BOARD OF WATER SUPPLY

COUNTY OF MAUI

REGULAR MEETING

THURSDAY, FEBRUARY 26, 2009

Held at the Department of Liquor Control Conference Room, David Trask Building, Room 105, Wailuku, Maui, Hawaii, commencing at 9:12 a.m.

Transcribed from the audio recording by Gaye Hayashida, Commission Support Clerk, Department of Water Supply, County of Maui.

A P P E A R A N C E S

BOARD MEMBERS:
Lee Aldridge, Chair
Carl Holmberg, Vice Chair
Michael Howden
Kui Lester
Kelli Myers
Phyllis Robinson

STAFF PRESENT:
Jeffrey K. Eng, Director of Water Supply
Edward Kushi, Jr., Deputy Corporation Counsel
Ellen Kraftsow, Water Resources and Planning Manager
Herb Chang, Engineering Program Manager
Gaye Hayashida, Commission Support Clerk

OTHERS:
Gary Elster
Michael Victorino, Councilmember, Maui County Council
Carl Freedman, Consultant, Haiku Design
Kelly McGinnis, Executive Assistant to Councilmember Joseph Pontanilla
Paul Mancini, Attorney for Appellant
Susan Burns, Appellant
Scott Burns, Appellant's Spouse

CHAIR ALDRIDGE: Let's call the meeting to order. This is a regular meeting of the Board of Water Supply. It is Thursday, February 26, 2009. Members in attendance include Kui Lester, Vice Chair Carl Holmberg, Michael Howden, Phyllis Robinson. We're expecting Kelli Meyer soon. Members absent and excused include Marion Haller, Scott Luck and Ted Yamamura. Announcements? Are there any announcements?

MS. HAYASHIDA: Just one. Just a reminder for the Financial Disclosure Statements from board members. I know this is like, it's due April but just…

CHAIR ALDRIDGE: Oh, oh, I gave you mine, right?

MS. HAYASHIDA: No, you don't.

CHAIR ALDRIDGE: Oh, that's right. I don't have to.

MS. HAYASHIDA: Yeah, you don't have to.

DIRECTOR ENG: She's not worried about you.

(laughter)

DIRETOR ENG: There's others here…

(laughter)

CHAIR ALDRIDGE: I'm already gone…

(laughter)

MS. HAYASHIDA: It is due April 15th. So just a reminder. Thank you.

CHAIR ALDRIDGE: Approval of Minutes. Minutes of January 22nd, 2009; any comments or corrections board members? Anybody read 'em?

MEMBER HOWDEN: You.
CHAIR ALDRIDGE: I did.
MEMBER HOWDEN: You always do.
CHAIR ALDRIDGE: But I have no corrections or comments. Do we need an approval on the minutes? Do I get a motion from anybody?
VICE CHAIR HOLMBERG: I so move.
MEMBER LESTER: Second.
CHAIR ALDRIDGE: We have a motion, any second?
MEMBER MYERS: Second.
MS. HAYASHIDA: Kui, Kui made the second.
CHAIR ALDRIDGE: Right. All those in favor?
(a chorus of ayes)
CHAIR ALDRIDGE: Ok, so moved. Testimony from the public? I'm not gonna read this but we have some public testimony and we normally allow 3 minutes for the testimony but we can allow more if it's necessary. We have Mr. Gary Elster; am I correct in your pronunciation?
MR. ELSTER: That's correct.
CHAIR ALDRIDGE: Gary.
MR. ELSTER: Thank you. I'm Gary Elster. I was involved in environmental issues with the Kihei Community Association for a number of years; so today I'm speaking as a private citizen. I came to speak about drought and conservation. Initially I, I thought about the issue of drought and I wondered if all of us are assuming that drought continues

for a few years and then it's over and everything's fine. I don't know if all of you are familiar some of the work done by science, scientists in recent years in the western United States, where to their chagrin, they found out that historically below, behind last 50 or 100 years, they found from tree rings and what not that there had been historically droughts lastly a longer than any of 'em had planned for. When we lived up in the Lake Tahoe area, they studied redwood rings and found that the 4 or 5 year drought could have gone on for 30 or 50 years and frightened everyone since the reservoirs were then out of water. So, when we talk about drought I think we need to change our thinking in that particularly with global warming, drought may be a lot different or this may be the norm. We don't really know and we'll find out, hopefully not from the wrong standpoint. I think our director needs some tools that he doesn't currently have. Right now all he has is a bended knee and asks for conservation, and I think we need to change and to get people thinking that water is our most precious resource. It's, everything else we can import though we shouldn't but water is not sustainable. If we don't protect it there's no other place to go. I just want to start out with a few anecdotes that focus what I think are the way citizens look at water. We for one, in moving into a new home

removed the developer installed grass and put synthetic turf in it. Our neighbor across the street said that's very nice looking but why would you spend that money when water's so cheap? His next door neighbor probably never figured out how to change the developer installed ah, ah, water, ah, whatever device. So her water sprinklers run twice a day. The way the developer originally put them in, you know in new lawns. And our neighbor down below one day filled a large kiddie pool for her, for their daughter who used it for about 40 minutes and then he proceeded to dump it out. And last but not least of my anecdotes is, a friend of mine who owns a large piece of land up in Kula, who runs his sprinklers almost all the time so that if the director ever imposes a mandatory cut-back he'll be back to normal levels. Now, we need to change all of that thinking and the way we do it is through economics. And I know that this Board recommended a tiered water rate and it went from the council and it didn't pass. The council raised water rates a little bit. We need that. Our water rates are cheap even compared to the private companies. Kaanapali Water's low rate is about our high rate. And that's up to 12,500 gallons; they're at $3.53 and above that they're $5.05. What, why do private water companies know better than public. Well, we need to change the thinking.

My suggestion after looking at all this is that we have a four tier system but not exactly the one that can solve recommended. I think that the 3rd tier should be essentially cut in half and that the top half of that become a fourth tier and everything above and, substantially higher rates, way high to deal with water wasters. And, and I think that people once they get the concept, you know with gasoline prices, when they went way up people started learning how to conserve gasoline, and when they way back down a lot of those people continued to conserve 'cause they learned how to conserve. And that no longer is just an economic sin. I think we could create a 4 tier system and to boot, energize the director's programs for ah, ah, water conservation. My suggestion is that we create that tiered system with substantially higher rates and use that revenue from the higher rates that is, I, I hope that those people who waste a lot of water will learn to conserve but if they don't that revenue could be used to fund an incentive program to give people tools to conserve. Whether it's synthetic turf or whether it's water saving devices or drip irrigation, etcetera, etcetera. I would suggest a one time only program funded out of this excess revenue to energize that program, to make it happen, to give people this is what's gonna happen you learn this, switch off your

water like you do your electric and you use that money to, and we will help you change the way you do things, change over. After that one year I would suggest that excess revenue go into capital improvement fund to fund things like pipelines for R-1 water. I know that the Water Department doesn't currently have authority over that but none the less, I think that we should move in that direction. Stop putting R-1 water into the ground that goes out and destroys our reefs, our oceans and what not, so would be a win-win program. And for your information, Carl and I have been working together on this for a couple of months and we have gone around and talked to council members. We met with all but one so far, and we have found support for a tiered water rate to discourage water wasting throughout, throughout the council. I think there's support for it. What we need now are some tools to make this happen. My understanding, correct me if I'm wrong, is that the, the Department currently is restricted to revenue to match its, its cost. I want to see that changed so that excess revenue could go for this incentive program and or capital improvement program that I mentioned. We need to, in that 4th tier program, we need to come up with a, with a, not exception but a rule that permits, so we don't hurt multi-family housing, permitted multi-family housing, condos,

apartments, hotels and so. That's where consultants come in. That's over my grade level to design that, so that that's reasonable, they're not put out of business. I think we'll have the support of the resort industry. They, they need to know that they have consistent water available to them and what, recognize everyone's gonna have to pay higher water rates to make sure we have sustainability. We need to get into the budget process. This is a rates issue and I was told by the chair that this whole issue needs to get into the budget process. That's what I have to say. Let's change the way, let's change the way people think. Let them understand that to be sustainable we have to have water recognized our most precious resource and there's no pipeline, nobody's gonna come save us and we have to stop thinking of oh, well we can pump right up to our aquifer's ability to pump, no. We should look at that as a place to save, save water for a non-rainy day. Thank you.

CHAIR ALDRIDGE: Thank you, Mr. Elster. Appreciate your coming here. And let me, let me say on behalf of the board that we appreciate your citizen involvement in this 'cause we have been very supportive, all these board members here, very supportive of water conservation. We've pushed for a 4 tier rate system, we've pushed conservation

measures and unfortunately not all of them have gone pass through the county council.
MR. ELSTER: I think this is the year…
CHAIR ALDRIDGE: Well…
MR. ELSTER: Mr. Chairman, that it can be done…
CHAIR ALDRIDGE: It could…
MR. ELSTER: If we can energize this group and go to the council, let 'em know. I'm gonna continue, Carl and I are gonna continue to work on getting all the community groups to support this. And I think we will get that support.
CHAIR ALDRIDGE: I think the one challenge you face this year though is that money is gonna be hard to come by from the citizens to pay for the higher rates and so you need to keep that in mind as well.
MR. ELSTER: I don't think that the citizens we're talking about are gonna get affected at all. I don't see any reason to change lower rates, the lower rates…
CHAIR ALDRIDGE: Oh, good.
MR. ELSTER: The lower tiers. And the ones that are wasting water at that upper tier…
CHAIR ALDRIDGE: Are the ones that will pay for it.
MR. ELSTER: The ones that we wanna target, exactly.
CHAIR ALDRIDGE: Yeah. I think we're very much in agreement with that.

MR. ELSTER: I hope we can just make some, take some action. I know government doesn't move that quickly but I'm hoping that we can move that quickly this year.

CHAIR ALDRIDGE: By the way, let me add one anecdote too. I had the privilege of serving as the chief engineer for Contra Costa Water District in Northern California. I joined that organization in 1977, right as they had one of the worst droughts in California. Actually probably not worst than the current one they're in but at the time one of the worst. And you point to an interesting scientific investigation. One of those was of a tree that grows in the White Mountains; this is the mountain range that parallels the Sierra Nevadas; the bristle cone pine, about 4,000 years old and a study of the growth ring patterns in the bristle cone pine revealed that there were droughts in California and Nevada basically, that lasted nearly a hundred years in the past. And so God knows what we face in the future. Global climate change aside, climate's always changing. We don't know what the norm is. We have a hundred years of history, of measurements at best. So you know, I think we have to face, we have to be prepared for the worst consequences. So, thank you very much.

MR. ELSTER: You're very welcome. Thank you.

CHAIR ALDRIDGE: We also have our distinguished Councilmember Michael Victorino here. Mike, did you want to present something or were you here to…
COUNCILMEMBER VICTORINO: Just to update if I may.
CHAIR ALDRIDGE: Ok, thank you very much.
COUNCILMEMBER VICTORINO: Thank you for the testifier early and just to get the record straight, Mike Victorino, County Council, chair of the Water Resource Committee. And I'm here today to update the board on a number of issues, one of which has been discussed, the water rates. We will be taking a look at that this, ah, next week's meeting. We're gonna take a look at that. We're also gonna take a look at what you're gonna get presented later this morning, a Water Use and Development Plan. But what we've been able to achieve in the committee is basically, thanks to the Department, to Mr. Kushi from Corp Counsel, Kim Willenbrink, we've got the water rules, Upcountry meter rules, and the drought rules, right; sounds like the 3, yeah; codified and approved by the committee and will be coming to the full council next week Friday. It is my hope that that can be approved so then for the first time in many years the Department will have a set of rules for which they can operate under, legally. Not just because that's the rules they had to operate with. And I think Jeff and the Department has done a great job

over the last few years and the prior administration whatever, you know it was difficult to work without, what I call rules, to engage yourself in. So, I'm very thankful for all the assistance by many people and more importantly I think it's a step in the right direction. I'm very excited to get this done so that we can move after budget to the Water Use and Development Plan because that will be our next project, our next focus point, yeah. Once that is completed then a number of other things will be coming forward and we're working very closely with the Department. My feeling is it's not my committee, it's our committee. It's not my island, it's our county. You know it's just the way I work with everybody and you guys know. Most you worked with me when I was here. And I feel that way even more strongly there because we have some power to get the job done. So it's my hope that with between working with Na Wai Eha and some of the other groups that will be coming forward, work with me, whether it's Waiale, whether it's Waikapu, whether it's Maui Lani, whatever sources, whatever, whatever we're gonna work on water, it's gonna be our effort, ok. That's the first and foremost thing I'm keeping in the forefront, yeah. And there's a lot of things to be done. Rules, hopefully next week Friday, passed. Once they're done, it's not in though, we

still can go back and in fact we will be going back to amend and change; there's things that the committee wanted to do. Before I got really bogged down in changing things, I wanted to make sure we had the rules accepted. It was passed and now we can go back and make those changes, if it's important enough to be made, yeah. The Upcountry water issue, I can tell you there is many fronts for which I know the Department is moving, the administration is moving and I am trying to get personally involved in trying to get storage, source development in the Upcountry area; 'cause one of my biggest dreams in the next few years is to work on our water meter list. I would love to come before any group and say, no more, done. That's my biggest dream, beyond all the other dreams I have which sometimes I know everybody thinks, oh, you're crazy bugger but that's ok. You're not putting that down verbatim, oh ok. Anyhow, any questions as far as the rules and as far as the, oh well, anything we've completed to this point, any questions?

