County of Maui Water Supply

BOARD OF WATER SUPPLY

COUNTY OF MAUI

COMMITTEE OF THE WHOLE

Taken at the David Trask Building, Conference Room 207, Wailuku, Maui, Hawaii, commencing at 9:00 a.m. on October 10, 2001 pursuant to Notice.

REPORTED BY: GLORIA T. BEDIAMOL, RMR/RPR/CSR #262

IWADO COURT REPORTERS, INC.

A T T E N D A N C E

Members present:

Howard Nakamura, Chair

Clark Hashimoto

Mike Nobriga

Jonathan Starr

Orlando Tagorda

Kent Hiranaga

Staff present:

David Craddick, Director

George Tengan, Deputy Director

Herb Kogasaka, Engineering

Fran Nago, Board Secretary

Others present:

Elliot Krash

TRANSCRIPT OF PROCEEDINGS

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CHAIRMAN NAKAMURA: I would like to call the meeting of the Committee of the Whole of the Board of Water Supply to order. It's 9:02, for a meeting on Wednesday, October 10, 2001, room 207 of the David K. Trask Jr. Office Building in Wailuku.

In attendance we have board members -- committee

members Clark Hashimoto, Jonathan Starr, Kent Hiranaga, Orlando Tagorda, Mike Nobriga, and myself, Chairman Howard Nakamura. Also in attendance are Director David Craddick, Deputy Director George Tengan, and engineering Herb Kogasaka and board secretary Fran Nago. We have no minutes to approve.

We're here today to discuss one item which is a communication from the director regarding adequacy of source in the Upcountry water system. At this time I would like to ask if there are any members of the public who would like to testify on this particular issue. I guess we're looking at one person and no testimony.

A VOICE: I'm here to learn.

CHAIRMAN NAKAMURA: Here to learn. Thank you.

Let's move directly to the communication from Director David Craddick regarding adequacy of source in the Upcountry water system. I would like to turn it over to David, who will explain this letter and perhaps review it in detail before we open it up for questions and comments from the members.

David, as clearly as possible.

MR. CRADDICK: Anybody want me to go over again what's on the first page there? That's basically background information. How we got to the current situation.

MR. TAGORDA: Give us your best shot.

MR. CRADDICK: On the next page, on the Waikamoi intakes, this number here, 1.6, that's based basically on our ability to treat water. We probably have slightly more water than that, but we can't treat it at this point. When we get the dual line in we should be able to take that number up to about 2 million gallons.

That reliability number comes from the flow duration curves prepared by the soil and water conservation district from reports that were done on the upper and lower line back in the '60s. And based on the reservoir capacity, they have got curves for 100 percent reliability, 85 percent, I'm giving you the numbers of these reservoir capacities that we have, what they represent on that curve.

Now, on Piiholo, the reliability is a little bit less and you can see what's normally available and during in

drought, because the reliability goes down so far to 3.75 and there's essentially no water there when you are in a drought situation. Very little water.

On the Wailoa ditch, the treatment plant is currently designed to treat 7.15; but when the water is very clean we have been able to get health department approval to allow us to go up to 8.2 million gallons a day.

The Hamakua ditch, the ag park, current demand is around a half million, but we have the ability to pump up about 1 million gallons a day of water there. We have got three pumps at the first reservoir; I believe two pumps at the next reservoir. We have no problems supplying that. Hamakuapoko well, during normal times, we can't use any of the water; during drought time, we have 1.5 available to us.

Kaupakalua well, we're taking our 45 percent and putting that number in there. Under drought availability, just being conservative, I left that number the same; but in actuality, if we pump the water up into the upper system, which we could do probably with some booster pumps, we can't do it right at this time, we probably could change that number to 1.5. But we can't do it right now.

On the Haiku well, we have got .2 million gallons a

day that we use, but we could bring that number up to .5 with some booster pumps there, but we do have the ability to do that right now.

During the last fiscal year, the average water use has been about 7 million gallons a day. Other factors, and you may be able to come up with some others; but some factors that we consider are, if the board is committed, half a million gallons a day to Hawaiian Home Lands on an average day basis.

The Kaupakalua well is committed to supply -- actually, the total is about .7 million gallons a day, and Kulamalu has already used about 50 of that, so the number you have there is what is remaining. I guess if the board goes ahead and follows through with -- is able to follow through with the recommendation yesterday, then that number would go down to .55.

Anyways, on point No. 3 there, where it says 8.7, that's a misprint, it should say 3 percent. What we have done there is we've looked at all the meters that are using less than 1,000 gallons per billing cycle. That number was 8.7 awhile back. It's currently 3 percent. So we have made some estimate for what those meters would use. And then the max day

demand during the last year was 10.4 million gallons. That's not really use, it's just something to consider out there. When we combine factors 1, 2 and 3, they total 1.3 million gallons a day. Now, if we add that to the 7 million gallons a day and add 1 million for the ag park, we end up with 9.3 million gallons a day. That would be the demand on an average day basis. If we have a supply of 14, then we have supply exceeding demand during normal conditions. That's always been the case. We have always been able to supply water during normal situations.

Now, if we look at it a little more conservatively, looking at how we would supply max day during a drought, and I'm presuming that the board takes the position that even though we're in a system that uses surface water mainly, that we don't expect to operate the system on a normal basis requiring people to cut back. Even though we know in variant stream situations, like, for instance, if we go below 16 million gallons a day, we do have to start cutting back on that 8. If we go below 16 million gallons a day at Wailoa ditch. So numbers on the previous page where I say 8.2, that presumes there's at least 16.4 million gallons a day coming in at Wailoa ditch. So there can be situations where

you don't have that, but there's only one of those on record -- in the record of that ditch being used.

Anyways, we have a supply of 13.8 minus the max day demand of 11.4. And I'm getting that 11.4 by adding in the ag park. So there's a balance of 2.4 million. So, then we have to look at the factors again, which 1.3 on an average day and multiplying that times 1.5, you end up with 2 million gallons a day. Or adding that 2 to the 11, you get 13.4 million gallons a day or, again, an excess of .4 million gallons.

