

MINUTES
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: June 24, 2015
TIME: 9:30 am
PLACE: DLNR Board Room
Kalanimoku Bldg.
1151 Punchbowl St., Room 132
Honolulu, Hawaii 96813

Chairperson Suzanne Case called the meeting of the Commission on Water Resource Management to order at 9:30 am.

The following were in attendance:

MEMBERS: Ms. Suzanne Case, Mr. Jonathan Starr, Mr. Michael Buck, Ms. Denise Antolini, Mr. Milton Pavao, Ms. Virginia Pressler, M.D

ABSENT: Dr. Kamana Beamer, PhD

STAFF: Roy Hardy, Lenore Ohye, Jonas Burgon, Ryan Imata, Katie Ersbak, Charley Ice, Rebecca Alakai, Dean Uyeno, Ayron Strauch, Malie Beach-Smith, Neal Fujii

COUNSEL: Julie China, Esq.

OTHERS: Dawn Huff (KIRC/Joule Group), Jon Nishimura (Fukunaga & Associates), Lori Nishida (Fukunaga & Associates), Lynn Malinger (Fukunaga & Associates), Kurt Inaba ((HDWS), Steven Chang (DOH), Stuart Yamada (DOH), Jonathan Scheuer, Susan Mukai (Brown & Caldwell), Dean Nakano (Brown & Caldwell), Myra Kaichi (ATG), Pam Townsend (MDWS), Brian Kau (HDOA), Brian Ishii (EKNA), Wayne Tanaka (OHA), Joanna Seto (DOH-SDWB), Kaleo Manuel (DHHL), Nancy Nishikawa (CH2M Hill), Shannon Wood (Windward Ahupuaa Alliance), Jon Nouchi (HART), Kathy Sokugawa, Sherri Hiraoka (Townscape, Inc.), Summer Kupau-Oda (Earthjustice) Barry Usagawa (HBWS),

Chair Case: Good Morning. Calling to order the June 24, 2015 meeting of the Commission on Water Resource Management. The first item is approval of the minutes and I've got a couple of requests to hold off on that. Well, I've got one request to hold off on that until a little later in the meeting. So with everyone's consent we are just going to skip that for now and move on to the first Agenda item in Section B. Announcements and updates and that is aloha and mahalo to Commissioner Denise Antolini. I just want to say, that I think everybody here feels a very, very deep appreciation for all of your incredible service and your passion and your knowledge and your commitment and we are very, very grateful for all you've done for the Water Commission. So thank you very, very much and we hope you will be nearby at all times to help us, help guide us in good ways so thank you so much

Commissioner Antolini: Thank you.

Mr. Hardy: And staff has a goodie bag for you.

Commissioner Antolini: Can I get a shirt?

Mr. Hardy: You can get that, too. On behalf of the staff, yes, we really do appreciate everything you've done for us. Primarily, I think, just all the advice that you've given us over the time, even though it's a short tenure. It's helped us improve the Commission's mission primarily with staff analysis and probably more so with collaboration with the community and the public so we really appreciate that.

Commissioner Antolini: Thank you, Roy.

Commissioner Starr: Madam Chair, Members. I really felt that Commissioner Antolini's service with us has been a great opportunity to raise the bar and to learn. I felt like every meeting that she participated in, I learned something and she provided a lot of thoughtfulness and right understanding of what our function is and what we need to do to go about acting not only with sufficiency but with excellence. It's been great to have her. Sorry we won't have her sitting on this side of the table; in the future maybe someday. She really has gotten us thinking deeper and more in accordance with statute and law and what's gone on in the past. So I want to thank her for that and really appreciate her service. Thank you, Commissioner.

Commissioner Buck: Outside of Denise's being a legal scholar, she has worked really hard in the last six months of, talking about community outreach and public participation and how better the Commission can reach out and how we can make decisions maybe earlier and be better informed. So, Denise, I'm totally committed to continue that effort. Thank you very much.

Commissioner Antolini: Okay, keep going.

Chair Case: Thank you so much. The second item on the Agenda is aloha and mahalo to our Deputy Administrative Assistant, Katie Ersbak. Without whom, I don't know, how we're going to survive. Thank goodness you're staying within DLNR. You have been just incredibly organized and thoughtful and foresightful and helping with all of our planning and keeping us headed on the right path and it's just been a real pleasure to work with you and we're very, very sorry to see you go from CWRM and just want to say thank you so much.

Mr. Hardy: On behalf of each and every one of us, we also want to say congratulations on your new job with the Division of Forestry and Wildlife within the Department. Katie will be pursuing watershed protection which is her passion and when you think about it, it's literally the headwaters where ground and surface water resources so it's at the top and I'm glad you're one floor away from us because we will be calling you. Mahalo and thank you for all your hard work.

Ms. Ersbak: Thank you. I just wanted to say thank you to the staff. I've already said this to the Commissioners, but this has really been one the best four years and I'm so happy that I got to spend it with the Water Commission. I'm going to DOFAW and it's a very big division and I've only been there a week but I've got a lot to learn but I have to say that I'm very sad to leave everybody because it is one of the most hard working staffs here at the Water Commission and I think one of the most cohesive and generous and just everybody works together great. I hope to find that same passion and commitment at DOFAW and I'm sure I will, but I'm sad to leave and I don't want to cry but if you guys need me for anything, I'm just one floor away so feel free.

Commissioner Starr: I just want to take the opportunity to thank Katie. She's been one of the best professionals that I've ever worked with. She's made every action that we've done as a Board not only doable, but efficient and pleasant. We've had a lot of really complex meetings in the last couple of years with a lot of moving parts that change at the last minute or change in the middle of the meeting and having the confidence that it's always going to be taken care of, one or two steps before, I as a Commissioner could think of it, is really gained me confidence and a feeling that anything that needs to

be done will get done in a thoughtful way. I'm sad to see her go, but she's a true professional and she's really one of the talented folks in DLNR and I just want to see her able to use her talents in a greater way in planning for watersheds is important, so thank you, Katie.

Commissioner Pavao: I echo all what they said, but I just want to know who's going to change my flight reservations now?

Ms. Ersbak: Kathy, right Kathy? Sorry, I can't do that anymore.

Commissioner Pavao: You've been so helpful changing my flight reservations, thank you so much.

Chair Case: Thank you, all. So Item B3. on the Agenda.

Mr. Hardy: Since our Survey crew is out on Maui collecting data today, Item 3 is basically conveying to the Commission and to the public, it's on the website and the link is provided about comments to the public hearing for the agreement on consent between EPA, DOH and the Navy and so you have a copy there. There are thirteen, fourteen comments we had on it. Also, you may have noticed in the news that the deadline has been extended from July 1st to July 20th for additional comments that want to be made by anyone on the AOC. In just quick summary, our comments are basically to speed things up a bit more as far as solutions and also the monitoring aspects of trying to assess what the problem exactly is in the field. So that's the gist of it.

Commissioner Pavao: Is the Navy still sticking to the two year time table for the study?

Mr. Hardy: The two year timetable for the...

Commissioner Pavao: They want to do the study and fix it.

Mr. Hardy: Implementing it was a little bit longer about twenty-two years I think, so that's why we were saying speed it up.

Commissioner Pavao: The last I saw was two years. That public meeting that Board of Water Supply had, Honolulu Board of Water Supply.

Mr. Hardy: The recent one was held by the Department of Health and EPA on the AOC.

Commissioner Pavao: Just recently the Honolulu Board of Water Supply had a public hearing last week.

Mr. Usagawa: That was the informational meeting.

Mr. Hardy: DOH informational meeting.

Commissioner Pavao: Oh, it was DOH? At that time I saw the news the Navy was kind of adamant about taking two years to do anything.

Mr. Hardy: I think the two years is to review the feasibility study of doing fixes, not actually to fix it.

Commissioner Pavao: That's what I mean, so nobody's going to kind of have them fix it sooner or do something sooner? Two years seems like a long time.

Mr. Hardy: I think that's part of our comments is to speed things up. The feasibility would be one of them, too. Definitely they need to, I think and this is our opinion, Commission staff, to get more monitor wells like monitoring networking because there are gaps right now. Where is it flowing? The only

direction I think that evidence so far is, it's going straight down to the Navy's own source. What's the lateral extent? A couple of new wells have gone in but nothing has been found so the question is where is the plume?

Commissioner Pavao: The monitoring well's going to take a while to do and who is going to finance those wells?

Mr. Hardy: Good question. I would think the Navy should and would, rather than the State taxpayers here.

Commissioner Pavao: Will your staff have input as to where the wells are located?

Mr. Hardy: Yes. In fact we have been going out looking at some potential new sites with the staff of DOH.

Commissioner Pavao: What's the elevation in that area? I'm just trying to see how big the well is going to be.

Mr. Hardy: For the monitor wells, they'll go a couple hundred feet. It varies, cause you're coming from mauka, makai but they are looking at I think not going too deep. Although, that is a good question because shallower wells haven't found anything.

Commissioner Pavao: What is the water table in that area?

Mr. Hardy: That's another good question. It varies, some of the monitor wells we see, they are anomalies. A mauka well is lower than a makai well and that's not usually what you see.

Commissioner Pavao: It's not all basal?