VICE CHAIR HOLMBERG: Well, if you could just remind me, the water rules, the Upcountry meter rules, there was a 3rd area?

COUNCILMEMBER VICTORINO: Drought. The drought rules. Those were the 3.

MEMBER ROBINSON: I have a question. What we were just presented with in terms of tiered water rates, excuse my ignorance, I'm fairly new on the Board of Water Supply so, is, I, I heard, I heard it mentioned that it has to become part of the budget process and these are rules for the Department which are different than setting tiered water rates, is that correct?
COUNCILMEMBER VICTORINO: Yes, absolutely yes.
MEMBER ROBINSON: I'm correct on that. So, we're not too late to begin working on tiered water rates if we, if we so chose, in terms of this process. I've heard you mention changes but I don't think the changes are in regards to what you're working on now. Is…
COUNCILMEMBER VICTORINO: Yeah, well, the changes, the Water Resource Committee right now is focused on certain things like the Water Use Development Plan, the rules and all these other areas. We will start the budget process in 2 weeks for the council. We will be getting the mayor's budget sent down, for which the Water Department is one of many departments' budgets that will be coming forward. This is when the, the committee takes a good look at that and can, if they so choose, to put in another tier if we want to. Now, whether we do it or not, it's not, I'm not gonna tell you

that, because that really is got to be between the work, between us and the Department.

MEMBER ROBINSON: Of course.

COUNCILMEMBER VICTORINO: You know, I'm not gonna say, yeah, we're gonna do this, we're gonna do that, because we wanna work in conjunction with them. But I think we, we agree with, with the conceptual presentation. I've spoken about this for years, right. When I was on the board I said I was an advocate for that 4th tier. But it has to be done right, because agreed, we don't want to hurt the little guy you know, at the expense of you know, like for example, multi-family homes and he mentioned legal, well, let me be honest there's a lot of illegal ones out there. And how is that gonna affect them? Whether it's Moloka'i, whether it's Lana'i, Hana, Kahului, Wailuku, I don't care where, Upcountry. So, you know we gotta be sensitive how we do these things but the time is right to look at it. The time is right to bring it forward and I think, I think most of the council members and, and as you heard we all kinda thinking along the same lines. This is the time to make the change. Because water is a precious commodity, and if we're gonna just waste it that's one issue, you know, and it's not to, and I don't want water rates to be tied to this is the way we're gonna get more development because that is not what I want. We

want, myself per se, we want rates that fit the user and that we will have the benefit of conserving water for a long period time. And there's a lot of ag issues, oh, there's many more issues that we don't wanna really get into but we're just talking residential rates, really, would be the area we'd be truly looking at.

MEMBER ROBINSON: Thanks for answering me.

COUNCILMEMBER VICTORINO: All right.

CHAIR ALDRIDGE: Thank you, Michael.

COUNCILMEMBER VICTORINO: I'm always glad when not too many questions…

(laughter)

COUNCILMEMBER VICTORINO: I get nervous, you know I looking at Michael Howden and Michael does yeah…

(laughter)

COUNCILMEMBER VICTORINO: 'Cause I love the man.

MEMBER HOWDEN: No, I, I, I'm not gonna ask you about public trust waters.

COUNCILMEMBER VICTORINO: There you go. But we've had that discussion many times. Thank you much and I look forward to working with all of you in future and I will try to attend meetings when I can you know, 'cause I think it's something important that I know what you're doing and you hear from us. And to the 3 that are leaving us, I say mahalo for all you years of service. Thank you very much and I hope we can find you something else 'cause I don't

wanna see you guys disappear you know what I mean. Let's go find them another job or something, you know.
CHAIR ALDRIDGE: Yeah, I'm all for that.
COUNCILMEMBER VICTORINO: But yeah…
(several members speaking at the same time)
COUNCILMEMBER VICTORINO: Don't have to be water either. There's a lot of things, we got a lot of boards and commissions. But thank you all 3…
CHAIR ALDRIDGE: Thanks, Michael.
COUNCILMEMBER VICTORINO: For all your years of service. It's been an honor working with you and I hope to continue working with you in some other facet within this community. Thank you.
CHAIR ALDRIDGE: Thank you. Alright, Other Business, item A, Discussion and update on the Water Use and Development Plan.
MR. FREEDMAN: Good morning everyone.
CHAIR ALDRIDGE: Morning.
MR. FREEDMAN: My name is Carl Freedman. I'm a consultant to the Department of Water Supply and I've been working on the Water Use Development Plan as you know. This has been going as a long term effort. We've been trying as much as we can to get some…
COUNCILMEMBER VICTORINO: Excuse me, Mr. Chair. I, I don't mean to interrupt 'cause this is your meeting but is it all right if the ladies sit so

they could just face and instead of trying to turn around. If everybody could sit this way or turn the chair around, yeah?

CHAIR ALDRIDGE: Sure, sure.

COUNCILMEMBER VICTORINO: And if you don't mind I'd like to sit here…

MR. FREEDMAN: Yeah, that's fine.

COUNCILMEMBER VICTORINO: If you guys don't mind, please.

CHAIR ALDRIDGE: Oh no, please.

COUNCILMEMBER VICTORINO: Thank you. If you guys wanna…that way easier for guys to look…Kelli, maybe easier for you guys to, instead of stretching your necks, yeah. Come on, come on. Ok, go ahead. Sorry.

MR. FREEDMAN: So, as you know I've been giving presentations as part of the public process and I've given several presentations to the water board, one recently. And what I've tried to do with today's presentation, I've left a bunch of these slides in that you've seen before and I'm gonna, so I'm gonna be flipping through some of these slides pretty quickly just as a matter of reminding and review. But what I'd like to focus on a little bit today is first, just an overview of where we are with each of the districts. And then on the Central District, which is the front running district, I have some specific recommendations that

I put together in a draft that I think is about ready for release, I'm hoping any day now that that'll be out. So I wanted to kinda put what's new is some things instead of Carl does this analysis and Carl does that analysis, it's more in the form of here's some finite recommendations. As an effort to kinda frame the issues for the next phase that we're going into with the Water Use Development Plan ultimately is to turn it into an ordinance. So between all the analyses and coming up with wording for an ordinance, I put together a section on recommendations to kinda frame up what the policy issues are. And so I wanna take, and so I'm gonna be glossing over some stuff today. You can always ask questions but that's where I'm gonna go here. So, first we're gonna talk about an overview of each district process and then a little on the Central and Upcountry and then where we are for next steps. So, the road map here that we're following and I don't know if you can read all this but this is a page from the Water Commission's framework on updating the state water plan. But basically we start with some information gathering stages, setting planning objectives, a demand forecast, identifying resource options and then a kind of intense economic integration process where we put all these resources in sequences to see how each, how we can meet water demands and what it

costs for each one of these, and ultimately down for some plans and it's kind of an iterative thing which we've iterated several times on some of these. But those steps I've kinda put across here to look at all the different districts. So, Lana'i has pretty much gone through the whole process. It's in a separate line up here because it was, it's not being done by the same integrated resource planning process as the others, but it's in the final review stage. Central Maui and Upcountry have progressed pretty much through the, the process. So, we're in, ready for final review on those. East Maui, West Maui and Moloka'i are in the process now of setting objectives and identifying the resources and putting the candidate strategies together. So we're in the analysis section here; public process and analysis section in those districts. Lana'i has a draft plan under review by the Lana'i water committee. The final draft is now being completed. There are some outstanding issues that are being discussed. And I think June is the anticipated date. I'm not, I'm not involved directly in, in Lana'i. Central District, we have a draft which is any day now ready for release basically and it includes looking at a range of energy cost scenarios. As you know energy prices have done a big roller coaster this last year. It's been hard to keep up with them in

terms of analysis. But we've ended up by, we have a range now instead of trying to keep changing them. We've looked at some additional options and strategies, verifications of feasibility, especially when you get down to recommendations, the whole you know, the issue of viability and timing becomes more important. And, refinements and most importantly I think in terms of form and what I'm gonna talk about today, it includes some finite discreet recommendations. The next process steps are under consideration and there's several things, I was just talking with Councilor Victorino about this, but there's several issues about what the next steps are. One is form, ultimately this has to be an ordinance. What is the form gonna be? One has to do with how it's gonna go with process. Does this go first to the Board of Water Supply and the Water Commission? And it has to go to a Commission of Water Resource Management. What order that happens in needs to be determined. And also, as a matter of substance, to what extent is this whole document a statement of policy and to what extent is it a rule? And that has to do with the form, form there. So, those are things that we need to take up as well as the substance. We've got some other issues to resolve coming forward 'cause we getting down to the end of the process. The Upcountry District is right on the heels of

Central; we've pretty much done the public process and the analysis. The draft for that is being completed and by March, wanna have that before the Department for the internal review by the Department. West Maui, we've had 3 water advisory committee meetings. And as I explained we're kinda in the analysis process of figuring out what all those strategies are and I'm putting together a model, an economic model like I already have for Central and Upcountry for analysis of those issues. Moloka'i, we've had 6 meetings and they actually come on the tail of about a dozen meetings of the whole process that's been going on. Moloka'i, of all the districts, is the most intimately involved in their water issues. When I go to Moloka'i I am not the expert. And the Moloka'i community has enunciated their objectives and what's important to them. They've got a bigger grasp of the big picture. I mean, I am humbled by, by that group. So, Moloka'i's a completely different place and we may, the plan may look different for several reasons, so we could talk about. Our next meeting is next, is couple weeks from now, March 12th. East Maui, we've had a, one set of meetings out in Keanae and Hana. And coming back from that we have our homework to do. I mean, we introduced the Water Use Development Plan process, we talked about objectives and issues but there are some real big

pre-existing conflicts and contested issues there, diversions of stream water is a big issue there, the impacts of some new wells on existing users are big issues. There's an acute water shortage when we went out there, we heard testimony of people who were taking their kids to Hana to take showers because they didn't have any domestic water supplies. Springs that they had been counting on for their whole lives are now drying up. I mean it's some unprecedented thing. So, it was an education. I went out there, I was the bad guy, the haole, malahini consultant guy, you know, the face of the Water Department. But basically, what we heard there is we need to do our homework and go back and look at all these plans. They've done a lot of planning out there. We went out there for the introductory meeting; we realize we have to go back and do some homework and not waste anybody's time out there. They're also very knowledgeable. Ok, final candidate strategy reports. Now, I'm go through the Central here. And so I presented this before so I'm gonna kinda just go through this as kinda review 'til I get to the recommendations. But here are the 5 final candidate strategies. Now, I'm gonna go through each one of these individually. And all of them include some common things. Like there's some near term things, some projects that are already committed. It's the long

