

County of Maui Water  
Supply

BOARD OF WATER SUPPLY

COUNTY OF MAUI

BUDGET WORKSHOP

Thursday, May 30, 2002

9:00 a.m.

Volume II

Kahului Shopping Center

Kaahumanu Avenue

Kahului, Maui, Hawaii

Reported by: Katherine Eismann, RDR, CRR, CSR #439

APPEARANCES

CHAIRPERSON:

PETER RICE

Vice Chairman:

MICHAEL NOBRIGA

Board Members:

KENT HIRANAGA

JONATHAN STARR

MICHAEL VICTORINO

CLARK HASHIMOTO

Corp Counsel: EDWARD KUSHI

Director: DAVID CRADDICK

Deputy Director: GEORGE TENGAN

Board Secretary: FRAN NAGO

Engineering: HERBERT KOGASAKA

Staff: ELLEN KRAFTSOW

HOLLY PERDIDO

(Thursday, May 30, 2002, 9:11 a.m.)

CHAIRMAN RICE: All right. Let's go. I am going to reconvene -- is that the correct term -- following our meeting on the Budget Workshop.

It's May 30th. We are in Kahului Shopping Center.

Present is Clark Hashimoto, Mike Victorino, Mike Nobriga, Jonathan Starr, and myself.

Director David Craddick, staff, and Corp Counsel, and Ed Kushi, Junior, who is set to walk in any second. We

left off with discussion of CIP projects, I believe.

So, Mr. Craddick.

MR. CRADDICK: Okay. In your package there, we have the little overview of the proposed budget outlining \$32 million in projects. And it should be noted that 20 million is included in this projection for possible land and office space acquisition to be funded by a bond issue.

This provision -- excluding this provision, the budget outlines 12.2 million in projects. The budget proposal projects one million being transferred from the operating revenue fund for CIP projects.

And depending on the board's decision regarding proposed bond issue, an additional one to two million could be available for CIP projects.

The majority of the CIP represents projects that are carryovers from fiscal year '02. The budget reflects a continuing emphasis on pipeline replacement with 4.8 million targeted in this category. About 2.3 million is allocated to projects related to the distribution of withdrawals to the Iao aquifer.

And there's two items that are not in that

presentation. One was handed out at the earlier part of the Budget Workshop, where the Keanae well, which is 200,000, Kupaa well, a little over 900,000, the Kula waterline, 700,000, Wailuku Town waterline 50,000, and Mill Street waterline 33,000, for a total of 1.9 million that was supposed to have gone out in this year's -- this fiscal year.

And those projects, I believe, engineering is saying now they will not get them out this year. So, those projects did not show up as funds available in this budget. So, by adding this 1.9 million in projects to the 12.2 million, there will be funds for that, because there will be additional carryover from this year.

The other item is the East Maui Development Plan pipeline project. The job was bid in 1994, and some amount of money will have to be allocated for escalation of that contract. And that's all.

So, I will turn it over to Ellen.

CHAIRMAN RICE: Mr. Starr.

MR. STARR: One thing that sticks out, in my mind,

is having this 20 million-dollar bond issue handled as just a regular part of the CIP. And I think it kind of skews the whole -- the whole thing. And this was something that may or may not happen, may or may not happen this year. I mean, it's a significant number.

My feeling is that it shouldn't be in the regular CIP budget, but it should be handled some other way. And then if it happens, you know, the money is coming from a bond, it's not coming from the fund. So, I would prefer to see it developed in a different manner, you know, not in the regular CIP budget.

CHAIRMAN RICE: Is it technically in the CIP budget? Don't the monies for a potential bond issue really just show up as debt in the debt service which would be the operating debt service?

MR. CRADDICK: That's correct. And it does show up there.

CHAIRMAN RICE: Right. So, there's actually no money, as I -- as we went through the first section, Jonathan, I believe when we got to the debt service on the operating

budget, we had added basically \$2 million in debt service.

There is no cash being budgeted for either of those projects, I don't think. And I don't think I see them here. The bond issue is listed as a bond issue, but that's not -- if I am correct, that's not cash that we are providing.

MS. KRAFTSOW: It is something that gets -- the stuff that we bill to purchase with is stuff that would be part of our capital improvements. So, the way the CIP program is set up, you can sort things out by source of funds. So, those two items would be held separately as bond issue items. So even though they show up in the CIP, they wouldn't show up in the total for any other source of funds right now.

CHAIRMAN RICE: I see what you are saying. Why did they have to show up here?

MR. CRADDICK: Are you questioning whether they are capital improvements?

CHAIRMAN RICE: No, I am just wondering. It's not -- it's these funny accounting things. It's not cash that we are allocating from our CIP budget. I think that's Mr. Starr's point. If someone was to read this wrong, they'd say, "God, why are you taking \$20 million out of your capital improvement budget?" You are not.

MR. STARR: I see the -- you know, as Mr. Craddick expressed, we have the 32 million-dollar capital improvement budget this year. And I -- I think, realistically, we have a 12 million-dollar capital improvement budget with, you know, a special project that may occur, you know, that will be bonded separately.

CHAIRMAN RICE: Yeah. Yes, Mr. Craddick.

MR. CRADDICK: In 1998, the CIP was prepared with the assumption that there would be a 12 million-dollar bond issuance. We ended up only issuing \$10 million in bonds that year, but the pipeline projects did get listed. It just showed that they were funded out of the bond proceeds. So --

CHAIRMAN RICE: Well, yeah. I think once the transaction occurs, then there is an entry for that asset. There is no question.

Mr. Nobriga.

MR. NOBRIGA: I would like to suggest that we go through the presentation that has been prepared, and then we come back to discussion concerning the budget. Because there are -- there is one amendment that is being requested, and there is also this matter of the bond issue, that I think we can take care of very easily with an amendment.

CHAIRMAN RICE: Okay. Good suggestion. Go ahead.

MR. CRADDICK: Well, wait one second, Ellen. The things that we talked about at the last meeting, whether you wanted to -- the membrane items were a repair and maintenance item or a capital improvement. And the -- we have a handout on that from the treatment plant, and I will pass that out here while Ellen is giving her presentation. It's about \$120,000.

And the other item that we talked about was

whether we were going to do anything with USGS on the drilling rig program. And from the sounds of things, they don't have matching funds, so we would be looking at closer to eight or \$900,000, versus the 450 that is normally put in.

And then one item, while we were going over the equipment items, there was one chlorine containment item that is \$75,000 that would also have to be added into this.

So, Ellen.

MR. NOBRIGA: Excuse me, Mr. Chairman.

CHAIRMAN RICE: Yes.

MR. NOBRIGA: So, for the record, you are requesting amendment to the portion of the budget that we reviewed at the previous part of this recessed meeting?

MR. CRADDICK: Other than the amendment you wanted to take the membranes out of the -- the operating portion of the budget.

MR. NOBRIGA: You start and stopped there, so I get confused what you are saying sometimes. Go ahead.

CHAIRMAN RICE: Those things you listed, Mr. Craddick, would be amendments to the CIP budget, I believe.

MR. CRADDICK: Yes.

MR. VICTORINO: You drink too much of this tea, Mad River Tea.

MS. KRAFTSOW: So, Dave asked me, before we go into the discussion of the Capital Improvement Budget itself, to just give you a brief explanation of how the Capital Improvement Program is put together, because there seems to be some need for that.

So, the initial development of the Capital Improvement Program occurred in about 1994, and it's been undergoing steady revisions since then all with in-house staff.

I am going to go over a little bit how that program was developed, and then I will give you some visuals that will help to explain that further, a description of how projects were selected and prioritized, and describe some of the continuing improvements we are making to the ongoing Capital Improvement Program, and then we will get to this year's CIP.

The initial preparation began with -- we didn't have GIS at the time, but it began with identification of substandard areas and particularly substandard pipelines based on review of fire protections maps, their size, then material and age, whether or not we were getting frequent breaks or complaints, and also we actually hand-colored zoning and community plan designation onto fire protection maps, so that we could see to help prioritize where lines were undersized for the designations.

We also did an inventory. Obviously, I didn't get everything. You just see the treatment plants weren't in there. At the time, we were still building the treatment plants actually. They never did get added yet though. But we did inventory pumps, and tanks, and reviewed the staff at what schedule they typically need to be replaced.

So, there was an inventory element. Then we looked at capacities by system, and, in some cases, where we could, even by subhistory, reviewed the existing capacities. And we ran some forecasts on our consumption.

We also looked at the planning department's forecast, and we compared those to what we knew about our capacities and plant projects to see what additional storage. And, so, those needed to be scheduled.

We looked at existing area and regional plans. There were regional plans for Upcountry. There were regional plans for Lahaina, and looked at the capital and maintenance suggestions in those plans.

Finally, all of this was discussed and reviewed, particularly with the engineers, but also with the operators, and we got public testimony. We do get -- every, every request for capital improvement that comes in results in, at the very least, an unscheduled project review of what this project would look like.

Then, to compile all this and analyze it for preparation of the plan, there was an initial cost and expenditure analysis, which basically consisted of first a

review of historical data on expenditures. At the time, what did we think we actually could do in a year, and what did we think we would need to do to get the priority budgets done in that timeframe. And then there were anticipated costs. Some of those were regional plans, hired design costs. Some of them were able to be updated based on recent project costs.

We discussed with Herb and other engineers and came up with cost calculation factors by which I calculated the cost of virtually every project in the program, which is reviewed and updated annually except for where there are specific engineered estimates.

Then we -- aside from the inventory, we began the mapping inventory for the GIS of all the pipes and systems. Every single time you see a map of our system, every one of those pipes was entered independently. Anytime you see any data attached to those pipes, colored by age or diameter, all of that information had to be entered, too. This takes years to do.

We also -- again, I guess this is sort of a repetitive thing. We looked at community plan designations and so on versus small lines. Compiled all this into data-based tables. Right now there are about six main master

tables for the CIP plan which are linked together with a process called referential integrity. And through a series of inquiries and reports, you can generate information.

And we began the effort, which is going to tie this capital improvement program to the graphical representation, so that we can show it to you initially using that stuff.

Okay. Now, this is a slide you have seen before in pretty much every year's CIP information hearing on how projects are chosen, but I am going to go into it again, because I am going to show you and describe what that means.

Okay. So, first, we looked at regular requirements and resource protection. That would be things like getting out of the Iao aquifer or building treatment plants.

Inventory and replacement histories, that would be how many pumps do we have, where are they, how old they, when do they need to be replaced, those kind of things, breaks, flow, pressure problems. We have a break report that comes in every year.

Reliability and considerations in system status,

this is like -- ties into both breaks and also what's this -- what's the material of this pipe, how old is it, et cetera.

System trends, that's the demand forecasts and growth versus needs. Community plans, zoning consistency, board priorities, and community input, sometimes there are projects that come up just based on a lot of public desire.

I won't go into the regulatory requirements and resource protection. I think you are all familiar with how that can dictate a capital project priority.

The inventory and replacement history, this is just a sample set of data about our pumps. In some cases, we didn't have necessarily the best data about when it was replaced or installed, but we put together as much as we could, and we are continuously updating that.