Mr. Hardy: It's basal. It's five, ten, fifteen feet but it varies depending on where you are. One of the things we're trying to establish is where is the gradient. There's some evidence that it may be flowing to the west but more work needs to be done to set the elevations properly and I think that's being done.

Commissioner Pavao: Has the water supply picked up any traces so far?

Mr. Hardy: I don't believe so. That's part of the mystery. But there are areas where there are no monitor wells and it would be in a typical plume and we have to look there too. That just hasn't been done. That has been some of our comments.

Commissioner Pavao: So the biggest issue right now is trying to find where the hell it is.

Mr. Hardy: That's part of it, defining the problem.

Commissioner Starr: Have we received a copy of the comments made by the Commission?

Mr. Hardy: You mean this letter? It's online here, I mean if you click on it you can see it but I thought we had sent it to you. It should have been sent, we did send it.

Commissioner Buck: Does that come from the Commission or the DLNR? I was thinking of drafting a letter for Commission approval, I'm not sure the process, we have to put it on the Agenda, and then discuss it and approve it before we can send a letter from the Commission, or is that letter from the Commission?

Mr. Hardy: It's from staff, it's from our review.

Commissioner Buck: Is that normal process? Has the Commission ever sent a letter from the Commissioners? I'm just curious, because I was thinking about doing it but then you'd have to put it on the Agenda first then you'd have to discuss it before you could send it out, we can't do that by email?

Chair Case: Julie, can we get your advice on that one?

Commissioner Buck: The context is, is there some easier ways that we can make decisions, be more public and do, if we wanted to send comments from the Commission.

Deputy Attorney General China: You have to Sunshine it. The letter would have to, like the draft would have to be discussed by the Commission members at a meeting.

Commissioner Buck: On the Agenda and then discuss it. If I got my act together I would have had a draft letter here and it would be on the Agenda and we would discuss it. Okay, thanks.

Commissioner Starr: I believe that a Commissioner can draft a letter and send it to Commission staff and then Commission staff can send it out to Commissioners and they can reply directly to staff. That is a way of doing it. If you wrote a letter and as long as you're not sending it serially to the rest of us and sent it to staff.

Commissioner Buck: It would still have to be put on the Agenda and discussed in public, right?

Commissioner Starr: No, if you sent it to staff, staff could send it to the Commissioners and if we told staff directly that we agree with that, then staff can send it out on behalf of the Commission. Just as they do with staff or Chair generated letters.

Chair Case: Is that sufficient or do you have to still have it in a meeting?

Deputy Attorney General China: I would think the final letter would have to be approved, should be approved at a meeting.

Commissioner Starr: It's just like if the Chair or staff sent out a letter on behalf of the Commission. If everything that goes out on Commission letterhead has to be done at a meeting that's a very big change in process and staff won't be able to act.

Deputy Attorney General China: That doesn't come out from the Commission that just comes from the Chair or it comes from staff.

Commissioner Starr: I believe that Attorney General is really making humbug for us here. And if that is the case, I want to have a ruling from the Attorney General's Office because I think that's wrong and I don't want to be told that we cannot generate any discussion or any action through our interaction individually with Commission staff.

Deputy Attorney General China: I didn't say that.

Commissioner Starr: I had thought you said that it would have to be at a part 92 meeting before anything that a Commissioner put into a letter can be sent out as part of the Commission, did I hear you wrong? Ms. Chin?

Deputy Attorney General China: It's China.

Commissioner Starr: Yes, Ms. China.

Deputy Attorney General China: I was saying that I think it would be better if, the public had the right to participate and...

Commissioner Starr: You think?

Chair Case: Why don't we pause and just, we can double check the answer.

Deputy Attorney General China: Let me double check, please.

Chair Case: We'll double check the answer. Your question is how do we make sure that if the Commission or a Commissioner wants to send out a letter separate from the normal staff submittal how do we do that in proper compliance with the Sunshine Laws? We just appreciate the Deputy AG confirming with, it's unusual process so, unusual request so we will just ask for confirmation of what the right process is.

Commissioner Starr: I don't think this is an unusual request. I think this is the way we should and the Commission used to act and I just want to be sure that we're clear about what we're asking. This is one of the reasons why later I'll be asking for transcripts of our meeting to be made available to us and the public so that we have clarity about what we're discussing.

Commissioner Antolini: There may be a distinction between the Commissioners commenting on something as opposed to issuing a letter that has to do with a pending legal item. That might be a distinction that might make it easier to separate something that can just be done without Sunshine versus if it's a pending item that the action, that the Commission has to take action on, that might make a difference. I don't know but that helps speed things up. I think what Commissioner Starr is asking is can we send comments, it's not a matter...

Deputy Attorney General China: That's fine to send comments to staff. But the final letter I was thinking...

Commissioner Antolini: Yeah, I meant the letter would be a comment letter but it's not like it's a matter quote pending before the Commission. It's of interest to the Commission so I just think that might be a little easier to grapple with.

Commissioner Pavao: Just for the record. I have issues, with we, as Commissioners, trying to draft letters for staff. It's assuming that we smarter than staff and I don't think we are. I have a real problem with us drafting letters for staff to distribute. That's just my opinion.

Commissioner Antolini: I do think there is a significant role that a Commission to speak as a Commission working with staff. I think there's a separate very important collaboration but there are times when I think the Commission should speak, otherwise...

Commissioner Pavao: I have no problem with us speaking up but for us to draft a letter and say here staff you send it out. I don't think that's proper.

Chair Case: I think the question here is, is this a situation where the Commission, itself, in addition to what the staff normally does in their process, is this a matter of significant, sufficient importance that the Commission itself would like to add a collective comment at this level. I think that's a good question. We would just like to sort out the answer to that so we will appreciate the Deputy AG advising us on the best process to do that.

Commissioner Starr: I want to be clear that my concern and feeling is that the role of the Commissioners is in a sense being dumbed-down and watered down by having a process where anything that goes out or anything that comes in our minutes is reviewed for being politically acceptable or kind of toned down and I think there needs to be another process where we can act as Commissioners because this is a Commission, and we are the Commissioners, all of us from the Chair to the rest of the members and once upon a time Commissioners were willing to take responsibility and voice what we're here to do. I don't want to give up that responsibility easily so I'm looking for a mechanism that we can utilize to work when we feel, all have the same feeling, expeditiously and not just be kind of be satisfied with kind of the lowest common denominator. This is the case we're currently discussing with the Red Hill Tanks is one area where this really comes to light. We need to make sure that the Commission get responses and letters that are being sent out on Commission stationary speaking for us and responses to that and we also have to have the ability to speak on that. My own feelings about Red Hill are a lot more stronger than our comment letter was. I personally feel like the Navy is stone walling and putting the survival of Honolulu citizenry and community at risk because they aren't willing to spend the money to do what they should do which is double line the tanks and I'm glad the Senate did come out with a resolution for double lining after the Navy pulled out of the agreement that they had previously agreed to with the task force and it's hard for me to see this in any other way but a great indignity, or even obscenity that's being done by the Navy and will likely end very badly for the Board of Water Supply and all of its customers. I'm sorry to rant but I feel strongly on this.

Chair Case: I don't think there's anything preventing an individual Commissioner from writing his or her own letter, right?

Commissioner Buck: As long as they are not speaking on behalf of the Commission.

Chair Case: Not speaking on behalf of the Commission, but maybe identified as a Commission Member but not speaking on behalf of the Commission.

Deputy Attorney General China: That's correct, you can write your own letter.

Chair Case: The staff comments are of technical nature and so the question again is whether the Commission itself wants to write a different kind of a letter in which case that would be drafted and circulated for comment and do we need it, that to be part of a sunshine meeting in which case in this event it probably be after the comment period but it still could be submitted and so we'll just check on that.

Commissioner Starr: I would like to write a stronger letter or have staff write a stronger letter that is more in line with what Board of Water Supply's comments have been recently so if now is the time to do it I'm happy to work on it now or I'd be happy if staff wants to help do that and if we need to bring it back to the next meeting that's okay but I do feel we need to really be a little bit stronger with our comments. We are the custodians of our fresh waters for the State of Hawaii. Can I ask Mr. Hardy?

Mr. Hardy: I can work with you on that.

Commissioner Starr: If I work with you on that and then we can bring it back and put it on the Agenda for the next meeting, is that the best way?

Mr. Hardy: We can. It probably would be after, though I think, the 20th.

Chair Case: Yeah, it'll be after the 20th.

Commissioner Starr: Can we send a letter saying that we will have comments after the deadline because of Sunshine Law? So that we're on record as saying that they're coming.

Commissioner Buck: I'd like to, I think the Commission speaks with a different voice than the staff and that's appropriate. But specifically the scenario is, a Commissioner drafts a letter, sends it to staff, asks it to circulate to all the other Commissioners for their comments. We do not talk among each other, the staff compiles the comments they get, they put it on the Agenda and then it's approved by the Commission as a letter coming from the Commission.

Deputy Attorney General China: That's the process I was referring to. But I guess the process that Commissioner Starr had proposed was a letter is drafted, sent to staff, staff sends it to all the Commissioners all the Commissioners send comments to the staff but then what's going to happen is staff is going to have to send the letter to all the Commissioners again to get their okay. In that case it becomes a telephone thing and it's basically an unintended violation of Sunshine, I think, because you're still talking with each other but you're using staff to talk to each other.

Commissioner Buck: But the first option I said, that's okay?