Now, the Haiku well was put in with water system development fee funds. It's the only source that's been increased using development fee funds that's on line at this time. All other sources were increased using state or board funds for the purpose of drought reduction or private funds for a specific purpose.

Allowing the average day production from the Haiku well, or .45 times the installed pump capacity of .5 or .2 million gallons, I feel is reasonable and a conservative number to be able to give out at this time.

Now, even though that number is available to give out, in the evaluation consideration is that there are certain

distribution systems that are still inadequate. By saying this water is available will not make those distribution systems inadequate. And the difficulty of separating the Kamole treatment facility from groundwater flows due to disinfection contact times can become an issue sometimes, but at this point it's not an issue and we can't deal with that simply by increasing the third well at Kamole Weir.

All of these factors are somehow related to our infrastructure, but they are not source related. As currently defined by the water system development fees source development, that means construction of any source structured to capture, convey, store and treat currently unutilized non-potable surface water or the construction of facilities for groundwater and its treatment, including pumps, motor control stations, tanks and even desalination facilities and any easements on land.

These factors can be addressed during low rainfall conditions because the department is able to obtain hoses or set up temporary tanks or pumps, which is what we would have to do to bring the Haiku well and pump it up to the Kokomo tank to use that. But there's no legal restrictions on doing that, and we have all the equipment to do it.

Based on these factors, I believe we can take on your additional services, and existing meter up sizing can be permitted, provided we don't go over a couple hundred thousand gallons a day. And if we make that arrangement, we'll see our way clear -- that number may be able to be increased also.

The rest of it I'll leave -- I believe there's some questions that some board members had at the last time we discussed this. And I'll pass this around also.

The question was, How many meters have been issued Upcountry since March 1993, based on a showing of detrimental reliance? And the number we have is 1,039 meters. Total. Some may not have been issued yet, but there's a requirement to issue them.

Next question is, How many don't affect -- or didn't affect the source? And from that I believe we have identified about 51 meters.

How many five-eighths inch meters have been issued Upcountry to existing lots? On that one there, I don't know how we would distinguish the vacant lots from the detrimental reliance, so we basically added all of that into the detrimental reliance.

And then, How many meters were issued Upcountry between November 1, 1977 and March 16, 1993, during the Kula rule time? The answer to that question is 2,433 meters. Then there are some other statistics in the back if you are interested with that. The average annual increase in meters from November '77 to March '93 was 4.7 percent increase in meters per year. The average annual increase from March 1993 to June 2000 was 1.69 percent per year. So about a three-time reduction in meters given out during that time.

CHAIRMAN NAKAMURA: Okay, thank you, David. At this time I would like to ask if any members of the committee have questions to David regarding his submittal. Mr. Starr?

MR. STARR: I'll begin here. The Wailoa ditch in drought conditions, you say that you can get 8.2 million gallons out of there?

MR. CRADDICK: Until the ditch hits 16.4. In which case we then have to reduce our draw pro rata.

MR. STARR: In other words, in drought conditions you can't get 8.2, you can get less?

MR. CRADDICK: No, drought condition is defined when the ditch hits 50 million gallons a day, that's a drought condition. When we use -- when we're required to use all available groundwater sources, that's a drought.

MR. STARR: You just said that when the ditch falls below a certain level, you can't get that much out of it, though.

MR. CRADDICK: That's an extreme case that has happened one time in about 125 years.

MR. STARR: Do you have regular approval to get 8.2 million gallons out of the treatment plant?

MR. CRADDICK: We have every time we needed to do it since the treatment plant has been on line. So I'm not worried at all that the health department would not continue to give

that approval.

MR. STARR: Do you feel confident in issuing new meters against Hamakuapoko wells?

MR. CRADDICK: I don't feel we're issuing it against those wells because --

MR. STARR: Here they are on the list and the list is what you are using to justify that there's sufficient source available.

MR. CRADDICK: That's for an emergency situation and our EA allows the use of that in a --

MR. STARR: To issue meters?

MR. CRADDICK: It allows for the use of that source during an emergency or drought situation. That's all I can say.

MR. STARR: We have been in an emergency for the

last -- how long?

MR. CRADDICK: Since February, I believe.

CHAIRMAN NAKAMURA: Any further questions, Mr. Starr?

MR. STARR: Yeah. You've got Hamakuapoko wells as 1.5 million gallons. How come you didn't derate them to 45 percent like you do other sources? We're talking about meter issuance here, David.

MR. CRADDICK: Yeah.

MR. STARR: Shouldn't they be derated, or do you feel you can use the full pump capacity?

MR. CRADDICK: The court order says we can't issue meters based on those sources so --

MR. STARR: That's what you seem to be asking us to

do.

MR. CRADDICK: If you are using them to meet a peak and the court allows you to do that, the environmental work that we did allows us to do that, I'm not in a position to second guess that decision. If you want to, I guess, get clarification on that, that's something you can do, whether from the court.

But my feeling is this is in compliance with what the court has said and what our EA has said about the use of those wells. I think everybody knows we're using them when we're in a drought situation.

MR. STARR: Do you feel it prudent to issue new meters when we're in a drought emergency for year-round -- so we're in a drought emergency simply so we can use emergency sources?

MR. CRADDICK: Well, if that's the reason you are doing it, I'm not certain you have to do that. All you have to do is say what a drought is, what a drought means to you. And at that point, it would be fairly administerial for the staff

to start the pump up.

Right now the board actually has to take an action in declaring a drought and rather than doing that during some predefined time, the board has just seen their way clear to leave the emergency drought situation in place full time, which is another way to handle it, I guess. But however you handle it is all right, as far as I'm concerned. It's up to the board how they want to handle it.

MR. STARR: I have a problem with remaining in a drought emergency month after month after month as a pretext of using those wells, especially if we're going to issue meters against them.