System breaks, this is a partial plot. It just shows some -- the most frequent Upcountry and Central Maui breaks, but those went into replacing -- making a priority. You can see the gold dots there are the breaks.

CHAIRMAN RICE: Ellen, excuse me. Backup to that one slide, please. Could you just explain the colors or is there just one color?

MS. KRAFTSOW: The black lines are the TMK parcels around the island. Probably it makes it too busy. I probably should have turned that off, but it helps some people locate themselves.

The blue lines are just our pipelines, and the gold lines are the breaks. And like I said, I prepared this visual. I only plotted the ones for -- pardon me -- for Central Maui and Upcountry, the most frequent breaks.

MR. NOBRIGA: Can we access this map on the internet?

MS. KRAFTSOW: No, but that could probably be arranged. That would be up to the board and the director. Right now, it's not set up that you can. I can't even put the whole arc view and Capital Improvement Program on this laptop, so I am just showing you the power point on it.

MR. NOBRIGA: Once it would be on the internet, would we have zoom in capabilities?

MS. KRAFTSOW: There are securities issue with what you post on the internet, so that would be a separate discussion. I don't currently have the programming capability to do web and arc programming together. I would love to learn, but it could be done.

You know, I know people who can do it. I could arrange for a contract to do it, but then there are securities issues that need to be dealt with, too.

MR. NOBRIGA: Never mind.

MS. KRAFTSOW: Okay. Breaks, flow, pressure problems, and optimization. This is just a close-up of what I showed you before. These are the breaks, and it's really too bad that it's -- I guess I picked an unfortunate color.

This is showing pipelines by diameter, and it's showing also -- the CIP is in the light lavender, and you are not really seeing the light lavender as well as I hoped up. But, it shows up beautifully on my computer monitor. But this is a close-up showing you how a break would tie into a CIP.

This is another tool that we will be bringing in to help us with the CIP. We do not yet have this data in the

hydraulic model at a level and linked adequately that we can use them for design of the CIP or even -- or even, really, prioritization yet. We need to still calibrate those models -- the model. I mean, still get the scale more directly to --

MR. NOBRIGA: All these yellows, these all are breaks? These yellows? These are all breaks, these yellows?

MS. KRAFTSOW: No, actually, this plot is -- on the left is a run, a sample run from our model that is plotting pressures. And the legend that you see there -- the red is below 20 PSI, and the orange is below 40, and the yellow is below 60. Basically, you would look at the red areas. For extremely high pressures you might also look at the -- whatever color I made that -- olive or brown.

MR. HASHIMOTO: Ellen, could you just reproduce that and instead of these smaller sizes --

MR. NOBRIGA: It's over there.

MR. HASHIMOTO: If you have it on a full-size page in color, you would be able to see it, right?

MS. KRAFTSOW: Yeah, I can print you out --

MR. VICTORINO: A full size, please.

MS. KRAFTSOW: Yeah, I can do that. This is just to show you sort of what's coming, and where some of the work is going to update the CIP and continue to improve it.

Reliability and systems status, one of the things that would go into that is how old is the pipe? If it's really, really old, there is a chance it's going to be less reliable. It's hard to see, except that even from where you are sitting, you can see if it's red, it's going to be old.

If you think of a rainbow, Roy G. Biv. I made all of these slides for you, so if you look at any one of the slides, whatever is red is a problem. Okay. So, whenever you are seeing red, you know it's probably a problem.

Diameter, same thing, the really small ones would be red. I do close-ups of these later, so this is just --

this is the kind of thing. And you will also see -- well, you don't see it very well, but wherever there is brown, it's listed as unknown. That means either we haven't entered it yet. Often with age, though, what it really means is that it's really old, and there weren't as-builts.

So, another interesting thing you can see here is the kind of maroony color around Kahului, that's all AC pipe. Here is an example. This is a CIP project that we did in the past Alanui and Halama Streets, and this is by age. And you see how those -- the line going across one of them is red and the other two lines are brown. That is because it's a real old project, so when we zoom in, you see what's old.

So, here is an example of age. And if you look at this, this is the same thing. This is the age plot. The brown is probably really, really old, and that's our CIP overlays. So, you can see pretty much all the brown, except where there might be a lavender that we might not even want to replace. The one at the bottom there, where there is a yellow -- actually, it's at the top left, but it's downhill.

So, this is an example of how CIP ties into the age of the pipe as what's prioritized. This is a diameter

example. You see all those red lines in Wailuku? There is a CIP on it. You can see where the colors disappear, if you can't see the colors clearly. Can you see what's happening there between these two?

Mike is saying no. Peter is saying yes.

MR. VICTORINO: I see it come and go, come and go, but like I say, we need binoculars or better eyes.

MR. NOBRIGA: Or bigger screen.

MS. KRAFTSOW: Yeah, I am sorry. Anyway, where the colors disappear, those are CIP projects.

CHAIRMAN RICE: That are ongoing or proposed?

MS. KRAFTSOW: I actually don't have every single project in our CIP database plotted. We started with the within five years ones. So, they are not -- whether they actually all get done within five years, they were at one point scheduled. Actually, there might be some unscheduled projects. But the current ones I made bright purple, so you

will see those, but not on this slide, unfortunately.

Diameter, this is the diameter example. You see the age and diameter is almost the same area. This is the same slide from Upcountry where we had an unknown age, and look at the diameter. It's like less than four inches, probably two inches. Everything less than four inches was red. So, that is an example with diameter.

Now, this is type of materials, and the reason that I put this up is almost all of this is unknown, but there is a red line there, which is transite, which is a really old asbestos pipe, and that's included in the CIP. That is an example from Kaunakakai.

This is a Kahului example where all the -- another AC pipe is, not as old. And you can see that so far, I only highlighted that top right corner where the colors disappear. That is because if you keep going, this is that same area by age. And if you look at the age, the red area is what got the CIP. So, when you overlies the CIP, with the age and material, the older concrete pipe got scheduled first.

And this is an example of system trends. This is an old regression, but it is not as old as 1994. And there is

one newer one plotted within there, too. These are different projections of the Central Maui system demand. Some came from the constrained forecast and unconstrained forecast from the planning department. Some were regressions that we did on our consumption.

And that last, at the bottom of the legend, there is one that was running with cleaned up -- eight years of really, really cleaned up data for our demand forecast project that is ongoing, which follows almost exactly in the middle of all the other forecasts.

This is a small sample set. This is oversimplifying a little bit. You can at least see, if we presume that demand is -- in Central Maui, is going to be, say, 31 MGD in 2020, just in Central Maui, then we would need 48 -- actually, this is -- depending how you run the standards, we might not need 48 million gallons of pump capacity. We might need more than that, but this is a conservative estimate of what we need in storage, about 47 and a half million.

So, that is how -- you know, I need to schedule a storage project out here, whether or not I know where it's going to be sited exactly, or where it's going to be sized. I

can calculate that much storage, for that district, and put it into the program, and this is done.

This is a community plan --

MR. CRADDICK: Ellen, can you backup to that one and tell them how much of the source we currently have?

MS. KRAFTSOW: How much what?

MR. CRADDICK: Of the source we currently have?

MS. KRAFTSOW: You know, I have it somewhere. I think our source capacity is under 45 million for Central.

MR. CRADDICK: This is what we currently have, if this is Central Maui. Is this Central Maui or is this total?

MS. KRAFTSOW: This is what would be required by a low estimate of the standard using just max date plus with the fire --

MR. CRADDICK: For the whole system?

MS. KRAFTSOW: Yeah, so, actually by using the two-thirds of two-thirds, we would need even more than this. But when I was running these numbers out, when it got to 2020, it got even higher. But I do have our installed pumpage capacity somewhere. I think it's 43, 44?

MR. CRADDICK: No. Forty-one in Central Maui.

MS. KRAFTSOW: Forty-one. Okay. Anyway, so, this is one way. And then this is looking at diameter and community plan. So, the red is a small diameter. This is the planning mill area project. That became a CIP. That's actually done already. Some of these haven't been updated.

There are some additional ones. You can see down there, especially the purple line at the bottom, which, if you look at it, it doesn't look substandard necessarily by this map. But when you look at it with the community plan, that is a commercial area. So, that line becomes substandard, that bright purple line down there.

This is -- I should say this is not the official

community plan map. We have never gotten a single final community plan zoning map out of the county, and it's been a big frustration for doing our plans. So, this is something that I actually contracted with somebody to enter a draft that we could use while we were doing the water resource plan for Lahaina.

And this is hand-colored in with Adobe Photo Shop based on the hand-colored maps. Which I left one lying on the table last week, but I don't know where that went. This is an example of how the Lower Kula line got prioritized. All the way it is still zoned agriculture which is blue. I think this is blue. And the other was purple, commercial. So, that was a line that was very substandard for the designation of -- the community plan designation in that area. And, so, that is how it got into the capital project.

So, continuing, some improvements. We need to continue to update and improve our inventories, as the key for last week, and facility databases. That is also ongoing for some of our other efforts. Continuing gathering and entering of data. And geo-referencing of that data means making it so that it can be mapped and plotted with our database.

Reconciling the ID's, the asset model that we have got, we gave them the data from the hydraulic model, and we asked them to use the same ID's. And they used the same ID's, but somehow they must have transposed something incorrectly or something, but the ID's don't match. And we have tried several ways to make them match, and they don't. And sooner or later, we will have to go in, and it will take a good person month, at least, to figure it out and make it work.

We need to improve the links between our GIS model, CIP and GIS. All of these things, as they grow, will help. I mean, it sounds like gobbledygook, but it's not. It's something that we use.

And to maintain and update our relational data links, that is a job in itself, just to make all these things all work together and point to the same lines. To improve the visual outputs, because I know guys like to see charts and graphs and all that stuff. This doesn't automatically generate that. We have to go in and do it.

Once we get the cost of prioritization functions completed, by updating the inventory, getting all that stuff above done, then we want to work on functionality for future design, which would mean getting that model that we have

calibrated, and getting the ability to load that into the hydraulic model, and look at future system pressures and future system flows in sizing tanks and stuff. That is long term.

And this is going to the -- the current community plan. The red dots are this year's proposals. This is showing it broken down by how those dots are in the community plan district. As you can see here, our community plan districts and our systems are different districts, right? We have to plan for our system needs.

Some of our systems cross community plans, so this is -- I colored our systems in different colors, and overlaid them with the community plan, so you can see how that relates.

And now this is a breakdown of this year's budget. And, Jonathan, in relation to your thing, I -- in this -- this report, right, the database currently will break it up by source of fund, by year, by district, by any number of things. Okay.

For the purpose of this presentation, though, I took the bond projects and separated it. Partly, because I think Corp Counsel didn't want the costs of some of that --

some of those projects discussed independently. But, if you want to look at the 12-point, whatever, that we are budgeting this year, projects that affect all districts are about 990,000. Projects that affect Central Maui primarily are 3.9 million. Projects that affect Hana primarily are about 50,000. Right now, Lahaina, 815,000. Molokai, 1.35 million, Upcountry, 5.077 million.

And then the bond projects, which we will say will affect all systems. So, really, you can make the all category be 20.99. And then for improvement and expansion, also this was to get the bond out of there.