Deputy Attorney General China: Yes, the first option is good.

Commissioner Buck: Okay, thank you.

Commissioner Starr: As another option, if a Commissioner sends something to staff, staff circulates it to Commissioners, Commissioners send back to staff their comments and then staff works with the Chair to draft a final version and the rest of us trust that Chair and staff will do the right thing.

Deputy Attorney General China: It's less icky. I think that may be possible as opposed to just continuing to go on because you can't play telephone. That's the problem.

Commissioner Starr: Could you get a ruling on that and send it to staff and staff can send the ruling to us.

Deputy Attorney General China: You just can't play telephone. That's what we want to avoid.

Chair Case: To avoid that, Roy can just compile a version incorporating as best as possible comments.

Deputy Attorney General China: Then he can send it out and that could be the Commission letter, instead of going again through the Chairperson and back and forth. And that would be I think okay, if that's okay with you.

Chair Case: Anything else on this, any other questions on this? Do we take testimony on this? Does anyone want to provide public testimony on this? We're going to go to Number 4. Status of the Request to the Agribusiness Development Corporation and Kekaha Agricultural Association for Mediation, etc.

Commissioner Starr: Madam Chair, before we begin the item, can I ask why we haven't received the response that was sent to us by KAA or ADC? I've heard there was a response and we've not received it as Commissioners and I feel that, that is offensive and disrespectful and wrong that we were not sent this letter as soon as it came in.

Mr. Uyeno: Good morning, Commissioners. Yes, in response to that you folks I think all received via email the letters that went out to James Nakatani and Landis Ignacio. So on June 5th we did receive a letter via email from Kekaha Agricultural Association.

Commissioner Starr: Dean, do you have that letter for us?

Mr. Uyeno: Yes, I do.

Commissioner Starr: I mean it's very late but

Chair Case: Let's let him distribute it.

Mr. Uyeno: As you know, I think we set a sixty day deadline following the May 11th letter for responses on the information with a thirty day response time for their interest in mediation and further investigations by Steve Spengler, our consultant installing the ditch. This letter states that they have consented to further monitoring efforts from Element Environmental, so Steve Spengler is working directly with Landis to install gages at sites specified in the original letter. It also states that KAA is willing to participate in mediation. On June 3rd we received a letter from ADC. This just states that ADC is willing to participate in mediation as well. Lastly, yesterday we received a letter from the County of Kauai. They were recently made aware of the May 11th letter and were interested should the matter go further they would reserve the right to participate in mediation should they feel the need to. We have had informal discussions with KIUC, Kauai Island Utility Cooperation, Department of Hawaiian Home Lands and Earthjustice, all of them are responsive and are interested in participating in mediation particularly with Earthjustice hinges on basically on what data comes in from KAA following the deadline. I talked to Isaac Moriwake basically to give them a week or two to digest the information once it comes in and then we'll have another talk after that time. As far as the site visit, we are in the process of planning for a site visit we're looking for two days and it would be limited, at that time once we get the details worked out, we'll come back with an Agenda item at a future Commission meeting to go through that process.

Chair Case: Any questions?

Commissioner Starr: I'm a little bit confused about what the concept of mediation is in this light because I don't really see this as a dispute between the two parties. But I see this as an issue that Commission has been remiss in not setting instream flow standards and dealing with allegations of wastage and refusal to submit information and that those are active functions that the Commission has to do. Whether it's a water management area or not, I think our responsibility and role is quite clear in that we need to do that and I want to be sure that mediation is not a mechanism for just wasting more years. It's already been two years since the complaint was filed and frankly we should have acted proactively way before that. So I'm trying to understand what we're looking to do other than gather what kinds of information Dean in their interest to send us and that a mediation process or are we going to go ahead and do our duty which is instream flow standards and dealing with wastage and dealing with reasonable, beneficial use issues for the water so I'm asking Dean who certainly understands this and has been vague in leading us in these areas.

Mr. Uyeno: From where I stand, number 1 starting off, we didn't have a lot of information on the system. So it's taken us a little time to get to where we are today. Recognizing that it is a very complex situation with the Kekaha plain, the current hydroelectric and the potential future hydroelectric projects that are being proposed for the area, there's a lot of different players in this so, there's a lot of moving parts so that I think that's where mediation can hopefully help with that. We made the data request to Kekeha Ag and we'll have to see what comes in. I think at the last Commission meeting we were amenable to addressing some of the waste concerns and once the data comes in we can assess that at that time.

Commissioner Starr: I am asking for a timeline for the Commission being able to set instream flow standards and deal with wastage and reasonable, beneficial use so I'd like to have a date when staff will be in a position to help us do those functions. Either now or send it to us after, by a month or six months, whatever.

Mr. Uyeno: We can send that information to you.

Commissioner Buck: There was a detailed request for data on water use and that timeline is, was that a different timeline?

Mr. Uyeno: Sixty days, so from the date of the letter, so the original date of the letter was May 11th so we're looking at July 11th.

Commissioner Buck: The last discussion we had at our Kauai meeting, the Chair asked me if I would draft a letter to the Kauai Stakeholders and kind of outline the framework of where we think we are. I did draft that letter but the staff had sent out their official letter, so we held off on sending out that letter. To me this letter provides a framework for mediation. There's no decisions, but it tells all the stakeholders and we had many besides just the ones your letter went out to that are probably involved. I have that letter in draft form of which based on our last discussion, and it's really up to the Chair, I can provide it to staff, they can send it out to the individual Commissioners and we could talk about it at the next meeting that's a process, but it kind of lays out a framework for all the stakeholders about here's where we think we are and here are the key issues I think any sort of mediation process should deal with and I think it would help that process along if indeed we go down that line. Based on our last discussion with the Attorney General I'm happy to submit that letter to staff who then can send it out to all the Commissioners for their review and if it's put on the next Agenda in July then we can actually send it out, I think it might be helpful to move the process along.

Chair Case: So we have an agreement to mediate and this would provide detail on how to...

Commissioner Buck: Yes, it just outlines some of the key issues that I think that we heard and also I think based on our public trust responsibilities these are some things that we would be looking because it's not on the Agenda, I don't want to get into the specifics but I can send it out, staff can then distribute it to the Commissioners for their review and input back to staff if that's the process but it's something that you had asked us to do, so I apologize.

Commissioner Starr: I'd like to go on record, and I know that's been difficult because of the process with minutes but mediation is not what we are obligated to do. Instream flow standards, wastage and reasonable and beneficial use per 174C is what we're obligated to set and deal with and this is not a place where we should reach an accommodation or kind of cut the baby in half, this is a place where we're mandated to do those functions we've been called upon to do them. So I really have no understanding of what we're mediating whether they should provide the information that they're obligated by law to provide us, whether we're going to go ahead with the process of setting instream flow standards which we're obligated by law to do, to deal with wastage and reasonable and beneficial use or are we going to kind of create a compromise for mediation.

Commissioner Antolini: I think we need a roadmap. I agree with Commissioner Starr. There's no doubt the Commission has a responsibility ultimately to make the right decision under the Water Code and ultimately that has to happen. There has to be a Commission decision at some point on the waste petition and the related matters but I do think mediation given all the information and all the collaboration we engaged in with the parties in the site visit, I think mediation can up with some creative options that would be significantly beneficial compared to what staff alone, Commission alone, and public meetings could come up with. I see these as parallel tracks, I think mediation here has a lot of potential and I'm personally very grateful that interested parties have indicated the willingness to do that because I think it's more creative and it would be a lot more efficient. It doesn't detract from the Commission's responsibilities, ultimately make the decision and can reject what the mediation comes up with so July 11th is the deadline for the sixty day information request to come in so it seems to me, even though I won't be here, so it's easy for me to say what you all should do. When that information comes in and is shared, and I would urge that it be promptly shared with everyone including the Commissioners then I think folks can make an assessment about what issues could be helpful in mediation. Not every issue could be helpful in mediation. The key parties could craft their own ideas and proposals to the Commission for some kind of mediation framework. But then I think it's up to the Commission to say at every Commission meeting or by the end of November, October, whatever, there should be a set

timeframe on mediation so it doesn't go on forever and make some commitment to making a decision on the waste petition by the end of the calendar year. I agree it's been pending for a long time but I also think staff and the Commission have been careful about gathering information, the parties have been very cooperative, we invested a lot of time in this site visit working with the community but I think it's very right once that information comes in to double track, Commission keeping things on track, and mediation under a set timeframe so that's one suggestion. But I do think a roadmap helps everyone rather than doing it meeting by meeting so maybe a timeframe, Commission staff can come up with a timeframe so it's not endless, so there is a hard decision at the end.

Commissioner Starr: I would want to see this timeframe be quite short in terms of the information that we requested in that letter which was quite a bit of information and I see none of it answered by KAA or ADC. I see zero facts and figures back to them and we asked for maybe thirty items and I was under the impression that what that letter did was give them sixty days to present that information. If that information was not forthcoming in sixty days then our next step was a demand letter with the force of law to get that information from them and that is more the way I'm thinking. That sixty days is almost up and we may get that packet in the next week or so but if we don't, I really want to see what our process is going to be to get that information not to mediate about whether they should give it to us because as far as I'm concerned their action and not providing this information is contrary to the force of law.

Chair Case: Their sixty days is not up yet, correct?

