

1 BOARD OF WATER SUPPLY

2 COUNTY OF MAUI

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REGULAR MEETING

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16 Held at the Department of Liquor Control Conference
17 Room, 2145 Kaohu Street, Room 105, Wailuku, Maui,
18 Hawaii, commencing at 9:05 a.m.

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28 Transcribed from audio recording by Gaye Hayashida,
29 Commission Support Clerk, Department of Water
30 Supply, County of Maui

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A P P E A R A N C E S

BOARD MEMBERS:

- Lee Aldridge, Chair
- Carl Holmberg, Vice Chair
- Marion Haller
- Michael Howden
- Kui Lester
- Scott Luck
- Kelli Myers
- Phyllis Robinson

STAFF PRESENT:

- Eric Yamashige, Deputy Director
- Edward S. Kushi, Deputy Corporation Counsel
- Gaye Hayashida, Commission Support Clerk

1 CHAIR ALDRIDGE: Good morning.

2 MEMBER HALLER: Good morning.

3 CHAIR ALDRIDGE: Oh, it is on. This is um, Board
4 of Water Supply regular meeting, Thursday, June 26,
5 2008. Um, call to order ah, members present
6 include ah, Phyllis Robinson, Kelli Myers, Marion
7 Haller, Michael Howden, myself, Carl Holmberg, Kui
8 Lester, and Scott Luck. Ah, absent is Ted
9 Yamamura, is that correct? Thank you, Gaye. And
10 ah, Board ah, I'm sorry, ah Department members
11 present include Eric Yamashige ah, Deputy Director,
12 and ah, representing ah, Corporation Counsel, Ed
13 Kushi. Ah, and we have some members in the
14 audience uh, that I recognize but I don't know
15 their names. And in any event, um, let's see,
16 Announcements. Oh I just wanted to announce that
17 ah, based on ah, discussions at the last board
18 meeting, ah I asked um, the commission clerk, Gaye,
19 to pass out to, to all of the board members a ah,
20 copy of the list, spreadsheet that she had put
21 together of the um, contested case hearings, both
22 the ones that we have completed to date ah, and
23 those that remain before us. Ah, and ah, just to
24 inform you ah, I took the initiative to meet with
25 Corporation Counsel to review these and ah will, my
26 intent is to bring an agenda item back to the board
27 at a future meeting to consider um, the ah, the

1 review of these or pre ah, pre-hearing review ah,
2 and I will volunteer as that pre-hearing officer if
3 you wish. Or I will actually accept any ah,
4 volunteers that might wish to do so, besides
5 myself. But that will be brought to at a separate
6 meeting so that we can take action on it. I think
7 that is um, it for Announcements. Ah, Approval of
8 Minutes. Are there any comments on the minutes of
9 May of 22nd, 2008? I have one correction, page 13.

10 (laughter)

11 MEMBER HALLER: How do you find just one?

12 CHAIR ALDRIDGE: This one's a great one. This is
13 second to the last paragraph, the bottom of the
14 page, um, one, two, three, third line down, I said
15 "we need to start putting the brakes on..." that
16 should be B-R-A-K-E-S...

17 (laughter)

18 CHAIR ALDRIDGE: Instead of B-R-E-A-K-S. The
19 English language is a beautiful thing.

20 MS. HAYASHIDA: Mr. Chair, could I also point out
21 something? Um, there is an error on page 2,
22 Approval of Minutes. It should say Minutes of
23 April 24th, not March 27th.

24 CHAIR ALDRIDGE: Oh, okay, thank you. That's a
25 good preemptive correction there.

26 MEMBER LUCK: Yeah.

1 CHAIR ALDRIDGE: I didn't catch that. Oh, actually
2 you'd sent out a...

3 MS. HAYASHIDA: Yeah.

4 CHAIR ALDRIDGE: E-mail on that, had you not?

5 MS. HAYASHIDA: Yeah, I sent it to, yeah.

6 CHAIR ALDRIDGE: Thank you. I don't know, let's
7 see. Hearing no other corrections, can we approve
8 um, and get a motion to approve the ah, minutes of
9 May 22nd?

10 VICE CHAIR HOLMBERG: I so move.

11 CHAIR ALDRIDGE: We need a second.

12 MEMBER HOWDEN: Second.

13 CHAIR ALDRIDGE: So moved and seconded. Ah, vote
14 on it? All in favor?

15 (a chorus of ayes)

16 CHAIR ALDRIDGE: It's unanimous. Testimony from
17 the public, do we have any public testimony, Gaye?

18 MS. HAYASHIDA: Uh, no.

19 CHAIR ALDRIDGE: Thank you. Item six, Appeals.
20 Um, Appeal 07-03, an appeal by Thomas L. Behnke on
21 behalf of John C. Behnke, Jr., M.D., retired, of
22 the Director's decision or order dated September 7,
23 2007, to deny their proposal to connect to a new
24 waterline to the Department's water system to
25 provide fire protection to their subdivision
26 located at 150-170 Haiku Road, tmk 2-2-7-003-093.
27 For this matter the Board may convene in executive

1 session pursuant to HRS 92-5(a)(4) in order to
2 consult with the board's attorney on questions and
3 issues pertaining to the Board's powers, duties,
4 privileges, immunities and liabilities. Um, my
5 understanding is that ah, I'm going to turn this
6 over momentarily to Corporation Counsel who has an
7 announcement regarding to continuing discussions on
8 this particular um, appeal. Ed?

9 MR. KUSHI: Yeah, Mr. Chair, thank you um, ah, if I
10 may and, and this will be subject to confirmation
11 from the Department. Ah, Mr., Deputy Director is
12 here and ah, I understand the appellants are here,
13 Dr. Behnke?

14 UNKNOWN FEMALE VOICE: Yes.

15 DR. BEHNKE: Yeah.

16 MR. KUSHI: Or ah, Thomas Behnke?

17 DR. BEHNKE: No I'm, I'm...

18 MR. KUSHI: Oh, just, just ...

19 DR. BEHNKE: Thomas isn't here yet.

20 MR. KUSHI: John Behnke. Ok, um, as late as
21 yesterday, anyway, to summarize it and this may
22 disappoint most of you...

23 DR. BEHNKE: It does.

24 MR. KUSHI: Um, the, the parties have ah, is
25 requesting that this matter be continued to the
26 following Board meeting um, as late as yesterday in
27 discussing this matter with the Department

1 internally. Um, they've had some recommendations
2 to resolve this matter.

3 UNKNOWN FEMALE VOICE: May I um, I respectfully
4 request that you speak up. My dad's kind of hard
5 of hearing.

6 MR. KUSHI: I'll try my best.

7 UNKNOWN FEMALE VOICE: Thank you.

8 MR. KUSHI: As late as yesterday, the Department
9 ah, discussed this matter internally, and um, made
10 several proposals to resolve this matter with the
11 appellants. Ah, and um, although it's not settled
12 yet um, the Department did contact the appellant,
13 talked to Kepler or one of the Behnke's, and ah,
14 they've agreed that um, ah, to defer this matter
15 for this morning in hopes of working a resolution
16 before the next meeting. If no resolution can be
17 made, um, they would continue with the appeal at
18 the next meeting. That being the case, the
19 Department and the appellants ah, would want to
20 request that this matter be continued and not be
21 heard today, to give the parties time to work it
22 out. Um, that's my understanding as the Board's
23 attorney. We need to confirm it with the
24 Department as well as the appellants. So at this
25 time, may I ask ah, Dr., the Behnke's or
26 representatives, is that your understanding?

1 DR. BEHNKE: Yeah, well our request is very simple.
2 Our request is very simple. We presently have this
3 25 acre property which we bought in 1973 with the
4 intention of subdividing it into 7 parcels for our
5 5 children and ourselves.

6 MR. KUSHI: Ah, excuse me Dr. Behnke. The question
7 is do you confirm that we, the appeal won't be
8 heard today but will be heard next, next month or
9 the next meeting in hopes that we can resolve this
10 matter?

11 DR. BEHNKE: Yes.

12 MR. KUSHI: Ok. That's all I need...Eric?

13 MR. YAMASHIGE: Yes, thank you very much. Um, we
14 did talk to Thomas yesterday and um, Bill Kepler?

15 DR. BEHNKE: Yes.

16 MR. YAMASHIGE: And, and thank you very much for
17 agreeing to work the Department to try and resolve
18 this matter and as um, Mr. Kushi did explain, um,
19 we hope that we can resolve it. But if we cannot,
20 we're asking to be heard next, next meeting.

21 MEMBER HALLER: Next month.

22 MR. KUSHI: And, and Mr. Chair, for the parties'
23 information and the board members, if we can't work
24 it, the Department cannot work it out, the
25 appellant still has the right to be heard before
26 this body. So, you're not losing any rights on
27 this appeal.

1 DR. BEHNKE: Ok.

2 MR. KUSHI: Ok.

3 CHAIR ALDRIDGE: Thank you Mr. Kushi. Thank you
4 Mr. Behn, Behnke, is it?

5 DR. BEHNKE: Behnke.

6 CHAIR ALDRIDGE: Behnke. Thank you and thank you,
7 Eric. Um, we'll go ahead and defer the appeal of
8 ah, until further notice ah, and it'll be either
9 if, if you cannot resolve the issue with the
10 Department, it will take place at the next regular
11 board meeting which typically would be a month from
12 today, give or take, and we'll certainly in, inform
13 you of that, if that is to take place. We
14 appreciate the time that you've taken to come here
15 today and um, hopefully you can resolve this matter
16 with the Department and, and not have to go an
17 appeal.