MR. CRADDICK: We don't use it when we're not below 50 million in the ditch.

MR. STARR: We are in a declared state of drought emergency. Anyway, I'll leave that discussion. My other question here is, have you proceeded effective immediately to the actions that you said you were going to do in that letter?

MR. CRADDICK: I haven't because I believe -- I don't see it in here.

MR. STARR: On September 26th, you said, Therefore, pertaining to the affected areas and effective immediately the director shall proceed to process applications for new or increased water service by date received. Process application for building permit by date received. Process subdivision application by date received. So I'm asking whether you have done what you said you were going to do or not.

MR. CRADDICK: I haven't because no action has been taken on this director's report.

MR. STARR: Thank you.

CHAIRMAN NAKAMURA: Mr. Starr, is that it for now?

MR. STARR: For now, yes, it is.

CHAIRMAN NAKAMURA: Any other members of the

committee have questions? Mr. Tagorda?

MR. TAGORDA: Just to add up with that 8.2 MGD on Wailoa ditch, David, and look at your Hamakuapoko wells during drought condition at 1.5. How would you add up 8.2 and 1.5 during drought condition, but in your letter there is that problem of disinfection contact time issues. Are you not trying to contradict yourself here?

MR. CRADDICK: At 9.7 million gallons a day we don't have a contact time issue. We can pump up to 11 million gallons up the hill without running into a problem with contact time with the current facilities that are there. So that contact time is not currently a limiting factor, I'm just trying to make you aware that in the future that is probably going to become a limiting factor.
For instance, if Haliimaile were to build up or the Manaolo (phonetic) project down below somehow tied into our system, then something could happen where we would exceed that contact --

MR. TAGORDA: In actuality, these two numbers are not realistic, then.

MR. CRADDICK: They're realistic for the situation right now that we have today.

MR. TAGORDA: Because during drought, you are not allowed to pick up 8.2 when the ditch flow is low unless all your groundwater wells are up, are on.

MR. CRADDICK: Well, I think you are talking about the MOU now.

MR. TAGORDA: Something like that, yeah. I'm getting to that pretty soon.

MR. CRADDICK: The MOU just basically says use all available groundwater sources once you go below 50 million gallons in the ditch; right? But the action needed by the board is if we're not in a drought situation, there must be some kind of drought declaration by the board to be able to use these Hamakuapoko wells. And that's what I have been trying to

get some clear understanding with the board.

Because if I go and -- if I just follow through with this letter and I started to give the water out, and the board says, well, there's no drought emergency, and hey, by the way, the director is giving out water meters, we don't need to declare a drought anymore, we could never use this source of water. So I have to have it clear in my mind that the board will do the job that is necessary when the time comes.

Because as one board member says, you know, they don't like the idea of having just a drought being on continuously when criteria, at least that we used in the past, is not being met.

Now, if there is some different criteria in the future for what the board feels a drought is, we need to know that. The staff needs to know that so that we have it clear in our minds when something is going to happen and we won't run afoul of anything. That's why this is actually before the board, just to get that clear understanding.

Because if we don't have that, I don't want to be in a position of giving these meters out and what I expect would happen doesn't happen, and then we don't have the sources

available to us that we might otherwise be able to use.

MR. TAGORDA: Let's get back to the different scenario. Kaupakalua well, Dowling well, you said we could get 700,000 MGD on that --

MR. CRADDICK: Yes.

MR. TAGORDA: The capacity of those wells?

MR. CRADDICK: 1.5 or 1.6.

MR. TAGORDA: But you are not allowed to pump 1.5 from the well, is it?

MR. CRADDICK: We could, it's just that if we pump it at 1.5, we have no way of getting it into the system. So if I put 1.5 in there, I got to have some way to get it into the system and use it. If we're already taking water out of the ditch, and maybe you can use this as a factor where we can even go below 16 in the ditch, because then we could pump this water in the ditch and treat it at the treatment plant.

But at 8.2, those filters are treating water to the max, so the 8.2 has a filter limiting factor. So only if the water in the ditch goes below 16 and we don't have 8.2 to put in the filter, then this may become a factor, you know, because we could -- and keep in mind, you know, during this time, those people are going to be peaking, so there's not going to be another .7 or 8 million gallons a day available to use. There might be .4 million gallons a day to use or something like that, that we could put in the ditch and maybe even go below 16 and still be able to treat 8.2 at the ditch.

MR. TAGORDA: Since we have the Kamole treatment plant -- was installed, David, and has been working. In the past, how many times have you -- have we pumped -- have you put in 8.2 from the treatment plant? Do you have any idea? Not one time I bet.

MR. CRADDICK: No, we have every time the board declared a drought emergency since the -- and we were really in an emergency situation since the treatment plant has been on line. So it's been almost once a year.

MR. TAGORDA: Did you encounter some problems when you do full capacity at the treatment plant?

MR. CRADDICK: We do, because the treatment plant, the way it is right now, we can only clean the filters with caustic soda. We have one cleaning tank, and we found that after we used them for a long time, algae builds up and the caustic soda does not remove the algae. So we need a second cleaning tank so we can acidize (sic) the filter as well as using the caustic soda to better clean the filters. And if we did that, we would be able to clean the filters faster. As it is right now, once we go through the cleaning regime, it takes about a day per filter, because you've got to bring the caustic soda and clean it with that, drain that caustic soda, put acid in. Again, acid will clean it. So it's cumbersome right now and we probably should have an acid cleaning tank.

MR. TAGORDA: Realizing all the problems you just mentioned, David, the 8.2 MGD is not realistic during drought conditions.

MR. CRADDICK: I would not put it here if the treatment plant didn't feel they could do it. They have done it; they feel they can do it. We have to make sure, you know, when we see the drought coming on, what we do is we get our filters all cleaned. Because at that point the water is very, very clean.