term options that are really being differentiated here. You know, what are the smartest things to do in the long range. This is really a long range planning process. And then there's some general options that are included in all of them. I'm not gonna go through…here's the list of the committed and near term options, the general options. Now in the general options, up at the top is conservation and demand side management. And actually the analysis tells us that that's very cost effective. And so that's actually a featured form of all of the candidate strategies and the last one, the last strategy in particular, it's an expanded more aggressive version there. So there's a demand side management portfolio in all of them. Also water recycling using existing recycled water from the wastewater plants to displace potable use. We have, that's not included in all of them but as featured strategy in the last one. So, the Na Wai Eha, it's like a family of strategies, so this is a general strategy. It'd be one or more water treatment plants using water from Na Wai Eha streams. We looked at Waiale Water Treatment plant, pretty much already designed; a Waihe'e Water Treatment plant which turns out to be maybe a better location but there's no existing design for it; and storage reservoir options. The first 2 kinda assumes that you're gonna have base flow

access. You don't have to build a storage reservoir. And the last one would say, would say if you do have to build a big storage reservoir then of course the economics are very different. And on the map these would be taking water from the, from the Waihe'e stream system and the 'Iao stream system. These are existing divergence. The Waihe'e plant would put some thing on grade above and outside of the urban area and the Waiale Water Treatment plant is proposed right down here in the Waiale area. The storage reservoir is not located in particular but it'd be some place consistent with the location of either of these. So the analysis looked at how this stream water would be allocated between parties, 'cause that's necessary, taking into account anticipated in-stream flow standards. We did several mass flow analyses that looked at daily stream flows, reservoir levels that would result from different assumptions, gave the tables of what the reliability under different reservoir capacities in different yields. We looked at the cost and we came up with a bunch of cost analyses. So these are the things that presented before and I'm gonna spare you a lot of these bar charts today, 'cause you've seen it before, but basically the black line is the bottom line in terms of looking at the present value of operating the whole Central District water system

for 50 years. So it includes the red bars which are the variable costs, the operating costs, and the capital costs. And the sum of them is here. So, this is the zero point, this is the northward expansion which is kinda what we compare everything to. Here's water treatment using Waiale or Waihe'e kinda thing with a cheap water base flow, no reservoir. Here's if we have to pay 90 cents per thousand gallons, which is what the Wailuku Water Company is asking for. Here's if we build a 300 million gallon reservoir and don't have to pay anything for the water because we're capturing water that's not going to Wailuku Water Company. And this is what happens for a $1 billion reservoir, which is one of the proposal that was brought to us by the advisory committee.

CHAIR ALDRIDGE: Carl, can I ask you a quick question? You got costs at 75 per barrel oil I suppose…

MR. FREEDMAN: Right.

CHAIR ALDRIDGE: Yeah, and obviously that's fluctuated…

MR. FREEDMAN: Well, here the next slide there's 125.

CHAIR ALDRIDGE: Ahhh, ok.

MR. FREEDMAN: See.

CHAIR ALDRIDGE: I was just gonna ask you that.

MR. FREEDMAN: Yeah. Basically you know, last year 2008, energy prices started out in the 50 to 60 and then they went up to 140 and now they're down to 40 again. So, what I've done is I've got 2 scenarios in here. I had to boil it down to some finite number. So, I've got 75 and 125, those are my 2 scenarios. In the long run, 40 is not right. And all these, I'm, I'm projecting these at 1% above the cost of inflation is the cost of energy. So 75 at 1% is not too far off from 40 at 2% which we're gonna see some more escalation in the near term. It's anybody's guess. I stopped guessing. I've already guessed a few times and I passed out these charts about the cost of water in each tank. I wanna bring them all back and next time I'm just gonna put the number of kilowatt hours, you know for each tank. Everybody can do their own multiplication. Northward basal groundwater development would be a series of new basal wells going on the north, crossing Makamakaole Gulch to the north half of the Waihe'e Aquifer and then progressing up towards into the Kahakuloa Aquifer and I would emphasize not in Kahakuloa Valley but the Kahakuloa Aquifer goes all the way up to the very top of the island. That's up here. And here is north part of Waihe'e Aquifer and then pass the Kahakuloa area up into the north part of the aquifer. Eastward basal groundwater development

included new basal wells in the Haiku, Honopou and actually went on to look at Waikamoi Reservoirs. We looked at a Haiku well field at 1500 feet, a well field at 1000 feet. We went out to the Waikamoi Aquifer well field; we kinda skipped over, after going out and hearing from Honopou, we skipped Honopou; there's too many issues there and too many existing uses for us to build a bunch of wells right above all the existing uses. So, if we're going there, we're basically going past there to Waiakamoi. Then maybe I'm asserting some policy here but, but that's pretty much where we got with the public process. And then another thing we looked at was taking the Waikamoi Aquifer well field pumping into the ditch and using the ditch to transport it to Central and then a water treatment plant, because one of the big expenses was the pipeline that goes all the way out there. So, here you see these on here, here's the Haiku well field, here's the…there's the Honopou, we're going right by, Honopou Aquifer. I should've drawn the aquifers in here perhaps. Here's the Waikamoi Aquifer; be building a series of wells and transporting, connecting to the Central system. And of course here's a water treatment plant. Here's the end of the Hamakua Ditch, so it would go into the Lawrie Ditch, no, it's Lawrie Ditch all the way, excuse me. Lawrie Ditch all the way to

here and so we looked all those and so here's our reference plan. This is our northward plan to compare everything to. Here's our Haiku well field at 1500 feet, at a 1000 feet is the most economical of all of these. So, that's what I've advanced as the eastward plan is Haiku at a 1000 feet, that's the frontrunner. Waikamoi, you can see these are the capital costs associated with the transmission. If we go with a ditch system we still have a lot of capital costs for transmission, we also operate a power, a water treatment plant. You don't save money by pumping into a ditch and then having to treat it basically. And then, there's your $125. The differences are changed but the results don't really change. Brackish water desalination, would be building a brackish you know, desal plant in the Central area and I just have that posted here. It could be anywhere in this area that we fund as well. And then this was the popular one from the community; was large scale water recycling and conservation. It would be meeting new water needs by maximizing recycled water use and conservation measures. So, the conservation programs for example have like 5 or 6 times the budget and they get 3 times the results of the conservation programs that are in all the other, all the other strategies. And, this would be taking, the way I framed it was to be taking a pipeline from the

existing Kihei Water Treatment, Wastewater Treatment Plant, running it down to the Wailea area, kinda hotel row. And the idea from the Water Department would be, the value to the Water Department is we would be displacing potable use of water that's currently being used for non-potable purposes, outdoor irrigation primarily. And that pipeline would probably carry a lot more water than that. It would probably carry water for displacing other non-potable water sources too. But the value of the Water Department would be freeing up potable water by displacing potable needs. So there they are. If you compare 'em all with one another, the cheap thing on the block is Waiale Water Treatment Plant if we can get cheap water, and if the Water Commission allows an allocation of water because there are 2 proceedings. One is for the in-stream flow standards and another designation is a surface water area. So as you'll see in the recommendations the, this looks inexpensive but you start looking at some other options, there's $125 a barrel. Here's if you don't get that allocation, if you have to build a 300 million gallon reservoir. And the other difference here, this assumes we can get 1 million gallons of potable out of the Kihei Wastewater Treatment Plant. And over here, if you only get 1 million gallons a day then it doesn't look quite as good. And you can see

there's the demand side management for the, over and above the demand side management in these. These are just comparing differences in costs. So, I wanna, I said I was gonna stay away from the bar charts 'cause I go on. So I'm gonna flip through these but here's the bottom line. All those bar charts comparing these options to one another, but you gotta realize that all these things are expensive, every single one of 'em. We're not, you know we kinda ran out of all this water that piles up on the isthmus; we have these deep aquifers that we can pump out, you know. We've run out of that water and the next thing is more expensive. So new growth in the system and I did some analysis of this. It's about, for the Central system, it's about $10 per gallon per day for new demand, or about 6,000 per residential service. And the up, and remember the up, the system development fees, we have about $2,000 in there, 'cause it's a $6,000 for a new meter, 2,000 of it is source. The Upcountry system, it's higher. We're talking 9 to $11,000 is the capital cost to, for the Water Department to develop new source for each new meter, ok. So…

DIRECTOR ENG: Carl?

MR. FREEDMAN: Yeah?

DIRECTOR ENG: On that's, I have seen those numbers…

MR. FREEDMAN: Yeah.
DIRECTOR ENG: For…
MR. FREEDMAN: Yeah.
DIRECTOR ENG: So for Upcountry, that's based on groundwater…
MR. FREEDMAN: This is based on, those specific numbers…
DIRECTOR ENG: Uh huh.
MR. FREEDMAN: I'll actually get to a chart that shows that.
DIRECTOR ENG: Ok.
MR. FREEDMAN: This is turning out to be longer than I wanted.
CHAIR ALDRIDGE: That's ok.
MR. FREEDMAN: The, but basically that scenario was based on the assumption that we're just gonna keep pump, whenever we needed a new water, we'll pump another backup well. And then we'll supply and pump as necessary. So actually on the capital cost side that's actually on the low side, because the other ones like the reservoir things are cheaper variable costs but the capital costs of reservoirs are high and how much it's gonna cost in system development fees depends on well, what are we gonna get from federal government assistance and you know how it's gonna be financed.
DIRECTOR ENG: And this is all net present value?
MR. FREEDMAN: This is all, yes it is…

DIRECTOR ENG: Ok.
MR. FREEDMAN: Exactly.
CHAIR ALDRIDGE: Carl, can I, can I follow up, I have a follow up question on that. Yeah, thank you. Nine to eleven thousand per new service, philosophically, and maybe that's not a question for you but, do new services include all the services Upcountry that are on the current waitlist? Are those considered new services as water becomes available to them?
MR. FREEDMAN: Well…
CHAIR ALDRIDGE: To me it seems like they're not new services. They've been deferred services.
MR. FREEDMAN: Ok, what I did and I have a slide later on that shows it, is I'm, you know to do all this analysis I have a capacity expansion, production costs, it's simulation model that simulates the operations of this system out into the future, right. And it looks at each water system on the Upcountry system and transfers between them, keeps track of all the costs. What I did is I took 200,000 gallons a day and I added it in to the forecast for each the systems alternatively. So, how much more does it cost to operate the Upcountry system if you have 200,000 gallons extra on the Upper Kula system? How much would that much on the Lower Kula system? Then I ran the model out and as a result of that the

operating costs go up, the pumping requirements go up. But what this is measuring is the fact that because there's that extra amount of growth the dates that you need new booster pumps, new wells, that you need new resources, that gets bumped up a little bit. So, what you're seeing is, for to serve an additional amount of water demand, and I haven't broken it down just to who, whether it's a waitlist, non-waitlist, whatever. The waitlist people would be part of that. Anything that does not have a water meter now would be part of that incremental demand. So, I'm not really trying to say anything about who it is or whatever, I'm just trying to come up with the marginal, long run, marginal capital costs is what an economist would cost it. What is it cost on the margin for one extra service? Which is really the question of how you might wanna, that's one approach to setting system development fees. What is the incremental cost to the system by a new customer coming on to the system?

CHAIR ALDRIDGE: Ok.

MR. FREEDMAN: And I'm not actually suggesting that that's what you should set…

CHAIR ALDRIDGE: Right.

MR. FREEDMAN: As a system development fee. But when you do set system development fees you got to realize that it's not covering the bill right now.

You know it's not, in the long run the costs you're gonna get, the amount you're gonna get from your existing system development fees aren't gonna cover the bills and costs of the new capital improvements you need on these systems. I guess that's really the bottom line.

CHAIR ALDRIDGE: Ok. I understand how you established it. So, then if, if and when it's time to establish those new service fees it's gonna be a political and philosophical decision whether or not those existing users that have been waiting for water are part of new development or you know they're subsidized in the form of…

MR. FREEDMAN: That's an important policy aspect of…

CHAIR ALDRIDGE: Right.

MR. FREEDMAN: For a rate design issues, yeah, yeah.

CHAIR ALDRDGE: Ok, thank you.