Commissioner Antolini: I don't think mediation is about whether or not they're going to supply more information cause it's already Commission's asked for it, they have an obligation to provide it and that's not something you can mediate. Commission's asked for it, I think the mediation is, are there win-wins, are there win-win-wins, are there ways to stop what is allegedly waste in a way that makes sense given the way the system works. So to me mediation really goes to the heart of can the community come up with a better solution than the Commission and staff alone and I do think that, that's likely. The other thing I would say, is I think the next step, again since I'm not going to be here I can maybe opine on this, I think the next step might be an order to show cause so if the information comes in and it shows that the allegations are sufficiently supported and that the Commission feels that the waste is occurring and should be stopped then the Commission can issue and order to show cause we're allowed to do that to say show us why the waste shouldn't stop in the next thirty days. The order to show cause, I think is on the merits of stopping the waste not on the need for information. I do think it sequences out in a way that I think that the parties can deal with I hope. I wish you all the best. But I do think that there's a ton of potential here for getting some nice resolutions of some of the issues so it narrows what's before the Commission in the next couple of months.

Commissioner Pavao: I guess we as Commissioners have been bombarding you folks on how to resolve this issue because it's something that needs to be resolved. But I think what we fail to hear is, could staff tell us what's your game plan? How do you propose to resolve this? In other words, okay, so we get back the letter, you get back the information, kind of share with us how you intend to resolve it.

Mr. Uyeno: We can do that. I agree with Commissioner Antolini that once the data comes in then basically we can assess the situation better at that time. We'll have the data that we collected either through the consultant, through the site visits that we and you folks have gone on and the data that KAA and ADC submit. Then at that point we should be able to make a decision on the waste plan. Should it come to an order to show cause then so be it. Then once everyone has this full plate of data with all the parties, then we can enter into where the better position to enter into mediation, because we need a common ground, the full range of information to work with before we enter into mediation otherwise we're just throwing darts in the air.

Commissioner Pavao: So the key is that July 11th letter with the information request.

Mr. Uyeno: Correct. And recognizing that with the amount of data that we ask for, it's going to take time to process that. So we'll certainly get that out to you folks as soon as we receive it and then we can as well make it available online.

Commissioner Starr: I'm hoping that information comes in and that you're able to process it. But in the event that it doesn't, it is not forthcoming, then I'd like to ask whether staff would commit to put forward a notice to show cause, for say the next meeting. Thank you.

Chair Case: Any other questions? Thank you. Item B5.

Mr. Uyeno: Na Wai Eha Stream Gages.

Commissioner Antolini: Chair, are taking public testimony?

Chair Case: Oh, I'm sorry, I apologize. Does anybody want to comment on this one? Anybody want to provide testimony on this item?

Testimony

Mr. Moriwake: Isaac Moriwake, Earthjustice on behalf of the Petitioners in this case. I appreciate the staff sending out the letter, request for information, the Commission being interested on following up with that and I do agree with the discussion previously that mediation holds some promise potentially, but it is always premised on willing parties and really focused agenda of what we're trying to achieve. We participated, Earthjustice, on behalf of the clients in the Na Wai Eha case, participated in mediation very early on in that Na Wai Eha case regarding the waste complaint. I really lose track of how long ago that was. Sorry, Kapua? 2006, so do the math. Can't say much about that since it was confidential, other than it didn't do anything and at that time it was just too early. We didn't have any information on what was going on with the diversions and in fact, we didn't get any of that information that we were asking from the very beginning until we actually got in to the contested case. That's what it took in order to disgorge that necessary information for everyone to be on the same page and start addressing the merits of how the water should be justly allocated. So until we're on that equal footing and have all that information on the table and have a bona fide disclosure, I personally, we personally question the efficacy of mediation and it really I think boils down to direction from the Commission staff, Commissioners themselves, as to what is the roadmap, where are we going here, are we just going to spin around and ask for information or do we have a clear goal in mind. What are the ground rules for any such mediation? So that's why I think in talking to Commission staff it was very important for everyone to see that information, the degree of disclosure before we make any decisions on the value of mediation going forward. I thank again, the more direction, the more guidance we can have from the Commission it only improves the value of any such mediation process. I think that's obvious but I just wanted to emphasize that.

Commissioner Antolini: I notice your next meeting in July is in Kona. And that will be four days after, I just want you to think about that because you know presumably things will come in on time and be distributed the next day. That's not within the six days, but the meeting is on the 15th in Kona, not within the Sunshine six days. I'm just wondering before we leave this matter, the 15th the information will have just come in, there should be some discussion in Kona, but it's Kona.

Deputy Attorney General China: You can Sunshine the matter. Agenda the matter, as an update.

Commissioner Antolini: Even though the information coming in will be supplied to the Commission shorter than the six days.

Deputy Attorney General China: It's the Agenda that has to be properly posted. The notice of what you're doing.

Commissioner Antolini: I don't know how everybody feels about going to Kona for this update because it's pretty important.

Mr. Hardy: Good discussion, but there was going to be an update to that July meeting as well. We're pushing it back at the request of the National Park, the 15th is not a good time. Later in the month, or perhaps even August. There will be more time.

Commissioner Antolini: Just something to think about the logistics of...

Deputy Attorney General China: So we're not going to Kona in July?

Mr. Hardy: No, it could be August.

Deputy Attorney General China: No, no but you're going to have a July meeting but it will be here?

Mr. Hardy: We have enough in Kona to deal with in Kona, so that's what we're kind of shifting back and forth, but it's going to be pushed off mainly at the request of the National Park.

Commissioner Antolini: If it's pushed off then it seems to me I guess everybody should probably leave here knowing when there's going to be a Commission discussion of this update. So it doesn't, because if it's August, and then that's like a month after things come in. I'm just thinking of this roadmap so you don't lose this opportunity to kind of assuming this information comes in, when will the Commission discuss it, rather than let it go for another couple weeks.

Mr. Uyeno: I would rather it be in August because we also have the contested case hearing for the water use permits coming up as well in early August.

Chair Case: So an August Agenda for this matter would provide time to digest the data that comes in and work on the framework for moving forward?

Commissioner Starr: I'm more concerned with what happens if the data does not come in. I want to have a firm date to move toward on that. I'm happy for it to be in July which will be past the deadline and so I would like to have something on the July Agenda, but I don't think we can really take our complete action at that point, but I would like to have it there.

Chair Case: So can we have an Agenda item as far as a report on what data has come in? Without doing a full analysis of it by then at the July meeting in Kona or whenever that meeting is?

Commissioner Starr: I have a question for Mr. Moriwake, which is have you reviewed the letter for the request for information that the Commission had sent to KAA?

Mr. Moriwake: Yes, I have it right here.

Commissioner Starr: Were there items that, I know it did not deal completely with all of the allegations and requests and the wastage issues in depth and so on, but in terms of data points, can you comment on that and also if there are specific data points that were missed by that, could you either comment now or by letter?

Mr. Moriwake: Based on my review, it was very extensive, it covered a lot of field. I think it is an excellent start to build that base of information and based on the responses we can all collectively

determine what further information we need. I can say based on the Na Wai Eha experience that staff actually had to issue several rounds of letters following up on the responses that they received because at least in that case, the diverters answered the questions partially or the answers they provided raised more questions and so while I'm hopeful that this very extensive initial request will yield a lot of information that moves the inquiry forward. Based on experience and I think just the practicalities of how generally diverters approach these types of investigations, and it's not just a water commission issue, I think any kind of government regulation raises the same dynamics, I think maybe, well let's hold judgment until we see what comes in but I think at least staff and the Commissioners should be prepared for the possibility that this information gathering might extend and go beyond just this initial letter. To your initial question, whether there's additional follow up items on this letter, I will review it again but my initial review was this is very extensive and an excellent start. And just to wrap up on a general observation, I think this is obvious and this goes to my point about the dynamics in these types of cases, but of course, delay, further process, this petition has been pending almost two years now and delay just as a practical matter, favors the diverters because their status quo benefits their current diversions. The lack of information benefits the diversions in the same way and so all that to say I really appreciate the Commissioners and the Commission staff of a really aggressively, proactively inquiring on the pending petition and waste complaint and trying to get some bona fide information for public review so that we can start moving forward on this.

Commissioner Buck: Just to summarize for my own understanding, what we're doing in the next meeting, we're going to get an update on the data request that we made, we're going to get an analysis, an opinion from the staff on that data and in our back pocket we're going to have prepared an order to show cause if indeed the staff believes that the data is inadequate or not timely. We're also going to discuss a letter from the Commissioners to the Kauai stakeholders that kind of outlines the general framework for mediation and those are the three items that we will be discussing for Kauai at our next meeting whenever that is?

Chair Case: Can I just ask a couple questions? Is an order to show cause the right next step in terms of I guess the question is, is the data going to be sufficient or complete and to the extent that it's not, is it because there's data there but is not being reported or because it's not available, not measured or whatever? I'm just wanting to clarify what exactly we would be asking for and what the right format is for following up on that request.

Deputy Attorney General China: I'm really not sure what's going on in Kauai because I'm not the Deputy assigned to advise the Commission on this particular matter. But I'm sure that staff could work with the AG's Office to get a plan of action to report back to you to try to figure out what the next course of action's going to be after you get the data back and the responses back.