18 DR. BEHNKE: Yeah, Mr. Yamashige was the one we
19 were talking with, right?

20 MR. YAMASHIGE: Yes.

21 CHAIR ALDRIDGE: Right, thank you very much,
22 appreciate it.

23 DR. BEHNKE: And he made a proposal that the
24 Department would install the fire hydrants for a
25 total for \$24,000.

26 CHAIR ALDRIDGE: Well, we, we don't as a board
27 here, we do not need to hear the proposal at this

1 point in time. What we're doing is um, leaving
2 that matter up to you and the Department, Mr.
3 Yamashige. So, if you would just ah, work in due
4 diligence with him um, and only if it doesn't
5 resolve itself then, then it would come back here
6 to the board for resolution.

7 DR. BEHNKE: Ok.

8 CHAIR ALDRIDGE: Thank you very much, sir. Marion?

9 MEMBER HALLER: Yeah, I just want to be clear about
10 um, timing? I understand that this conversation
11 just happened yesterday, so if the conversation
12 happens the day before the board meeting again then
13 we lose the opportunity to do another appeal. So,
14 I, could we like set a time limit, like you have to
15 come to resolution about a week before the board
16 meeting so that Gaye can either schedule this
17 appeal or schedule the next appeal, so that we can
18 give the other people notice, does that seem fair?

19 DR. BEHNKE: Thomas is here now. This is Thomas.

20 MR. BEHNKE: Hi. Um...

21 CHAIR ALDRIDGE: Mr. Behnke.

22 MR. BEHNKE: Yes, good morning.

23 CHAIR ALDRIDGE: Just wanted to let, good morning,
24 just wanted to let you know that we've been
25 informed by both the Department staff and um, Mr.
26 Behnke that um, you are in continued negotiations
27 or discussion...

1 MR. BEHNKE: Ah, that is correct..

2 CHAIR ALDIRDGE: For a possible solution..

3 MR. BEHNKE: Yes.

4 CHAIR ALDRIDGE: And ah, as a consequence we don't
5 want to prejudice, prejudice that action um, if we
6 would defer this um, contested case hearing until
7 the next regular scheduled board meeting..

8 MR. BEHNKE: Ah, yes, that's fine.

9 CHAIR ALDRIDGE: In the event that you do not
10 arrive at an agreement before that. Ah, if on the
11 other hand, you do or if you are in progress you
12 may defer it again and it will not deprive you of
13 any rights to an appeal in the event you fail to
14 come to an agreement with the Department.

15 MR. BEHNKE: Ok, yes, that's understood. Thank
16 you.

17 CHAIR ALDRIDGE: Ok, you're welcome. Thank you
18 very much and, and we do appreciate you coming
19 here. It's a very, for you then a very brief
20 meeting today, but ah nevertheless we appreciate
21 your appearance. Right, thank you. And um, Ms.
22 Haller, thank you for that. I think um, the
23 Department is advised that they should try to let
24 us know as soon as possible in terms of scheduling.
25 There's no way to prevent something happening at
26 the last minute sometimes. Yeah, thank you.

1 Alright we'll move on to the next, thank you very
2 much gentlemen.

3 MR. BEHNKE: Thank you very much.

4 CHAIR ALDRIDGE: Alright, moving on, ah, Unfinished
5 Business, there, there's none. Item 8, Other
6 Business, A, Discussion and Update Regarding the
7 Upcountry Water System and Drought Conditions. Ah,
8 I'd like to turn this over to ah, Deputy ah,
9 Director ah, Eric Yamashige and ah, Eric, if you
10 can give us any update on current situation um,
11 appreciate that.

12 MR. YAMASHIGE: Thank you very much. Ah, Gaye is
13 passing out yesterday's Upcountry Water Report. I
14 believe you all get this so you get to follow.
15 But, I, I wanted to um, um, maybe go through it a
16 little bit, help you understand where the
17 consumption is, and the way we look at this report.
18 Um, first of all, you can look at Wailoa Ditch and
19 it's flowing at about 20 million gallons right now,
20 about 10% of its capacity. Twenty million is
21 pretty darn low. But it was as low as 15 million
22 last week, so that, that really got lot of people
23 pretty anxious. Ah, so 20 million is just about
24 borderline. Um, Waikamoi is empty and that's the
25 result of um, no rain in the Upper Kula area. Then
26 Kahakapao, you'll, you'll notice that one side or
27 number 2 is nearly empty and we'll draw down one

1 reservoir um, and try and just use one in the hopes
2 that we might be able to clean it out or um, be
3 more efficient use of that water. So, there's
4 about 22 million gallons collectively, which is not
5 bad because ah, that, now I'll jump over to that
6 sketch that we have, that Director Eng prepared to
7 help you understand the Upper Kula system. In the
8 upper right hand corner um, I put an X and
9 "closed". We are no longer serving ah, the
10 majority of the Upper Kula system from the Olinda
11 Treatment Plant. We're only serving the Olinda
12 area, a small service area below the treatment
13 plant, from that treatment plant. So, we're only
14 taking about 200,000 gallons a day out of that 20
15 million gallons. Now, I'll jump back to ah, the,
16 the chart or the table and we'll look at the demand
17 side. And under the demand side um, we do have in
18 effect 4 systems Upcountry. When you look at the
19 Upper Kula system, you see that it's a sum of
20 whatever's being treated at Olinda, .2 million
21 gallons plus what is being pumped up at phase 6 in
22 the second to the last column on the right. So
23 Upper Kula is presently or as of um, wen, today is
24 what Thursday, Tuesday, I mean you do understand
25 that when the report is dated June 25th it's the
26 previous day's data. So, on that day there was a
27 total consumption of 8-1/2 million gallons, Upper

1 Kula was drawing 1.5 million gallons. And to get
2 that 1.5 million gallons, notice Olinda was
3 treating .2 and if you look back at the chart um,
4 the sketch, the schematic, phase 6 was running at
5 1.5. Um, and that's how we got 1.7 million gallons
6 on that system. Now um, going to the Lower Kula
7 system, you have 3.9 million gallons being treated
8 by the Piiholo Reservoir um, Treatment Plant,
9 that's the 3.9. One point four million gallons is
10 being pumped up from phase 10, if you kinda go jump
11 back and forth between the table and the sketch,
12 you can see where these numbers are coming from.
13 Um, of that, .8 million gallons is going back into
14 the raw water reservoir at Piiholo. I'll come back
15 to that little bit. Um, and of course the 1.5
16 million gallons is going up to Upper Kula. So the
17 Lower Kula system has a demand of about 3 million
18 gallons. Now, that .8 million gallons um, you
19 know, it's treated water that's coming, being
20 pumped up from the lower system and going back into
21 the Piiholo groundwater reservoir. Um, I had a
22 hard time with this, ok, because as an engineer,
23 why would you treat the water, put it back into the
24 raw water reservoir? Um...

25 CHAIR ALDRIDGE: Good question.

26 (laughter)

1 MR. YAMASHIGE: And I know Lee would really get off
2 on this. But really what happens is phase 10 has
3 actually 3 levels. You know from Pookela to our
4 booster pump, from that booster pump to another
5 booster pump and the relays between those pumps do
6 not allow um, like instantaneous shut-offs. And
7 you know, although we do want to try and improve
8 the system, that serves as protection, protection
9 for the system. Um, so you know, we don't damage
10 the system, we don't damage the pipes, we don't
11 overflow the reservoirs. It's, it's like a
12 release. The, the best thing we can do is try to
13 minimize how much water is going back into the raw
14 water reservoir. Now that being said, in past
15 years, that has actually been a savior, the ability
16 to put water in the raw water reservoir, because if
17 you were to cut-off all the processing at Piiholo
18 Treatment Plant because there was no water in the
19 reservoir, that means everything would have to be
20 pumped up from the lower system and we, you run the
21 risk of anything happening and the system fails.
22 So, so although we can um, maybe accommodate a
23 minimal flow from Olinda if we lost Piiholo we'd be
24 in a world of hurt. Um, so it kinda works 2 ways.
25 Doesn't seem real efficient but it works.

26 MEMBER ROBINSON: Because the, in the raw water its
27 gravity will, it uses gravity?

1 MR. YAMASHIGE: Yeah, yes. Um, it's just the
2 booster pump system um, has its limitation and we
3 are going through and evaluating that, hoping to
4 upgrade that. But if we had to pump you know, 1-
5 1/2 plus 3, 4-1/2 um, and really 2-1/2 that's being
6 used at Makawao, all the way from Kamole, then,
7 then it's just a very big demand on that system.
8 Yeah, you know, wish it was better but it's
9 something that works and we live with it. What,
10 what you will notice though is we are trying to
11 minimize how much water goes back. And the way
12 we've done that is we reduced what we're producing
13 at Kamole and I'll go through that in a little bit.
14 And I hope this isn't boring you.