When we're in a real bad drought, the water straight out of the ditch almost meets the EPA requirements. It's very, very clean water. And we don't have much problem until it rains again, and then once it rains again, we don't have to treat that much water; we can cut back on what we treat. But we watch ourselves as the ditch flow goes down and down and we realize we're going to have to be going at maximum. We get all those filters cleaned and get everything ready. We don't just sit and wait until we're in a very bad situation, and then say we got to start cleaning, and can't produce the water we need to produce.

MR. TAGORDA: Thank you, Mr. Chair.

CHAIRMAN NAKAMURA: Any other members of the committee have questions? Mr. Nobriga, with both hands.

MR. NOBRIGA: Thank you, Mr. Chair. Concerning the document before us, which is the real discussion matter at hand, taking into account the director's conservative approach, the first paragraph of page 3, I believe we show the -- what's the legal term -- acceptance -- supply of 13.8 million gallons per day is a real figure.

He also states that minus a max demand of 11.4 million gallons a day, which is based on the current figures that we received daily on maximum area use of 10.4, plus the one million of the ag park, leaves a balance of 2.4 million gallons a day. I think that is -- I don't have any difficulty with the mathematics being used there.

The next sentence is where I have difficulty. Factors 1, 2 and 3 include a .5 million gallons a day request for a dedication to Hawaiian Home Lands. Factor 2 includes an additional factor of Kulamalu, which is stated at .65. He also includes that .5 MGD is already being used, and that .5 MGD per day is included in the 10.4 because it's already been drawn. That leaves us with a factor of .5, because Kulamalu just

informed us that they have excess of .1.

In addition to item 3, which takes into account meters that are not being used, assuming that all of a sudden they are going to be used, I don't think it's a pertinent factor. So I come up with an excess which can be equated to system availability or additional capacity of 1.2 MGD. I add that 1.2 to the other .2 from the Haiku well and it comes out to 1.4 million gallons a day. Which should be identified as additional capacity within the affected area.

My main concern is to satisfy the reliance of people on the list. The people went on the list in reliance that water would be available. It has been almost 11 years. People have died waiting on that list for water availability.

I thank Mr. Starr for his comments and questions, but I always thought Mr. Starr was on the same page as I was in getting people waiting on the list before they die for water.

So I would have no problem accepting and verifying the director's report. But I do feel we have capacity of releasing up to .5 million gallons per day. Actually, I don't have a question, Mr. Chair.

CHAIRMAN NAKAMURA: Thank you, Mr. Nobriga.

Mr. Craddick?

MR. CRADDICK: I would just say I know at least two, inch-and-a-half meters that are not currently being used, that just those two meters being used could equate to this .15 million gallons a day of water use. So I'm not so certain I would be so cavalier saying those people will never use their meters. I know they are currently planning to do that.

CHAIRMAN NAKAMURA: Okay. Before Mr. Starr, does anybody else have a question? Okay, Mr. Starr.

MR. STARR: I have to say that I'm a little bit torn here because I do agree with Mr. Nobriga that people have been sitting on the list while all these other meters have been issued, this thousand some odd meters had been issued have been wronged one way or the other. We have to take care of the list people.

This document does disturb me, though, because I really believe it's -- what's been called in the past, voodoo (sic) economics. I can't go along with using Hamakuapoko wells

at 1.5 as a justification for -- there also is something very, very lacking here which is the amount of water that's actually lost in the system. And I know that there's a lot of water that disappears between the treatment plants and the wells and the consumers. If we took that into account, I don't really feel this is a good justification.

But I would like to find the most expeditious way of dealing with the list people, because I feel if there's anyone who has some reliance and dependence and a real justification for being taken care of, it's those folks as well. So I think I'm just going to let it go. This paper is not worth the ink it's written on, in my opinion.

CHAIRMAN NAKAMURA: Thank you, Mr. Starr. David?

MR. CRADDICK: As far as water loss, these are production numbers, not consumption numbers. If you add the consumption numbers in here, the numbers would be lower on what is being used. These are production numbers. It includes water loss.

CHAIRMAN NAKAMURA: Okay, thank you. The chair does have some questions, but I recognize that there are others in attendance who have come in after the meeting convened, and so although it may not be in accordance with the agenda, with the indulgence of the committee members, I would like to ask again if there are any members of the public who would like to say anything at this point. No. Unusually quiet public today. Mr. Starr?

MR. STARR: Elliot's hand is halfway up.

ELLIOT KRASH: I'm still confused about some of the numbers.

CHAIRMAN NAKAMURA: Please.

ELLIOT KRASH: My name is Elliot Krash. I'm just speaking today personally, but, of course, my comments reflect the Upcountry group that I represent, the Kula Community Association. I hadn't planned to speak today because I had so many questions and so much confusion when I read the material and I guess I've heard that reflected in the discussion here.

One of my questions focused on the H'poko wells, and if we take that 1.5 million out of the drought availability number, then we're down to 12.3. And another of my questions focused on the estimate of increase over the next two years.

So if you take that increase out of that 12.3 and take out the other factors, it seems to me we come down to a number where, unfortunately, we wouldn't have enough to start issuing meters to people on the list.

And I guess I feel the same way that all you do from what I've heard expressed, we want to start satisfying the needs of those people who have been on that list in good faith for so long. But I question, do we want to do it to the detriment of the people who are already on line and counting on water every day? Do we want to put ourselves in a situation where we go back to drought watch, drought emergency, or whatever we call it?

So I was sitting here, as you all were talking and trying to calculate the numbers, and follow the conversation, and I'm still not sure. Being a teacher, I wanted to come to the blackboard and start writing and trying to figure it all out. I don't have any answers.

CHAIRMAN NAKAMURA: Let her finish, David.

MR. CRADDICK: I thought she was pau.

ELLIOT KRASH: Yes, I'm pau, I think.

CHAIRMAN NAKAMURA: Thank you, Elliot.

David?

MR. CRADDICK: I just had a question there. What do you mean when you said take out the 2 million?

ELLIOT KRASH: If we take out the Hamakuapoko 1.5 from the 13.8 drought availability number, and in my mind, I'm thinking we can't always count on that, it's my understanding that is ultimately dedicated for another system. Dedicated to come to central. So if ultimately we have to take that out, that brings us down.