Improvement slash replacement projects, out of the existing 12 -- that's not counting the data that Herb just added -- was improvement, about 6 million 5.932, and expansion about 6.25, and the bond 20. And I should say that if we get approval, the additional 1.908 million that was just requested of you would add another 200,000 to Hana, and another 1.008 million to Central Maui, and 700,000 to Upcountry.

MR. STARR: While we have that --

CHAIRMAN RICE: Go ahead, Jonathan.

MR. STARR: Is it possible to relate those numbers to consumers, you know, to ratepayers?

MS. KRAFTSOW: I am not sure I understand the question.

CHAIRMAN RICE: Go back one slide. If you put the number of consumers --

MS. KRAFTSOW: On your system?

CHAIRMAN RICE: -- that we service, on the right hand next to that column.

MR. STARR: That is something I would like to see.

I know I can't ask you to do that today, but I think we should --

MS. KRAFTSOW: So, like the number of meters in each system?

MR. STARR: I would like to know what we are

spending per meter per district.

MS. KRAFTSOW: I actually might have that here somewhere.

CHAIRMAN RICE: You don't have to do it right now.

It's just a good idea.

MS. KRAFTSOW: On this slide, I was determined to make this slide, but I see it's going to be useless, because you won't be able to read it. But I am just going to -- hang on.

I am going to go to where at least I can read it to you and tell you what it is. This is a comparison of the asset model that Brown & Caldwell did with the CIP program. I don't think that the board -- forgive me for saying so, but my impress has been that the board has never really understood what the differences are, and what the differences in their functionality are, and how they can and should eventually tie together, but what work goes in the tying them together.

So, I prepared this slide that describes these differences. And I can't even read it on the screen. It's so small. So, I was expecting this to be bigger, but I do have

it here. The asset model, the --

CHAIRMAN RICE: I don't know that you are going to benefit us by reading it at this point. I think you should print it out and distribute it to everybody to read and we can discuss it.

MS. KRAFTSOW: Okay. Then, that's it for the slide presentation. So, that was just to explain to you how the CIP was put together.

CHAIRMAN RICE: Well, I think some of that is very good stuff, and my question to you would be if you haven't updated it in five years, then how do we get accurate information as to what needs to be replaced?

MS. KRAFTSOW: No, we update it every year, but some of the data -- you know, every year is still going on. Okay. The total --

CHAIRMAN RICE: You made the statement that it's not updated.

MS. KRAFTSOW: Right. Okay. All of the plotting and entering of data that we have, for the first effort, was the GIS. We entered schematically all the pipelines. Then for the hydraulic model, we have students going through the as-builts, and we tried to enter the ages, and diameters, and materials. Okay.

There was some built-in error to that. So, right now, for like Lahaina, I am almost complete. It took a student a year now just to do Lahaina. But really updated information on -- from the as-builts for Lahaina. And checking all the sizes, and also all the -- adding data for things like hydrants, and data that wasn't in the initial gathering.

But, every year, we update what were the breaks? What were the projects that are needed? What are the forecasts, et cetera? But I don't necessarily have all of that perfectly updated and plotted to show you, in the GIS system, because I don't even need the GIS system to do this. I just need the GIS system to show it to you.

One day, I will be able to make it run from the GIS, so that I will just like pull up a map, and I will know

where my priorities are. Already, I can pull up a map, and know where there might be priorities, then I need to do a double check to my database to make sure the data are consistent.

But every year, things are going on. Also, that total that -- that Brown & Caldwell model, the total number of projects inventory in there, that none of which are geographicable, none of which can I plot of where they are based on the data in there, unfortunately. That's like almost 3,000 projects.

So far, our entire CIP still only has about 1130 or 40 projects. So, you know, it's a process of getting everything in and getting everything properly categorized and all that. But the system is already working. It's already good enough that, every year, I can come up with a short list of, say, two or three times what we want to spend and prioritize down from there.

CHAIRMAN RICE: So, if we said we want to look at Upcountry -- we want to look at those pipelines that are undersized and old, and we want to look at those that have

been completed, and those that are yet to complete, you can show it? I don't necessarily mean a graphic, but you can give us that data?

MS. KRAFTSOW: Yeah, I have this sort of abbreviated version.

CHAIRMAN RICE: I don't need to see it right this second. I am just asking you that if we said we want to know by section, Central, Upcountry, Lahaina, whatever, West Maui. We want to see what was the need, what has been done or is in the process, and what needs to be done, so then the board can get comfortable with where we are going, you can give them that?

MS. KRAFTSOW: Right.

CHAIRMAN RICE: But that doesn't have to be a graphic picture either.

MS. KRAFTSOW: Uh-huh, uh-huh. Yes, with some -- I mean, it's not like instant like that, but I go in, and I do some manipulation, and I play around with it, and then I can

come up with a list, yes.

CHAIRMAN RICE: But you needed to do that in order to do this presentation, though. You should have already done that then.

MS. KRAFTSOW: No, this presentation is just --

CHAIRMAN RICE: No, I don't mean the visual maps. I mean this budget. This budget is based on --

MS. KRAFTSOW: Right. I can give you a list of all Upcountry projects that are currently in the database, and where those ones that have numbers assigned from fiscal, that's a good sign that they have already been budgeted or done.

We don't have this -- one of the goals is to have this tie into the fiscal spend down and eventually have every single system asset tied to this, which was also the idea of planning the asset replacement model, which is where it was frustrating. Because I was already trying to do it. Yes, the

replacement model is good. It's faster, but it is not project specific.

This is project specific, but it's a lot slower to put together and run. I can give you a list of all Upcountry projects. In fact, I have, in the past, given the board a list of all Upcountry projects in the CIP.

To look at status of each project and what's done, some of it is in there under the remarks section. It was budgeted this year, and it was done this year, or it still needs more, or this or that. Some of it is probably not entirely updated. Most of it should be in there. Most of it that was done.

CHAIRMAN RICE: Don't you agree that you have to go through the process of looking at what needs to be done, what is done, what is in process, before you can then tell us what you think needs to be done in the new year?

MS. KRAFTSOW: Right, we do.

CHAIRMAN RICE: Okay.

MS. KRAFTSOW: That was the broad thing of what needed to be done broadly. You can see --

CHAIRMAN RICE: Not broadly. Not broadly. Not broadly. Specifically.

MS. KRAFTSOW: Well, I think that's semantics. I mean, that was a list. When you look at that visual of Upcountry, okay, you can look at it on the wall there. You look at where all the red lines are. Those all need to be done.

That is updated as of the best that we had as of -- for some systems, '96. For some '98. In the map, in the computer, it's a little more updated. And in the computer, it will say this project was done this year. I can look it up by do I have a project for this street? Yes.

Okay. When I look it up in the remarks, does it say it was done or not done? Does it have an assigned budgeted number?

The short answer to your question is, yes, Peter, I can give that to you. I don't know exactly what it is --

CHAIRMAN RICE: But you can't -- this board can't make a decision to approve a project unless we know there is a logical progression to what should be done. Yeah, we can look at a map and say all these red lines need to be done. We can't do them all this year.

MS. KRAFTSOW: Right.

CHAIRMAN RICE: Right? Some of them have been done. Some of them are in progress. Right?

MS. KRAFTSOW: Right.

CHAIRMAN RICE: Then the next logical question is which ones do we do next? Right?

MS. KRAFTSOW: Right.

CHAIRMAN RICE: And based on your data, that says older, the size, et cetera, right, we choose these next ones.

MS. KRAFTSOW: Okay. I think I understand your

question now. The initial list -- to even make it into the scheduled list, it had to be one of those higher priority projects or be based on demand forecasts or whatever. To even get on the list, it went through a certain prioritization.

Because we don't have everything entered, we don't have the complete inventory entered and scheduled, right? So, to even get into the initial schedule, it had some priority.

Then each year, what's coming up is we know what the demand trends are this year. We know where the breaks are this year. We know the pumps don't always break down on schedule. We know how they are performing, because we are talking to the district engineers. We know where there are complaints, every complaint that's been had.

And based on discussions in-house, any one of these -- any one of those you saw in there would be a really valid project period. Period. And how you prioritize it sometimes is just like which wheel is squeaking the worst.

And we just don't have the money to do everything we need to do. And also, you want to break it down so that every system gets some money. You want to break it down so this is a more commercial area, so this is a higher priority

than this area. Only five people are going to be served.

And that goes into the mix every year when we select our projects. Then there is also the issue of, well, these projects are already halfway designed, so we should be scheduling them. These ones will take longer to finish to get ready. So, there is also some lead time that engineering needs before we can even bring a project to you to schedule.

CHAIRMAN RICE: But what I am hearing is all that mix is in your head. It's talking to the department heads and everybody. And, I mean, because what if somebody comes into this meeting, and says, I want to know why I am up in Upcountry, and this street over here is getting a pipe replacement and mine is not.

MS. KRAFTSOW: Uh-huh.

CHAIRMAN RICE: We should be able to have some reasonable explanation.

MS. KRAFTSOW: You are talking about a criteria matrix, and we have looked at some. AWWDOF has a premade one that we can use and plug in numbers and do cost benefit. But

I looked at it, and I looked at it with a couple of our consultants, in fact. And I thought it was just nonsense, because it's really beautiful how it does it and everything, but the benefit/cost ratios aren't really meaningful, which you can check with a consultant about it.

You know, it looks good, and you can invent a reason. But the real reason is, if you have two four-inch lines, okay, and they are both in an ag zoned area, and they both have roughly 20 or 30 meters on them, there really is no legitimate purpose why you would have to do one before the other, except that you can only do one at a time.

And you say, yes, we are doing this one this year, and, by the way, we are going to do yours, too. Maybe one is breaking more. Then you have a real reason, or maybe one is giving you more operational problems, then you have a real reason.

But that changes. That is not something I can give you and keep computerized, not unless you want to give us a lot more staff. You know, all of this is being done with four people. This, and every resource protection, and every conservation, and every GIS, and ever hydraulic model, and

every discretionary review, and every plan, water plan meeting, and water resource protection meeting, all of that is with four people, you know.

This is a very good, logical system for how to come up with a list of projects, and it's been working for us. But it's not going to help you distinguish between two agricultural lines each with four inches, you know.

CHAIRMAN RICE: Maybe the answer to that question is neither of the two agricultural lines should be done. But, I think, yes, there has to be -- there can't be -- the answer to the question, as to which lines should be done, what projects should be done, cannot be because Ellen decided it. It has to be --

MS. KRAFTSOW: It's never just Ellen, ever.

CHAIRMAN RICE: It has to be some logical matrix to it.

MS. KRAFTSOW: Right. And the matrix is, as I have just shown you, the age, the diameter, the material, the number of breaks, the --

CHAIRMAN RICE: Okay. But we get into some subjective decision making. We have had a few projects come before us -- how many projects this year did we not approve, because they were presented, and they were presented in an area where there wasn't very many consumers. And the cost benefit, for the number of consumers, didn't seem to make sense. That kind of a presentation makes us wonder about what priorities are being set for what projects.

MS. KRAFTSOW: Well, there are a few things to say about that. One is there's a point you can look at number of meters, and if you saw some of those also have tax map keys under them. That will tell you pretty quick how many customers are going to be on that line directly.