15 CHAIR ALDRIDGE: Not at all.

16 MEMBER ROBINSON: No, not at all.

17 MR. YAMASHIGE: I just thought we'd go through
18 this. Ok, Makawao um, you can probably know by now
19 start figuring out where these numbers come from.
20 That 2-1/2 million gallons is from the Kamole
21 Treatment Plant, pumps up to the Pookela Tank. You
22 add 1.3 million gallons that is being pumped out of
23 the Pookela Well and then you subtract the 1.4
24 million gallons that is being pumped up by phase
25 10. So the Makawao is presently using about 2-1/2
26 million gallons a day ah, based on that one day.
27 Um, you notice that there is no water coming from

1 the Hamakuapoko wells to the Kamole Treatment
2 Plant. Um...

3 CHAIR ALDRIDGE: Question.

4 MR. YAMASHIGE: Yes.

5 CHAIR ALDRIDGE: What is the capacity of those
6 wells even though they're not being used and
7 obviously can't be because of the Council did edict
8 but what are, what is the capacity?

9 MR. YAMASHIGE: It's about 1-1/2 million gallons.

10 CHAIR ALDRIDGE: Both, for both? Together?

11 MR. YAMASHIGE: Together. Ok, and then the ah,
12 Haiku system, you have the Kaupakalua Well at .9
13 million gallons a day and the Haiku Well that has
14 been running about .4 million gallons a day, it's
15 1.3. Um, what one caveat on that is, you notice
16 that there is a dash line between Pookela and
17 Kokomo Tank. Ah, we do have the ability to drop
18 water from Pookela to Haiku and although it's not
19 shown on this, there is a little bit of water that
20 actually goes down there because there's a service
21 area, above the service area of the Kokomo Tank,
22 ok. So, otherwise those people wouldn't get water.
23 So that's a pretty quick overview um, couple things
24 you know, by agreement with ah, with EMI when the
25 Wailoa Ditch goes below ah, certain level, I want
26 to say was about 20, 25 million gallons a day. Ah,
27 we're supposed to start up all of our ah

1 groundwater sources, which we have in the form of
2 Pookela. We do always run Kaupakalua and Haiku and
3 Kokomo. H'poko has been taken away from us. Um,
4 are there any questions that, or if I can clarify
5 anything? Ok, if not...

6 CHAIR ALDRIDGE: Ah, I have a question. I'm sorry.
7 I have a couple questions. Um, would you say,
8 Eric, that this year has been drier in this spring
9 than, than last year, because I, I went and looked
10 at this year's um, June, I guess 25th report versus
11 last year's and it surprisingly I thought this year
12 was drier but it looked last year it was almost the
13 same thing, although the flows in the Wailoa Ditch
14 were um, running 30 to 45 million gallons a day.
15 Um, they had not, they had not been as low prior to
16 um, this point. They were running at that flow for
17 most of the month of May I think, as opposed to
18 this year. But the one thing I did notice was that
19 this year the total demand or consumption was like
20 almost 10% less, was like 8.11 versus 9.01.

21 MR. YAMASHIGE: That's the trouble having Lee,
22 yeah. He checks out all these...
23 (laughter)

24 MR. YAMASHIGE: Um, I have not gone back to look at
25 what last year's numbers were. Um, but yeah, last
26 year we're doing the same thing. The, the
27 difference that ah , we're noticed from last year

1 and this year is that our dry summer started like
2 in the winter.

3 (laughter)

4 MR. YAMASHIGE: Um, we were starting to really
5 monitor these um, reservoir levels back in February
6 um, it was, it was interesting because we actually
7 ah, lifted the drought in December of 2007 and
8 counting February we already looking at where these
9 levels are going at, how we're gonna try write a
10 drought declaration. Um, fire hazard, um, I'll
11 tackle that later. I should take notes when Lee
12 talks.

13 (laughter)

14 CHAIR ALDRIDGE: Well, I, I have a question. What
15 is the prognosis for this summer ah, and ah, what
16 is, what do we face as a worst case scenario?

17 MR. YAMASHIGE: Doom and gloom.

18 (laughter)

19 MR. YAMASHIGE: You know um...

20 CHAIR ALDRIDGE: Ancillary to that is, what are we
21 prepared to do about it?

22 MR. YAMASHIGE: Yes. Ok, worst case scenario would
23 be Wailoa Ditch getting really low um, you know, we
24 have a really good working relationship with EMI.
25 Um, there are limitations on how much water we can
26 take out of that ditch by agreement when the ditch
27 goes low. There, there's a calculation. I went

1 through it before but I can't recall it right now.
2 That being said, EMI has recognized that if the
3 ditch goes low and we need the water, you know,
4 they'll cut back fields um, from production to
5 allow us to take the water. So you know we, they,
6 they recognize that. We're very fortunate that
7 they see that the um, potable consumption, human
8 consumption is, is priority. Um, that would be a
9 really bad thing, if Wailoa Ditch goes down and
10 with respect to that, when, when you see the, when
11 you see it rain and Wailoa Ditch goes up and then
12 it stops raining and Wailoa Ditch goes down pretty
13 quickly and I think that's an indication of the
14 condition of the watershed. Um, it is not holding
15 the water and slowly releasing it you know like it
16 used to. And that's a bad thing. Um, Kahakapao is
17 always a, a concern because it is so high up the
18 mountain um, it doesn't rain up there very often.
19 Um, I mean, we make fun of each other when we say
20 it rained and Kahakapao got no water. It just
21 doesn't get up that far up the hill, um, and not
22 regularly. Um, but if Kahakapao went down you know
23 we do have the ability to pump from Omaopio back up
24 to the Olinda Treatment Plant clearwell and serve
25 that 200,000 gallons a day. We, we did that last
26 year, 'cause Kahakapao was bone dry yeah. Um,
27 Piiholo would be a problem. Piiholo is in the

1 middle of the system that puts enough water in the
2 system that generally can um, accommodate the Upper
3 and the Lower Kula systems. If that reservoir went
4 dry, and we could not treat the Piiholo, and that's
5 the scenario we discussed a little while ago, we
6 would have to pump everything up from the lower
7 system. But if Wailoa has no water and Piiholo has
8 no water and Kahakapao has no water, the only
9 sources of water we have or groundwater is Pookela
10 Well um...

11 CHAIR ALDRIDGE: Kaupakalua.

12 MR. YAMASHIGE: Kaupakalua Well which is in Haiku
13 and the Haiku Well which is in Haiku and at this
14 point we do not have the ability to pump water from
15 Haiku up to Makawao. I'm very happy that it's
16 something that our engineering division has um,
17 considered options to do that. Although you can
18 see that the consumption in Haiku pretty much takes
19 care, takes the water that's being developed in
20 that area. So, we have 3 well sources if things
21 went really bad. And if things went really bad,
22 I'm quite sure that um, maybe even the governor
23 might declare an emergency at which point um, my
24 understanding is it might override the Council's
25 action and we would have to um, try and get H'poko
26 um, back into production. Is that a doom and gloom
27 kinda thing?

1 CHAIR ALDRIDGE: Yes, that's pretty gloom. I don't
2 know about doom but ah, I remember one time a
3 fellow from EMI was here, at one of the meetings
4 and I had asked him specifically if he knew off the
5 top of his head what the lowest flow of record was
6 on the Wailoa Ditch. Do you remember what the
7 response was?

8 MEMBER HOWDEN: Twelve, twelve to fourteen...

9 CHAIR ALDRIDGE: Twelve to fourteen...

10 MEMBER HOWDEN: Historically.

11 CHAIR ALDRIDGE: Historically. So we got pretty
12 close to that at 15 just a...

13 MEMBER HALLER: Well, we were down to thirteen
14 seven...

15 CHAIR ALDRIDGE: Were we?

16 MEMBER HALLER: A couple of weeks ago.

17 CHAIR ALDRIDGE: Yeah.

18 MEMBER HALLER: Um, a couple of times we were at
19 13. I was like...

20 CHAIR ALDRIDGE: Yeah it's a bit scary. Very, very
21 frightening. Um, and we're just entering summer.

22 MEMBER LUCK: Yeah.

23 CHAIR ALDRIDGE: So, it's, it makes it, it's
24 extraordinarily precarious position, I think. Um,
25 you know although people are conserving which is
26 admirable um, nevertheless, if you just look at
27 the, the quantities available even with Hamapoko,

1 Hama, the H'poko wells, I always have trouble with
2 that pronunciation. Um, we really clearly
3 dependent on some flows in the Wailoa Ditch or ah,
4 as we used to say in high school, you might as well
5 as bend over and kiss your butt goodbye.

6 MR. YAMASHIGE: No, no, no, no.

7 (laughter)

8 MR. YAMASHIGE: We're not there.

9 CHAIR ALDRIDGE: Ok, well thank god for that. I,
10 you know what, I think you might want to mention
11 that um, one of the reasons there's so many ah,
12 relay pump stations or, is it, you just can't pump
13 700 pounds pressure to go from one zone to the
14 other because most of the American Water Works
15 standards of pipes are like 150 to 250 psi. And
16 brings to mind ah, an example ah, in Denver, I
17 don't know if anybody remembers this but just
18 recently they had a big sinkhole under Interstate
19 25, and that was a result of, of a pump shutdown
20 that caused a surge through a 66-inch diameter
21 pipeline that blew a 15 foot diameter hole through
22 the side, ripped out the seal.