Then, if we take out -- I thought there was an estimate of how much water will increase over the next two years, how much more we'll use. And it says on page 3 in the

first paragraph, 2 million gallons a day. So that brings us down to a number --

MR. CRADDICK: If you take that out, that makes more water available, not less. That's my question. If that's what you are talking about, that makes more water available if you don't account for Hawaiian Homes.

ELLIOT KRASH: No -- I'm sorry, I don't mean to take it out, I was just deducting it from the bottom line. It means you are down from where you don't have --

MR. CRADDICK: If you deduct it from the bottom line of use, that means you've got more available. And I won't suggest not considering these, I mean --

ELLIOT KRASH: I agree that we have to consider it. I'm not saying to eliminate it. I'm saying if you count it as being used --

MR. CRADDICK: We are counting it as being used in

there. We're counting that as a use. Even though it's highly unlikely that Hawaiian Homes will build out any time in the near future or in the Kulamalu project, we're probably going to see ten years or more before that's built out.

So the likelihood of that 2 million gallons being used up in the next one or two years is extremely remote, but we're still saying it's all going to be used in the next year and looking at the worst possible situation.

CHAIRMAN NAKAMURA: I think Elliot has made her point. I don't think it's appropriate for us to engage in a debate with the witness.

Mr. Hashimoto?

MR. HASHIMOTO: I just wanted to know what -- is .5 million for Hawaiian Homes, does it include both the ag and the homesite or just the --

MR. CRADDICK: In the agreement with the board, they can use it however they want to.

MR. HASHIMOTO: So it's -- both ag and regular

subdivision would be .5 million?

MR. CRADDICK: Yes.

MR. STARR: It says potable five-eighths meters.

CHAIRMAN NAKAMURA: Thank you again, Elliot.

MR. NOBRIGA: I have a question for Ms. Elliot Krash.

CHAIRMAN NAKAMURA: Mr. Nobriga?

MR. NOBRIGA: This last -- this current drought emergency we're in effect on did not impose any mandatory restrictions in water use. Had we needed to require that and consumption did reduce to the levels that we usually see within the 10 percent reduction, would you still have your same opinion?

ELLIOT KRASH: I think what you are asking is if we

tighten our belts and use less water, would I still have the opinion that we shouldn't issue meters if we're going to be putting people into a cutback scenario?

MR. NOBRIGA: Your comments was based on not taking into consideration the 1.5 million gallons from H'poko wells. You felt that if we were to issue new meters, it would be at the --

MR. HASHIMOTO: The expense.

MR. NOBRIGA: -- at the expense of the customers already served. Thank you.

ELLIOT KRASH: I think that's my bottom line answer, that we don't want to issue new meters if it's going to be to the detriment of the current users. And if we're not sure of these numbers, then maybe we need to look more at it.

MR. NOBRIGA: Thank you.

CHAIRMAN NAKAMURA: Mr. Hashimoto?

MR. HASHIMOTO: You mentioned about the 1.5 million, the H'poko wells would be directed to -- or redirected to Central Maui. Is that a question or is that --

ELLIOT KRASH: That was a statement of my understanding. It's a question in my mind, I did not ask it directly.

CHAIRMAN NAKAMURA: Perhaps David can clarify that.

MR. CRADDICK: It certainly is a concern, but the board can take care of that two ways: one, by not sitting around doing nothing for the next 20 years. Which kind of from 1977 until now is basically what has happened, and that, in my mind, is evidenced by the fact that the board is moving ahead with the well in Pookela. We would expect that well itself would equal this capacity.

There's other things that the board can do, they can say, hey, we're going to leave this for Upcountry, it will serve Upcountry all the time. Now, you may have to go back and

reimburse the state for the money of putting that in, but it's still something the board could do.

CHAIRMAN NAKAMURA: Mr. Starr?

MR. STARR: I would like to make a clarification about Hamakuapoko because I think we should be clear about what it is and what the status is. That well was drilled under the East Maui water plan, and it's under the -- it's currently under an ongoing EIS process, and that EIS, if and when it's approved, will allow its use into the Central and South Maui system.

So as of now, those two wells are dedicated to the central system and that is what we have asked -- we're going through the EIS process to do. We have begun drilling a monitor well, a test well on Hog Back Ridge as part of that EIS process that began this week. So, you know, that process is moving along.

We went to the court that was involved with the prior EIS which was found lacking and asked them for special dispensation to be able to use the Hamakuapoko wells temporarily in the Upcountry system, and they allowed us to do

it only in times of drought emergency. So we have to declare a drought emergency to use them Upcountry and we have been in a drought emergency for many, many, many months specifically so we could use those wells for the Upcountry system on a temporary basis.

I think that it's good that we were able to avoid having any mandatory cutbacks, and I believe the reason we did avoid the mandatory cutbacks is because we had those wells and we were willing to spend the money to pump water uphill at whatever it costs. I do feel the board should be clear on what the situation is. The Upcountry system is still inadequate and it's just barely maintaining adequacy by borrowing Hamakuapoko wells under a state of emergency.

Now, I have asked about -- every single month I've made a motion to go out of drought emergency, and I'm going to continue to do so, because my own belief is an emergency is a situation you don't want to be in except when you are in an emergency. And if you live in a state of emergency, then when you have an emergency, you have no place left to go. It's like the boy calling wolf.

I would rather leave them for when things really get

dry and really gets bad and we really need it, rather than maintain a state of drought emergency month after month. So far no one else on the board has backed me up, but I will continue to make motions at board meetings that we go out of drought emergency unless we really are facing an emergency. I really would rather those two meters were not in this document, which we're using to justify issuance of more meters, because I think that if anyone involved in that EIS lawsuit were to realize the fact that we are using them here to justify the issuance of meters, they could go to court and the court would disallow our use, and then when we are in an emergency situation we won't be able to use them. So I have some real concerns here. We may need them, but this isn't the best way to maintain that.