But sometimes a line is higher upstream, and it has more effect on more customers than it would seem, just because it affects things down the line. While there may not be customers right on that statement that's being repaired. So, that is a philosophical question.

CHAIRMAN RICE: But that is the case with the projects we didn't approve this year.

MS. KRAFTSOW: Right. The RPM, the asset model that you had Brown & Caldwell prepare, they prioritized expenditures based on age -- strictly age as an inventory replacement, which is valid to do, except that the system doesn't always respond exactly according to how old it is. You know, different pipes and different flows change. There was a question?

MR. VICTORINO: Well, I am sitting here, and if I was just -- and I'm John Q. Public. I haven't understood anything you said to this point. Because if you have a priority system, then I should be able to look at it and know what that priority system is. Whatever it is, pipes, size, age. I don't care.

Specifically, putting -- put in formats that I understand why I make a decision. That is number one.

Number two, whether it's subjective or not, subjective is always part of an equation, because it comes to a point where you have got to make that decision at the end.

However, all I have had heard is Peter asked you this question, and you are giving the rationale for those questions, but I am not hearing an answer.

I am saying, is there an exact format or some real formula that you can say, here, Mike, this is how we do it. This is how we come to this point.

MS. KRAFTSOW: Okay. And my answer to that is I thought I had shown it to you. I mean, basically, we look at the age of pipe, the diameter of pipe, the material that the pipe is made of, whether the pipe is adequate for the current use and zoning of the land, the community plan designation, what have you, the breaks on the pipe, the complaints on the pipe, operational problems with the pipe.

And right now, we are only talking about pipes. But for pumps, it would be the same thing. It would be how old is it, when was it last replaced, how is it performing. And in each case, for each -- and with pipes, I would have to add also how far along is it in design, in engineering? Is it ready to go? Is it a project that's actually ready to go is also one of the issues that comes up.

CHAIRMAN RICE: Yes, Mr. Starr.

MR. STARR: You know, I think it's good that we have this kind of scientific, GIS-driven system. But, you know, in the past, the projects that -- talking specifically about the Hana project, and the Makena project, and, you know, a few others that we have seen, that when we questioned them, you know, why they were there, we got a response from David that, oh, those were board-driven by a previous board member or politically driven.

So, the real -- you know, the thing that's on my mind is, you know, here is this nice, scientific system, but how much stuff is getting kind of stuffed in, on the top of the pile, because someone makes some noise?

And that's something that I don't really like to see happen unless there's real justification for it.

MS. KRAFTSOW: Well, to be perfectly blunt --

MR. CRADDICK: There are no projects this year that I know of that are like that. And the last one that was

done like that was the one in Haiku, the Puu Maile triangle. That was the last one that was done like that. That was a million-dollar project.

MR. STARR: Thank you. That answered my question with that. A couple of other issues. You mentioned that the water treatment plants are not in there. And also, I don't see any, you know, the reservoirs and other high-ticket items.

MS. KRAFTSOW: Wait. No. I mentioned that in 1994, the water treatment plants were still being built. I have many, many, many, water treatment plant upgrade projects in there. I did not have the filter replacements. That was a bad oversight.

Okay. I have not sat down with Paul and gone over every major capital element that might need to be replaced yet. I haven't gotten there yet. Needs to happen. It certainly will happen. But that's not accurate to say the water treatment plants are not in there.

MR. STARR: I thought that is what you said. And

reservoirs and other high-ticket items as well. What confuses me -- you know, maybe I am just a little bit dense. But I could use a little help in understanding the difference between capital improvement projects and capital replacement projects.

And we have -- you know, as I understand, capital replacement is the same thing that, in real estate, you call it a sinking fund, where you have -- you put aside money for specific items, and then you spend it out, you know, every year.

And some years you may collect a little more than you spent. Some years you may spend a little less. And we definitely have a capital replacement fund. And now we have -- but we have capital improvement fund doing items that, as far as I am concerned, are sinking fund or maintenance items.

MS. KRAFTSOW: We have -- the Capital Improvement Program includes both expansion and what I call improvement projects. I call them improvement, because they may -- may not be just exactly replacements. It might be that they need a bigger line in that area, but it's not necessarily always to

expand a customer base, unless it's to accommodate a customer base that's outgrown its line.

So, the idea would be if there are expansion projects, they are projects that will accommodate new customers, new source, growth. If they are improvement projects, they are projects that will replace and maintain our existing system inventory.

The asset replacement model addresses the existing system facilities. It does not address expansion facilities. The Capital Improvement Program includes both, expansion and replacement projects.

MR. STARR: So, in other words, say we have a waterline that's running out, you know, somewhere on the end of the system, and it's right now a four-inch line. And if you go and replace it with another four-inch line, because it's busting, then it becomes capital replacement. But if you replace it with an eight-inch line, then it becomes capital improvement, or is part of it still capital replacement and part of it capital improvement?

And if we are going from the four-inch line to an

eight-inch line, so we can serve new consumers, shouldn't that actually be coming out of the -- yeah, the water system development fund?

MS. KRAFTSOW: We do breakdown funding.

MR. STARR: Can you have a project that might be a component of all three of those?

CHAIRMAN RICE: Yes.

MR. CRADDICK: If we were doing a transmission line that did have existing customers on it that was actually being replaced, then you would have co-funding in that line. For distribution projects, we have no source of funding for distribution lines at all other than -- other than the replacement funds.

So, you are right, Jonathan. We do pay for mainline replacements or mainline upsizing out of our replacement fund, and that's in the rules.

Whether -- I will agree with you and debate whether that should be going on and taking that money that

service only expansion needs, but we have no other source of funding for it. So, until we do, that's what the rules allow, and that's what we do. But I -- but I debate whether that's correct myself.

And one other issue, too, that Ellen brought up here, on the board-driven projects, as you know, we have Ulupalakua in there. I don't consider that a board-driven project, because that has been number one on the line problems that we have had for about the past six years. So, that is being driven by something other than the board.

It's just that it's so bad and been so neglected, that now the board is being pestered by customers out in the system. But I, myself, don't consider that a board -- you know, from some criteria that you were talking about like Kanoa and Makena.

MS. KRAFTSOW: The reason I mentioned that to David was because Ulupalakua goes exactly back to Peter's question about why are you spend all that money when there are very few customers?

And what it comes down to is, eventually, you have

to replace the entire system. So, sooner or later, even if it has a few customers, the line has got to go.

So, from that perspective, that is true. But the reason why it was somewhat board-driven, in the scheduling, is because there are, as you know, many, many, many substandard lines. And typically, when we design an order of these projects, we try to go from upstream to downstream. Right?

So, we would have normally been doing, you know, the line between Alae tank and Waiohuli tank and then between Kamole tank and then from Kamole tank onward. And we would have been moving upstream to downstream.

So, to be doing it in this order seemed to be somewhat board-driven or public complaint-driven, but that is another one of the factors that goes in. Which is also why, you know, Peter, I get that what you want is to see a matrix where everything is ranked based on the data we have for age. And, yes, we can go there eventually. Even now we can do a fairly decent job. Not perfect.

Okay. I don't know, though, that that is ever going to be the true way that it's -- that it's set every year, because every year there are different breakage problems. Every year --

CHAIRMAN RICE: I am not talking about exceptions.

The two things, what was brought up. If we had a logical sequence of pipe replacement, that was based on all the criteria that you have listed, and we could present that to the public, one of the things we would probably have a minimum of is requests coming in here for things to be done out of order, specialties, because the justification for that sequence would be things that are legitimate and logical.

MS. KRAFTSOW: Well, we do --

CHAIRMAN RICE: Everybody would understand that.

Okay. But we don't have that. We may have it in your mind. We don't have it in our minds. And, certainly, it's not in the public's mind, so what happens is it's hard to explain --

MS. KRAFTSOW: We do have it in our computer.

CHAIRMAN RICE: Excuse me. Excuse me.

MS. KRAFTSOW: We do.

CHAIRMAN RICE: What we are looking for is something that everybody can grasp, whether it's a picture, or whether it's a list, that can justify what we are approving. And you can tell, from the comments today, that no one has it in their mind.

And they are not saying that it's not justified.

It's just that we don't understand it. And those kinds of special requests, problems that come up are because nobody does.

MS. KRAFTSOW: Right.

CHAIRMAN RICE: The other thing is it relates -- any sinking fund gets into the same question that Jonathan raised. And I don't think he's raising it to be contrary. It's just an interesting point of discussion. Whenever you have a fund, if you have a four-inch line, and when you get to replacing it, it's an eight-inch line, how do you characterize the expenditure?

But, if the four-inch line is undersized, for

example, for fire flow, then shouldn't our study, when replacement comes, provide for it to be an eight-inch, then you wouldn't have a funding issue.

MS. KRAFTSOW: The Capital Improvement Program does already assume that everything will be increased, and especially relative to if it's under six inches. Everything is at least -- pretty much at least eight inches, in some cases, six inches, where there are duplicate lines or whatever. That is already designed in there for the projects that are already entered.

Now, the asset replacement model also has a set of assumptions. They did it based on age, and they issued exact replacement, except where a line was under eight inches, was it? So, that was also built to do that.

What the asset model was not built to do was a case like that where I showed you in Lahaina where there is an existing eight-inch line, but it's a commercial district, and an eight-inch line is not adequate for a commercial district.

Now, to overlay that and show the matrix for any community in the plan designation zoning that you want, one of

the first things we need is those overlays from the county for their community designation and zoning. As it is, it's been by hand, and we have identified it where we saw the problem visually.

But, I don't have that mapped for anywhere other than Lahaina, where I contacted somebody to use an interim layer, and one of the level overmaps, which a lot of focus was Upcounty, but they are outdated now. But, you know, I can come up with the matrix. I just don't know that it will be a legitimate way to -- it will be -- that matrix is already under consideration.

I mean, the pieces of that matrix -- the priority elements, within that matrix, are already how we put the CIP together. Okay. To show somebody a list and say this is project number one, and this is project number 253, I would question the validity of doing that. I mean, you know.

CHAIRMAN RICE: Why?

MS. KRAFTSOW: That's the problem. I mean, to say here are a thousand projects, and here is how we want to schedule them in five years, that's one thing.

MR. NOBRIGA: Frustrating.

CHAIRMAN RICE: Kent.

MR. HIRANAGA: Now, to get back to Mike's question and Peter's question, is there a list of desired pipe replacement projects, prioritized by need, and you can say, look. There is a list of, say, 300. We can do 25 this year and prioritize number one, two, three, four. So we know that this year, you will accomplish number one, because that's your number one priority. Is there a list?

You can modify this list once a year, for whatever reasons -- factors that come into play, so that next year, number 50 is all of a sudden number 17. But is there a list that you are saying we are going to commit to complete these projects this year? This is number one, this is number two, and we would like to see that list before we approve the CIP project.

MS. KRAFTSOW: Right. And what I am trying to say

to you is there is a list of CIP projects, and it is a scheduled list. Okay.

MR. HIRANAGA: That you prioritize by meeting with department heads.