23 MEMBER LUCK: Wow.

24 MEMBER HALLER: Wow.

25 CHAIR ALDRIDGE: And that was because their surge
26 protection system failed and their pressure doubled
27 in that pipeline. And that, that's what can happen

1 if, if you had pump failure accidentally and your
2 surge control doesn't work. Which is all you need
3 on top of the drought. Oh, Mike.

4 MEMBER HOWDEN: Um, thank you Eric. I, I really, I
5 think we all really appreciate your presentation.
6 Um, you know you point out that Waikamoi is empty,
7 um, I mean it, it's empty anyway because it doesn't
8 really function at least and needs cleaning out and
9 stuff like that. Um, you know I'm, I'm really
10 concerned that, that we're not seeing positive
11 action by the Department or by the County in terms
12 of trying to improve out in-take systems. Um, ah,
13 I had heard ah that there has been some work at the
14 flume system at Waikamoi. I don't know if, if
15 that's true or not. Can you comment on that?

16 MR. YAMASHIGE: Sure. Um, yeah it, it's a very old
17 system. It certainly takes a lot of maintenance.
18 Um, but on Wednesday, we did have our field
19 operations crews working on Piiholo and Waikamoi.
20 Ah, started at 7 ah, 5:30 in the morning, cause
21 they need to hike in. Um, then we had helicopter
22 support somewhere around 7, 7:30 that flew in some
23 of the concrete that needed to be used to make the
24 repairs. We are doing quite, quite a bit of
25 repairs on Waikamoi and Piiholo. Um, certainly we
26 don't wanna let water that might be coming in
27 bypass our system. Ah, we do want to make it as

1 efficient and effective as possible um, and we're
2 working on it. There's, there's safety issues that
3 you know, we've had to address. We do have a
4 pretty big project going in that will put a, a
5 safety line along the Waikamoi flume. I have never
6 walked on that flume.

7 (a chorus of "we have")

8 (laughter)

9 MR. YAMASHIGE: And you're all back.

10 (laughter)

11 MR. YAMASHIGE: Um and..

12 MEMBER HOWDEN: All but one.

13 (laughter)

14 MR. YAMASHIGE: Ok, I'm sorry. Yeah, I haven't
15 gone that far into the system yet. I realize it's
16 beautiful out there but it is a system that we need
17 to take care of. And ah, we're putting in a safety
18 line that where if we can wear harnesses, hook up
19 to it ah, while they're working on the flumes so,
20 if, if any thing happens they'll, they'll be
21 protected. Um, following that you know, we have
22 plans to make um, substantial improvements to the,
23 to the flume system um, that hasn't been designed
24 yet but it may be um, you know one, one
25 consideration is moving away from the redwood
26 flumes to a more light consistent so you know, I
27 don't know enough about what we have planned for

1 that yet. I will say as Lee mentioned the ah,
2 consumption Upcountry is, is admirable. The 8 and
3 half, you know, million gallons a day is, and is a
4 pretty good number for Upcountry. Um, and, and it
5 hasn't gone, hasn't gone up since we lifted the
6 drought, so the commitment to conservation has been
7 adopted Upcountry. They're doing a really good
8 job. I have seen that number go up to over 10, so
9 keeping it at 8 and half or, it is a good thing.
10 Yeah, I know there are, I've seen pictures of the
11 Waikamoi flume and there are, it's a redwood flume.
12 It's a redwood support. Ah, as good as redwood
13 holds up to wet weather, it, it still does get
14 deteriorated. So, so we had guys go in ah, assess
15 the flumes and make the repairs that need to be
16 made. Ah, oh yeah, we, we're very aware of um, the
17 importance of bringing that raw water to the
18 reservoirs. As far as Waikamoi, you, you'll see
19 earlier in this report that there was some water in
20 Waikamoi. And we'll keep it there for a little
21 while just to settle out ah, some of the suspended
22 solids. I shouldn't say that, yeah.

23 MEMBER HALLER: Settlement.

24 MR. YAMASHIGE: Ok, what I guess...

25 MEMBER ROBINSON: Sediment?

26 MEMBER HALLER: Sediment, sediment.

1 MR. YAMASHIGE: We, we'll keep it in there for a
2 little while and send it over to Kahakapao so we
3 don't have as much sediment in Kahakapao
4 reservoirs. Um, suspended solids is the dirty
5 water guys.

6 MEMBER HOWDEN: You know, Eric um, I know when um,
7 actually Director Eng was quoted in the newspaper a
8 few weeks ago as saying that it would end, perhaps
9 this is a mis-statement by the Maui News which of
10 course is not unusual. But um, that to set up a
11 good safety system would take 3 years and then it
12 would take another 3 years to get the design work
13 done to improve the Waikamoi intake system and I
14 would suggest that since um, this is basically free
15 water um, you know that we have at had it over
16 4,000 feet that we should do everything we can to
17 capture source water at that elevation and that we
18 might want to somehow through the administration
19 and ah, Charmaine's good relation with the state
20 administration um, to see if we can do something
21 to, to, to facilitate our re-design and
22 implementation of a good design.

23 MR. YAMASHIGE: I don't know how to respond to
24 that, yes. Um, the design for that safety system
25 is almost complete and will be implemented. Um,
26 and certainly you know it doesn't, you don't have
27 to wait till the safety system is in before we

1 start designing ah, the flume system or whatever
2 system we design to replace it. Ah so, and I hope,
3 hope it doesn't take 6 years.

4 MEMBER HALLER: Mr. Chair...

5 CHAIR ALDRIDGE: Yes, Marion.

6 MEMBER HALLER: Um, um, I'm just trying to recall
7 from the budget session. I recall there was money
8 in the budget for this coming fiscal for that
9 safety to be completed and I don't recall if there
10 was money in there for the design.

11 MR. YAMASHIGE: Yes.

12 MEMBER HALLER: It's about the money too, right?

13 MR. YAMASHIGE: Yes. Um, there was, there is money
14 in there, the 2009 budget, I think, for that safety
15 system. I can't remember how much it was. I don't
16 think there was a design funding for the flume
17 replacement. But you know again, we do have a
18 couple of years maybe before it happens. Um, it's
19 something we will keep in mind. Thank you, Marion.

20 CHAIR ALDRIDGE: Um, Eric, I have one additional
21 question, well actually a couple but ah, on the
22 Waikamoi system, you know, when board members were
23 given the opportunity, thank you to the Department
24 to tour that facility and Marion and I walked out
25 on that um, um, Waikamoi flume...

26 MEMBER HALLER: We were going over that trestle...

1 CHAIR ALDRIDGE: Yeah, we walked over several
2 trestles actually, I think, um, which was an
3 exciting thing actually, but I'm, um, you know I
4 was really ah, taken aback by the fact that some of
5 that system including the, the one reservoir, I
6 don't remember the name of it, maybe it was called
7 Waikamoi, was actually built or constructed in
8 1926, I think it was. It was clearly constructed
9 and designed for a much smaller capacity system.
10 The other thing that I found remarkable that um,
11 Paul um, pointed out, our tour guide, um, was that
12 um, the collection facilities relied on the ability
13 of the um, the whatever that's called, that moss
14 that grows up there, to hold water...

15 MEMBER ROBINSON: Sphagnum?

16 CHAIR ALDRIDGE: Yeah, sphagnum, was it? And, and
17 to release, to hold water from the rainfall and to
18 release it slowly into the system, and he was
19 pointing out the areas that were um, that had been
20 disrupted by the invasive species, the, the ah,
21 basically the, the wild boars ah, eating much of
22 that and, and I'm wondering aside from leaks in the
23 flume itself and or ah, the inability of the
24 collector systems to collect all the water, how
25 much of that whole area is losing the ability to
26 hold and release water due to problems like that?

1 And what can we do about that besides you know
2 sending all of us up there to hunt wild boars.

3 MEMBER ROBINSON: Wild pig season.

4 (laughter)

5 MR. YAMASHIGE: You know, I'm sure there are people
6 here that can speak much better to this. I will
7 say that the Department um, does issue grants um,
8 to some of these organizations that are um,
9 addressing some, those issues. Um, the Maui
10 Invasive Species Committee, I, I, MISC. Um,
11 there's an organization that we support and they do
12 go in. They've been addressing that um, that big
13 leaf plant, can't think of it's name...

14 MEMBER LUCK: Miconia?

15 MR. YAMASHIGE: Miconia. Thank you, yeah. Ah, and
16 they, they'd been doing a really good job. Um, the
17 coqui frog is another one that they've been trying
18 to address and you know, we haven't had a real big
19 problem and maybe because I live in Wailuku...

20 (laughter)

21 MR. YAMASHIGE: I've heard that they've been doing
22 a really good job in controlling that population.
23 Um, so you know, initially I, I was thinking, why
24 are we giving away department's money for some of
25 these things and ah, they've been doing a really
26 good job to ah, protect our watershed. And you're
27 right um, like I said before yeah, it seems like

1 the watershed is responding too quickly to the
2 rainfall events. It is a big concern.

