections 2.2 Reservoirs, nor Section 2.3 Water Mains and Appurtenances, nor Section 2.4 Fire Protection; nor do any DWS Rules specifically require location of a storage facility to be off property or specifically at 100 feet elevation above the highest point on appellant's property, and
 - B. The Agreement Authorizing Waiver for Subdivision Water Systems signed by the appellant does not exclude application of the established Department of

Water Supply Rule Section 2-9; i.e., an elevation agreement for subdivision lots where water pressure cannot be assured as in the case of appellant's property.

2. A clearly unwarranted abuse of discretion.
 - A. The applicant had proposed a solution incorporating their willingness to sign an elevation agreement under the current Water Supply Rules Sections 2.9 and 3.3, and the Director had the discretion to accept this proposal, but chose not to despite the fact that the Department has signed elevation agreements with others in the recent past and to have accepted this proposal from the appellant would not have caused any apparent detrimental impacts to other users of the system.

We hereby rule that the Department allow the following:

1. The applicant to place a tank on their property, including required booster pumps, control tanks, pipelines, and other appurtenances adequate to service appellant's lot or multiple lots of the 3-lot subdivision if other owners have applied for a meter and are agreeable to executing an elevation agreement with the Department,
2. Sign an elevation agreement with the appellant and any or all of the other owners of the 2 remaining lots of the subdivision who have applied for a meter and are agreeable to signing an elevation agreement, which specifies the responsibility of building and maintaining tanks and pumps as the responsibility of the owners of the subdivision lots who sign the elevation agreement,
3. Require the applicant to surrender the 2nd meter along with the reserve allocation of water and to obtain a refund of the water system development fee for the 2nd meter which has already been paid by the appellant.
4. Extend the time by 18 months in which the applicant may implement all necessary water infrastructure and the department to issue the water meter.
5. The Department to write to the owner of the 3rd lot (Chevalier) to offer them a meter, within a reasonable period of time (60 days) if they execute an elevation agreement and agree to participate equally in the water system improvements (i.e., reservoir, pumps, etc.) sized to serve all 3 lots.

Motion: By Member Howden to accept the Board's decision.

Second: By Member Lester

Discussion: None.

Board of Water Supply
Minutes of December 20, 2007

Vote: Ayes – Members Okamura, Myers, Luck, Lester, Howden, Haller and Chair Aldridge.

Excused – Vice Chair Holmberg, and Member Robinson

Nays – None.

Motion carried.

Mr. Kushi stated that at the next board meeting the Chair will have the proposed Findings of Fact, Conclusions of Law, Decision and Order for his signature.

XII. Adjournment

The December 20, 2007 Board of Water Supply meeting was adjourned at 12:05 p.m.

Prepared and submitted by:

Gaye Hayashida
Commission Support Clerk

Approved on: _____