Chair Case: Just to reiterate, my two questions would be, what is, if the data is insufficient, hopefully where it's insufficient, the report, the submission would clarify the reason why it's not there, whether it's not available, not measured or data not collected and what is the appropriate next step in order to make sure we've gotten all the data that's available and then to the extent that it's not available, not just not submitted, but not available, what do we do to try to get that information? There could be some investments in future data collection that we need to think about how to deal.

Mr. Hardy: Staff needs to come up with that roadmap and it's going to be dependent on the information we receive, so there are different paths and alternatives to go through.

Commissioner Pavao: In all fairness to staff I don't know how you guys going do it, if 11th is the deadline, the meeting's on the 15th, you're only going to have three days to do it. All you're going to report is yes, we got the data or no we didn't get the data.

Chair Case: They're going to have more than three days. The date for the next meeting is going to be later.

Commissioner Pavao: Not July 15th?

Chair Case: They're going to change the date for the July 15 meeting.

Mr. Hardy: We're going to push it back to the end of the month or maybe even August.

Commissioner Antolini: Because of the Commission's public trust responsibilities, precautionary principles, there's a point waiting for data forever is not consistent with those responsibilities. So there's a point at which the Commission needs to act to protect the resource even if not all the data is in. That's pretty clear in case law so that's why I was talking about a roadmap. Some of the data they won't be able to produce in a timely way but that doesn't relieve the Commission of its responsibility from being proactive and so I hope that that's why I was thinking of you need that roadmap so it doesn't stretch out.

Chair Case: For example, in order to show cause for data that doesn't exist doesn't help us, right?

Commissioner Antolini: I should clarify that, an order to show cause in my mind is not to extract additional data, that can be done through letters. An order to show cause which was done once before with the Commission, is show cause why you can't stop diverting water. It's to show cause why that remedial action can't be taken immediately. So it's not really to extract data, it's to get the remedy in place that is consistent with the public trust and the Commission's responsibilities. One of the issues is we're dealing with here is presumptions and burdens of proof and who has the burden and so the order to show cause goes right to the issue and says show us why you can't stop the waste. Just hypothetically, we have sufficient information to believe that there is waste occurring, order to show cause why the waste can't stop within ten, fifteen days. It's the ultimate I think hammer, well it's not the ultimate hammer, it's an extremely useful legal tool short of the Commission making a full decision on the merits. But I think it's really important because of the Commission's responsibilities to act proactively.

Mr. Moriwake: So the case in which the Commission issued the order to show cause was the Waiahole Ditch case and I think Commissioner Antolini at the time was working for the Windward petitioners in that case. What had happened was the Windward petitioners found evidence of illegal dumping of water in dry Leeward gulches and based on that information the Commission immediately issued that order to show cause saying why shouldn't we penalize you for doing this unlawful waste and that got the diverters attention immediately. Then there was a process after that in which it involved mediation and an interim solution which that obvious waste that immediate excess that the Leeward diverters were tempting basically to bank by just spilling it on the Leeward gulches immediately was returned to the Windward streams pending the resolution of the larger contested case proceeding. Actually, raises several points in terms of process, the order to show cause is like Commissioner Antolini mentioned, sort of a penultimate or a step before actually bringing down the hammer and so it's good to show intent that this is the way we're going and this is the direction we're going. Another more direct route could simply be based on the information that comes in based on what we already know now, staff works up some sort of order saying this is what the Commission wants to do on an interim basis, stop this ADC waste right now or so you don't have to go through that extra step of okay why don't you give us the information why we shouldn't make you do this. There's various ways you can address this once you get better information. I do want to stress though, in addition to the information and this goes to Commissioner Starr's previous question, potential modifications or solutions that may help address waste concerns in dry stream sections raised by the complainants, this is item 13 in the letter, and this goes to the previous question of is there further follow up here more specificity and also it relates to the point I emphasized in the Commission's previous meeting on Kauai about how there are low hanging fruit here. There's low hanging fruit and additional and immediate action items if you will, that based on the site visit and based on the allegations in the complaint, based on all the information we know, there's no reason why the diverters couldn't start

addressing this low hanging fruit to the waste now. So maybe there's after this round and further specificity and that we can flush out what those items are but I would say one example and I can put this in writing again I mentioned this in the last Kauai meeting but the fake waterfall issue, why do we drain headwater streams dry and then dump the water back further down leaving those dry stretches in the headwater regions. That's one example in a list I presented to the Commission on how we can take proactive immediate actions rather than waiting for further process.

Chair Case: Aren't these things that can be addressed in mediation? You sit down and you say here's where we think the early wins are, priorities and isn't that the purpose of mediation is to actually have that discussion and try to get those things moving forward?

Mr. Moriwake: Exactly, as I emphasized before though if we can have clear guidance from the Commissioners about this is what we want you to look at this is the timeframe. We want some sort of decisive action on this or in the case that no resolution is reached, then we as a Commission will take the necessary steps. The answer is yes, but again we need to align the motivations so that this ongoing delay which benefits the status quo diversions doesn't continue.

Chair Case: Any other questions? Thank you. Any other testimony? Item B5. Update on Na Wai Eha Stream Gages.

Mr. Uyeno: I just wanted to brief you on the Na Wai Eha gages. Thanks to our staff Ayron Strauch and Malie Beach-Smith, now that we have them on board, they've gotten a year of experience under their belt for getting the gages in both East Maui and Na Wai Eha going so we've restarted our quarterly monitoring efforts, going out collecting data in both sides of Maui. Ayron worked hard on getting the data up on our website, if you go to surface water and then monitoring, we have this page here so you'll see East Maui going back to 2011 when we first started gaging. Keep in mind there are periods because of staffing was basically down to just me for six months for the whole stream branch. There are periods in there where we didn't go out for a year, for six months at a time so some of the data is suspect during these periods. There's a map as well, East Maui gage site up on the top and the Na Wai Eha ones down on the bottom. So some of these we did like Waiehu we had going from the original decision and order from the Commission, Waikapu and Iao we got started once the following mediation and the Commission's decision. So I just wanted to pass out, this isn't on the website yet just because this is for Iao gage, there's a note on there as to the, if you look at the top gage it's the mean daily flow values for our Iao gage at Kepaniwai Park, you'll note the dotted line which is the instream flow standard at ten and there are two spots there in March that the flows dropped, so that is when water was returned. The diversion was, the release was closed so that HC&S could work on the Spreckles diversion modification. So that is going and actually we can provide you some pictures as to what that's doing but basically they've lined the diversion so the water rather than going into the diversion and coming out of the sluice gate about 50 feet below it's staying in the stream channel and going around the diversion intake, so that's a good thing to see. This will be posted. Also wanted to make note of the recent Hawaii Board on Geographic Names recently voted to change the name from Iao Stream to Wailuku River. Congratulations are in order to Uncle John Duey for that effort. One thing I did want to note, though at this point the Commission staff, and unless you feel otherwise and we will bring it to a future Agenda, but right now we've, internally decided to stay with Iao only because we work very closely with the U.S. Geological Survey and they are not going to change the names until the National Board on Geographic Names makes their decision. So our intent is to wait on their decision and at that time we will make whatever changes we need to make in reference to Iao Stream or Wailuku River.

Chair Case: Is it possible to do just a slash to get people used to you know, Iao Stream/Wailuku River? There's an interim period where you're making that mental transition it might help.

Mr. Uyeno: We started a discussion with U.S. Geological Survey they understand that concern. I forget exactly what they were thinking they might do. As I stated they are going to have to wait until the

National Board decides. But they are concerned about that gage and the confusion on Iao because that's one of their long term gages. So we'll work with them and figure out how to address that. We'll certainly put out some notice on our website.

Commissioner Pavao: I realize that cfs is the normal units of measure when you doing streams but for us that are not familiar with cfs, would it be too hard to also put a scale reflecting gpm?

Mr. Hardy: Mgd might be better.

Commissioner Pavao: Okay, mgd, whatever. Cfs is instantaneous right?

Mr. Uyeno: No, it's just a different time scale.

Commissioner Pavao: No, cfs is cubic feet per second, so it's an instantaneous flow. To correlate, would have to be an instantaneous flow which would be million gallons per minute. Or gpm, gallons per minute, or something?

Mr. Uyeno: I think actually, it is noted cfs on the side, actually this is in mgd. Instream flow standard is 10 mgd, so we'll make that

Commissioner Pavao: I guess I'm getting confused. Mgd is 1 day, that's total. Cfs is instantaneous?

Mr. Strauch: They're both instantaneous. That's mean daily flow, I think is what you're confusing. So that's the average of all the instantaneous values for the day.

Commissioner Pavao: Most people relate to million gallons per day than to cfs.

Commissioner Buck: So mgd is instantaneous, it's not per day?

Mr. Strauch: It's average flows.

Commissioner Antolini: I agree with Commissioner Pavao. Can it just be provided in both languages when you do the data so that we don't have to do the conversion?

Mr. Strauch: We'll provide just mgd.

Ms. Antolini: Unless there's some reason why it has to be, if it's helpful, in this chart you just gave us, Dean, you said, is that just cfs?

Mr. Uyeno: This is actually mgd.

Commissioner Antolini: It's just noted incorrectly? So it's mgd, okay.

Commissioner Pavao: Oh, so it is in mgd?

Mr. Uyeno: In this one, yes.