3 MEMBER HOWDEN: You know, the other thing is that
4 because the, the, that system really can't be well
5 maintained um, ah, and it's minimally men,
6 maintained at present. I mean when we were there,
7 there was debris um, from the in-takes that was
8 thrown on the redwood, I mean you just don't, you
9 don't throw rotting leaves and, and other organic
10 debris on top of redwood and you know, I don't know
11 what are historical relation is with EMI but I felt
12 whoever was taking care of that was actually doing
13 a pretty poor job and it was very counter
14 productive. Um, and, but the real thing is that we
15 need to re-design that so that we can capture more
16 water and of course you know we will contingently
17 be dealing with ah, stream flow issues but, but I
18 would feel that because part of this water at least
19 will be designated for Hawaiian Homes that there
20 would, will be factors mitigating and, and making
21 it so that you know, in negotiations ah, with um,
22 the stakeholders in the system that you know we can
23 work something out, but, but it's, it's pointless
24 to let that water flow through when we can capture
25 it there simply ah, by doing better design.

1 CHAIR ALDRIDGE: Just as information item, I think
2 we have ah, I forget who it was from EMI, um, have
3 accepted invitation...

4 MS. HAYASHIDA: Garrett.

5 CHAIR ALDRIDGE: To be ah before this board at the
6 next board meeting.

7 MS. HAYASHIDA: July, yes.

8 CHAIR ALDRIDGE: So we may have some questions for
9 him at that time about maintenance and those sort
10 of issues.

11 MEMBER HOWDEN: Be nice.

12 CHAIR ALDRIDGE: We will be nice. We always are.
13 Marion?

14 MEMBER HALLER: Um, I wanna take this opportunity
15 to since you brought it up, we all saw that um,
16 Kahili Ginger, that was so stunning when we were up
17 there, that is the only ginger that is propagated
18 by seed. I did some research afterwards because I
19 thought it was a little funny that nobody knew
20 anything about this stunning plant that was just
21 kinda all over the road area and all area. It's
22 the only ginger that propagates by seed, so it is
23 now being found inside the rainforest. It was put
24 there as barrier when the road was first put in, so
25 we brought it up there. And it is now slowly going
26 to take over. It, it's root system totally
27 destroys the loam so that ginger is actually a big

1 problem up there. And, it, it, it's just shocking
2 to me. So here we go, so it's so gorgeous but
3 that's one of the invasive species...

4 MEMBER HOWDEN: Very problematic.

5 MEMBER HALLER: That we put there to keep the road
6 you know, keep the jungle at bay and it
7 unfortunately does too good a job.

8 MEMBER HOLMBERG: What, which kind of ginger is
9 that?

10 MEMBER HALLER: It's called Kahili.

11 CHAIR ALDRIDGE: And it was beautiful. I'd love to
12 have it in the yard.

13 MEMBER HALLER: Yeah, gorgeous.

14 MEMBER ROBINSON: Beautiful smell.

15 CHAIR ALDRIDGE: Yeah. Well, not to beat a dead
16 horse but are we at, at the verge of some kind of
17 declaration of, of mandatory cut-backs beyond what
18 we see now? It would appear to me the answer might
19 be yes.

20 MR. YAMASHIGE: Let me say that the system has been
21 maintaining ah, since, since the last meeting with,
22 was it only the last meeting that we did the watch?
23 (a chorus of yes)

24 MR. YAMASHIGE: Seems like forever.
25 (laughter)

26 MR. YAMASHIGE: Um, you know, I, I would, I would
27 love for you guys to give us the um, ability to, to

1 declare um, a warning, if, if we get to that point.
2 At this point we, we, really looks like the system
3 is holding up. Um, we're not stressing yet but we
4 are stressing, yeah?. But we're not at that point
5 where um, we would need to go to mandatory at least
6 in my opinion, and I haven't talked to anybody yet
7 so, um, but if, if it's, you know within your
8 hearts to ah, give us that ability to um, declare
9 that warning um, we'd appreciate it 'cause it would
10 allow us more flexibility in that operation.

11 CHAIR ALDRIDGE: Thank you Eric. Well, um, unless
12 there's any other...

13 MEMBER HOWDEN: Lee?

14 CHAIR ALDRIDGE: Yes.

15 MEMBER ROBINSON: Um, I'd just like to...

16 CHAIR ALDRIDGE: Oh, I'm sorry Phyllis.

17 MEMBER ROBINSON: Compliment on what ah, Deputy
18 Director just said. Um, I'm just wondering if
19 there's a psychology um, to, um, holding off um,
20 and I actually feel supportive of that because I
21 think there's a certain ah, indication that there's
22 conservation happening and I think it counts upon
23 the ability of the common sense of the people to
24 see that we're lacking in rain. Um, and there's a
25 pride that comes from just knowing that and
26 conserving on their own. And, um, I just think
27 that ah, putting mandatory um, drought or drought

1 warning on the people may actually have an adverse
2 affect in, in a way because people are, are you
3 know, being maybe, being told that you know that
4 you're seeing this conserving, you're acting
5 accordingly so, um, give them a reverse effect I
6 think.

7 MR. YAMASHIGE: Yes, thank you and um, I think if
8 you read the Maui News every Monday morning, ah,
9 Director Eng is usually quoted in there and um,
10 he's been trying to stress our appreciation to the
11 Upcountry residents because you know, as you've all
12 noticed they are doing a really good job keeping
13 the consumption down. And at 8-1/2, the system
14 seems to be ok, you know it's not great. Um, we
15 are low Upcountry. What we really need to do is
16 watch those triggers like Wailoa Ditch, if it gets
17 really low ah, with no rain foreseen. It would've
18 been last week, we've gotten some rain where we
19 needed. Last year it was amazing that we got rain
20 when ah, we, we thought things were gonna be really
21 bad. And we're expecting some rain now. So, I, I
22 agree with you Phyllis. I would hate to put
23 mandatory um, unless the system really shows us
24 that we have no choice and, I, I think we would
25 avoid it as long as we can.

26 MEMBER HOWDEN: Lee, can I comment?

1 CHAIR ALDRIDGE: Thank you, Eric. Yes, go ahead
2 Michael.

3 MEMBER HOWDEN: Yeah, um last meeting um, Marion
4 asked and, and the board ah, supported ah, hearing
5 from the Department, hearing from the
6 Administration, hearing from the Council, of what,
7 what steps were being take to really bring in more
8 source water. Um, and other than Eric's um, very
9 gracious presentation um, you know, we're not
10 hearing anything. Um, and I would also point out
11 that the Department has, the Director has the power
12 to call, call a drought. Um, you know we seem to
13 be by-passed on other issues um, so that you know,
14 I, I, I personally would rather leave this in the
15 Director's hands, um, than for us to take a step
16 and also, I think it would be useful if in Jeff's
17 weekly ah, report that, that he kinda coaches
18 people a little bit in terms of our conservation
19 outreach. I was walking Kekaulike yesterday
20 afternoon around 3, 3:30, the upper highway, and
21 one of the farming families near me was watering
22 heavily just emp, you know, empty land, land that
23 had been cleared that was really just garden space,
24 but they were you know, quite a bit of water was
25 being used. The Ohana Animal Inn was um, heavily
26 watering their lawn, you know, I mean, you know I
27 mean this is what I saw walking a mile and half

1 down the road, so um, if we could somehow try to
2 bring in people, I mean, just no sense watering in
3 the heat of the day, when so much of that water
4 just evaporates.

5 MR. YAMASHIGE: Yeah, thank you Michael. You know,
6 all you gotta do is drive through some of these
7 subdivisions, especially Kahului, you know it's, if
8 you don't irrigate your lawn it's gonna be brown,
9 it's gonna be dry. So just driving through
10 Kahului, you can see who, who is taking this
11 seriously and who is just watering their lawn. You
12 know, it's hard to watch people that are irrigating
13 when everybody else is trying to conserve. Um,
14 that's a good idea and maybe what we ah, I'll talk
15 to our department and see what we can do. But we
16 do have um, we are trying to get the conservation
17 ah, word out. I don't know if you guys hear this
18 thing on the radio, once in awhile the radio spots
19 that we put out um, to conserve? And if you notice
20 that it is from the Board of Water Supply. I used
21 to say how come?

22 (laughter)

23 MR. YAMASHIGE: Um, but you know we are trying to
24 get that conservation word out and please if you
25 see people, especially sitting on the Board, you
26 know, talk to 'em, let 'em know that, that's not
27 the best um, most efficient way to do it,

1 especially if you guys have that background and
2 understanding that. You can see my yard, you know
3 I don't water it.

4 CHAIR ALDRIDGE: Thank you Eric, and, and I think
5 Michael did remind us of a good comment from the
6 previous meeting, that was it, we do want to see
7 ah, information from the Department on all the
8 different efforts that are undertaken, whether
9 they're in planning, design or whatever stage with
10 regard to development of sources and distribution
11 etcetera, so if you can put that down, jot that as
12 a note, Eric, for, for ah maybe next meeting or the
13 future meeting ah, ah as you're prepared to do it.
14 Um, obviously you saw in the news ah, the ah report
15 that um, ah I think it was Senator um, Akaka?
16 Yeah, had been ah touring the um, and the Mayor,
17 had toured the sites or at least they were
18 Upcountry looking at potential sites for the 300
19 million gallon reservoir. Um, and so that's
20 encouraging.

21 MEMBER ROBINSON: Yeah, and we've also, I, I think
22 we've also heard that there's a possibility that it
23 may be split and not be...