MR. FREEDMAN: I think there's a consultant on board to the Water Department working on designing or setting system development fees, I don't, I'm not familiar with the exact status of that, but. Ok, now new demand growth, one of the things we're doing about that is conservation programs. So, I just wanted to kinda frame this, 'cause this is another budget issue, right. So, if we have a conservation, the conservation set of programs in

there, it's about, for the Central District, it's about $1 million a year for 5 years. So the net present value is $4.3 million for that. If you spend that money on the conservation, you reduce the capital and operating systems by 9.4 million. So this is a cost effective thing, expenditure, right, from the Department's point of view. The capital requirements are reduced by 4.2 about what you're spending and then of course the operating costs with the low energy price scenario are 5.2 million. They'd be more with the higher cost energy scenario because of the additional pumping costs. So, there you got 'em. What we do then, you know because what I, the analysis that I do gives things like water availability, reliability and costs. But we've got a big long list of, of things to consider in choosing a plan. So we use a chart that's like this. It has all the different objectives and all the different flavors of the different things and there's a copy of the actual chart for the Central District up there. In the draft I have, I've broken it up, unfortunately you can't print something like that well so in the draft that's about to come out, it's broken up into sections but the matrix is in there. And as a result of that I've come up with some recommendations. So this is what I wanna run by here. The recommendations that are in the Central

District plan include, that address these sections, short term resources, long term resource acquisition, regulatory mechanisms, resource protection and restoration, energy efficiency and production, and water allocation policies. Now, the last one, well, I'm gonna go through these individually and what I'm gonna do, what I'm gonna show you right now are just the titles of each of the recommendations, so you can get an idea and you can all look forward to the draft if you're really excited about it. The short term resources would be to diligently acquire all the committed and near term stuff we've got on the books. We gotta do that diligently to meet our short term needs on the Central system. We're gonna optimize production from existing resources, accelerate leak detection and repair, and explore demand response options. And by that I mean we need to have some rules and procedures in place so if the Department needs to say, hey, no, no lawn watering and no street washing for the next 2 days 'cause we have a well out. The Water Department needs some authority to do that kind of thing but that would a valuable resource for the Water Department. That's what that is. Ok, long term resource acquisition would be monitor the Na Wai Eha proceedings, and I kinda, there's one on interim, the Water Commission has 2 of these, one on interim stream flow, one on

surface water management designation and there's a public utilities commission contested case on the Wailuku Water Company's rates. In order for the Waiale Water Treatment Plant for example, to go, that, these issues need to be resolved first, all right, is basically. So we wanna defer but be prepared to re-start the Waiale Water Treatment Plant negotiations. Commission a study of alternative site upstream, an alternative to that Waiale reservation. And I could, I've been asked to stop going into these paragraphs, but each of these is a paragraph or 2 or actually a page in some cases on the recommendations. Implement substantial conservation programs, verify the feasibility of expanding use of the Kihei Water Treatment Plant for recycled wastewater and if push comes to shove go ahead with it, you know if it pans out. And monitor the ongoing feasibility and preserve options for the other long term options going northward or going to Haiku. And it discusses you know some contingencies in there. You know, you don't need to make all these decisions right away, but you gotta make sure all the ducks are in line so that you can move when you have to move. Regulatory mechanisms would be to maintain or expend the inverted block rates…

MEMBER HOWDEN: Carl, can I ask you a question…

MR. FREEDMAN: Yeah.

MEMBER HOWDEN: On the long term resource…
MR. FREEDMAN: Yeah.
MEMBER HOWDEN: There's no mention of the use of eminent domain to…I mean does that work in anywhere, I mean 'cause you're, you're dealing with the Wailuku Water Company, you're dealing with HC&S. We keep cutting the sweetheart deals with these corporations.
MR. FREEDMAN: Well the idea of eminent domain and I think we've gone before, the council for example once approved $7 million to acquire Wailuku Water Company's sources and things. But right now, these are all before the Water Commission in terms of how we're gonna allocate the water and so in a way you could go and you could try and take those resources but until the Water Commission decides you know, where the water is going, as you know it's a public trust resources as you've told me many times. Right now the konohiki, you know, the Water Commission is decider about some important issues about that. So, I probably should have a discussion and I have it written down again about eminent domain but it's not a recommendation to proceed with eminent domain at this point. If you'd like to see that then it would be good to hear that comment so you know, in some way.
MEMBER HOWDEN: Yeah, because that's, you know the trick in that is that they say, oh, we're not

giving you, we're not selling you public trust waters we're delivering you public trust waters. So to own the delivery system it would seem that would be abuse of the county.

MR. FREEDMAN: Right, right. Ok, you've told me that before and you deserve your paragraph…

MEMBER HOWDEN: Thanks, man.

MR. FREEDMAN: Ok, but it's not in there with apologies.

VICE CHAIR HOLMBERG: I might just, I might just make an extra addendum on what you said, that the, it, that the, whether it's worthwhile waiting for the commission to rule rather than condemn is dependent on how long do we think it's gonna take them to do that after all Waikamoi Ditch decision had its, the, the follow up on that hasn't finished yet and that's quite a ways in the past.

MEMBER HOWDEN: Yeah, that's a very good point.

MR. FREEDMAN: Right, right. Yeah, it'll be a whole paragraph and you'll have a chance, you know you'll have a chance to make comments. Ok, let's see, where were we? I think, maintain or extend inverted block rates, review system expansion, financing policy, that's what we talked about a minute ago about sufficient funding for your capital program. You need to have sufficient funds to, to do any of these things. Establish water source development contracts standards and

establish clear criteria for determining water availability and need for water resources. And as you know right now, a lot of these things come in as developer wells, developer projects. We just need clear standards so we don't get into trouble in the end about bickering at it. And if we do want developer stuff to happen, let's get a clear market, a clear, what, what are the rules of games on so they could, the developers can count on it and step up to the plate and know that there's something known about it. Resource protection and restoration, I better check in here for timing. Am I pushing my envelope already? Yeah, I am. Ok. Resource protection and restoration have all been acknowledged as very important. The Water Department has been very supportive and the county has been very supportive. Watershed protection, wellhead protection, stream restoration would be supporting the Water Commission's in-stream flow amendments especially for the East Maui streams and supporting stream restoration measures and programs. But out in the public process, we're hearing about this loud and clear and so it's getting into the recommendations. If anybody thinks otherwise, I haven't had A&B or anybody come out and tell me yet that they don't want to see this in here so it's in there. And, but I think it's important to table that for, for the

discussion because it's an important policy issue. Protection of cultural resources, energy efficiency and production would be to establish a full-time Department of Water Supply Energy Resource Coordinator position. That would pay for itself, many times over. Identify and implement opportunities for energy efficiency, load management, identify and implement energy generation opportunities, which we have some on the Upcountry system so, I don't know if that discussion really needs to be on the Central draft but it has to do with establishing a full-time coordinator position. And the last one, establish water allocation policies and in this area I am not making specific recommendations. What's in the recommendations is more of an expository treatment of the subject, because we have to determine what venues these allocations are going to be used in. Are these rules for the Water Department in terms of how the Water Department issues meters? Are these policies before the Water Commission about how they make their decisions about in-stream flow standards and about reasonable beneficial use, public trust use? We need to establish what the venues for those are and the purposes and then you gotta decide what form you want to state these allocations. Is it going to be hierarchy of priorities which says this is more important than

that is more important than that? Or are you gonna say we're set aside this much for affordable housing and this much for agriculture? Or are you gonna say we're gonna allocate this source to that use, this source to that use? Or are you just gonna make general statements? Like there shall be ridge to reef or makai, mauka to makai water flows. So, this section really tries to table all that stuff for discussion. And that's gonna be very interesting. I look forward to the discussion but I can't set those policies. These are big picture policies that need to be set by the Water Board and the Water, I guess by the council ultimately as an ordinance. And, the Upcountry district, because of time I'm just gonna go through very quickly. We've got some similar things, the main options are expansion of raw water storage is a big, big storage reservoir. And we've looked at different sites, different sizes and in those rounds we're also looking at some environmental constraints we have about some of the big ideas. It's easy to say 300 million gallon reservoir in the Lower Kula system but when you go to site that and you start talking about what we're up against in terms of environmental considerations that's a major topic, right. Full basal groundwater development, this was something the Upcountry system is very concerned about, reliability, they wanted to see a

strategy where even if the reservoirs went dry you could serve all the needs of the Upcountry system. So we priced that out. Limited growth with extensive conservation measures; this one we, I tried to do but it's really hard to characterize, especially economically because what you're doing is you're providing less services and so you do the dollar cost of course it's cheaper but you know it's hard, harder to evaluate with, with, from an analysis point of view. Expanded Kamole Water Treatment capacity and volume, and this would be making improvements at the Kamole Water Treatment Plant, not to actually take more water on a regular basis but to increase the drought period capacity. And so there are various options to do that and by doing that you have to drill fewer basal backup wells is the idea; for the same amount of reliability. And the last one is actually what's happening is what I call drill, pump and boost. When you need a new well, you drill another well and then you pump the well when you need it and you provide enough boosters on the systems to get it up to where you need it. And we compared all those and we got these costs. I'm not gonna go through them right now because of time but I will show you, here's that 200,000 gallons on each of the systems, right. So, here's, if you, here's your reference thing. If you put 200,000 gallons on the Upper

Kula system, Lower Kula system, Makawao system or Haiku system, these are the costs that result. And it's these blue bars, the capital costs, that I quantified for each system and that's where I got the 14 to $19 gallons per day and the 9 to, 9,000 to 11,000 range. And it's a range 'cause it's different on different systems. And as I presented last time we did an analysis of the wind farm. Different, actually different, all kinds of different wind scenarios up at Kamole Water Treatment Plant. And that looks like that would work. And the question is scale. And because we thought a big water bill up there, I mean it's millions of dollars a year for the water bill for that one facility.

MEMBER ROBINSON: You mean the electric bill?

MR. FREEDMAN: Well, yeah, excuse me. The electric bill. Thank you. Yeah. The water bill's big too actually. Alright, and maybe I'm done, let's see. Next steps, finalization and review of Lana'i Water Use Development Plan. The next thing is public review of the Central District finals. So, in the next couple days, I'm hoping we're gonna have this draft out and you all get it, you're on the mailing list for the water advisory committees. If you're not, I'm gonna make sure, I think, I think everybody here is. So, you will be getting that as a pdf file one of these days. Completion of the

Up, then I have the Upcountry version of that by March. And proceeding with the next steps, actually, proceeding with the next steps to make the conservation programs go. Actually we need to get some bids in, get some contract, actually get some bids from implementers to harden up these prices that I've been using as estimates. And, then to proceed with West Maui, Molokai and East Maui with the analysis and the public process. And, comments, need to go to the, oh, there are documents available and I don't have our website but documents, comments need to go to the Water Department. Ok? I didn't have Ellen Kraftsow's email address. I thought that was, I saw this and I thought that that's what this slide was, was an email address for you. But get it to us anyway. Send it to Jeff, send it officially through the mayor, however you want to get it. But comments need to come to them. It's ok to talk story to me but you need to go to the Water Department to get comments into the, into the process. And, my apologies for how long it took, ok.

VICE CHAIR HOLMBERG: Another question if I might, Mr. Chair?

CHAIR ALDRIDGE: Yes, yes.

VICE CHAIR HOLMBERG: You had mentioned this specifically the Kihei Water, Waste Treatment Plant and I, I'm all aboard using water that you've

gotten to reasonably clean standard, if I, I maybe quoting Councilman Victorino incorrectly, but I believe he had said that we are already using about or actually consuming about 70% of the Kihei water whereas it's the Wailuku Treatment Plant that's basically injecting most of its water and I didn't know if you had addressed that at all in the plan.