Commissioner Starr: I know there's been some criticism especially in social media and in the community about how long it's taking to regularize this Na Wai Eha stream flows. But I want to compliment the stream branch and Dean and everyone who is working in this, for a slow and steady progress and doing it in a rational way that will create long term results and moving step by step toward having the continuity and the measurable and repeatable stream flows that would call for, and mechanisms where both staff and

members of the community will be able to understand how much water is moving. So, I for one have no problem as long as you keep going as you're going and I know you will so thank you for your efforts.

Chair Case: Other comments? Thank you. Any public testimony on this? Do you need a break? Alright, we will go on to Item C1. on the Agenda the Hawaii Water Plan.

Commissioner Starr: Madam Chair, can I, one other thing that's related to announcements and updates, can I ask if there's any update or, on the Deputy position?

Chair: Yes, we are still going through the process I'm taking it slow I'm just personally trying to get a good handle on what are the qualifications best suited for this. But we have continuing discussions and I hope to wrap it up pretty soon.

Commissioner Pavao: When you say pretty soon, a month, two months?

Chair Case: Well, I hope it's a month. Okay, C1. Hawaii Water Plan Updates

Ms. Ohye: Good morning Commissioners. This is a really exciting time at the Water Commission and long range planning. The Hawaii Water Plan has five official components but it actually has eight because each of the Counties has to do their own plan. Many of the components have never been updated since 1990. Right now, happy to report that all, every component is in active update right now. I'd like to give my kudos to my predecessor, Dean Nakano, he started this ball rolling and that's why we find ourselves where we are today. I also wanted to thank all the different plan preparers and their consultants and the supporting agencies for being here today. We have a number of briefings set up, thank you everybody for flying out here and making the trip out here to present to you today. Before we go into the different component updates, the Commission had asked for some updates or status updates for the County Water Use and Development plans but we've also arranged, as well as the Water Quality Plans, we've also arranged to have the Agricultural Water Use and Development plan brief today as well. Before we get into the different briefings I just wanted to give a quick overview for you folks to remind you how all the pieces fit together. I think you have probably seen this before, so I'll go really quickly through it. The Water Code recognizes the need for long range planning to make sure that we have orderly and a planned development and conservation of water and we are not reactive and we are proactive so that is the Hawaii Water Plan. These are the objectives. Basically, we want to make sure we have a plan to protect ground and surface waters, both quantity and quality, as well as try to achieve maximum reasonable-beneficial use while protecting public trust uses. And the Hawaii Water Plan also is a means for the County to express its home rule authority through the development plans. So these are the five different components of the Hawaii Water Plan. They are prepared by all different agencies and four of these boxes are prepared by state agencies, the yellow box is the county plans prepared by each of the four counties. So the Water Resource and Protection Plan, we are in active update right now, we have been briefing you on our process and going to community workshop meetings. This is the only component that is prepared by the Water Commission and the objective is to protect and sustain statewide ground and surface water resources. Some of the things that we have in the Water Resource Protection Plan are hydrologic unit identification, we try to set establish the limits of sustainable supply based on decisions that you make. In addition to long range planning, the Water Commission, in carrying out its duties, also does data collection, does permitting, regulatory, resource assessment, water conservation planning, drought mitigation planning, and what not. This right here is showing you how we carve up the island into different aquifers and we assign each of these a sustainable yield and we also collect data so that we can track what's happening. The next component is the Water Quality Plan and Joanna Seto of the Department of Health is here to brief on that today. You did have a briefing in October 2013 from Gary Gill so this is a status update on where they are and its mainly to protect and enhance the quality of the ground and surface waters of the state governed primarily by the Safe Drinking Water Act and the Clean Water Act that DOH has been given authority by the EPA to implement. Some of the many things the Department of Health does to protect ground and surface water quality include setting standards for

clean water, safe drinking water, try to protect wellheads. This is a map showing west Kauai and the different public water systems and the two year and ten year time of travel for potentially contaminated activities that might reach these wellheads, and so they come up with BMPs and try to mitigate any impacts from potentially contaminated sources upgradient. This map down here shows the Department of Health's Safe Drinking Water Branch's work to identify where there has been known ground water contamination and they track that and came up with an interactive viewer in GIS so anyone can click on that and see where ground water contamination has been found. In addition to that they have numerous, numerous programs that serve to protect and enhance water quality and we work very closely with them on many of these because there is much of a link between what we're trying to do in terms of alternative water resource development and use and their programs. State Water Project Plan, prepared by the Department of Land and Natural Resources, Engineering Division, you just got a briefing on that last February, and this is basically the plan that looks to see what state projects are coming down the pike, how much water they are going to need, because these are important public purpose projects like schools, hospitals, parks, and how much water they are going to need and make sure that there is a plan to meet those needs as well as any strategies for meeting those needs they might have developed. So this is from the 2003 State Water Projects Plan so it shows for the different counties, it shows how these different colors represent different counties how the state water demands are going to grow over time. Right now they are in active update. They have almost completed a partial update for the Department of Hawaiian Home Lands needs statewide and they've also received funding to do a North Kona State Water Projects Plan update, as well as a statewide update as well, which is really exciting. The next component is the Agricultural Water Use and Development Plan and Brian Kau with the Department of Agriculture is here today to brief us on that. It's basically, when the plantation started shutting down in the mid-90s, the Legislature recognized that these are valuable assets and that they were falling into disrepair and so they added this component in the late 1990s, in 1998 to the Hawaii Water Plan. What it directs them to do is to look at private and public irrigation systems and come up with a plan to maintain them, repair them and prioritize the maintenance and repair, come up with costs, and focus on important agricultural lands as well as come up with some ag demands and potential future uses which is very, very helpful to know what ag needs, cause ag is a large user of water and is really important to the State, and so what are the ag demands. In 2004 was the last time this plan was updated. They studied 13 systems and these are the systems that they studied. They came up with rehab costs for 10 systems of 100.5 million dollars so you can see that additional prioritization is going to be needed to program these repairs, and Brian is going to update you on new systems that they are also going to be studying. Importantly, they also came up with a duty for diversified agriculture. As we transition from plantation agriculture to diversified ag and biofuels and or what not, nobody really knew how much water diversified ag might need and so Department of Ag did a study and they came up with this number although it is a very site-specific number. But it is an estimate that people can use for planning. Finally, the County Water Use and Development Plans, on the Agenda later is the Kauai County Water Use and Development Plan Update, they have not updated since 1990. The only water use and development plan that has been updated was the Big Island which you folks approved in 2011. So this would be the first one for Kauai and so we will be submitting to you recommendations for action on their project description. But today, we have Barry Usagawa with the Honolulu Board of Water Supply as well as the Planning Department's staff that's supporting this plan development to brief you on where they are, and we also have Maui County, Pam Townsend is here to brief us and Dave Taylor has also come. They're going to let us know what Maui County has been doing, you approved their project description a little over a year ago. The last County is the Big Island, and we'll take that up in Kona. Basically the County water use and development plans are to set forth the allocation of water to land use, so this is where the Water Code recognizes the County home rule authority to guide water allocation decisions based on the approved land use plans they have made. This is the basic requirements for the water use and development planning and I'm going to focus in on that component from now. We want to know what existing needs are within each of the Counties, what future needs are going to be, and the Water Code gives us twenty year planning timeframe for doing these plans. Although we recognize that is short now as we talk about climate change and that timeframe should be lengthened and to their credit many of the Counties are doing full build out projections which have no timeline. It's basically if we were to build out everything based on current land use plans what would that

water demand be, and that is a very conservative look. It also needs to be consistent with the Water Resource Protection Plan and Water Quality Plan's protection measures and standards, as well as it needs to incorporate the agricultural water needs and the state water projects needs that have come out from the other two plan components. So just a brief chronology, in 1987 the Water Code was adopted, and it came with a requirement to have the Hawaii Water Plan components all be done within three years and the Leg provided initial funding to do all these plans. In 1990, the Hawaii Water Plan components were adopted by the Commission, but there were shortcomings in the Plans and the Commission asked that revisions be done in two years, and in 1992 all the different components were updated again. However, the Commission did not adopt those 1992 updates because there were still a lot of deficiencies with the cohesiveness of the plans. The Commission found that they were fragmented and very narrowly focused, so it was very difficult for the different plan components to integrate with each other and to feed into each other. There was inadequate consideration of uncertainties, if one of the strategies was x but there may be permitting or regulatory hurdles to doing that, what then was your alternative strategy? There was also a lot of the demands for the future were for a single point in the future, and if you veered off that projection then the plan became static and it was not flexible. Also, trade-offs were not addressed. If you choose one supply option, there are trade-offs associated with that and the plan should acknowledge that, that everybody knows this is the trade off if you choose to go with this source rather than another one. And so to address those shortcomings in 2000 the Commission adopted a framework for updating the Hawaii Water Plan and therein gave guidance to all the different plan preparers so that those shortcomings could be addressed. Some of the things the framework did is recommend different elements that each of the plans should have so that they could feed better into each other. It recognized the twenty year planning horizon in the law but also recommended five year updates because at that point none of the plans had been updated since 1990 and five years we thought was a good timeframe because that's the timeframe that the County land use plans were updated on. It also recommended an integrated resource planning approach so that basically means, it's not only just public participation and stakeholder involvement, but also looking at all your mix of resources, not just the conventional ones or the cheap ones, but looking at every resource available and what resource should be matched to what kind of demand and to go forward and implement that. Also, integration at the County level, recognizing that all water needs and sources occur in a County so it should be a countywide plan. It advocated a living document approach because we didn't want these plans to be static so we can update the plan as information changed. Finally, the submittal of a project description for the County water use and development plans and that's what's on the Agenda for Kauai later on in this meeting. The reason for the need for project description is because the framework did not prescribe a specific way to do your County Water Use and Development Plan. We wanted to encourage innovation so different counties could develop the plans, the issues that they had in their County. There are different concerns within each county and issues. There are different funding constraints, all the Counties have different funds available to them and also there are institutional constraints. So that's why you have to approve a project description so that you can see the approach they are going to take, make sure that it meets the needs of the Water Commission and the intent of the Water Code. This is how it all feeds together. You have the County Water Use and Development Plan which again is going to be a countywide look, and it's going to need to be consistent with land use plans and policies. Above, there is the state water projects needs and ag needs, and at the top is our protection policies, and so under the framework these all feed down into the county level so the county must integrate all the plans above it which is no easy task. This is from our 2000 framework document, it is a rather complicated flowchart but it is just meant to illustrate that planning is not a static thing. You need to do your plan, you need to implement your plan, you need to evaluate if your plan is working and then continue the process again. So the Hawaii Water Plan is a really good vehicle to integrate water and land use planning, which a lot of people have concerns that water is not considered in land use plans. The Water Use and Development Plan provides the water information to inform the next round of county land use decision making. And this is just the status of the different plans that I sort of went through briefly earlier, and that concludes my presentation.