24 CHAIR ALDRIDGE: Right.

25 MEMBER ROBINSON: All 300 million but maybe...

26 CHAIR ALDRIDGE: Yeah, split into 2 reservoirs.

27 MEMBER ROBINSON: Into 2.

1 CHAIR ALDRIDGE: So, thank you very much. Um,
2 perhaps what we need to do is um, ah, and I'm
3 reminded of ah, we'll talk story here, ah, when I
4 was a officer in the U.S. Public Health Service and
5 the privilege of witnessing rain dances on the Hopi
6 Indian reservation and maybe we can get the Board
7 to go up to ah, the Upper Kula system and do a rain
8 dance together.

9 (laughter)

10 CHAIR ALDRIDGE: If only that would work.

11 MEMBER ROBINSON: You never know.

12 CHAIR ALDRIDGE: You never know. Let us move on to
13 the next item. Um, Discussion regarding How Much
14 Water is Needed to Serve All the Applicants On the
15 Upcountry Priority List, the favored question of
16 mine I've raised a number times, so. Eric? Have
17 you, are you prepared to do any song and dance on
18 this?

19 MR. YAMASHIGE: Let me try to ah, give you an idea
20 of what this might mean. Um, the County Council or
21 Water Resources Committee did ask us how many
22 meters and how much water would be needed to
23 address the first 200 people on the meter list.
24 Um, that the answer to that um, based on the May
25 15th, 2008 list, the first 200 people on that list
26 equates to 370 meters. Ah, 370 meters means brand
27 new meters or upgrade of meters right, it's on that

1 number, ok? The 370 meters equates to
2 approximately 350,000 gallons of water a day. Um,
3 you know, these are planning numbers so, I mean,
4 take it for what it's worth. So, I did a little
5 bit of math, um, there are currently 1,312
6 applications on the meter list.

7 MEMBER HALLER: How many?

8 MR. YAMASHIGE: One thousand three hundred twelve.
9 Ah, then you divide that by 200, you multiply that
10 by 350,000, it comes out to about 2.3 million
11 gallons a day. Um, assuming we're gonna use a well
12 to, to provide this water, at the 45% um, return
13 we're looking at developing 5 million gallons of
14 source. Now, um, you know again these are simply
15 calculations ah, you can check my math, but it's,
16 it's simply a, an order of magnitude. So, there's
17 a lot of water on that list.

18 CHAIR ALDRIDGE: I'm sorry Eric, I missed the, the
19 first, how many were on the list now currently,
20 1,000 and what?

21 MEMBER ROBINSON: Three hundred and twelve.

22 CHAIR ALDRIDGE: One thousand three and twelve.
23 Um, I have a question on that 45%, I know that was
24 in the Piiholo Agreement. What exactly does that
25 represent when you say, 45% of the estimated um,
26 yield from a well?

1 MR. YAMASHIGE: Um, I, I'll use a 1 million gallon
2 also it's easier for me to figure this out. Um, if
3 the well is rated to produce 1 million gallons a
4 day um, the first 2/3, and it's 2/3 of 2/3, which
5 comes out to, the remainder is um, about 45%. The
6 first 2/3 is the inverse of um, average day to max
7 day, 1-1/2 times. Um, so if the average day was a
8 million gallons a day, the max day would be 1-1/2
9 million gallons a day. So, that's the first 2/3.
10 The second 2/3 is a 16 hour run time instead of a
11 24 hour run time. Um, and that's just to take into
12 consideration the time that the well might be down
13 for maintenance or um, might be down for repairs.
14 So, the way the Department looks at the capacity of
15 a well is 2/3 of 2/3 or 45% of the actual um, rate
16 of capacity of that well. Now that's, that's the
17 way it's computed that doesn't mean that that's the
18 way it has to be run. And if you run it more than
19 45% of the capacity then you, of course you run the
20 risk of more, of more maintenance and more likely
21 to have something else failing.

22 CHAIR ALDRIDGE: Let me see if I understand this.
23 If you had an area that needed a million gallons a
24 day um, based on their consumption, average daily
25 use, 1 million gallons a day and you were to drill
26 and, and design a well for that purpose, you would
27 look for a well that could produce 2 million

1 gallons a day, roughly or, or a little bit more
2 than that actually, um, and would you actually then
3 install pump capacity for that, let's say 2.1
4 million gallons a day?

5 MR. YAMASHIGE: Yes.

6 CHAIR ALDRIDGE: Ok. But you would expect it to
7 only deliver on the average 45% of it's installed
8 capacity, is that correct?

9 MR. YAMASHIGE: The, the max day, the average day,
10 the max daily average day thing comes into play
11 because um, it has to meet that maximum daily...

12 CHAIR ALDRIDGE: Right.

13 MR. YAMASHIGE: And, yeah, if it, if people are
14 using on the average then, yes, 45%.

15 CHAIR ALDRIDGE: My principle question was that you
16 know, whether or not you actually install pump
17 capacity for the peak day.

18 MR. YAMASHIGE: Yes.

19 CHAIR ALDRIDGE: Yeah, or peak hour, which ever it
20 is.

21 MEMBER HALLER: Mr. Chair?

22 CHAIR ALDRIDGE: Yes.

23 MEMBER HALLER: This reminds me of all the red
24 numbers in the chart that Ellen took us through,
25 yeah? That we are not running at 1 million of a
26 2.1 million capacity in most of the county.

1 CHAIR ALDRIDGE: Yeah, actually ah, thank you for
2 mentioning that, Marion, 'cause I'd like to bring
3 that back 'cause you know I'm sure that was, that
4 went through much too quickly. And as an engineer
5 I fail to understand all the numbers so, I'm you
6 know, I don't think anybody else, well I'm being
7 presumptuous here, but you know let me be
8 presumptuous and say if I didn't understand it and
9 I'm sure anybody else did.

10 MEMBER HALLER: Well, I understood it, I'm not sure
11 I could follow it all and explain it, but the
12 principle is exactly what he's saying..

13 CHAIR ALDRIDGE: Right, right.

14 MEMBER HALLER: That all the red numbers
15 represented that we were not at 45% on those
16 particular wells or in total and so we run the risk
17 of over utilizing our water capacity or not having
18 enough capacity if everybody turn the tap on at
19 once, we wouldn't have enough water.

20 CHAIR ALDRIDGE: Yeah, yeah. In general I got that
21 one too.

22 MEMBER HALLER: Yeah, that's what, I'm not sure I
23 need a lot more than that but.

24 CHAIR ALDRIDGE: Eric, we have any other questions
25 regarding this?

26 MEMBER HOLMBERG: Um, Mr. Chair.

27 CHAIR ALDRIDGE: Yes, Carl.

1 MEMBER HOLMBERG: Um, so Eric, given ah, that ah,
2 that figure of 5 million gallons of source um, what
3 was their or, or actually I guess you were more
4 addressing what would it take to clear out the
5 first 200 people on the list ah, what was the
6 reaction, any reactions to oh, there's no way we're
7 ever going to be able to do that, or did they ever
8 give any kind of response as to that was something
9 they were ever going to be willing to address?

10 MR. YAMASHIGE: Um, thank you. Um, it actually
11 didn't come up. We responded the 2 items that are
12 on the Water Resources Committee agenda right now,
13 the rules and I forget, oh and meter list. Ok so,
14 it could have come up. But they, they didn't.

15 MR. KUSHI: It will come up again on Monday.

16 MR. YAMASHIGE: Ed assures us that it will come up
17 again. Um, you're right, Marion, Marion makes a
18 very good point, you know, those red numbers are
19 all of our availability um, reports, you know it's
20 a red number because of the standard and you do run
21 the risk but when, when you step back and you look
22 at it you realize that you, you're getting the
23 water that you need right now um, and um, love to
24 pat the guys on the back because, because of the
25 efforts that they're making, we're able to continue
26 to provided the water that is needed but certainly

1 we, we do wanna try and get to that um, what you
2 call that, that level of confidence, I guess.

3 MEMBER HALLER: I'm sorry I have a, I need you to
4 go back and help me understand how you got to 5
5 million gallons source to service all the list.
6 And the reason I have a question is, what is the
7 average use of a meter, my household meter is about
8 what we calculated at 30,000 gallons a month,
9 right, is about what we're looking at for a
10 thousand gallons a day.

11 MEMBER HOWDEN: Six fifty, I think it is.

12 MEMBER ROBINSON: Six hundred fifty gallons?

13 MEMBER HALLER: Gallons a day.

14 MEMBER ROBINSON: Per...

15 MEMBER HOWDEN: Per 5/8 residential meter..

16 MR. YAMASHIGE: Ok.

17 MEMBER HOWDEN: more or less.

18 MR. YAMASHIGE: When you look at the first 200
19 meters on the current list um, Engineering has, has
20 a list, number one is asking for 5 meters, number
21 two, ok so, the first 200 resulted in about 370
22 meters.

23 MEMBER HALLER: Two hundred names on the list equal
24 370 meters?

25 MR. YAMASHIGE: Yes.

26 MEMBER HOWDEN: First 200.

1 MR. YAMASHIGE: Just the first 200. And those
2 first 200 meter ah, 200 applicants or 370 meters
3 equated to about 350,000 gallons of water a day.
4 Ok, and that's simply based on the first 200. Now,
5 what I did was I took my math education and simply
6 took 200 and applied it to 1312 and came up with
7 2.3 million gallons a day.