MS. KRAFTSOW: That we prioritize, yes. But every year, since it was made, one, or two, or three, or four different things happen which combine, that every year I can need some things, which is either we didn't have the money to do everything we thought we needed to do, or there were more community-driven or board-driven projects in the past, or there was -- there were projects that took longer than expected for land, arguments, or whatever, so projects get pushed back.

So then what you end up with is having a big chunk every year, and that needs to be smoothed out again at the end of each budget period. But there is a list. Has been a list that is five years scheduled. Twenty years worth of projects, only five of which are scheduled. That's been in existence and continuously updated since 1994.

MR. HIRANAGA: Can we see that list?

MS. KRAFTSOW: You can see that list. I have it here.

MR. HIRANAGA: Can you print us a hard copy of that list?

MS. KRAFTSOW: Yes, but understand that the updates that needed to be done this year, we are updating the forecast as I showed you. So, I don't have like all the next set of tanks for 2010 and stuff like that in there right now.

MR. HIRANAGA: I don't care about that.

MS. KRAFTSOW: Yes, there is a list, and it's organized by anticipated year of expenditure for five years, and the rest is unscheduled.

MR. HIRANAGA: Prioritized by what the department feels is important?

MS. KRAFTSOW: We have meetings about every quarter. This year it was more. Some years it's less. Where we go over, okay, this is what we have scheduled. What can we

do? Is it logical to do these projects together? You know, just for working in that area once or logical to do these projects not together.

And we set up what we think we can do for five years. Those are long meetings. We had one meeting that just kept continuing. It was 24 hours of meetings with engineering alone, and then there were another few hours with the operational divisions. So --

MR. HIRANAGA: So, you go --

MS. KRAFTSOW: Yeah, we go into here is the list, what needs to be added, what pumps aren't on it yet? You know, when did this break down? Did we actually --

MR. HIRANAGA: Are you going to provide --

MS. NAGO: He's saying can you provide the list is what Kent is asking you.

MS. KRAFTSOW: You just want a printout of all the projects in the database?

MR. HIRANAGA: Prioritized by the department.

MS. KRAFTSOW: I don't have one, two, three, four, five, six, seven. I have 2003, 2004, 2005.

MR. HIRANAGA: That's fine. So, everything you have in 2003, you are committed to complete to the best of your ability. There are factors that occur, during the year, that will prevent you, and you will provide explanations, but you are committed to complete those things that are scheduled for 2003.

MS. KRAFTSOW: Right. Typically, what we do is we finalize a year's budget, and right after the -- this year's budget is finalized, and we know what the board's committed to this year, we go in, and we have a set of meetings where we update the five-year schedule.

We -- we reevaluate it as a group together. And then upon that reevaluation, we track it, and then we start to reevaluate again. We are getting ready for the next year.

So, what you would be getting now -- unless you wanted to wait until after those meetings -- okay. It would be -- I can't say that we would be committed to that exact schedule, but it would be a schedule. You would see, like I said, a hump in one of the years where everything got shoved back to 2004, you know.

MR. HIRANAGA: How many pages are we talking about?

MS. KRAFTSOW: I think the whole printout is about what, 45 pages? Yeah.

MR. HIRANAGA: Why don't we start with 2003.

MS. KRAFTSOW: 2003.

CHAIRMAN RICE: Five years.

MS. KRAFTSOW: You have 2003 in front of you.

MR. HIRANAGA: Prioritized.

MS. KRAFTSOW: You want to take the 2003 projects, within that group, and go one, two, three, four, five?

MR. HIRANAGA: Right. You did that in order to get -- decide which ones got to 2003 and which ones are in 2004.

MS. KRAFTSOW: Uh-huh.

MR. HIRANAGA: You rank them, right?

MS. KRAFTSOW: Yeah.

MR. HIRANAGA: I would like to see the ranking for 2003.

MS. KRAFTSOW: I don't have anything like that in my computer. This is based on discussions and stuff, but I guess we could give you a ranking within each category.

MR. HIRANAGA: What I am trying to avoid is getting 45 pages of garbage. So, I want to see one year, and

if it's something that can be absorbed in the last year, I don't want to be inundated with a 45-page report, and say, you know, I can't understand it.

MS. KRAFTSOW: Uh-huh.

MR. HIRANAGA: That is why I am asking for one year. And when can we get that?

MR. CRADDICK: What are you talking about, pipelines?

MR. HIRANAGA: Yes.

MR. CRADDICK: There's only ten of them in here.

CHAIRMAN RICE: What we are talking about is an understanding of how projects are selected. And Ellen just said to Kent that she has a list that's five years. Okay. It's the five year list, 45 pages.

MS. KRAFTSOW: No, I think the five-year list would probably be -- do you want just pipelines?

MR. HIRANAGA: We will start with that.

MS. KRAFTSOW: No, it probably wouldn't be 45 pages then.

MR. VICTORINO: Ellen, you know, I come from a system with the Board of Education, and they had complete matrix for the entire state, prioritized, of all -- this is -- hear me out. Okay?

I am not knocking what you are doing. I am just trying to help you. Okay. And this matrix had priority one through 750, schools, buildings, whatever had to be done, prioritized. Okay. And there was rationale behind it.

Now, those changed from year to year depending on situations, which you said earlier that happens in this situation. I think all of us are asking -- am I correct in saying this? Number one, is how do you get those priorities? And you kind of explained that, okay.

Number two, once you get those priorities, how do you rank them one, two, three, four? That doesn't necessarily mean that one is going to be done before four. For whatever

reason, sometimes these things change.

But once the matrix is done, and you give it to us, and we say yes, or no to it, or whatever, right, and least then the public knows. And I think I agree with Peter. They won't be coming in for special dispensation every time they want something, because we have a criteria. That criteria has been set. We have a matrix, the priority of what needs to be done in each given year.

That is all we are asking, so that we understand how you determine these priorities. And once these priorities are set, how do you rank them? Whether you meet with engineering for 24 hours, whomever you meet with, that is fine. That tells us how you got them.

I guess we are asking -- and I heard the same thing from pretty much everybody, just different form. Is we like to have specifics, the way you prioritize and how you rank those priorities.

And if you go one year, five year, ten years, it doesn't make a difference. But if you are going to do 2003, and there are ten things here, then what is number one? What is number would two? What is number three? Because we like to see if that is what you put as number one, then hopefully

number one gets done this year.

Now, there are things that happen, circumstances that may prohibit that from being completed. The point is we just want to have you help us understand what you are doing. And again, a matrix, I think, is very important. We need to know what our priorities are and how they are set.

CHAIRMAN RICE: Mr. Starr.

MR. STARR: It's important to have priorities, but I am more concerned with making sure that, in future years and future decades, we have the money to be able to afford to do it.

Ellen, do you want to bother to listen to what I am saying?

You say that, in a sense, what you are doing parallels the Brown & Caldwell model, except yours is project specific. What I want to know from you is do you have a number, in terms of dollars, of what we need to put aside every year to be able to fund the sinking fund of replacement projects?

MS. KRAFTSOW: Okay. There are parallels. They are not identical things. Okay. As far as what the Brown & Caldwell model was designed to do, it was designed to say, based on your existing system inventory, and assuming you are replacing it by age, how much money will you need to transfer in order to be able to maintain your inventory.

The Capital Improvement Program was designed to look at where are the priorities for inventory replacements or additions, and how much will those cost. And then how it was designed in terms of scheduling was based on historical data and based on project cost data.

We are looking at doing between 15 and 20 million projects a year. So, we already assume the amount we need to spend, and then we look at the projects that need to be get done. Whereas what the model does is looks at the inventory and then figures out the amount that you need to spend.

It happens that the amount that I figured needed to get done in replacement, for the CIP, even though I was doing simple assumption, is actually quite close to what the RPM says you need. But that's because when you are in it and you are working with it -- and as far as this list, it can be created. Okay. I am not saying it can't be recreated. We

have been building the tools slowly over the years in order to create something like that.

But I am going to say it again. And, you know, I feel, given all the things that we have to do, that making a list where one project is actually number 200 and one is number 223, this isn't -- it just isn't -- I mean, the functionality of the CIP of a matrix is so that you can know why does a project need to be done. You can -- you can look at these diagrams and see roughly what needs to be done, you know.

CHAIRMAN RICE: That is not true. These people are telling you that's not the case.

MS. KRAFTSOW: I will do it, but --

CHAIRMAN RICE: There is one --

MS. KRAFTSOW: It doesn't make sense.

CHAIRMAN RICE: It does make sense. You are doing

something that is not functional. It's functional for you, but it is not functional for us. And you are not able to answer the logical questions from that model.

If it was working, then you should be -- that model that you have should be able to answer our question, and it doesn't. There needs to be -- you know, what we have done in the past here may not be what's going to work going forward.

I think Mr. Victorino made it very clear what is expected, and I don't think that -- there is a model that does that. We do it in business all the time. Yes, it's a lot of work. It's updated every year. It requires someone to make assumptions.

We did all that with Brown & Caldwell. You are running a parallel model, which I am sure causes there to be more work to be done, but it's not getting to us the information we need.

So, there is a problem. We have to solve that problem. Either we have to get another model, we have to pick one or the other, and it has to solve all the problems that we need.

MS. KRAFTSOW: It's not like one model or the

other. The effort is going into making the two of them work together. They don't work together now. It is a long process, Peter.

Okay. That's not actually necessary for your matrix priority order. Okay. The matrix priority or the order is a matter of assigning a number, based on the age of the pipe, and assigning a number, based on whatever, and running a matrix like that, and coming out with one, two, three, four, five. But it's --

CHAIRMAN RICE: But what? What is wrong with that?

MS. KRAFTSOW: Nothing. I guess the frustration I feel is like we are crossing signals. I think that the real stuff you want is to have a real logical way of figuring out which projects need to get done and approximately when. Okay.

CHAIRMAN RICE: And all the list that Mr. Victorino is asking for is printed off of that logical model. The answer is yes, that's what we want.

MS. KRAFTSOW: Right. And I think that you want a logical way of getting this done, and I agree with that, and I also think we do have a logical way of prioritizing these projects. But --

CHAIRMAN RICE: We are waiting.

MS. KRAFTSOW: -- the way that we have does not go number 23, number 27, number 29. And that's really all that is missing that I can understand. And to get to that is -- I mean, we can do it. We will do it.

But it just -- it's a lot of effort for something that seems like it's not delivering as much as it was to, look, try to update what the ages are, try to update what the diameter is, try to update what the break history is. That seems to me more the place to spend the effort.

CHAIRMAN RICE: If you understand what Mike is asking you for, which I think is what we all want, and the way to accomplish that is by updating your model and then printing it, so that it comes out in that form, that's the answer to the question. For you to take the model, go down and sit in a

database, and input everything in an order, one, two, three, four, five, is not what we want.

MS. KRAFTSOW: No, this -- what -- to do what I think you are asking for -- let me just describe how I think I would have to do it. Okay.

Every pipe that got into the CIP list is not a model. It's a program. It's not a model. The RPM is a model. This is not a model. Every project that got into that database got into that database based on the criteria that I showed you.

Okay. Where I put specific justification, things like the diameter is substandard or whatever, was in the remarks. In order to create a matrix like, what you are saying, I need to go to the tables that we have in GIS, where I have the pipe diameter. And for each segment, I have to compare that to the pipe name, and then I have to assign a value based on diameter. And then I have to do the same again for the material, and then I have to do the same again for the age, and then I have to do the same again for the number of breaks.