Chair Case: I have a question and I spoke a little bit with Roy about this. It has to do with where in this over-arching scenario do we, my question has to do with projections of water available for use, under

three scenarios. One, is climate change, which you addressed a little bit, but we know climate change is coming and it is going to affect the amount of forest available, the amount of moisture available and the amount of forest available to capture that moisture. Second, is the quality of the forest itself whether it's a good native forest that is actively managed versus a forest that is degrading. Third, is the instream flow standards that we have not set. We've got interim instream flow standards but they are not actual standards by stream. I know that is a complicated issue and we definitely need to move forward on those but all of those things can significantly alter the amount of water available on which these plans are based. So how do we address those in the scenario and how do we make sure the County plans incorporate that potential variability so it's not just a demand based on what we have now but those projections?

Ms. Ohye: Those are very good issues and maybe I'll address the first and the third one first. In terms of climate change impacts on water resource availability, that's really something we're needing to define and assess better in the Water Resource Protection Plan because the Water Resource Protection Plan is where the Commission sets the limits of available water resources. Right now they are set based on historic data which we know is going to change in the future. How that changes in the future has yet to be determined, we don't have very specific information on that. Even statewide, much less the different micro climates within each island, and you can see instream flow standards are watershed based, aquifer system units vary from place to place, mauka to makai, everything changes, but even on the statewide level. Right now, there are global climate models, and Hawaii is one little blip on a very large grid. So there's efforts right now to downscale those models to an island scale, at least an island scale. We would like a much finer scale to set instream flow standards and aquifer sustainable yields obviously, but work is ongoing with the Pacific Risa at the East-West Center, they are working with Maui County to try to do the first downscaling of the global climate model for Maui island which is really exciting. One of the shortcomings is that because of the natural variability in climate, they're unable to avoid that natural variability, so they're looking at a projection at 2100. So when they downscale the model we'll know hopefully how climate change is on Maui in the year 2100. But I'm not sure that we'll get good information for this next century. So that work is starting to be done and we'd like that to happen for the other islands as well. Although it is very expensive to run those downscaling models, it takes a super computer and it takes a lot of computing time and that has been the main constraint to doing these things. But we're hoping Maui gives us some leeway into that and once we get more information on how to downscale those models and how climate might change, we can use that in our resource assessment but that seems to be a long way off. So what do we do in the interim? In our Water Resource Protection Plan we're trying to discuss that issue and our approach which we're proposing to do is precautionary, whereby we are looking at all the different studies of recharge that have ever been done, but we base our sustainable yields on only the lowest recharge unless there has been a lot of data collected, a lot of hydrologic studies, numerical models that show that we can move away from that minimum. So that's how we're doing it right now, that is our proposal for the interim. I don't know if there is a better method to do it, if anybody has a better idea as to how we can cover this transitional period, because we don't want people to allocate more water or to be dependent on more water than will be available in the future, so that's sort of how we are proceeding right now. In terms of instream flow standards, it's much the same thing waiting for the data and I'm not sure, we are going to have to explore in the Water Resources Protection Plan the strategies for making climate conscious instream flow standards as we await better data. In terms of the watersheds, we, in our Water Resource Protection Plan, have a section on watersheds. Watersheds are really important to water availability as you said, and we support the work of the watershed partnerships and the Division of Forestry and Wildlife in their watershed management efforts. And each of the counties, I know Honolulu has in their plan addresses watershed maintenance. Maui County supports funding for watershed programs. Kauai in their project description has also noted that watersheds are an important issue. These are really good issues, and we're hoping that the Hawaii Water Plan covers that because you're right, that's the crux of the matter is what is the water availability.

Commissioner Starr: At the heart of a lot of issues about the Water Use and Development Plans and the Water Resource Protection Plan are the sustainable yield numbers which I feel really need to be

superseded by some other mechanisms and I would like to move to a process of going through the sustainable yields and finding ways that we can replace them with more applicable mechanisms. I know that those aquifers which have been tested through intensive use have almost universally had their sustainable yields severely changed or lowered over the years as empirical data comes in. Iao, of course being a good example where the RAM model originally put in place by Stearns and McDonald and then taken over by John Mink and Stearns and then making different iterations. It started out as 36 million gallons a day then was reduced to 24 then was reduced to 20 and then was, the Commission had set a designation trigger for a head and shoulders model which really said what pumping could be done in different parts of the aquifer to what extent and that became a much better mechanism that is used to make sure that we don't abuse the aquifer. I think with a lot of the testimony and work we have been getting with Keauhou Aquifer and knowing that the RAM model kind of predicts much of the sustainable yield water to be available as basal water but now we're hearing consistently that there will be no more basal wells and the existing basal sources are going to have to be replaced. We know that it's not really functional to utilize the RAM model for that area because it's not working and we need to switch to something better. The RAM model that we still use is basically generic. How much rainfall falls and what the average amount of evaporation and runoffs and how much theoretically would enter a generic aquifer we know that there are three different types of aquifers. There's basal is very, very deep, there's high level, so it really is not relevant. I would like to have staff come back to us in a meeting or two and point a way to get better information and maybe we can start in those areas where the Water Use and Development Plans are being updated or where there is some contention because I think we're not doing anyone a favor by utilizing 50 year old technology in a precious and changing resource.

Ms. Ohye: One thing good about the water plan is that it is a living document so even after we compile it, if newer information comes up all it takes is a Commission meeting and a ninety day public notice and we can update the numbers. Any other questions?

Commissioner Pavao: For the purpose of changing plans, for example, you set a plan what you're going to do, but then as the Chairman mentioned, the climate changes, you have a drastic climate change, is there a rule of thumb, or is there an acknowledged standard as to the time you have the change to the time it affects the aquifer?

Ms. Ohye: I've heard on the average, 25 years. But, it really is case-by-case because it really depends on the geology, how water moves, you have some very porous areas with very high rainfall and shallow water tables and in other places you have very tight geology and water moves very slowly so it's a really case specific thing.

Commissioner Pavao: That 25 years is probably on the mainland. Needless to say, Hawaii is not more porous so the time limit is going to be way shorter.

Ms. Ohye: We do see recovery of water levels very quickly after drought upon good rain.

Commissioner Pavao: If there is some accepted timeframe and it makes it easy to revise plans if you can foresee that.

Ms. Ohye: What we're trying to do is get good data collection, rain gages so that we can track where rainfall is, as well as water levels and we could compute those lag times for different areas if you had the data. That is a good point.

Commissioner Buck: What is the expected date of the first draft of the water resource protection plan?

Ms. Ohye: We're looking at early 2016 for the draft to come out and adoption in mid 2016.

Commissioner Buck: Any advice or guidance? As you know the Commission in the last meeting approved a concept of a kind of an integrated prioritized list between DOH and DLNR that water quality protection plan so we could package up something for the Ige Administration of what we could do in the next three years. Any advice and guidance, and I think I raised my hand and I'd be willing to spend some time, any advice and guidance on how that effort could be integrated without putting too much work on staff just please let me know.

Ms. Ohye: With regard to prioritization, we are, in our Water Resource Protection Plan will come up with prioritization criteria and it will result in a 5 year road map for us that identifies our prioritized actions moving forward for the next 5 year cycle. We work with the Department of Health to try to integrate the Water Quality Plan information as much as possible and to our plan as well.

Commissioner Buck: I understand it's a much longer term solution but to give Chairman Case and Chairman Pressler an action document that they could use during their term I think would be very helpful.

Ms. Ohye: Next up is the Water Quality Plan Update with Joanna Seto.

Chair Case: We have a request for a break.

(Recess taken.)