8 CHAIR ALDRIDGE: By ratio.

9 MEMBER HALLER: Ok.

10 MR. YAMASHIGE: Just by ratio, yeah.

11 MEMBER HALLER: Ok, then where I disagree with you
12 on that is when last time I looked at the list the
13 number of meters that on the average um, a name
14 represented was close to 4. If you look at the
15 bottom of the list the total number of meters
16 versus the total number of names on the list is
17 almost 1 to 4. So that's where I think you're...

18 MR. YAMASHIGE: Ok. Yeah, and I didn't go through
19 that kind of evaluation.

20 MEMBER ROBINSON: You just didn't first 2...

21 MEMBER HALLER: Well if you did math out...

22 MR. YAMASHIGE: Yeah.

23 MEMBER HALLER: If you did the math out just on 1
24 to 4, it would be the source required is almost
25 doubled what you're...

26 MR. YAMASHIGE: Oooh. I, I like mine numbers...

27 (laughter)

1 CHAIR ALDRIDGE: Unfortunately, it's not a matter
2 of liking or not. We're gonna have to give you a C
3 plus on your math.

4 (laughter)

5 CHAIR ALDRIDGE: Ok, well, appreciate that um, you
6 know, I, I, just an item here that I'd like to say,
7 it's out of turn at the moment, 'cause we will have
8 to discuss it at the receipt of board member
9 requests for agenda items but ah, what you had just
10 mentioned about some of these items at the Water
11 Resources Committee, it would nice if, if this
12 board were actually provided with some that
13 information before we saw it just on the Water
14 Resources agenda. Um, so that at least we would
15 know what, what's, what's being requested of the
16 Department um, in case we have comment or input to
17 it, whether or not we're requested.

18 MEMBER ROBINSON: This is in regard to the um, to
19 the people on the list and some of the issues
20 around it. Um, at a meeting with the Mayor 2 weeks
21 ago um, we were talking about food security um,
22 this was a Maui Tomorrow ah, sub-committee that I'm
23 on. It's a sustainability sub-committee and um, we
24 asked the Mayor about catchment and um, she said
25 that it was ah, high on her list to get the law
26 changed and this is a law that I wasn't familiar
27 with but um, you cannot in the County have a

1 catchment system and have County water. It's an
2 either or situation and she felt that that
3 dissuaded people from doing catchment. And so, she
4 was going to make it part of her um, you know, list
5 to address this and get that law changed um, so I
6 don't know how many people knew about that. Um,
7 but ah, maybe the Deputy Director could speak to
8 it, and you have something say, Marion?

9 MEMBER HALLER: I know a number of people who do
10 catchment Upcountry for their um, watering their ah
11 gardens and their vegetables, nothing stops you
12 from that. What you can't do is tie it in so that
13 it back flushes and, and um, what's it called,
14 contaminate your, your water system.

15 MEMBER ROBINSON: I see.

16 MEMBER HALLER: So. It's a sanitation issue.

17 MR. YAMASHIGE: Thank you.

18 MEMBER ROBINSON: That's what you were gonna say?

19 MR. YAMASHIGE: Exactly, um, there's nothing
20 keeping you from putting up a tank or some kind of
21 catchment um, as long as it doesn't intermingle
22 with the public water system. Where we have a
23 problem is where you want to subdivide your
24 property and you wanna, because you cannot get a
25 larger meter, you wanna add catchment as part of
26 your source, then we don't recognize that um, as
27 meeting that requirement. Now if you, so you

1 cannot have both, if you wanna go solely on a
2 private water system, and it takes it out of our
3 jurisdiction then you can do that. It's just that
4 as um, Marion said, the, the concern of cross
5 contamination is, it is a big one and um, you just
6 gotta be careful when you, you can have a private
7 water system like that.

8 MEMBER HALLER: However another, another stops us
9 from designing a system that allows catchment to
10 flush your toilets, right, so, that it's totally
11 separate from, I mean if you, if you plumb the
12 house that way and a, an inspector inspects it and
13 certifies yep, the 2 systems are not mingling, then
14 I mean there are, I would think solutions to this
15 where you could use more rainwater.

16 MR. YAMASHIGE: You know it, there, there are so
17 many things that are being done you know like outs,
18 elsewhere um, that maybe um, implementable I guess
19 on Maui. Um, one, one thing that the Department of
20 Health has a concern about is, is cross connection,
21 especially when it gets into the home because
22 there's nobody, I mean you can go and do the
23 plumbing on the toilet and something happens, if
24 you put it or connect it to the wrong pipe, you
25 know, I might do it at home and I don't know enough
26 to do it right. So um, what I've been encouraging
27 is if, if there's gonna be something like that and

1 commercial developments can do that, ok, especially
2 in the Kihei area where the wastewater division is
3 providing reclaimed water for irrigation. These
4 are only allowed on commercial because commercial
5 requires a backflow preventer on their potable
6 water system. If they go and cross connect
7 somewhere on the property you know, they might mess
8 themselves up but that backflow preventer will
9 protect the public system. And if we ever go to
10 someplace where the Department of Health is gonna
11 allow you to use um, the dual water system, then I
12 would hope that we would require backflow
13 preventers on every service that would have that
14 condition. I totally agree um, to us, you know we
15 have use whatever resources we can get. You can
16 catch water um, to irrigate your, your lawn
17 whatever. It's a great idea, just gotta watch the
18 mosquitoes yeah?

19 (laughter)

20 CHAIR ALDRIDGE: Thank you, Eric. Um, let's move
21 on bar, barring any other questions on this item,
22 let's move on to the Discussion regarding the
23 Central Maui Water System and West Maui Water
24 System. Um, again, um, Eric um, I'd like to see if
25 there's any comment that you have regarding current
26 use and demand projection.

1 MR. YAMASHIGE: I'm gonna ask that um, we defer
2 this. Ellen is on Lana'i and she, she has those
3 charts with all that red numbers on it and that,
4 that might be something she can explain to you.
5 Um, I could do a little bit but it's probably not
6 gonna give her justice.

7 CHAIR ALDRIDGE: I have no objection if the other
8 board members have no objections for deferral. Um,
9 Michael, you have a question?

10 MEMBER HOWDEN: Yeah, um, I just like to make a
11 comment and point out to the Board that on pages 12
12 and 13 um..

13 CHAIR ALDRIDGE: Of?

14 MEMBER HOWDEN: We have Gaye's minutes, of our
15 minutes of the May 22nd meeting. Um, and I just
16 think it's something that, that we need to be
17 prepared to act on, um, that we really don't have
18 water for Central and South. Um, we got those
19 little spreadsheets last time that showed average
20 use Upcountry, Central um, Kihei, Wailea, where
21 they have those streams running down the road at
22 night. Um, you know, I mean, where the, where the
23 average use was in the thousands of gallons a day
24 per person. I mean, obviously you need that to ah,
25 create that kind of quasi-rainforest in, in desert,
26 coastal desert. But um, I, I, I would just urge

1 the Board to really look at this and be prepared to
2 act next time around.

3 CHAIR ALDRIDGE: I appreciate that comment,
4 Michael. Um, Marion?

5 MEMBER HALLER: Yeah, I just wondered how we're
6 doing in terms of um, water supply down there, you
7 know, we, we stay so well informed about the
8 Upcountry system, what is the status of the
9 drought, we're in drought watch in Central? What's
10 the status there?

11 MR. YAMASHIGE: Ed, Ed will jump in if I mess this
12 up. The only place that we have the structure, I
13 guess, for this drought watch, drought warning and
14 drought emergency is Upcountry. Um, there is no
15 structure for the rest of the island. Um, we have
16 requested ah, conservation where, what is that, the
17 10 percent voluntary? And that has been on for
18 since the last, last year I think we asked for
19 that. Um, Water Resources um, and the Department,
20 Water Resources Committee of the Council and um,
21 the Department, we are looking at conservation, a
22 conservation ordinance for something that initially
23 will probably only address um, irrigation um, but
24 that's something that we feel um, how else do you
25 use a thousand gallons a day, yeah. But that's
26 something that we're trying to work on and with the
27 Water Resources Committee and the County Council it

1 would be come along um, and that would initially
2 address irrigation. The other item I can't say too
3 much 'cause we, we're not that far along with that
4 one is. You're right um, I, I don't know how many
5 of you actually look at your water bill and you
6 know watch those charts and say wow, how do you
7 lessen. Um, it's pretty you know, I know Director
8 Eng and I compare sometimes and he has 2 people in
9 his, he and his wife, yeah. This summer my, my
10 children are home so we have 4. Ah, it's a little
11 challenge we try to um, use as little water as we
12 can. He's winning.

13 MEMBER HALLER: Um, I was just...

14 CHAIR ALDRIDGE: Marion.

15 MEMBER HALLER: Reminded of a conversation the
16 other day when I was talking to someone and I
17 thought we, we might have to declare a drought
18 watch, at this time I forget which one it is that
19 go next, warning at this point, and um, a couple
20 people joked in the, in the discussion was, oh, I
21 gotta better hurry up and run up my water bill
22 because if the, if it becomes the measure of me
23 cutting 10% I don't want to use this low water bill
24 that I got going 'cause I'm watching my water
25 usage, you see where I'm going? And so, I thought
26 it was like wow their gonna spike their water bill
27 so that what they're measured against is higher as

1 opposed to lower, so that's an interesting thing to
2 keep in mind if you're gonna call it the next
3 phase.