MR. FREEDMAN: Well, my understanding is that there would be plenty of water available from the existing characterization of the Kihei Water Treatment Plant. In part because as these loads grow so does the water treatment plant capacity. But I don't think 70%, I don't…

VICE CHAIR HOLMBERG: Yeah, I don't know where that came from. I can't back that…

MR. FREEDMAN: I verified my numbers not as percentages but I was assured by you know, the Department of Environmental Management that that's available. But, and one of the reasons that the recommendations says "commission to verify" is because right now the Department of Environmental Management is going through a review of the status of that plant. They're worried because they financed that plant based on future developer fees, right. And, they're worried that the capability of the plant may not keep up with that. So, they're consultant is looking at, well, we can produce more R-2 than we can R-1 and R-1 is the purer stuff that

you can actually distribute. So if their consultant comes back and says oh, no it would take more capital investment in the plant to produce that amount of R-1 water well then the cost of this plan then goes up. Then you need to say ok, well do you just wanna give up on R-1 water and we're just gonna do R-2 water now and re-inject it or if we wanna go with R-1 then, then the plan changes. So, what I've got in here basically presumes based on my due diligence first basically that that water would be available subject to this more recent review and the other thing I have to say is what I costed out was, was turns out to be a $20 million pipeline with the improvements all the way down to Wailea, right. There may be cheaper ways to do it. And I talked with Dave Taylor at Department of Environmental Management. It might be possible to take, intercept some of the water on the way to the water treatment plant and put in one of these little package unit, scalping it's called and actually you know, the water doesn't have to go all the way to the water treatment plant and then all the way back. Let's catch it on the way with a little package plant. But DEM doesn't want to do that so does the Water Department want to do that? Or maybe just the Water Department want to pay for it? So I'm not getting into the inner county department stuff, I'm just looking at the big

picture kinda thing that if the county somehow wants to get it together to do these things what's on, what's the incremental price tag?

DIRECTOR ENG: Another thing, Carl, Carl pointed out to me, we still, we still need to verify how much of that potable water can be displaced.

MR. FREEDMAN: That's right.

DIRECTOR ENG: He's indicating like 3 million gallons of potable water being displaced for a price tag of 50 million.

MR. FREEDMAN: Yeah but that, what I, the, the 3 million for 50 million…

DIRECTOR ENG: Full on.

MR. FREEDMAN: The reason that it was 50 million is to displace 3 million gallons, you have to put all these distribution laterals and feeders all over Kihei. That can pencil out as much as the 20 million for 1 and 1/2 million. So what I've actually got in here is, and then we can put the feeders in later but I'm just looking at the main trunk of the line down to real big users. But as you say we have, I've done this, I did a GIS analysis, I put all the water uses, I calculated how much each of these big users was using and I made an estimate of what they might displace. That's not good enough to go on for 20 million gallon investment, you know. It's good enough for this kind of study but before you go ahead with it,

that study, as Jeff points out we're not just verifying the water plant we're also verifying the displaceable uses. Thank you.
CHAIR ALDRIDGE: Any other…
MR. KUSHI: Mr. Chair, I have some questions after the members.
CHAIR ALDRIDGE: Ok. Any other…
MR. FREEDMAN: Oh, can I say one thing? You know, the last time Ed asked me a really good question. I don't think I gave him a good answer, which was the economics of inner connecting the Upcountry and the Central system. So, you got more than a paragraph, you got a couple pages in there so. I thought about addressing that issue so; because it was a very good point. We had looked at that in the candidate strategies, it wouldn't pencil out so I didn't have it as a final candidate strategy. Basically, like 2 systems that need water, you can't solve that problem by interconnecting them. Interconnecting them may serve some advantages but it's not the solution to the, to the problem. So, I have some draft in there to address that.
CHAIR ALDRIDGE: Any other questions, board members? All right. Yes, Ed.
MR. KUSHI: A couple questions, Carl. In your Upcountry area plan, you guys considered as a strategy re-opening the H'poko wells?
MR. FREEDMAN: Ahhh.

MR. KUSHI: Was it ever brought up?
MR. FREEDMAN: Oh, yeah. Well, we looked at that in the candidate strategies before the council made an ordinance and then we looked at it again, it, it's still in there even consistent with the ordinance. What we looked at, we could pump water from H'poko…
MR. KUSHI: As back-up?
MR. FREEDMAN: Well, actually we can pump it up into the Hamakua Ditch, you know the Wailoa Ditch flows to the, to the Kamole Four Bay where the Kamole Water Treatment Plant is and after that is the Hamakua Ditch, same ditch, different name. But we, the pipeline already goes from Hamakua Wells up the Four Bay, so with a little bit of extra effort it can go another 50 yards and dump into the Hamakua Ditch and then as a matter of trading then we've got water to trade with Alexander and Baldwin for water in other places, right, which might be more water from Kamole. Now there are some limits to what that gets you and there is a discussion of that somewhere and I'm trying to remember whether it's in, oh, it's in the Upcountry draft which you haven't seen yet. Yes, there is a discussion of that and also with the interconnection; it's related to that, you know. It's a whole, there are all these different issues. You know if we were to build the Haiku wells up there, it's a real easy

shot to interconnect the system but it raises other issues and it presents other opportunities so that's discussed. But it isn't a frontrunning, I think if we were to do the Haiku well field option, it would probably be recommended to interconnect the systems, because you just, you can get the efficiencies. But what's discussed in the Upcountry draft then is what the limits are on what you can get out of those arrangements.

MR. KUSHI: The other question, Mr. Chair, as far as the Central Maui plan, if you're going towards the Haiku option…

MR. FREEDMAN: Yeah.

MR. KUSHI: Meaning, drill out there and you bring it here, I understood that these are planning documents, community plans, general plans and some group is fiddling around with something now. I, I'm not in the loop on that, but I remember seeing the Kula Community Plan had a statement about transferring water out of that district and bringing it down. Does Haiku have anything like that or have you guys looked at those planning documents and how we would relate towards your plan?

MR. FREEDMAN: Yeah. And one of the requirements of the Water Use Development Plan is it's consistent with the community and general plans. And moving water from Haiku to Central is not

consistent with the Haiku-Paia Community Plans. Is it Haiku-Paia?

MS. KRAFTSOW: Haiku-Paia, but the other thing is that the Kihei Plan says that we will take water from the east. So the plans themselves, the last go around, were inconsistent. So we had to be consistent with something that wasn't consistent with itself.

MR. FREEDMAN: Yeah. But what we're looking for, I mean right now, what we have a, there's a current general island community plan update process going on. And in the end, we're saying that's what we have to be consistent with. 'Cause we're, this is a forward looking plan. All of the assumptions we got in here, forecasts for demographics, they're all taken not from the last round but forward looking into this new general plan. So, I think that I have not stopped looking at things because they're inconsistent but certainly what we need to look at is ultimately with all of this, all these assumptions that go in here, if the community plan or the general plan makes big changes on where growth is gonna occur or makes statements about what shall happen with water then this would have to be readjusted. But I have not backed off looking at all the options because of the statements in the East, in that, but we know that they're there. We kinda, I'm trying to look at

everything, even though somebody's gonna squawk or it might not be inconsistent otherwise everybody's gonna get mad at me 'cause I didn't look at it, right.

CHAIR ALDRIDGE: But you're looking at moving targets too.

MR. FREEDMAN: Yeah. Quickly moving targets.

CHAIR ALDRIDGE: Yes.

MR. FREEDMAN: Yeah.

MR. KUSHI: Thank you.

CHAIR ALDRIDGE: Thank you, Carl. Any other questions?

DIRECTOR ENG: Thank you, Carl.

CHAIR ALDRIDGE: Thank you, that was a very good presentation. By the way, I assume this material is gonna be on the Maui Water Website?

MR. FREEDMAN: I will get, I did not distribute this.

CHAIR ALDRIDGE: Right.

MR. FREEDMAN: I totally forgot about that…

DIRECTOR ENG: I think it will be available real shortly.

MR. FREEDMAN: So what I'll do, I will, I'll give a pdf of this to, should I just put it on the website? Or I can give a copy of the pdf.

MS. KRAFTSOW: The one that you gave me can just go to Jacky if it's ready, if Jeff says it's ready to go.

MR. FREEDMAN: No, no, no, not the Central draft…
MS. KRAFTSOW: It doesn't have to go, it has to go to committee…
DIRECTOR ENG: Yeah, I think I'll look at the Central this weekend real quickly.
MR. FREEDMAN: No, no, no. I'm talking about the pdf, the power point.
MS. KRAFTSOW: Oh, the power point.
MR. FREEDMAN: The power point.
MS. KRAFTSOW: Yeah, oh yeah.
DIRECTO ENG: Yeah, that's fine.
MR. FREEDMAN: The power point. I'll give you a pdf of the power point. Ok.
DIRECTOR ENG: Is you Upcountry currently on our website, the latest?
MS. KRAFTSOW: No.
DIRECTOR ENG: Anything?
MR. FREEDMAN: I don't know, you mean the power points?
DIRECTOR ENG: No, just any draft.
MS. KRAFTSOW: There's…
MR. FREEDMAN: Yeah, the most recent, Upcountry is the candidate strategy draft. And since the candidate strategy draft it's all been power points because they keep changing…
DIRECTOR ENG: Right.
MR. FREEDMAN: You know and so I had at least 3 water advisory committee meetings in Upcountry on,

that they've been power points and so the next thing will be for the Central will be the draft that you're reviewing.
DIRECTOR ENG: Uh huh.
MR. FREEDMAN: And the Upcountry will be by, to you by March, which is like a few days, right. Sometime in March and hopefully up by the end of March.
DIRECTOR ENG: Good.
MR. FREEDMAN: Yeah, I'm thinking that you can have that.
CHAIR ALDRIDGE: Thank you, Carl.
MR. FREEDMAN: You're welcome.
MEMBER ROBINSON: Thank you, Carl.
CHAIR ALDRIDGE: I see that the Burns' and Mr. Mancini are here on the Burns appeal so we'll move from Other Business and defer items from B to E and move into appeals but first let's take a 5 minute break.
DIRECTOR ENG: Oh, thank you.
(laughter)
(meeting recessed)
CHAIR ALDRIDGE: We're back on. We're on Appeals, Item A, Appeal 07-03, an appeal by Thomas L. Behnke, on behalf of John C. Behnke, Jr., M.D., of the director's decision or order dated September 7, 2007 to deny their proposal to connect to a new waterline to the department's water system to

provide fire protection to their subdivision located at 150-170 Haiku Road. We have copy of a letter from Mr. Behnke withdrawing their appeal. I believe that the Department has negotiated an agreement, is that correct?
DIRECTOR ENG: Yes, it has recently been executed I believe the Behnke's are recording the document…
CHAIR ALDRIDGE: Great.
DIRECTOR ENG: At this time. I think we've concluded that.
CHAIR ALDRIDGE: Ok, excellent. Good not seeing this on the item list again. Alright. Well, Item B, Appeal 07-05, an appeal by Susan Burns of the Director of Water Supply's written decision or order dated November 14, 2007, which decision or order the Department delivered her proposal of the Water System Improvement Plan as prepared by Silversword Engineering. Presentation of the Findings of Fact, Conclusions of Law and Decision and Order by the Board of Water Supply. For this matter the Board may go into closed deliberation. We're gonna go into closed deliberations to review the Decision that was prepared.
(at this time the Board closed the meeting and went into deliberations)
CHAIR ALDRIDGE: Alright, we're ah, in the Appeal No. 07-05, in the matter of Kuiaha-Pauwela Homestead Subdivision, SD 91-8, Request for

Approval of Fire Protection System for Fire Flow Purposes; tmk (2) 2-7-008-124 and 125, Haiku, Maui, Hawaii. The Board has deliberated and has the following Findings of Fact, Conclusions of Law, Decision and Order. Mr. Mancini, we'll make a copy of this available today.

MR. MANCINI: Yes, Gaye just gave me a copy.

CHAIR ALDRIDGE: Alright, great. I'm not going to read into the record all the Findings of Fact. I will however read the Conclusions of Law and Decision…

MR. MANCINI: That will be fine, thank you.