We have not done nothing as David said. We're pushing ahead as fast as we can on the Pookela well. Although I did see the water commission issued a well permit to Maui Land and Pine for a well at Pookela this last week. So hopefully we'll be the ones who are able to drill a well at Pookela, even though the permit was just issued to Maui Land and Pine.

CHAIRMAN NAKAMURA: I have a question or a couple of questions to David. David, from a standpoint of definition, you talk about the current average daily water demand as being 7.0 MGD, you are talking about that as being an annual average; is that right?

MR. CRADDICK: That's correct.

CHAIRMAN NAKAMURA: And you also refer to a maximum daily demand of 10.4 MGD. How do you define the maximum day demand?

MR. CRADDICK: We have these charts where we track what the total usage is. What I did was I went back through a year and that was -- this doesn't include the ag park -- but that was the number that we picked out of there from actual system demand.

CHAIRMAN NAKAMURA: Over the course of the last year, on at least one day, there was a demand of -- a daily demand of 10.4 MGD?

MR. CRADDICK: Yes.

CHAIRMAN NAKAMURA: A 24-hour demand?

MR. CRADDICK: Yes.

CHAIRMAN NAKAMURA: During the summer when you have less rainfall, what is the trend in terms of the demand? What does the demand curve look like? I guess is my question.

MR. CRADDICK: It definitely goes up. We're running 9, 10, you know, in that range. It's definitely higher during the summer.

CHAIRMAN NAKAMURA: So a demand in the neighborhood of 10 MGD is not an unusual situation?

MR. CRADDICK: No. No, it's what the system peaks at right now.

CHAIRMAN NAKAMURA: To clarify, you mentioned

something about two existing meters that are large meters, that are not being used and you're concerned if those were used, you would basically utilize what you are characterizing as the surplus?

MR. CRADDICK: They could -- no, no, not the surplus. This item No. 3 in the additional factors, one board member said that we probably should not be setting aside water for unused meters, and I tend to agree with him because I know there are some out there that can't be used. But on the same token, I know there's some big ones that currently aren't being used, that -- I mean, we had one of them in our last board meeting.

CHAIRMAN NAKAMURA: That was part of the 0.15?

MR. CRADDICK: Yeah, that could be used. So it's a very real possibility.

CHAIRMAN NAKAMURA: It wasn't clear to me -- I followed you up to a point, but I didn't really understand how

you got to your ultimate conclusion of having basically 200,000 gallons per day available.

MR. CRADDICK: I believe there's an excess of .4 million gallons a day. But the only thing we really have done is doing that Haiku well, and if we take its .5 million gallons a day capacity and, say, apply the factor that we do to everybody else, the .45, you end up with 200,000 gallons. And that's a reasonable number to give out.

Even though you think you may have more, you probably want to watch it and be a little bit more conservative and start through the list. You may be able to go all the way through the list with that extra 100,000 gallons from the Kaupakalua well. You may be able to go all the way through the list with 300,000 gallons of water.

So to push the edge and try and go to 400- or even 500,000 gallons, you know, without seeing the reaction, I would want to have a little history and see the reaction first, before we just went whole hog.

CHAIRMAN NAKAMURA: I guess my last question is, I believe you made the comment that the court order or the

findings of the court or the ruling of the court basically included a limitation that meters -- or new meters could not be issued based upon reliance on the usage of the H'poko wells. Did you say something to that effect?

MR. CRADDICK: There is something in there that says you cannot issue new meters based on that consumption, but it does allow that to be used for peaking. So I would leave it up to you whether that peaking number is what you are issuing it off of. I'm trying to base it on capacity that we put in at Haiku, and I'm not basing it on capacity from Hamakuapoko. Because if we did that, then we multiply that 1.5 times the .45 and say that's what we're going to give meters off of.

CHAIRMAN NAKAMURA: I was hoping that the corporation counsel would be here because that's perhaps a question that needs to be addressed to him, given the fact that you are basically asking the board to establish a policy regarding the use of the H'poko wells as a justification of issuing meters -- as part of the justification for issuing meters, and I'm a little nervous about that, to be honest with

you, David.

Although I do note that your analysis indicates that during, quote, normal, unquote, times, there is substantial amount of water available. Then I think it becomes a question of, you know, are people including the existing consumers that are willing to be subject to limitations during times of drought emergency.

Did I see your hand up? Please state --

MR. STARR: Can we have a very short recess?

CHAIRMAN NAKAMURA: Five-minute recess.

(A recess was taken.)

CHAIRMAN NAKAMURA: Are we ready? I would like to reconvene the meeting of the Committee of the Whole of the Board of Water Supply. We have heard David explain his analysis. Are there any other questions from board members? Mr. Tagorda?

MR. TAGORDA: Just a follow-up, Mr. Chair, thank

you. David, I have really a great concern about the 8.2 MGD that you can produce at Wailoa ditch. The thing is, there are times that during drought, that Wailoa ditch goes down to 20 MGD and when that ditch is down to 20 MGD, you tell me how can you get 20 MGD to your treatment plant facility.

MR. CRADDICK: You don't need 20, we only need 8.

MR. TAGORDA: I know, but how can you -- you seen that weir is very low.

MR. CRADDICK: What it is, is there's two inlets to the treatment plant. One, the old one before the treatment plant was built, and the one with the travelling screen. The travelling screen, if we just used that inlet, we cannot bring in 8.2 million gallons.

But if we open the other one, what we do is -- usually there's a lot of sediment and dirt in there and what we do is we don't -- we actually shut the treatment plant down. We open that other gate up, it will flush all the dirt out. It goes back to the ditch. And once that all cleans up, then we

just open both intakes and we can actually bring in about 12 million gallons a day into our treatment plant.

Even when the ditch is at around 12 million gallons, we can drain the ditch, because we're right on the bottom of the ditch with that other intake. That's why we don't use it normally, because we scoop all the gravel and dirt in it, and that's why we don't use it on a normal basis.