So, you are taking 1140 some projects, and you are taking entry of data. Not randomly. Not me going one, two, three, four, five. But to get the matrix in the way that you want it, it's going to be a big effort to do it like that. I can print you what we have scheduled for five years. It's going to be almost as good.

MR. HIRANAGA: If you limit the parameters to the next three years, so she doesn't have to do the entire 1100 list. We don't care about 500 or number 700. We want to know, say, in the next three years. So, just do -- prioritize the list for what you anticipate to be done in the next three years. Would that shorten the length of your workload?

MR. NOBRIGA: Just pipe, huh? We just want pipe. We don't want ponds. We don't want reservoirs.

MS. KRAFTSOW: That's fine. The truth is what you are asking for is something that has been coming anyway. It's just that it hasn't been a priority relative to the other aspects of building this program.

But, when you prioritize within three years, you

are still not answering why you are doing it in three years instead of four, right? So --

CHAIRMAN RICE: She said if you just do three years, you are not answering the question. Why you are not doing it four, five? You are not -- you know what? I think we have a real basic problem here. Let's take a break.

(Recess 10:30 a.m. Resumed 10:41 a.m.)

CHAIRMAN RICE: Mr. Hiranaga requests that the list -- we want five years, three through --

MR. HIRANAGA: I would be willing to go four years, because I only have four years left on my term.

MR. VICTORINO: I have five.

CHAIRMAN RICE: I think all of us would like to see five. We don't want to see anything past five years.

MR. STARR: The union was built on five years plans.

MS. KRAFTSOW: You just want five years of pipeline, not with the matrix?

MS. NAGO: Ellen, just drop it.

CHAIRMAN RICE: We want to make sure we get it.

We want to get it by Monday.

MR. HIRANAGA: We want five years, five years replacement ranked by priority. And ask her when can she deliver it. Ask David when can he deliver it.

MR. VICTORINO: Yeah, when can you deliver it?

MR. CRADDICK: When do you want it by? I heard somebody say Monday?

CHAIRMAN RICE: If we have it, it's a matter of printing it. If we don't have it, then it's a matter of doing whatever we need to do to print it.

MS. KRAFTSOW: Do you want five years ranked by how we have it scheduled for five years, and that's the priority, or do you want five years one, two, three, four, five, six to 700?

MR. CRADDICK: Peter, just let me say I believe I understand what you want. We are just down to getting the time of when you need it. I believe we can get it before the public hearing next week, which is Thursday?

MS. NAGO: 13th, two weeks from now.

MR. VICTORINO: Next Thursday.

CHAIRMAN RICE: We are going to have a meeting next week on the 12th. Right?

MR. CRADDICK: Right.

CHAIRMAN RICE: Two weeks from the 12th. We would like to have it before that meeting which is before the public

hearing.

MR. CRADDICK: We will do our best to get it done by that time.

CHAIRMAN RICE: We are going to move forward.

That was -- the establishing of the priorities has been our discussion. The funding, as brought up by Mr. Starr, is another discussion that we have to have.

MR. HIRANAGA: The 7th, a week from today.

CHAIRMAN RICE: Can we have that list a week from today, the 7th?

MR. CRADDICK: We will do our best to get it or you will know why we can't get it.

CHAIRMAN RICE: Mr. Starr.

MR. STARR: Yeah, some of our current board members haven't had the opportunity to see the Brown & Caldwell model, and I'd like to refresh myself with it. And I

especially hope that we can get to operate it.

You know, that was -- at the time, when I got to really appreciate it, was when I got to sit down with it and actually plug in different interest rates, and time frames, and see how it changed.

And I hope that we can create a venue from maybe a -- you know, some kind of slightly less formal workshop, where we can actually sit down and play with the Brown & Caldwell model. And I think that Mike and Ginny will get to appreciate it. It's a neat tool we have.

CHAIRMAN RICE: I agree. I will schedule that.

MS. KRAFTSOW: It's there.

CHAIRMAN RICE: Okay.

MR. STARR: Can we get a little presentation on what it is right now? I see it's up there on the screen, and let's say that segues into our workshop at another day. What is this, Ellen?

MS. KRAFTSOW: This is the Brown & Caldwell model.

What it is, is it's a series of nested spreadsheets. What he did is he made a series of nested spreadsheets that attach by macros, basically, is how it works. And, so, he has a list of all the pipes. And then you can enter -- or of all the replacement by different categories. And then you can enter what your assumptions are about how much money you are going to transfer into replacement fund, whether you are going to issue bonds or other cash flows that might come in.

And based on that cash flow, he has all the projects scheduled. We will process the projects and say what your deficit or surplus is in funding and how much you need to spend.

MR. CRADDICK: Try this. Okay. This is exactly what it says. Replacement planning and asset valuation model. And this is to get the money. This graph here is time and money. And by changing these variables, this graph will change. So, we can change the length of the study. We can go up to 100 years.

And right now, the data that is in this model is

all of our system. We have made assumptions for how long it will last, things like that. You can make an estimate of the future escalation costs. We have in here what our current fund balance is. What earnings we get on our cash balances and the borrowing rate. All of those things can be changed.

We also have over here the annual amount that we can transfer from our operating budget. If we are going to issue bonds -- what happens is if you issue bonds, you will be able to smooth out these humps in here.

If there's any other sources of funds, such as if we change our rule. That issue of how do you do distribution line replacement when we have no funding for it, if, in the future, we get a rule that allows us to do pro rata funding of those types of things, that might be something that we can put in here or even maybe in here, some kind of surcharge on the rate for certain people to do lines.

And those are basically the variables anyways.

And that's what Jonathan is talking about, if you will excuse the term, playing with. But, basically, you are massaging or manipulating these variables to get a curve out here that, hopefully, has a minimum cost increase in rates in order to

systematically replace the water system.

Now, the issue, as I understand it here today, that once this is done, and you know your dollar value, it doesn't spit out a listing of projects in priority one, two, three, four. Okay. This is what you have to do this year.

The reason why it doesn't do that is because the estimates for items that we have, in the database, we have made assumptions. Like, for instance, a ductile iron pipe we put in there -- I think the life is 75 years. I don't know the number that we put in for asbestos pipe. But asbestos pipe, in Kahului, Wailuku, except for the gasket, probably will last a very long time.

Upcountry, where you have got aggressive water, and it eats the lime out of the pipe, the asbestos concrete pipe will not last long. So, those types of things probably need some work in the database, and that is what I think Ellen was trying to explain to you will take a very long time.

But I believe what Board Member Hiranaga is asking about is doable, and we certainly can do that. But that's basically what the model does, is there is a number of variables in there that you can move around and change, and it will give you a dollar value. The total amount of pipeline in

there is about 750 miles of pipeline.

CHAIRMAN RICE: Yes, Mr. Hiranaga.

MR. CRADDICK: And they are in segments. It can be as small as a few hundred feet.

MR. HIRANAGA: Just for my understanding, what it's telling us is that for the next 20 years, based on those assumptions, what's your estimated replacement costs that needs to be funded? Is that correct?

MR. CRADDICK: Brown simulation.

MS. KRAFTSOW: I think I already ran this one. I think it will be in the report.

MR. NOBRIGA: Cool.

MR. CRADDICK: Okay. I guess the simulation you are getting is that chart down there at the bottom. And how

do you blow that up.

MS. KRAFTSOW: Here. You want to see this?

MR. CRADDICK: There you go. So, you see, with the variables that are in there now and the amount that we have set aside, it's going to take about \$10 million a year if we want to go out 20 years, before it finally nose dives.

MR. HIRANAGA: So, that shows you the anticipated cost for replacement?

MR. CRADDICK: That's the balance. That's the end-of-year fund balance.

MS. KRAFTSOW: This simulation assumes certain things, like here. That's the project.

MR. HIRANAGA: Can we backup, and can you answer my question? What does that chart tell us? I don't care where it came from.

MS. KRAFTSOW: That chart assumes that in each year, assuming you move that much money into your capital improvement fund, whether you -- wherever you move it from. Assuming you put \$8 million a year going to 2016, and then 9 million, and it goes on -- assuming you put that assumed amount into your capital project, and also assuming that you float a couple bonds -- a 10 million-dollar bond and then a couple of 5 million-dollar bonds, et cetera -- this was just a test scenario. That assuming you do that, these are the balances in your replacement fund. Okay.

Assuming you started -- I think it said 4 million or whatever it said you started at, and you transfer that much money in, and you replace the projects according to their schedule.

MR. HIRANAGA: When you say balance in the replacement fund, that mean monies available for use in that year?

MS. KRAFTSOW: Basically, yeah, yeah.

MR. HIRANAGA: Based upon the inventory data you inputted?

MS. KRAFTSOW: Right, assuming you were replacing your inventory at the pace that it suggests that you should.

MR. HIRANAGA: Thank you.

CHAIRMAN RICE: Mr. Starr.

MR. STARR: If my memory serves me, I don't know, but when we did the runs with the Brown & Caldwell people, the best -- kind of the lowest scenario we could get, to keep it from tanking within 20 years -- tanking means, you know, dropping down and going negative within 20 years -- was to contribute somewhere between seven and \$8 million a year, starting last year.

We didn't contribute that last year. And, so, we ended up putting a footnote, on our financials, that said we know we should be contributing this, but we don't have it, so we didn't. So, we have that from last year. So, we are already behind. That's why I think it's climbed from seven to eight to ten. So, we are behind.

Now, I have a real concern, in our budget this year, that we are only being shown to contribute one million instead of, you know, that eight, or ten, or whatever it should be, which means we are going to get that much further behind.

So, we are basically not funding our replacement fund. And this is something that I -- you know, I have spoken with the Chair, and I know that he's been working on some ideas on how we can deal with it. But, you know, I think that, you know, all of us have been in business and know that if you don't have a reserve fund, a sinking fund, that's properly funded -- you know, maybe we will get off the board without the thing tanking. But, in the long run, it's sad news.

So, this is a great tool for us to be able to see what we need to fund, but it won't do us any good unless we actually find a way to fund it the way this tool tells us to do it.

CHAIRMAN RICE: Yeah. For your information, obviously, we are in a cash basis. Right? And, so, the only

reason that -- I mean, this budget is only -- is derived to come out to zero. So, if, in order to come out to zero, this could have been 2 million, it would have been 2 million.

And the problem with a cash system is that it recognizes no liabilities. So, you will see, when you look at the audit of the Water Board, the actual -- the auditor actually converts to an accrual system, and they rec -- that's the way to recognize liabilities.

Okay. So, I have been trying to figure out how we can do that. There might be an appropriation method. I have been talking to the county, and I still need to continue to talk to them as to how we might do it. We create a fund for replacement.

MR. CRADDICK: Peter, who are you talking about?

MS. NAGO: The county.

CHAIRMAN RICE: And you actually appropriate monies. Okay. So, you have to have the money to appropriate. That's the problem with that system.