CHAIR ALDRIDGE: Right, thank you. Conclusions of Law. Based on the foregoing Findings of Fact, the Board hereby enters the following Conclusions of Law: 1. It should, if it should later be determined that any of these Conclusions of Law should be properly deemed Findings of Fact, the Board so finds as to those facts. 2. That in accordance with Chapter 14.11, Maui County Code, the Board has jurisdiction over the subject matter and the parties to this appeal. 3. That in accordance with Section 14.11.010, MCC, Appellant timely filed a notice of appeal of the Director's decision dated November 14, 2007. 4. Pursuant to Section 14.11.040, Maui County Code, the standard of appeal for this matter is: "The Board shall review the director's decision or order and, by a

majority vote of its entire voting membership, may affirm the decision or order, or may reverse or modify the decision or order if the board finds that the substantial rights of the appellant may have been prejudiced because the decision or is: A. Based on a clearly erroneous finding of material fact, improper procedure, or erroneous application of the law; B. Arbitrary or capricious in its application; or C. A clearly unwarranted abuse of discretion." 5. While the 1992 Agreement between the Baers and the Board required the construction of water system improvements to proved a fire flow of 400 gallons per minute ("Fire Flow Requirement") if and when Lot 8 or 9, or both are sold to any third party, non-family member, the 1992 Agreement did not specify nor limit such Fire Flow Requirements to the public, departmental water system, nor did the 1992 Agreement specifically prohibit the consideration or use of a private water system to provide and satisfy the Fire Flow Requirements. 6. It is clear, however, that the 1992 Agreement did require improvements to provide a fire flow of 400 gallons per minute. If Appellant's proposed private fire flow system cannot technically provide such a requirement, the alternative would be to improve the Department's public water system to satisfy the requirement. 7. the Department's reliance and interpretation of

Section 2-11 of the Rules and Regulations of the Department of Water Supply as requiring a particular subdivision's domestic, irrigation and fire be served totally by the Department's public water system or totally by a private water system is misplaced, and erroneous. 8. The Director's decision in his March 22, 2007 letter to the Appellant to not waive or delete the Fire Flow Requirements, or to not consider transferring the restrictions/requirements to a new, non-family owner was proper, lawful and within the Director's discretion. 9. However, the Board concludes that the Director's decision as set forth in his November 14, 2007 letter to Appellant's counsel to not consider a private fire protection system to satisfy the 1992 Agreement's Fire Flow Requirements was based on a clearly erroneous application of the law, which in this case, is the interpretation of Section 2-11 of the Rules and Regulations of the Department of Water Supply. 10. Any proposed conclusions of law submitted by the Appellant or the Department not already ruled upon by the Board by adoption herein, are rejected, are rejected by clearly contrary conclusions of law herein, or are hereby denied and rejected. Decision and Order. Based upon the Findings of Fact, Conclusions of Law, the Board hereby grants the appeal of Appellant, and reverse and modifies the Director's

decision as stated in his letter to Appellant's counsel dated November 14, 2007, as set forth below. It is therefore ordered: 1. Upon a re-submittal by Appellant for approval of a private water system to satisfy the 1992 Agreement's Fire Flow Requirements, the Director shall review and consider such a proposal, and approve same, if in the Director's discretion, said system satisfies the Department's health, safety and welfare concerns. 2. In the event the Director does not approve the private water system as proposed by Appellant, the Director shall forthwith transmit said proposal, together with any and all plans and specifications, to the Department of Fire Control, which thereafter shall have the sole and exclusive jurisdiction to review, revise and approve said proposal. 3. In any event, if a private water system is approved to satisfy the 1992 Agreement's Fire Flow Requirements, the appropriate back flow prevention device or other mechanical devices shall be require to be installed to prevent possible contamination to the Department's public water system. The Department or the Appellant may appeal this decision and order in accordance with Section 16-102-70 of the Rules of Practice and Procedure for the Maui County Board of Water Supply, and Section 91-14, Hawaii Revised Statutes. The Board

approved this today, February 26, 2009 and I signed it.
MR. MANCINI: For myself and my client, we thank you for your time in all this.
CHAIR ALDRIDGE: You're welcome. Thank you.
MR. MANCINI: We appreciate it.
MS. BURNS: We would like to say thank you very much for all your work here. We really appreciate it. This has been a long road for us and it seems like our lives have been given back to us now. We really appreciate all your work. You're doing a fantastic service for us and for Maui.
MR. BURNS: And I'll shake all of your hands but I know you're busy so I'll thank all of you. Thank you very much.
CHAIR ALDRIDGE: Thank you.
MS. BURNS: Thank you…
MR. BURNS: Appreciate your time.
CHAIR ALDRIDGE: You're welcome.
MS. BURNS: Really, really appreciate it.
CHAIR ALDRIDGE: All right, let's return to Item 6, Other Business, 6B, Discussion regarding the drought/water supply situation and its affect on the Upcountry water system. Director Eng?
DIRECTOR ENG: Well, you know we're getting this intermittent rain. It looks like it's coming at least once a week which actually is kinda nice you know, kind of replenishes the reservoirs, saturates

the ground enough so people don't irrigate so demand had been under control. We haven't had to run Kamole to pump it up. We've been fortunate to just live off of our Lower Kula system to serve Lower Kula as well as Makawao, Pukalani. So we're saving a few bucks. We've been doing that over the past couple of months. And you know, and little bit of dreary weather past couple of days. The trades have picked up. I'm hoping that it continues for a while longer. The Wailoa Ditch really fluctuates you know, drastically as you can tell.

CHAIR ALDRIDGE: Yeah.

DIRECTOR ENG: But right now things are looking pretty good Upcountry so, yeah we just got to take advantage of it as long as we can. And this gives us time anyway for Kamole. We're doing the retro-fit for the, the latest membrane filters, state of the art filters, retro-fit. We did that at Olinda 2 years ago. We complete Lahaina recently. So we're now focused on the Kamole plant with that new type of membrane so, that's what's going up Upcountry. Everything will be fine. Overall for Central and West Maui demands are under control. And we've had some conservation going on for awhile now and hopefully that trend continues. I kinda sometimes though, little bit fears that maybe we've gotten all the easy conservation from our

customers. You know you see kinda, if you look like the latest, like last week's demands compared to a year ago, you know we're kinda getting kinda stable and pretty much equal so maybe we'll have to get a little bit more creative down the road. I like what you've suggested Carl, and what Gary has too. Hoping down the road can look at, and rates are the key; how to go about designing them, and getting even the county to then understand it even during difficult times like this, economic times. We have to look at significant rate increases. We are looking right now again believe it or not budget still isn't finalized. The budget presentation to the council which is in about 2 weeks is being tweaked, even this morning. But we're looking, last time I looked at it a couple days ago we're looking at about a 9.6% increase. We try to keep it below 10. That is still being tweaked. We're looking at other expenses and there's just not, we're really fine. We're just kinda have to go in step with the rest of the county departments. We're still self-funding. But I like in the future to be able to fund more of our capital replacements rather than this $3 million per year. That'll be nice if even a couple million dollars more per year out of our revenue and have more money really devoted to conservation programs. From the original budget that was submitted to me

by Planning earlier this year, we had to cut back a bit because the first iteration of our budget we were over 13% rate increase, we're looking at. So I had to do some slashing to bring it down to 10 or below and that kinda cut into some our conservation plans. But hopefully in the future and that's really just by educating the elected officials and the public to support this and you're right I think from your polls and polling the council members I think they're all coming around. It's still, when it comes down to the bottom line and they're approving significant rate increases when the camera is on them, will they do that? And that's what I'm hoping will happen. So yeah, as far as the demand and everything, everything's looking really good overall.

CHAIR ALDRIDGE: And the demand's still lower than last year at this time.

DIRECTOR ENG: Yeah, tweaking a little bit lower, yeah, we're still…

CHAIR ALDRIDGE: Yeah, still a little lower but…

DIRECTOR ENG: We're still, yeah, yeah…

CHAIR ALDRIDGE: You would expect…

MEMBER HOWDEN: Plus it's been a lot cooler too, Upcountry.

CHAIR ALDRIDGE: That's right.

DIRECTOR ENG: Right, yeah.

CHAIR ALDRIDGE: Yeah.

DIRECTOR ENG: Whole lot cooler.
CHAIR ALDRIDGE: Even if it isn't raining it's been so overcast the grass isn't growing.
DIRECTOR ENG: Yeah, it's pretty saturated.
CHAIR ALDRIDGE: Well, I'm…ultimately I think changing the rate structure and getting another tier up in there and hitting the high, high users is really gonna be where you'll see the real conservation in the summer.
DIRECTOR ENG: Yeah, yeah, and looking at the, creating separate classes you know, right now again we just have the general rate class. I believe down the road we should maybe separate the hotels you know, the vacation kind of condos. I think we could, they could pay a little bit more into. They're the biggest customers and cause the greatest demand. I know there's a lot of protection of that industry but they can afford it. Just the other week, I was just doodling around with a little calculation, I was actually preparing Holly to, to talk about the impacts to the hotels 'cause we had proposed, wasn't a significant increase, but at that, see because of their demand even though we have the 3 tiers, on the first day of the month they're in the first, I mean 3rd tier already. But really what, I, I use this when I was in the private sector, when I had a PUC hearing in Kaanapali. All the hotels guys are there at the

public hearing challenging me. So I always computed on what the increase represented in cents per day per room. So I think for our latest increases for the, for let's say 500 room hotel, it comes out to about 9 cents per day per room. So, it's not a hit.

MEMBER ROBINSON: It's not significant so yeah.

DIRECTOR ENG: So when I do hear that from visitor industry or others I can at least defend our position. I think that they can afford that, yeah.

MEMBER HOWDEN: Was…

CHAIR ALDRIDGE: Do we have any idea, Jeff, how many of the rooms, I mean using that as a measure of the number in the hotels, how many rooms on the island actually, hotel rooms actually are using potable water, meaning how many of the resorts actually use potable water for irrigation?

DIRECTOR ENG: I'd say the majority of them.

CHAIR ALDRIDGE: Majority of them do?

MEMBER ROBINSON: Really?

DIRECTOR ENG: 'Cause even Kaanapali, there is R-1 water available. And I've worked with Steve Parabicoli to bring that in and god, must've been around the mid-90's but that was limited to just the golf courses and the resort common area, 'cause that was connected to the golf course irrigation system. So, even there all the hotels use potable for everything. They would like to get that

reclaimed water but they have to get more storage. They would need to pressurize the system and do a number of things. And then right now in Wailea, I'm not quite familiar, they may have so-called non-potable wells for their golf course and maybe their resort common areas. I'm hoping that's the case too. But actually on the properties themselves, I would think they use solely our potable water in Wailea.

CHAIR ALDRIDGE: So, the landscape right around the rooms and all that area is all…

DIRECTOR ENG: Anything probably on that side of the, the, the roadway is probably our potable water.

CHAIR ALDRIDGE: Right. I didn't realize that.

DIRECTOR ENG: Yeah, I suspect. Kinda like Kaanapali, same thing. Anything on that side of the roadway, makai is off the public or the private water system there.

CHAIR ALDRIDGE: And that would take a lot more capital improvement to make, convert that to R-1 water.

DIRECTOR ENG: Well, you know the Kihei…

CHAIR ALDRIDGE: The golf courses are obvious. They're separate from…

DIRECTOR ENG: Yeah, but they may argue, "well we have existing so-called brackish non-potable wells, why do we need to do anything else?"

CHAIR ALDRIDGE: Yeah.
DIRECTOR ENG: That'll be their argument but you know the hotels would want it for their, it may be big savings. But again, even with Carl pointing out my questioning him is that, it shows up in the Central Maui strategy of expanding the reclaim water. Again, for $50 million maybe 3 million gallons per day is displaced. For 20 million, a million or a million and a half gallons but again that number of amount displaced isn't verified. So I don't want people jump up and down and say, "ok, 20 million we'll get another million and a half gallons potable water."
MEMBER ROBINSON: Can you explain what that, what that means, when you say displaced, what actually does that mean?
DIRECTOR ENG: What it is you're replacing, if someone's using potable water…
MEMBER ROBINSON: Yep.
DIRECTOR ENG: Particularly for outdoor irrigation, you can really replace it or displace it with non-potable or R-1 water.
MEMBER ROBINSON: Ok.
DIRECTOR ENG: So you're really utilizing your available potable water for a better use.
MEMBER ROBINSON: I understand that. Ok.
DIRECTOR ENG: So, that's one of the uncertainties, I mean the, his study is real good, I read it over,

you have to read it over and over again, there's so much detail.

MEMBER ROBINSON: Sure.