MR. TAGORDA: The 8.2 really is not the conservative approach, though.

MR. CRADDICK: Well, that's --

MR. TAGORDA: It's not a conservative approach; it's not a conservative number, David.

MR. CRADDICK: Only not conservative if you -- I'm trying to think what could go out of the treatment plant. We got two air compressors there, so if one goes, we can still operate. We've got three feed pumps, so if any one of those goes, we can still operate.

I suppose the computer itself could go down and that

would just be the time it took to get the same computer up from one of the other facilities to use it there, because it's the same computer. So there's a lot of redundancy built into the plan itself. But yeah, you are operating at maximum capacity at that point, there's no doubt about that. There's not a lot of room for error.

MR. TAGORDA: I want to be cautious. I hope our director is correct in his finding, and I'm glad -- I will be glad to issue meters out of his finding. I have nothing against that. And I share the sentiments of my colleagues here, that it's about time that we issue meters Upcountry for those people who have been waiting for many years.

But again, I would like you to define to me source capacity, David, because not a lot of these people on the priority list is going to get meters because of problems like distribution lines you're having. It's right here. You cannot deliver water to them even when you have water available.

MR. CRADDICK: No, but that's in their control. If they want to put the line in, then that's certainly something

they can do, and it's not dependent on the source. All of this Kula rule shortage situation was all a result of source. The distribution system has always been a problem Upcountry since the early 1900s.

MR. TAGORDA: Help me understand what the source capacity is and define it for us in your terminology.

MR. CRADDICK: I'm not sure what you mean by "source."

MR. TAGORDA: I want you to tell me what source capacity -- what does source capacity mean to you? Is it just surface groundwater? Or do you include treatment plant capacity? Storage capacity? Transmission line capacity?

MR. CRADDICK: Source is source. The supply of water. It's not your ability to distribute it. It's a separate issue. That's something that the individual can control.

MR. TAGORDA: Thank you.

CHAIRMAN NAKAMURA: Mr. Starr?

MR. STARR: Yes. Seeing that our corp counsel is here and available to answer our questions, I would like to pose a question to him, and that is, we have before us a document that's basically justifying that there's excess water available in the Upcountry system, and it's using in that justification the fact that there is 13.8 million gallons a day available under drought conditions, which is more than we need under drought conditions, and in that 13.8 number is included in Hamakuapoko wells No. 1 and 2.

So it's my contention that we're being asked to issue meters based on Hamakuapoko wells 1 and 2. We have taken into account for use -- for peaking use during drought conditions. I would like to ask Mr. Fukushima whether we can take those two wells in account for the issuance of meters.

MR. FUKUSHIMA: First of all, I think it's a policy question whether you want to include these. With the knowledge that the usage of the H'poko wells can only be -- the wells can

only be used during times of drought emergency. If the board decides that it's appropriate to include these in the amount of water available, knowing that it can only be used as -- or during times of drought emergency, or if the board decides it doesn't want to count these because it can only be used during periods of drought emergency, I think that's the board's decision. It's not a legal decision.

MR. STARR: And in the court's ruling, wasn't there some wording regarding what they could be used for and wasn't there some wording regarding meter --

MR. FUKUSHIMA: I'm not aware of that. But I do maintain that how you want to treat the water from the H'poko wells is a policy decision.

MR. STARR: Do we have the judge's wording available to us?

MR. FUKUSHIMA: I can make that available to the members for their review.

MR. STARR: I would like to see that before the board meeting.

MR. FUKUSHIMA: Sure.

CHAIRMAN NAKAMURA: I think, Howard, putting it another way, my concern, which is in line with Jonathan's, is that David is asking the board to support his finding that there's adequate source based upon the fact that the H'poko wells are available for use; and that the board would state that these wells would be used during drought as a basis of issuing meters. And I think some of us have a problem with that, and the question as to whether or not that is permitted under the order of the court.

So perhaps you can research that. Although you said you think it's a policy decision, perhaps it would be helpful if you could clarify that.

MR. FUKUSHIMA: Certainly. Yes, I can review the court order and see if there's any relation to the board -- any relation to potential board action relating to H'poko wells.

CHAIRMAN NAKAMURA: Thank you.

Mr. Hiranaga?

MR. HIRANAGA: Just a question for the director.

Could you give us a brief status update on the progress of the Pookela well?

MR. CRADDICK: Herb? I believe the contract is up in corp counsel's office with the consultant -- for the consultant. Herb?

MR. KOGASAKA: Yes, I think it is. I think it was sent up to corporation counsel for review right now.

MR. HIRANAGA: For the general meeting, could you give us a more definitive status on the progress of that?

MR. CRADDICK: I'm hoping in the staff report it's going to be one of the line items that the contract is signed.

MR. STARR: Has a consultant been selected?

MR. CRADDICK: Yes.

MR. STARR: Who is that?

MR. CRADDICK: Royce Fukunaga. I figured he was far enough away from all the controversy I have been involved with over the years. He was the best one to go with.

MR. HIRANAGA: Another question.

CHAIRMAN NAKAMURA: Mr. Hiranaga?

MR. HIRANAGA: Mr. Craddick, could you explain this paragraph on page 3, the third one, it begins with, "Also, considered in the evaluation...."

MR. CRADDICK: Well, people talk here at the board about the inadequate distribution system, and I won't disagree with any of this. There's a lot of the distribution system that's inadequate. Also as consumption increases, the issue of

contact time at Kamaole Weir has been talked about. That will become an issue as time goes on.

But these factors here, as they are presented here, I don't believe they are source related, at least not at this time. That's something that we can do something about in any case. Or even the individual that may come in and apply, if some individual is going to come in and apply, that will cause that contact time to go up, then they may have to provide that additional storage.

MR. HIRANAGA: I guess, primarily, the last sentence of that paragraph, if you could explain that.