MR. VICTORINO: Well, Mr. Chair, I state any kind of model you are using, if you are not using the model properly, then you best not be using it. I mean, if you are telling me you are supposed to be sticking 8 million or whatever, 10 million or whatever, and you are sticking one million, that model is doomed to fail.

And whether I am on the board ten years from now, or a hundred years from now, whoever comes at the end is going to be the one that needs it. And I agree with Jonathan. Let's make sure the model is there and being used properly or don't use it.

CHAIRMAN RICE: Well, the model will tell us what we have to put it away. So, the model works fine. It's what we can put away that's the problem.

MR. VICTORINO: Well, then we should be using what we can put away.

CHAIRMAN RICE: That's what Jonathan is saying.

If we put in our actuals, you will see what will happen.

MR. STARR: The problem, and it's a real problem, is that we are not venturing into the area of deficit financing. In other words, where we don't have the money, at our present rates, to be able to put the money aside, but we have to be able to put it aside.

So, I think that what we have to do is kind of bite the bullet and say, okay, we are going into a deficit. And I think we have got to go hand in hand to our ratepayers and say we need an increase in -- you know, I am not talking about our meter increase, but we need an increase in our water rates that will cover this. And we are going in the hole this year to the tune of whatever it is, 7-, \$8 million.

We are going to have a deficit, and we have got to get enough of a rate increase to cover that so that, in future years, the system doesn't tank.

MR. VICTORINO: This is all going hand in hand with the priority list. Knowing what needs to be replaced all plays hand in hand. So, I think we all came down to the same end conclusion. That we need to make sure that priority list matches up with the funding list and enough appropriation is

put.

I think all this plays together. So, again, thank you for the information. At least I have a better understanding, but I still think we need a priority list. I don't care how we come down to it.

MS. KRAFTSOW: I agree. I guess the problem is that the list -- the original list, CIP book, which was a priority, didn't have number one through 15. But it had year, by year, by year. Okay.

It assumed that we would be able to do -- complete 15 to 20 million projects a year, between 15 and 20 million, and that would be about half replacement projects. So, from seven to 10 million in replacement projects per year.

And again and again, we had neither the money or something would hold up a project. So, there is a big hump of unspent money that isn't spread out the way it should be now.

MR. VICTORINO: I got a better picture now. Okay?

CHAIRMAN RICE: What I'd like to suggest is that

as we move forward to approve the budget, which we are not doing today, but we are just having a workshop and a public hearing, is that we continue with our recent policy of approving lump sum amounts into the capital improvement, and then they come in, and they are approved one by one, especially until we have a chance to digest it.

MR. VICTORINO: That's fine.

CHAIRMAN RICE: And I will continue to work on how we deal with the accounting information.

MR. STARR: I know that's a legal question, because I believe the government is not under GASB. It's not supposed to have a deficit budget. So, it depends on how we do this. How we got to do.

CHAIRMAN RICE: Mr. Nobriga.

MR. NOBRIGA: Can we recommend to the full board that we amend the current CIP budget, from the 12.2 million to include the 1.9 million carryover, the CIP actual budget of

14.1 million, and that we amend the budget on the 20 million bond, for land acquisition and building expense, amend that to \$20.

MR. VICTORINO: \$20?

MR. STARR: Yeah.

CHAIRMAN RICE: Mr. Nobriga has an idea.

MR. CRADDICK: So, the bond is \$20 or the debt service is \$20?

MR. NOBRIGA: The debt service will reflect \$20.

MR. CRADDICK: So, the bond would be about ten times that.

MR. NOBRIGA: Those are budgetary requirements.

You want to show something to acquire a building for the Board of Water Supply, but we don't know if we need the \$20 million or what bond. So, in essence, fund that \$2. If we just

funded \$2 for it to appear on that thing.

MR. STARR: I agree we can increase it when we need it.

CHAIRMAN RICE: Mr. Nobriga's theory is to have it included, at some level, and when you get to the actual deal, you increase it.

MR. CRADDICK: And, also, there is the issue of the East Maui Pipeline. How do you want to handle that? You can do it the same way, put \$20 in there.

CHAIRMAN RICE: Well, there was four additional items, the drill rig, the filters -- the filters should be in the program. The chlorine issue, Mr. Craddick, and the East Maui pipeline, plus the carryover from last year.

I mean, we are just looking at a proposed budget.

We are not -- you know, we are not -- we are just saying, okay, add it into the final before we look at it for approval.

MR. CRADDICK: Well, yeah. But what I am getting is that you want this done before the public hearing.

CHAIRMAN RICE: Yeah, yeah.

MR. CRADDICK: Is that what I am hearing?

CHAIRMAN RICE: So, we are sending it out with these things in it.

MR. CRADDICK: Okay.

CHAIRMAN RICE: So, we can get testimony, if there is any, and then we would be ready to approve it.

MR. STARR: Was that a motion that needed a second on?

MR. NOBRIGA: I don't know if I need to. I don't know if I can make motions at these meetings.

MR. CRADDICK: I am asking about East Maui. How do you want to handle that? Do we do it a similar way, put \$100 in there?

MR. STARR: I think the East Maui is a real project. The other ones are a possible, maybe-some-day-kind-of project. East Maui is a pipeline project that we need to do, and we have an approximate idea of how much it's going to cost.

And if we have a pump added before we do it, then half of Hana is going to be without water for weeks. So, to me, I think we should treat that as a real project, and, you know, keep it in the -- keep it in the budget.

CHAIRMAN RICE: Okay. Mr. Craddick, anybody object to that? I think that's probably appropriate.

MR. CRADDICK: So, you want to talk about real numbers on that one?

CHAIRMAN RICE: Okay.

MR. CRADDICK: Okay. Currently, we have about \$4 million encumbered of state funds on that. It was encumbered in 1994. It will lapse this December if the job

does not move forward. There obviously is going to be a cost acceleration from 1994 until the job starts, and it wouldn't start obviously until the end of this year. So, we are adding one more year into that cost escalation.

So, the realistic amount would be what the escalation would be between 1993 and now. And we know, from the CIP, where we had the CIP indexer in there -- we know, from 1993 till now, it's been about 3 percent per year. If you take 3 percent per year, three times eight is 24 percent total. So, 24 percent of four million dollars is what? A million.

MR. STARR: A million.

CHAIRMAN RICE: Mr. Nobriga.

MR. NOBRIGA: Excuse me. Before we can proceed with that project, would we not have to finalize a supplemental EIS?

MR. CRADDICK: You will.

MR. NOBRIGA: And because a supplemental EIS is not even near completion to a point that the board can accept the supplemental EIS, what would be the proposed completion time of the supplemental EIS? And if that time -- estimated time would take us outside of fiscal 2003, then it wouldn't make sense for us to have this on the budget for 2003.

MR. CRADDICK: We are looking at getting that finished by November of this year.

CHAIRMAN RICE: Mr. Starr.

MR. STARR: You know, my own belief -- and I know this is a scenario where I locked horns before -- is that for us to complete the EIS is going to require, you know, basically, a negotiation of sitting down with the other side and reaching an understanding on developing future water.

And I think we all realize that it's critical to get water on line for Central and South Maui ASAP. My own belief -- and I haven't talked to anyone about this -- is that if we were to sit and talk story with the other side, mainly

the Hamakuapoko wells, they might be willing to let that out of the lawsuit.

And if that were the case, then we could proceed with this, and get those on line, and have enough water for a year or two for Central and South Maui out of those wells.

So, I think there might be a way through it, but, you know, under -- in another venue, we will have to talk about how we can -- we can do it. But I am hoping that a way can be found to get that done quickly. Otherwise, it's going to be dry times ahead.

CHAIRMAN RICE: Mr. Craddick.

MR. CRADDICK: I guess we had been willing to do that back in 1994, the EIS never would have been contested. But I know there are some on the board that have very big concerns about putting in a three-lane highway, and that is the reason why this project basically has gotten held up, because the pipeline that is being put in is a 36-inch pipeline.

Obviously, you don't need that size of pipeline

for a million and a half gallons a day of water. So, that's the real issue there. And that has probably always been the issue, is the size of the pipeline, realistically.

CHAIRMAN RICE: Okay. I don't want to get off on a discussion of that at this point. But, the relevant part is should we put some money in the budget for the pipeline? How much? And that's, I think -- remembering it is only a budget allocation. If we -- something happens, and we don't go through, we don't go through with it. So, is it a million dollars?

MR. VICTORINO: I think we should, yeah.

MR. CRADDICK: We have reason to believe that the contractor would want more, but that's a reasonable budgetary number.

CHAIRMAN RICE: At least for now, and then we can amend it if we have to.

MR. CRADDICK: And if what you have done -- what

you say, as far as the bond goes, that releases another what, \$2 million, Holly, that we have set aside in debt service, that could be -- actually, now you get back to this funding issue of even though we have \$2 million more that we could transfer over to the pipeline replacement project, obviously, this is not a pipeline replacement, system expansion. So, it would have to come under the development fee somehow.

So, we will have to look at that and make the recommendation to you on how we can handle that. Even if we do have to maybe do a borrowing resolution during the year, where the development people can borrow that money for a short period of time, that may be what we have to do. But the money is there if you do what has been suggested.

CHAIRMAN RICE: Okay. Everybody seems to be in agreement on that. We should move forward to put the budget together with all that.

Yes, Mr. Starr.

MR. STARR: Yeah, I want to get back to what I thought David was talking about, and I apologize for my

misspeaking before. But, I was surprised to see that the Hana project, to tie together the two wells in the system, is not -- is not in here at all.

MR. CRADDICK: It's under design right now, and we don't expect the design would be finished in this fiscal year. That's why it's not in there.

MR. STARR: Where is the design money?

MR. CRADDICK: It's already done this year, right, Herb?

MR. KOGASAKA: Yes.

MR. CRADDICK: It's already going.

MR. STARR: So, we are moving as fast as we can on that?

MR. CRADDICK: Yes.

MR. STARR: I accept that.

CHAIRMAN RICE: So, gentlemen, that's where we are going. Any objection to that? Okay. Any other questions on the budget CIP before we adjourn this workshop?

MR. NOBRIGA: Yes. In reviewing this map, you list the projects by number. You have a lot of projects has design or construction. But in the case of project 01-13, 01-38, 02-11 --

MR. CRADDICK: What page number are you on?

MR. NOBRIGA: Page five, six and seven. It has distribute and install pump. It says design construction, acquisition.

MS. KRAFTSOW: On page five, Waikapu well, that's development of the well. So, that would -- that would assume that the design is done already. And you are putting the well -- it would be like a construction.

MR. NOBRIGA: Okay.

MS. KRAFTSOW: On page six, that's an exploratory drilling, so you are not really designing or constructing. You are doing a drilling project.

MR. NOBRIGA: Based on getting the drilling rig from USGS?

MS. KRAFTSOW: No, no.

MR. CRADDICK: This is our own. This is a well that -- if the exploratory information turned out correct, we would expect to produce it.

MR. NOBRIGA: Okay.

MS. KRAFTSOW: And then on page seven --

MR. NOBRIGA: Design, construction, or acquisition?

MS. KRAFTSOW: It looks like a construction project.

MR. NOBRIGA: Design --

MS. KRAFTSOW: It says description, construction  
of a 4000 foot --

MR. CRADDICK: Design, I don't know if it's  
totally complete. I don't know if we have approved the final  
drawing. We have submittal of the drawing.