DIRECTOR ENG: And that's why he has this latest thing that I'll review this weekend again. You'll get it, all of you. It's a good 98, 104 pages of slow reading. But it's good, it's good information. But there's just a lot of caveats too and he did his comparison mostly on his, what he calls his conametric comparison. So, cost is, is really what drives it but as you know as we look at developing lot of sources, new sources there's a lot of other obstacles, environmental, you know community issues, water commission and so we have to take that into consideration too and that's what my staff is looking at too. We use Carl's for some basis but we look a lot further. Herb's looking mostly at engineering issues; how do we efficiently, cost effectively tie it into our existing system too. We find that it's sometimes our biggest challenge right now, because we've done everything piecemeal. And in the long future I mean even this Water Use and Development Plan, you know everyone is talking about it, all the elected officials, we need it, we should've had it. Yes, it's good that we're gonna have it but even after that we need really someone to come in and develop a whole water master plan to show us where the

wells and the infrastructure are at, really going. This is what we're still doing independent of the plan and it's really difficult. And that is going to be down the road, but I'm hoping that's the next big step is to get a consultant to really master plan out our plans to expand our system, all of our systems. I won't be around.

(laughter)

DIRECTOR ENG: Herb will still. He has a young son. He'll be around. Any other questions on that?

MEMBER ROBINSON: Thank you, Jeff.

VICE CHAIR HOLMBERG: Well, just a comment, I should say that when Mr., gosh, I'm having a brain dump, Elster was talk, he said evidently worked closely with Bud, down at the Wailea…

DIRECTOR ENG: Yeah, ok.

VICE CHAIR HOLMBERG: Community Association and, and the feedback he was getting from Bud is, is that, that, that the, the, they have no problem with the idea of, of a higher tiered rate. So that any objections we'd be getting providing of course we're cutting them off altogether…

DIRECTOR ENG: Right.

VICE CHAIR HOLMBERG: Would come from that quarter.

DIRECTOR ENG: Right, right. Yeah, I think as Chair Victorino gets through with it this year, I think he wants to really tackle a lot of these

issues even the conservation legislation that came up earlier. I think he'll re-visit that too, and I still think we need an allocation ordinance for our projects that, of highest priority. I've discussed that with him and I've recently discussed that with the mayor's office too. It's something that the mayor could propose too. So yeah, I think it's gonna be a busy year in Water Resources.

CHAIR ALDRIDGE: That's good.

DIRECTOR ENG: Yeah, I'm looking forward to it.

CHAIR ALDRIDGE: Ok. You've covered both item B and C, right?

DIRECTOR ENG: Yes, I have.

CHAIR ALDRIDGE: Let' go to item D, Discussion regarding the Maui County Water Resource Committee's Items List as of January 2nd.

MS. HAYASHIDA: Anybody need copies?

CHAIR ALDRIDGE: Yeah, I don't have a copy. I didn't…I mean keep that from…

DIRECTOR ENG: So that was, that was the end of the year that…

CHAIR ALDRIDGE: When…

DIRECTOR ENG: As Chair Anderson passed, thank you. Mr. Chair, I think maybe we should even clarify when Chairman Victorino was here, he said that we passed all the rules out, we just really went over the definitions. So we still got a lot of work to go, to go over all the various sections of our

existing rules. Is basically, we, in this first committee meeting we did definitions and we did the…

MR. KUSHI: Drought.

DIRECTOR ENG: The drought.

MR. KUSHI: And the Upcountry meters.

DIRECTOR ENG: The priority, yeah.

CHAIR ALDRIDGE: Yeah, not all the rules.

DIRECTOR ENG: No, the rules are, you know those things, so. And that's gonna be really time consuming for our staff 'cause before every committee meeting we, we huddle together for like 3 hours. And, and, and so it's gonna be a long and tough effort for these guys too. Thank you.

CHAIR ALDRIDGE: Thank you. At least of couple of these items are gonna be covered by the next Water Resources Committee meeting; the Water Conservation bill, some of the water supply rules, the definitions and things.

DIRECTOR ENG: Yeah, that will be ongoing.

CHAIR ALDRIDGE: Right.

DIRECTOR ENG: Probably the rest of the rules would be after budget.

CHAIR ALDRIDGE: After budget.

DIRECTOR ENG: And we can't really take on…

CHAIR ALDRIDGE: Right. Anybody have any comments on these?

(silence)

DIRECTOR ENG: The Hans thing, just for your information, 'cause that's come up, we're really on top of it. We've got our guys out there in the recent month or so and take care of Lahaina. We do a lot. He just sometimes requests more than, much more than the agreement. And we try to accommodate him. But it was, it was, we did quite a bit recently.

CHAIR ALDRIDGE: Where is this at?

DIRECTOR ENG: He lives down in Kanaha Valley which is kinda below Lahainaluna School.

CHAIR ALDRIDGE: Ohhh.

DIRECTOR ENG: So you gotta actually go through Lahainaluna School to access his and you know things like this cattle guard crossing, we took care of that. I had, I found some more tracks from the old Lahaina-Kaanapali Pacific railroad. So I called and, luckily the manager's a friend of my son so we got some railroad tracks for us. So I told our boys grab more just in case we have to go back again. I thought that was gonna be the most difficult thing finding, finding railroad tracks. We went in and did that. We're going to do some concrete of his approach to the cattle guard. We replaced and relocated a gate recently, so we're pretty much on top of everything.

MEMBER HOWDEN: Oh, great 'cause that's…

DIRECTOR ENG: Only is the, is the clouded title issue…
MEMBER HOWDEN: Dragged on for so long.
DIRECTOR ENG: But we have a contract out with a title company, so that will just take some time.
CHAIR ALDRIDGE: I just have one question. Do you think this new council, or present makeup of the council which isn't entirely new but, will have, will be more receptive to changes in the water structure, water rates structure? I mean I was kinda surprised last time when I thought our recommendations were pretty modest and they never, they were not accepted. I don't remember the, the vote, how it went specifically but.
DIRECTOR ENG: I think they will be receptive. I think might, what might've happened is you know, anything new you know, any change doesn't happen quickly in county government. I took a couple years but, I mean just for instance remember last year when we had the fire flow requirements, we're working on and getting out of my department to the Fire Department, you know, and we came so close to passing it and then it stopped you know but. That's kind of our highest priority. That would help remove some of the bottleneck in Herb's division. Just that lack of consistency with the Fire Department and our requirements. So we get it

out of our rules, just some things we'll still have to look at you know obviously…
CHAIR ALDRIDGE: Sure.
DIRECTOR ENG: Subdivisions, if any improvements are necessary but so even when you see something really beneficial and positive it still takes forever to get it changed. Amazing.
CHAIR ALDRIDGE: If there are no other questions on this, let's move on to item D, Receipt of board member requests for agenda items to be placed on future agendas. We probably have a number of items, Gaye, that we sort of deferred and we don't have any appeal at the next meeting so, you might want to try and pick up on some those.
MS. HAYASHIDA: I need to go back and refer to my list. I can't think of…
CHAIR ALDRIDGE: Yeah, I can't either off the top of my head but I know we've been accumulating a number of…Michael might remember.
MEMBER HOWDEN: They're all my items.
(laughter)
MEMBER HOWDEN: But one thing of course I, I have a, an abiding interest in the Piiholo Well. And I want to know where that is. I met a developer, Zack Franks of the Olinda Community Association meeting. And he was talking about his well. He's very proud of his well, so I just wondered if he's talked to you about that.

DIRECTOR ENG: I've had a preliminary discussion with him.
MEMBER HOWDEN: Ok.
DIRECTOR ENG: I think that he had a meeting with the mayor this morning, set up something he and his partners.
MEMBER HOWDEN: Oh good.
DIRECTOR ENG: No, in fact we had good meetings.
MEMBER HOWDEN: Ok.
DIRECTOR ENG: You know, just kept things really open at this time.
MEMBER HOWDEN: And where are we with Piiholo?
DIRECTOR ENG: May I…
CHAIR ALDRIDGE: Yes.
DIRECTO ENG: Just discuss it a bit?
DIRECTOR ENG: Ok, it's actually kinda in, in abeyance right now. There is some pump testing by Maui Pine back in September, October. And our analysis of the pump test is that it wasn't producing the yield that they had hoped for. And so it's kinda stopped there in discussion and communication. I, I expect that they should come forward and want to discuss where to go from here. But the pump test was not, did not pass. Like it failed by our standards. Which requires them to, to re-do the pump test. So, it's more of a yield issue and that's where it stands right now.
MEMBER HOWDEN: Ok.

DIRECTOR ENG: Given the situation that Maui Pine is in right now I don't know if they want to go any further this time.
MEMBER HOWDEN: The water was of good quality though?
DIRECTOR ENG: Yeah.
MEMBER HOWDEN: Ok.
CHAIR ALDRIDGE: So it just didn't produce the yield that was required.
DIRECTOR ENG: They, they drilled it in a very poor geologic formation. I mean up there like, like Mr. Franks is across the road and he's told me he has pretty high yield and so it's just a matter of just sometimes being lucky.
CHAIR ALDRIDGE: Yeah, hit and miss because of the rapidly changing subsurface geology.
DIRECTOR ENG: Yeah.
MEMBER ROBINSON: Has his well passed some of the tests that you…
DIRECTOR ENG: Mr. Franks?
MEMBER ROBINSON: Yes.
DIRECTOR ENG: I've seen some water quality tests, I would probably want it re-done in some time just because he's in a very sensitive location, right in the middle…
MEMBER ROBINSON: Of the pineapple fields.
DIRECTOR ENG: Pineapple field. And you know a lot of these tests you wanna know how long the pumping

been running and the key thing is who, who, who sampled? Who collected the samples? 'Cause we've find sometimes errors, like I would like my staff, my lab people you know they're trained and they have good technique and sampling, especially in these organic type of things. You could lose the material real quick…

CHAIR ALDRIDGE: Yeah, they're volatile.

DIRECTOR ENG: So, we'd have to revisit that, look at the pump test a little bit more and look at even how they, from the driller, get all the information on the well construction. So there's a lot of things that we weren't a part of. So whenever there's a well that was done without our input, we'd have to do our, our review.

MEMBER HOWDEN: Yeah, it was interesting to me, Zack said that they grouted all the way down to the basal lens on that well. And that had been one of engineering's suggestions to Director Tengan when the former administration approved the well, that, that to prevent pollution from the poisons used in the pineapple production, that they should grout all the way down. Which of course you know…

DIRECTOR ENG: That's a standard of my engineers, grout all the way down. Even though I think the Water Commission and their well construction standards are something like 70% of the length. And that's why a lot of these private well

developers just hate us. And that was probably the sticking point on Piiholo was, how far and I think in the end the mayor, then mayor might have stepped. I don't think they grouted Piiholo all the way down.

MEMBER HOWDEN: No, they didn't.

DIRECTOR ENG: Yeah.

MEMBER ROBINSON: Grouting meaning what?

DIRECTOR ENG: Basically concreting between the casing and hole itself.

MEMBER ROBINSON: Oh, I see.

DIRECTOR ENG: The bore itself. There's this space…

CHAIR ALDRIDGE: When they bore generally larger than the casing diameter they insert. They end up with an annular space around it that needs to be filled or you may get water coming in.

MEMBER HOWDEN: Yeah, infiltration…

CHAIR ALDRIDGE: Infiltration…

MEMBER HOWDEN: Of the agricultural chemicals and whatnot.

MEMBER ROBINSON: Thank you.

CHAIR ALDRIDGE: Which is an expensive proposition.

DIRECTOR ENG: Yeah, that's why, that's why…

CHAIR ALDRIDGE: Needless to say.

MEMBER HOWDEN: Zack said it wasn't that much more.

CHAIR ALDRIDGE: Well, the extra 30% is not that much more you know, the whole operation of grouting

is, is expensive but if you're gonna go 70 versus a 100 you know…

MEMBER HOWDEN: Do it right.

CHAIR ALDRIDGE: Do it right.

MEMBER HOWDEN: Sorry.

VICE CHAIR HOLMBERG: Mr. Chair, I'd like to also, I stick this in for my last meeting but just to try and move the process a long I wanted to, I wanted to have us consider whether or not to, what do we say when we say something up to the council or making a suggestion?

MEMBER LESTER: A resolution?

VICE CHAIR HOLMBERG: A resolution, there we go. To consider a resolution or resolutions that would encourage them to, to remove the revenue to, for capital improvements impediment to consider the rates and fees be added to the current budget if there's time and to see whether or not we can or whether we should have a, hire a consultant or what the Department should hire a consultant to, to tweak. The previous consultant's recommendations for the, for the new proposed water rate tiers.