MR. CRADDICK: One of the other issues was whether the -- like, for instance, the Dowling well and the Haiku well, how do we actually get the water into our system, knowing that below the Haiku well, no matter how much we try, the consumption is what the consumption is.

So if we don't put a booster pump on to push the water up in the system to get it to be used in a larger area, we're not going to be able to increase the consumption of that well, no matter how hard we tried. Same thing with the

Kaupakalua well, the only way to get additional water out of that well, above and beyond what the system is using, is basically dumped into the ditch right now.

So whatever the system draws, it will be able to supply all of that, because we can supply that water up to Kokomo tank. But there probably is some capacity there, and I think the most we have ever pumped out of there was 1.1 or 1.2 million gallons in a day, out of the Dowling well. I don't think we have gone beyond that.

So that last .4 million gallons, there might not be any way to use that except by dumping it into the ditch and bringing it down to the treatment plant. That's why I don't say that we can use 1.5 million during a drought because right now there's maybe no way to get it.

Or let's say we did dump it into the ditch during a drought and we have our treatment plant going to capacity, we can't use that extra water anyways, but once we hit 16 and we had to actually cut our draw from the ditch below 8, then possibly that number we could dump into the ditch and we would still have capacity to treat. We would be able to treat it at that point, because we would have to cut back what we were

taking from the ditch. So if we add more into the ditch, then we would be able to take more.

MR. HIRANAGA: The last sentence says, During low rainfall conditions -- "These extraneous factors can be addressed during low rainfall conditions because the Department is able to obtain hoses or set up temporary tanks resulting in full utilization of water source that is available."

Are you saying that if we were to issue meters that -- during low rainfall, we would be susceptible to the need to set up temporary tanks or hoses?

MR. CRADDICK: We might have to, yes. As we got down to those real extreme cases. What it comes to, really, Kent, is how quickly is Hawaiian Homes and Dowling's project going to develop in comparison to how fast the board moves to getting additional sources on line.

By Hawaiian Homes' own estimate, they expect maybe 50 people out of 400 would move in, in the next year or so. And then it will probably drop down to a rate of about 20 people a year. So you can see even Hawaiian Homes doesn't expect that they are going to move in very fast.

On Dowling's project, it may be a shorter time period. It may only be five years there that we're looking at for his build out. But --

MR. HIRANAGA: How do you differentiate between drought conditions and low rainfall conditions?

MR. CRADDICK: They are the same thing.

MR. HIRANAGA: We're currently in a drought situation, so if we were to issue more meters, would we then expose ourselves to the possibility of having to set up temporary tanks?

MR. CRADDICK: If we -- after the Pookela well, if we sat and did nothing while Hawaiian Homes came on and Dowling's project was built out to full capacity, we probably would get in a situation where we would have to do that.

MR. HIRANAGA: Thank you.

CHAIRMAN NAKAMURA: Any other questions? Jonathan?

MR. STARR: I have a question to the chair, which is, I think you understand my feeling, which is, I don't really want to take any action to accept this report; but I would be willing to recommend that just without anything else being taken into consideration, that some meters could be issued to waiting list people, just based straight on the Haiku well, which that never had meters issued against it. Is there any recommended action that the chair would like to see here?

CHAIRMAN NAKAMURA: Before I answer that, Jonathan, I have one question to David. Which is, if your analysis indicates that you have 14.4 MGD during normal available times and if you look at the sources, the breakdown of the sources, it seems that barring malfunction at either the plant or the well, that this is a source that can be delivered, virtually, all of the time. Is that an accurate statement?

MR. CRADDICK: Yes. It may be 85 percent reliability at Piiholo up there.

CHAIRMAN NAKAMURA: I guess the chair's feeling is that if you look at the analysis, it would seem as though there is basis to support the director's findings. However, I do have a couple of concerns. Number one is that I am uncomfortable with the analysis, as has been pointed out by member Starr, which relies on our taking certain actions relative to the H'poko wells as a basis of issuing meters. And I'm also uncomfortable with the notion of issuing meters while we're in a drought emergency.

And the chair's feeling is that this matter should be deferred pending, perhaps, David resubmitting his analysis that deals more with normal conditions than with drought conditions as a basis of issuing additional meters. That would be my own personal feeling.

Mr. Fukushima?

MR. FUKUSHIMA: Mr. Chairman, if I may comment. We would also like to caution the board regarding the notion that board meters or meters can be issued off the list. Again, we wish to remind you that we have submitted a proposed rule which deals with how we are going to handle meter requests for

individuals that are on that priority list.

We think it may be unwise to start issuing meters without that rule in place which implements the priority list that the department has been keeping over a number of years.

CHAIRMAN NAKAMURA: Thank you, Mr. Fukushima.

Mr. Nobriga?

MR. NOBRIGA: I tend to echo our esteemed counsel's concerns. Although I can recognize the member's concern about the way the information and data was compiled, the net result is that there is not sufficient additional capacity to satisfy every and all requests to the affected areas within the scope of the Upcountry system.

And I would diligently urge that we review and pass back out the proposed rule governing issuance of meters within the affected areas, because of the unreliance on a perfect case scenario.

CHAIRMAN NAKAMURA: Thank you, Mr. Nobriga.

Any other thoughts relative to this matter by members of the committee?

MR. STARR: Motion to defer.

CHAIRMAN NAKAMURA: There's a motion to defer. Is there a second?

MR. TAGORDA: Second.

CHAIRMAN NAKAMURA: Moved and seconded that we defer this matter. Any further discussion? If not, all those in favor say "aye."

(A chorus of ayes.)

Opposed?

MR. NOBRIGA: Nay.

CHAIRMAN NAKAMURA: Five ayes and one nay. Motion to defer. The chair would suggest perhaps that David continue to analyze this issue and perhaps take a little different tact

on this.

MR. CRADDICK: My recommendation would be to go to court and get the restrictions removed.

CHAIRMAN NAKAMURA: There being no further business to come before the committee, the meeting is adjourned. Thank you.

(The proceedings were concluded at 10:35 a.m.)

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