MR. NOBRIGA: You got some pages you got nothing,  
and you got dash, and you got design.

MS. KRAFTSOW: Yeah, what I need to do is make  
that a separate field.

MR. NOBRIGA: Okay. Exploratory, dig a hole?

MR. CRADDICK: Peter, can I bring up one other  
thing that is extremely minor but needs to be brought up  
nevertheless?

Holly, the dollar amount on the EM. Okay.

Holly -- why don't you pass that out, Holly, to everybody.

The operating portion of the budget has the corrections that you talked about last time.

One item that you didn't talk about is the exempt management people. And I told you that an item was not in there for any pay increase for them, because of this new program, under the state, whereby they get their increases via a merit program, where they have to set up a program, where they are meeting specific requirement, and that they get either a bonus or a pay increase depending on whether meet those goals that they have set up.

And there was some money in there for rate increases, but we need another \$2,000 -- \$2,016 to fully fund that. So, I know it's a real minor item, but just for your own information.

MR. VICTORINO: To put into the payroll? Where does that go?

MR. CRADDICK: To tell you the truth, I haven't really -- it would be in payroll, but how you itemize it, I don't think I have thought enough about it just yet.

CHAIRMAN RICE: Mr. Starr.

MR. STARR: Yeah, one item that I don't see in here, and it's something that we have heard the other -- on Tuesday, as well as previously, from the Water Commission and USGS and John Mink, is that we should be looking to optimize our usage of the Iao water sources.

And there are some projects that we should be looking at. I believe some of the wells are too deep and need to be concreted to, what, a different depth. There are some pumps that should be downsized and so on. You know, I don't know if this is something we need a consultant on, or something that, you know, we can begin to do in-house, but I do feel that we should work on that to try to optimize the usage.

I know the Waikapu well is one thing that will help, and I hope that that can get completed next year. And also shaft 33, there is a project. What is the status of those, Dave?

MR. CRADDICK: The Waikapu well, is the contract

out on that one yet? Not out yet.

MR. STARR: That's for the pump?

MR. CRADDICK: Right.

MR. STARR: How about electric?

MR. CRADDICK: What we have done is we have worked with -- let's see. What is it? The Hawaii Land & Farming, that was going to put a booster station in. But they are looking at now totally moving off of that site with their booster, with a tank. They need a tank for their own development.

And we told them, well, why don't you put the booster next to that, so that their inability to give us a certain timetable is not influencing us, and then we can move forward.

MR. STARR: I understand that. We shouldn't wait for them.

MR. CRADDICK: And that's why we got them out of

the picture now. We are just going to go ahead on our own.

As far as Shaft 33 goes, that's still an open item there, until we get all the agreements to come to the board on their storage requirements and things like that. Those are near ready to come to the board, but not in a form yet to come to the board.

MR. STARR: How about the adjusting the levels of the wells and also adjusting the pump motor capacities? That's something I have heard over and over again that we should do.

MR. CRADDICK: As far as Waiehu Heights, which is the one that has been most talked about where one well is deeper, we are just not using it anymore. It's just there for standby. So, we don't have the high chlorics coming into the system.

As far as reducing capacity of pumps, we are going to have to get replacement wells in first before we start doing that. One project that is not in here is putting replacement -- or, well, to spread out the Central Maui joint

venture site. And I am guessing, you know, that's not an issue until the Central Maui joint venture matter gets resolved.

But, we do have a site set aside, which, if we don't do something to take control of it, then it will be sold along with the property that is sold from Wailuku Agribusiness, even though they have given us the right to go in and take that property, if we survey it. And the joint venture, I think, has paid for this site.

MR. STARR: Can we proceed with that? I know we need another well there.

MR. CRADDICK: Yeah.

CHAIRMAN RICE: We are proposing a lump sum here.

We are not talking -- they have got to come back on the individual projects. So, I don't think we have to worry about each individual project at this point. Yeah.

MR. STARR: I just want to see it moving forward.

CHAIRMAN RICE: Kent.

MR. HIRANAGA: I just wanted to get a better understanding of this handout. This one here.

MS. KRAFTSOW: Uh-huh. What about it?

MR. HIRANAGA: So, just looking at SDWA Kamole water treatment.

MR. CRADDICK: What page on the lower right-hand corner?

MR. HIRANAGA: Three. I guess this appears to be a new project, because it wasn't in last year's CIP budget.

MR. CRADDICK: Yes.

MR. HIRANAGA: So, it says 300,000 for a study/design/permit costs, two-and-a-half million construction costs, and for this coming budget, you are proposing 200,000 up front. Is that correct?

MR. CRADDICK: For design.

MR. HIRANAGA: I guess, when I look at something like this, there is no time line for completion, if it's a five-year project, a two-year project, so there's no way of measuring progress.

MS. KRAFTSOW: Right. For tanks, it generally can either be two to three years. Sometimes, if it's small project, sometimes you can -- and the land is not an issue, you can design it in one year and build it the next year.

For something more complex, sometimes there's a couple years, because you need to deal with the easements, or there may be some difficulty in the design. Or, in this case would be DOH approvals that would take maybe an extra phase to go through permitting and stuff.

MR. HIRANAGA: When I look at this budget, there is no way of measuring how progress is being achieved. I mean, it's like time is not of the essence. You just proceed year by year. Do what you can.

If the board were to say certain issues of high

priority and the department is going to commit to have this particular project up in two years, three years, or five years or eight years, there is no way of measuring that type of commitment.

MS. KRAFTSOW: There was an older report format that we got rid of, actually, because it was confusing people, and also to make room for the funding breakdown, that would say -- it would -- it had five years and then out years, which is anything beyond five, basically.

And it had expenditure amounts throughout that period, but it didn't have a real date for time of completion. I could add a field for that if you wanted.

MR. HIRANAGA: I guess caucus with other board members, I -- you know, if certain things are important to the board, they should be placed on a higher priority, which means more resources are being applied and commitment is made to complete them -- complete the project versus having a multitude of projects proceeding at whatever pace they proceed. You would want to select specific projects that need

to be accomplished within specific time frames.

MR. CRADDICK: We can do something like that, and try and get a time line in there that we would need to complete the project, or that we think they should be completed within.

MR. HIRANAGA: But then you would also have to provide percentages of completion. And then if you feel you are not able to achieve that time line, start to put in explanations as to why.

MR. CRADDICK: Percentage of completion, what do you mean there? Are you talking about a cash flow once the job starts?

MR. HIRANAGA: No, more like reasonableness of achieving the target date. You say you are going to finish a certain project in five years. You have been telling us, four years into the project, that you have only accomplished 20 percent of the project.

MR. CRADDICK: Yeah, updating the projects, we can certainly come up with a method of doing that, and we would do that.

MR. HIRANAGA: So we can tell if you are on schedule, or behind schedule, ahead of schedule.

MR. CRADDICK: And I think we do try and do something like that quarterly with the CIP.

MR. HIRANAGA: Thank you.

CHAIRMAN RICE: Clark.

MR. HASHIMOTO: When you do these CIP projects, any consideration taken on the movement of equipment? Doing a project in Kula and moving it to Lahaina, or is it -- is there any consideration -- you know, the movement of equipment sometimes is pretty cumbersome. Is there any consideration?

MR. CRADDICK: In a contract you mean?

MR. HASHIMOTO: No, no. I mean --

CHAIRMAN RICE: For the scheduling?

MR. CRADDICK: Very, very few of these do we do ourselves, so there is no equipment scheduling issues even involved in them.

MR. HASHIMOTO: So, it's contracted out?

MR. CRADDICK: Yeah, yeah. Ninety-nine percent of these are contracted out.

MR. HASHIMOTO: Like when we went to that, I guess, inspection tour in Hana, there was our equipment though, wasn't it?

MR. CRADDICK: Yeah, yeah. And that whole job, I don't believe, was \$100,000. And that was one of probably two that we did during the year, the flume and that.

CHAIRMAN RICE: Anything else?

MR. STARR: Just --

CHAIRMAN RICE: Mr. Starr.

MR. STARR: What's our next step, Mr. Chair?

CHAIRMAN RICE: Well, they are going to revise the document as we talked today. We have a public hearing on June 13th, and then we will have it on the agenda for the board meeting again.

MR. STARR: Does it go to the board before it goes to public hearing? I mean, I wouldn't mind actually going through the CIP project, if we are going to have it.

CHAIRMAN RICE: Yeah, that's why I suggested, what we did before, was that we approved just a lump sum. And then we had to get specific requests and approvals from CIP projects. And because we had the committee before, they

always went to Howard first, and then he brought them to the board. So, that was as opposed to just giving them.

MR. STARR: So, in other words, we are not --

CHAIRMAN RICE: Right. That was the purpose of doing that in the past, and I think that's why I suggested that earlier. I think that's the way we want to proceed. And, also, because we didn't get the list yet that Ellen is going to provide us, and there will probably be more feedback at that point.

MR. STARR: So, at some point, we will have another workshop on this.

MR. CRADDICK: Are you saying that you want to look at this on the 12th when we have our regular board meeting? Okay. No.

CHAIRMAN RICE: And I think it also ties to Kent's question about there's a whole bunch of projects in here, and identifying priority models, and so on, that we can talk about

again when we get the list.

MS. KRAFTSOW: That's just a sample of the -- a couple of the databases, query for pipeline replacement lists. So, I don't know if there are any questions on queries on here.

CHAIRMAN RICE: I can't see it.

MR. STARR: Move to adjourn.

MR. NOBRIGA: If I may, before we do that --

CHAIRMAN RICE: Go ahead, Mr. Nobriga.

MR. NOBRIGA: I understand our secretary will be reassigning herself on June 1. Although I am grossly not prepared to recognize her, I would like to recognize her accomplishments over these past -- shoot -- I don't know. I have been on the board for about three and a half.

MR. CRADDICK: Is that a motion for a resolution on the meeting of the 12th?

MR. NOBRIGA: Yes, please. And please invite Miss Nago to our meeting, so we can fully recognize her for her efforts over the past few years.

Also, I would like to ask the Chairman if there is any way he could appropriate lunch for us at the next meeting, since we have all these long meetings, and --

CHAIRMAN RICE: Are they the fault of the Chair?

MR. NOBRIGA: I don't know whose fault it is.

CHAIRMAN RICE: I will be happy to buy you guys lunch.

MR. NOBRIGA: I think there is an appropriation in the budget.

CHAIRMAN RICE: There is no such thing as a Chairman's slush fund in a public agency.

MR. NOBRIGA: At least a sandwich.

MR. STARR: I just want to thank Fran. I think she's done a great job, and I really appreciate you. Thank you.

MS. NAGO: Thanks.

CHAIRMAN RICE: Thank you, Fran. Okay. That being said --

MR. VICTORINO: I second the motion.

CHAIRMAN RICE: Adjourned.

(Recess, 11:28 a.m.)

*"By Water All Things Find Life"*

Department of Water Supply  
County of Maui  
P.O. Box 1109  
Wailuku, HI 96793-6109  
Telephone (808) 270-7816  
Fax (808) 270-7951

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