MEMBER HOWDEN: Also in that regard, system development fees that Carl pointed out again this morning.

DIRECTOR ENG: We have a current contract with RW Beck looking at that.

MEMBER HOWDEN: Oh, great. Ok, wonderful.

VICE CHAIR HOLMBERG: Oh, so it's not like we'd have to hire a, we'd have to hire them all over again?
DIRECTOR ENG: Well, maybe for another rate design, that would probably be another contract, separate contract.
CHAIR ALDRIDGE: So this is an item you want on the next agenda?
VICE CHAIR HOLMBERG: Yes, please.
CHAIR ALDRIDGE: I just wanna make sure. Any other? Gaye, you can take a look at some of the ones we backlogged too for whoever the next chair will be. All right, thank you. Let's move on to, there are no Communications, Director's Report, A, Update on the Proposed Hamoa Well 2.
DIRECTOR ENG: Thank you, Mr. Chair. This came up I think at the last meeting with Mr. Blumer-Buell, kinda giving some testimony and expressing some concerns he had. And I talked to him during the break whatever of that meeting. And what he did is, at that time again in December or November, the mayor had been in communication or had attended this mayor's conference. And the mayors were trying to get together to provide a list, I guess to congress as far as infrastructure needs. I was telling to Carl earlier, it's really last minute. I was contacted one afternoon to provide the list by 9 the following morning. We did a lot of our

CIP list, existing CIP list 'cause a lot of the projects had to be ready to go and developed a quick list and also an estimate of how many jobs it would provide too. We got that in. One of the items was this extension of the waterline from Hamoa to Koali in Hana; something like $8 million for construction and that kind of set off something. The other thing I think he looked at was something regarding, his concern was Hamoa Well 2 that we're developing. So I'll touch on both of those. First one, that waterline. We're not gonna go forward with any construction of that waterline until we get community input. I kinda recall back when the Department approved the waterline from Hana town to Hamoa in which they put in a 12-inch waterline, a lot of hydrants, there was a need to improve fire protection in that area but the whole community was just up in arms. And so, we're not gonna go that route. We will meet with the community if we decide to go and do that construction. There is a need to improve that line. In some areas there's very small and deficient, but may not necessarily need a 12-inch waterline. It can be something scaled back. And we don't have the funding for that currently anyway. But that was put on the list. Eight million dollars construction and I assured John that no, we're not going there. I'll call him

personally before we do anything. He can set up the meeting for me. The construction plans though are going to be completed. They're very near completion. I think we have, we've had a couple of reviews. But we're gonna complete the construction plans, get Public Works to sign off on the plans then we're gonna file them for the time being. As far as Hamoa Well 2, that has been in the plans since, that was in the 2008 CIP. That is a backup well for Hana. We don't have a backup for Hana so it's not gonna be for additional growth, necessarily additional meters, well there always could be some organic growth out there that requires meters. But will be a backup well on the same site as the existing Hamoa Well. That well was drilled, Hamoa Well 2 was actually drilled some time ago. It just now going to be completed with pump motor controls. Contract has been awarded to Goodfellow Brothers, that was awarded probably end of 2008. Notice to proceed hasn't been issued yet but that is gonna happen sometime.

CHAIR ALDRIDGE: So this is a complete backup to the existing well?

DIRECTOR ENG: Yes.

CHAIR ALDRIDGE: Is the existing well a very old well?

DIRECTOR ENG: It's been there quite a while, Hamoa.

CHAIR ALDRIDGE: What was practice of these old wells? Were they cased with steel?
DIRECTOR ENG: I think it's not that old.
CHAIR ALDRIDGE: It's not that old.
DIRECTOR ENG: It's not that old. So it's, I don't know how many…
CHAIR ALDRIDGE: No, I just, I'm just wondering why it wasn't just a backup pump and you know, replacement pump or, or motor or something like that. Why an entirely new well. Is there something going on with the new well?
DIRECTOR ENG: No, there's just no redundancy…
CHAIR ALDRIDGE: Oh, I see, no redundancy.
DIRECTOR ENG: I forgot where our other well is on the northern part of Hana town. We've had a history, we've had one old well there. It basically, chlorides got (inaudible, someone coughing). We have another old well there. Chlorides are not too good. So there's one well on the northern part as you enter Lahaina, I mean Hana town, then we have Hamoa. So we have just 2 sources feeding, serving Hana. At some point we're gonna have to address that other well with high chlorides. I've heard there's some talk at some point drilling another well there too. But basically there'll be, we have 2 wells serving the Hana area. And this, this will only be a backup for those 2 wells.

CHAIR ALDRIDGE: So, the waterlines are not really a shovel ready project, to borrow a phrase.
DIRECTOR ENG: Well, we could probably get those construction plans and then out to contract within that, I've seen different time periods. I've seen like a 120 days, I've, I've seen by the end of the year, you know it has to be construction. And that's basically where we looked at. Could we, let's say, have anything ready by June, I mean sure, we have a whole lot that even if we're still getting some projects designed, the construction plans will be ready to go out to bid by June. We have a bunch of those projects.
CHAIR ALDRIDGE: Is there, are they gonna give you lee-way to use, to exchange projects in terms of the stimulus bill? I mean, is everything on a list only project that you can build using that money?
DIRECTOR ENG: Yeah, you actually, because again, the rules are kinda changing. We're right now, the rules will be administered by the existing state revolving fund program, that's EPA money, administered through the local state Department of Health and they're really loans to the utilities. So like we have one for the Clearwell at Kamole. That was like a $10 million loan. For, currently for this Napili A tank, we're going through SRF for $1.5 million loan. We're even kinda hoping that maybe we could shift that to the grants. I think

we're too far along. But if that grant money was ready we would tear up those loan papers. They'll probably say no. Most of the projects for us are probably waterline replacement projects. So perfect. Again, there looks like there's about close to $19.8 million coming to the state and we're trying to work together with the other counties, kinda share that monies. We have right now this, for $6 million in projects. We got it tomorrow, we're going in. We had to though get on that SRF project list and we did so by the end of, we had to do by the end of the calendar year. Herb Chang was really filling out applications right to December 31, getting them in. So, we have, we have the projects in place. So, we're just hoping to hear word on the funding. So, we're ready to move. Now if another county, and we have to work with the Department of Health 'cause I don't think they want to handle all the burden of signing which projects. So, we're working with the other counties too. We all kinda wanna share in the pot to begin with. But if a county, another county isn't ready then we'll have an opportunity to maybe get some of their share of funding.

MEMBER ROBINSON: And, and this was the document that was sent around about the stimulus, is this, is that what you…

DIRECTOR ENG: That is the whole, yeah large, almost $800 billion stimulus package.

VICE CHAIR HOLMBERG: Regarding the, if I might just briefly address the existing Hamoa pipe that was put in, that I remember the stink that caused, and I, one of the first questions I asked when I got on the Board was, well what was the rationale for the pipe being that large and the response I wanna say was from one of the existing staff members anyway, was that, that that was per what the current state fire protection code was, and, and so I'm wondering now was that literally true or…

DIRECTOR ENG: I'd always heard it was fire, fire protection. So I never doubted the information I got from the staff. But I did know the public questioned that because a lot of that just goes along Hana Highway and it's just surrounded by pastures. So you know I can understand why the community was concerned as they were. So, we, we will address that if we should ever do anything. We do have from beyond Hamoa to Koali, we do have, there's one section just past Hamoa, old line that really have our greatest incident of breakages. So I told John that you're gonna see us in there doing some repairs on certain sections, don't get alarmed. And he's been willing, yeah I live right there. So, you want us to repair it or not. Yeah,

please repair it. We have to probably at some point look at, if the rate of breaks continue we would have to probably do a more permanent types of replacement. But again, we could satisfy the community by maybe not going with such a large diameter…

MEMBER ROBINSON: Pipe?

DIRECTOR ENG: Pipe.

MEMBER LESTER: We have a lot of those breaks on Molokai.

DIRECTOR ENG: Yes.

CHAIR ALDRIDGE: Alright, thank you, Jeff.

DIRECTOR ENG: You're welcome.

CHAIR ALDRIDGE: Division reports. We have Division Reports. Any questions or comments on the latest? Hearing none. Financial Summary we received for fiscal year July 1, 2008 to June 30, 2009. Jeff, did you want to comment on this?

DIRECTOR ENG: You know, I had actually asked Holly to be on call if you had any questions. And maybe at some point in future if you folks needed more detailed explanation then we could always, Holly was tied up working on the budget with the Budget Office this morning.

CHAIR ALDRIDGE: Oh now, frankly I just never had a chance to look through this. Maybe if there are any questions the board members have we can bring

this back at the next meeting if there's any questions.
DIRECTOR ENG: Ok.
MEMBER ROBINSON: I assume that the power purchase electrical expense had to do with the price of, the price of oil and the price of…
DIRECTOR ENG: Yeah.
MEMBER ROBINSON: Reasonable assumption. And, and maybe a lot less, a lot more pumping that has to happen or is that not been unusual for comparatively speaking.
DIRECTOR ENG: Well, right now in the recent couple months we have done a little less pumping (inaudible, someone coughing) Upcountry. We haven't pumped up from Kamole and with a favorable electricity rates now, yeah we had to treat your billings as we're experiencing our household billings, are coming down. A lot of households have seen bills cut in half recently.
CHAIR ALDRIDGE: Almost.
DIRECTOR ENG: Almost yeah.
MEMBER ROBINSON: Did anything get into the budget about the, using alternative energy sources to pump water.
DIRECTOR ENG: We put a little bit in our CIP.
MEMBER ROBINSON: You did, ok.
DIRECTOR ENG: That's one of our county-wide expenses.

MEMBER ROBINSON: Good, good, good.
CHAIR ALDRIDGE: Alright. No other questions, we move to item 12, Election of Chair and Vice Chair. We need, I assume that the board members wish to proceed with this even though we're missing 3 members. No, unless I hear otherwise. I don't know if everybody hear plans to be here at next week, I assume that Scott will be back, I know Marion will be back, she owes me lunch next week, I mean not next week, next meeting.
DIRECTOR ENG: She'll definitely be here.
CHAIR ALDRIDGE: Yeah.
MEMBER ROBINSON: So we can wait.
CHAIR ALDRIDGE: We could wait if we wished.
MEMBER ROBINSON: Is there, is this anybody's last meeting, no?
MS. HAYASHIDA: No, no, the next meeting.
CHAIR ALDRIDGE: No, next but we need to do it next meeting.
MEMBER ROBINSON: But we definitely have to do it next meeting for sure.
MEMBER LESTER: Yeah, the next meeting.
MEMBER ROBINSON: Ok.
CHAIR ALDRIDGE: Or we'll have a chairless meeting in April. Which actually might go faster.
MEMBER ROBINSON: No, no, we'll just cement you into the, what's that, what is that they use in the pipe the…

VICE CHAIR HOLMBERG: Grout.
MEMBER ROBINSON: We're gonna grout you into the chair.
CHAIR ALDRIDGE: Sounds uncomfortable.
MEMBER ROBINSON: Well, we wouldn't want that.
VICE CHAIR HOLMBERG: Mr. Chair, I'd make a motion to defer the election until we have a full, full house next month.
CHAIR ALDRIDGE: Ok. Second?
MEMBER LESTER: Second.
MEMBER HOWDEN: Sounds good.
CHAIR ALDRIDGE: Alright, everybody in favor?
(a chorus of ayes)
CHAIR ALDRIDGE: We'll defer the election.
MEMBER LESTER: Of course if you're not here, then we will, I'm gonna nominate somebody's who's not here.
VICE CHAIR HOLMBERG: If you don't show up to the meeting…
DIRECTOR ENG: How cruel.
(several members speaking at the same time)
CHAIR ALDRIDGE: Yeah, both people absent, yeah.
MR. KUSHI: You'd better show up…
CHAIR ALDRIDGE: Congratulations.
(laughter)
CHAIR ALDRIDGE: Very funny. Alright, meeting is adjourned. Thank you, everybody.
(The meeting adjourned at 11:45 a.m.)

Prepared and submitted by:

_____
Gaye Hayashida
Commission Support Clerk

Approved on: _____