4 MR. YAMASHIGE: Yeah, there's a couple, yeah,
5 there's a couple things in there. It, it, we don't
6 look at your previous water bill to determine what
7 10% or whatever it's gonna be. We look at it a
8 year ago and it's an average. So, you can't run it
9 up this month because oh, next month it's gonna be
10 higher yeah. That's one thing. The other thing is
11 um, at least for that Upcountry area, you, you're
12 already using less than 400 gallons a day, which is
13 actually quite high anyway, um you didn't, you
14 wouldn't have received a letter um, for the
15 mandatory cut-back. Um, that 400 number, that was
16 developed sometime ago so I'm not real familiar
17 where that came out. Um, so not everybody's gonna
18 get it. But we would certainly encourage everyone
19 to participate in that cut-back, even if you didn't
20 receive that letter.

21 CHAIR ALDRIDGE: Thank you, Eric. Um, actually 400
22 gallons per day would not be that high if you have
23 4 or 5 people in your household. Um, it would some
24 with irrigation.

25 MR. YAMASHIGE: Ok. I would get all of you to
26 start thinking about how much water you use. I
27 think it's documented that 50 gallons per day per

1 person is as much water as you, you supposed to use
2 yeah.

3 CHAIR ALDRIDGE: Indoor.

4 MR. YAMASHIGE: Yeah. Um, I have a daughter,
5 teenage daughter, so..

6 CHAIR ALDRIDGE: That's 200 right there.
7 (laughter)

8 MR. YAMASHIGE: Not, not quite. But ah, that
9 throws off our..

10 MEMBER ROBINSON: Yeah, your average.

11 MR. YAMASHIGE: Something to think about when, when
12 you look at your water consumption.

13 CHAIR ALDRIDGE: Thank you, Eric. Any other
14 comments? Um, let's move on to ah, Receipt of
15 Board Member request for agenda items to be placed
16 on future agendas, and before I ask individual
17 board members items that they may have, or wish to
18 have. I'd like to ask ah, the commission clerk,
19 Gaye, to just remind us of what's been deferred and
20 what we're expecting at this point to bring back at
21 the next meeting, just because I can't even
22 remember what, what it is and..

23 MS. HAYASHIDA: Well, offhand um, there's the
24 Piiholo Well Agreement.

25 CHAIR ALDRIDGE: Ok.

26 MS. HAYASHIDA: Um, we are having Garrett Hew come
27 to discuss the maintenance of the in-takes and the

1 flumes. Um, and again the on-going agenda items
2 would be Upcountry and the um, Central Maui. So,
3 um, right off the bat that's all I can think of.

4 MEMBER LUCK: Potentially the appeal as well.

5 MS. HAYASHIDA: And the appeal.

6 MEMBER LUCK: If the guy comes back.

7 MS. HAYASHIDA: Well, we're gonna have an appeal
8 anyway, whether it's Mr. Behnke or the next appeal
9 on the list. Did you wanna hear the new, if Mr.
10 Behnke doesn't come back, if they settle it, did
11 you wanna go on to the next appeal?

12 CHAIR ALDRIDGE: I don't think we can make that
13 decision at this point. It's not on the agenda to
14 make a decision like that.

15 MS. HAYASHIDA: Yeah, yeah.

16 CHAIR ALDRIDGE: Um, but I presume we would just be
17 moving on anyway if one doesn't come up..

18 MS. HAYASHIDA: Yeah.

19 CHAIR ALDRIDGE: The other will. Um, so let me
20 take receipt now of any requests items for the
21 Board agenda. Phyllis.

22 MEMBER ROBINSON: Ah, yeah, I had a conversation
23 with ah, Carl Freedman um, for, and he's been
24 working on the Water Resource Management Plan and
25 ah, they're ready to give our Board a update, so he
26 asked if I could get them on to the agenda.

1 CHAIR ALDRIDGE: Oh, that would be great, that
2 would be absolutely welcomed.

3 MEMBER ROBINSON: Ok.

4 CHAIR ALDRIDGE: Thank you.

5 MEMBER ROBINSON: And the other is the um, I'm part
6 of the South Maui um, sustainability group and we
7 had a guest speaker um, ah, who is involved in um,
8 photo-voltaics, he's been ah, um, he's been ah, an
9 advisor to MECO. His name is William Bennett,
10 maybe some of you know him. Um, he's a lecturer in
11 sustainable technologies. Um, and I addressed with
12 him the um, issue that was brought up by Director
13 Eng about why ah, the issue of pumpage and what it
14 costs the County to pump water um, and the fact
15 that we have these energy working groups happening,
16 alternative energy and why isn't this being
17 addressed by these working groups because it's you
18 know so important. And so I asked um, Mr. Bennett
19 if he could address that and he is actually on one
20 these working groups and he was not aware of this
21 issue, which was part of Jeff's, surprise that it's
22 not being talked about and so he said that he would
23 be not only happy to bring it up at his working
24 group um, about um, some um, innovation going in to
25 how to um, how to pump water using alternative
26 sources but he also said that he would be happy to

1 come to our Board of Water Supply and talk to us
2 about that, so.

3 CHAIR ALDRIDGE: Sounds like it is well worth it.

4 MEMBER ROBINSON: Yeah, so.

5 CHAIR ALDRIDGE: Thank you. Any other items?
6 Michael?

7 MEMBER HOWDEN: Um, I assume we've agreed to have
8 Ellen come back and make a presentation um, and I'd
9 also like to ask, I dunno know if any of the other
10 board members might be interested but I would love
11 a tour of the Piiholo intake system. I think it
12 would really help us in terms of understanding the
13 current situation, I, I don't know if other people
14 would be interested in that as well but I would
15 really like to have a tour of that.

16 CHAIR ALDRIDGE: Yeah, I appreciate that. I think
17 that, that would be a, an excellent ah, opportunity
18 to see the in, the other Upcountry intake system
19 that we did not see in the previous tour.

20 MEMBER ROBINSON: And the Central Maui system which
21 we never...

22 CHAIR ALDRIDGE: That's right, in fact we had
23 talked some time back about getting an opportunity
24 to see the other systems in, in the ah, overall
25 island. So just keep that in mind, Eric? Try and
26 schedule something like that? Any other ah, items
27 um, Scott?

1 MEMBER LUCK: I just wanted to go back to what we
2 were talking before about when, when we're gonna
3 get derailed by the budget stuff that usually takes
4 like a meeting and half I think. Is, is it
5 September typically?

6 CHAIR ALDRIDGE: Eric, you have a comment on..

7 SEVERAL VOICES: Usually October, October.

8 MEMBER LUCK: Is it October?

9 MR. YAMASHIGE: Wow, I'm, I'm glad you're looking
10 that far ahead, 'cause the 2009 Budget was just
11 recently approved, and we're, we're not even in
12 that 2009 year but, Lee, I think it's little later
13 in the year.

14 MEMBER LUCK: Ok.

15 MR. YAMASHIGE: It does, we do have to start on
16 that again.

17 MEMBER LUCK: Well, it seems like it's always the
18 same time and it always takes up one full meeting
19 for sure and then half of the other, the follow up
20 or when there's a workshop or something like that.
21 So, in looking to our list of appeals again which I
22 fear is growing, I'm just still back to the same
23 thing of I still think we need to come up with a
24 game plan to try to handle um, the cases that are
25 coming up as well or whatever we, we're bringing
26 to.

1 CHAIR ALDRIDGE: I'd like to add to the agenda for
2 next week, discussion on um, ah, the ah, pre-
3 hearings for these contested case ah, hearing
4 appeals.

5 (silence)

6 CHAIR ALDRIDGE: And I guess following um, Scott's
7 question about the ah, budget is appreciate um, the
8 Department giving us as, as much advance notice as
9 possible regarding ah, the budget process.

10 MR. YAMASHIGE: It's coming.

11 CHAIR ALDRIDGE: It's coming.

12 (laughter)

13 CHAIR ALDRIDGE: I also want to add one item that
14 I'd mentioned earlier and that is um, the um,
15 getting um, notification and, and supporting
16 documents from the Department regarding these,
17 these re, these items that go to the Water Resource
18 Committee, I mean to wit, the reg, the rules and
19 regulations that they're looking at. Um, we may or
20 may not have seen them in the past and I think that
21 they've asked for our comments but I'd just like to
22 see what we, they've actually proposing to act on
23 and, and also this issue with the Upcountry meters
24 that they've requested to attempt to get
25 information on, I think be advisable to provide
26 that to us as well. Appreciate that. Anything
27 else? Hearing nothing ah, Communications, none.

1 Director's Report, do you have anything here?
2 None? Ok. Division Reports, um May 2008 Division
3 Reports, ah is there any comments, corrections to
4 it? Um, Financial Summary as of March 31st, 2008,
5 ah is there any comments? We don't need to take
6 any action on this, this is...

7 MS. HAYASHIDA: Just for...

8 CHAIR ALDRIDGE: Just for information, right. Ok.
9 Alright, well, just, it's amazing how quickly we
10 get through without an appeal.

11 (laughter)

12 CHAIR ALDRIDGE: So, thank you very much everyone
13 and the meeting is adjourned.

14 (The meeting concluded at 10:35 a.m.)

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Board of Water Supply
Regular Meeting
June 26, 2008

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Prepared and submitted by:

Gaye Hayashida
Commission Support Clerk

Approved on: _____