Ms. Seto: Good morning, my name is Joanna Seto, I am the Safe Drinking Water Branch, Engineering Program Manager and I am happy to be here to present an update of the Department of Health's Water Quality Plan. We first, as Lenore mentioned, first presented in October of 2013 and since then changes have been made to the Plan. The organization of the Plan has changed and we focus more on the types of water instead of the different branches in the department. First thing I'll do is give you an outline of the Plan that's been updated and then our schedules to complete the update. Right now the plan is seven sections. The first one is the background. I have the same two slides that Lenore had, the Hawaii Water Plan and the Statewide Framework for updating the plan, and then we go into the water quality programs and initiatives broken down by surface water and ground water, then the state revolving fund and challenges that we have and then the supporting information. So first of all, the Hawaii Water Plan, this is the same slide that Lenore showed you, and we're the Water Quality Plan tied in with the Hawaii Water Plan component. We are also following the statewide framework for updating the plan. The second two is the meat of the Water Quality Plan and we talk about surface water quality and we start with the water quality standards. This is Chapter 11-54 of the Hawaii Administrative Rules in the Clean Water Branch it has been adopted and effective on November 15, 2014 so those are actively in use. In 2013 it was still in the process so we're glad to say we have corrections. The monitoring program, we continue to monitor surface waters, ground waters to make sure that we are protecting Hawaii's communities. We partnered with USGS for different projects and then we also have the data available online. The Clean Water Branch has a water quality data viewer that you can go and see all this information. We also have the polluted runoff control program which is where you talked about watershed protection. This is the program that is primarily responsible for looking at watershed protection as well as nonpoint source pollution. So they have in the works a nonpoint source pollution plan which is updating their 2000 PRC implementation plan. So that's in the works right now.

Commissioner Buck: What was the acronym?

Ms. Seto: PRC is polluted run-off control. Total maximum daily loads (TMDLs) are another part of the Clean Water Branch program and they have developed an integrated report and total maximum daily loads and the link is there and you can see it in your handout. This incorporates the Clean Water Branch elements of the beach and surface water monitoring, the PRC programs, the NPDES permits into the TMDL process. We continue to collaborate with the counties and other government agencies which prioritize watersheds. That's something we focus on specific watersheds so that we're not spread out and

we can address the issues at that watershed. Right now I think there's three or four of them. The National Pollutant Discharge Elimination System program is a delegated program from the Environmental Protection Agency and the Clean Water Branch is planning to implement a statewide MS4, which stands for Municipal Separate Storm Sewer System, program which regulates the drainage systems in the state so if you go by a storm drain and you see "dump the waste – goes to ocean", that's part of that program. The Wastewater Branch is revising the recycled water guidelines. They plan to complete the revisions to the guidelines by December 2015. Meetings are being held, They have three different committees that are working toward allowing the use of recycled water in the state over drinking water aquifers and other aquifers. Ground water quality, this is in my program, the Safe Drinking Water Branch, the source water assessment and protection program as Lenore had shown you before, the ten year and the two year time of travel of the potential contaminating activities which would impact a well here. So we have very limited information on our website but we are able to answer any questions that you have on this program. We continue to assess all the existing and proposed drinking water sources and develop and implement the wellhead protection financial assistance program. The Comprehensive State Ground Water Protection Program is very comprehensive. It has to be updated and we are still in the process of updating it. We look to establish specific ground water protection goals to guide the government agencies and programs as well as priorities that are guiding those same programs. Our Underground Injection Control Program is reducing the number of unpermitted underground injection control wells in the state and assuring the proper abandonment of those wells. We are currently improving the database system for that program and continue to utilize it through the use of the Environmental Health Administration's online e-permitting reporting system. As Lenore pointed out, that map of Kauai, the ground water contamination viewer, we have the state shown and you can zoom into a certain extent we wanted to protect the locational data of the wells so they are not able to zoom in all the way to that specific well location. That's available online also. We are upgrading and eliminating cesspools. The current action includes the implementation of the temporary income tax credit for the cost of upgrading or converting a qualified cesspool. Act 120 was signed into Law on June 12 and the Wastewater Branch is starting to review how to implement that tax income credit. They are also at the same time proposing rules to prohibit the construction of new cesspools in the State. So we would be finally in line with all the other States in the United States. Here we go with the Clean Water State Revolving Fund. These are funds provided by the Environmental Protection Agency in a revolving capacity. 675 million in low interest loans have been provided to the four counties for construction of publicly owned wastewater treatment facility infrastructure and they have a current interest rate of 1%. Right now we estimate in State Fiscal 16 there will 10 projects and committing 54 million dollars. The drinking water state revolving fund started in 1997 and we have provided 164 million in low interest loans. The total loan rate of 1-2% continues to be offered on a tiered loan rate structure, so if you have over 8 million dollars in a project you receive the 1% rate. As you can see, in 2016 we estimate 11 projects at a 51.8 million dollar amount. Our challenges include intragency collaboration within ourselves and interagency collaboration, and we acknowledge that the Commission has been really, really helpful in meeting with us. Right now, we are at a monthly basis so that we can follow up and get more information and make sure that our Water Quality Plan is in line with the Water Resource Protection Plan. We also have funding issues and yes climate change is on there also. Section 3 is supporting the water quality work and there are different programs in the department, we have State Lands Division, Solid and Hazardous Waste Branch - this is the state underground storage tank program. The Hazard Evaluation Emergency Response Office which deals with the pesticide situations. Environmental Information Manager is the office that helps us develop these systems online. The Office of Environmental Quality Control reviews all the documents and we also review them in addition to them. Environmental Planning Office started the help with development of the Water Quality Plan including the water quality standard maps. The Environmental Resource Office is our money office so they manage the water grants and the drinking water and clean water revolving fund programs. So this is the water quality map that the Environmental Planning Office coordinated with the Clean Water Branch and they've been updated to show much more detail than what was previously on the maps and these are located in Section 7 of the Plan. So this is our schedule, we started in October 2013 and this has been an internal process so staff in the branches and offices have been working on this as well as doing the work that they normally do. So

we have now instead, October 17, 2014 was the due date for public comment, we received most comments on the cesspool rules because the hearing for cesspools had happened about the same time. So primarily we are looking at the responses to agency comments which we received in July and implementing and updating the plan per those comments. We are going to be presenting an update again at the Third Annual Joint Government Water Conference which will be in August 2015 and hope to have the final Water Quality Plan done at that time in Spring 2016 because yes this is a living document, a lot of the reports and plans that are in here are worked on individually by each of the branches and programs so they're on different schedules, so as they're updated and finalized, we can update and finalize this document.

Commissioner Starr: What is the date of the joint conference?

Ms. Seto: August 4th, Tuesday is Kauai. August 6th, Thursday is Honolulu. The next Tuesday is going to be Hilo. And the following Thursday is Kona. And the 18th is Maui. We do not have Comptroller approval yet, we're still waiting for it so I cannot advertise the conference yet.

Commissioner Starr: I know I'll attend the Maui one. Can I get the other dates again?

Ms. Seto: August 4th is Kauai. August 6th is Honolulu. 11 is Hilo, 13 is Kona and 18 is Maui.

Commissioner Starr: I want to say thank you for the regulatory program that was put together on Maui at the Marriott about 2 months ago.

Ms. Seto: That was AWWA workshop. Ground water protection.

Commissioner Starr: I really appreciated a lot of the thinking and presentations and to kind of where DOH is coming from in terms of protecting wellheads. On Maui and also on Kauai there is a lot of discussion in the communities about aquifer protection relating to the new generation of ag chemicals. People know that we did pollute a lot of our best potable aquifers with BBCP and PVB in the 70s and 80s and we didn't realize it until it was in the ground and the plume was already moving. I'm still not really clear to what is being done proactively to make sure this is not happening again with the newer generation of stuff. As far as I know there's not much testing anywhere other than in existing potable wells and even there I don't know if they're really testing for atrazine, 2, 4-D and some of the other stuff. Can you speak a little bit to that and what this plan has to avoid us repeating the problems of the past.

Ms. Seto: So the water systems are required to do regular monitoring of their water systems including their wells. They most times will take the samples at what is called entry point distribution system and they will be testing the different parameters on different schedules so part of it is atrazine and other chemicals that are related to pesticides. The ground water protection viewer shows when there has been a hit found at that site so you can see on the ground water protection viewer when some of the chemicals have been found. The program continues to ensure that the water systems continue to meet their monitoring schedules so that's something we continue to do. We also are improving on our ground water protection program so that we currently have a project where we are testing for atrazine in different areas.

Commissioner Starr: That presupposes that it is good enough to know after-the-fact that there's water where there is an existing potable well. How do we create the expectation that Dave Taylor guys are going to put a well in a new area that's not been utilized before.

Ms. Seto: New sources are also required to be tested and they provide us with the water quality data so that the water system owner knows whether or not they need to increase treatment at that site.

Commissioner Starr: Yah, but then it's too late. Has there been any thinking or wording in the plan that looks at the application of the pollutants over areas that may become wellhead protection areas in the future.

Ms. Seto: We don't know where they're going to drill wells so we can only provide them with information as they indicate to us where they plan to put the wells but in the meantime, we also look at wellhead protection so it's not only the existing well that we're looking at. It could be other areas that are in the area of that existing well that we can be monitoring. As far as ground water protection as a whole, that is something that our program is grappling with because there is so much that is going on and we do need to prioritize what we can and cannot do for the State but protection of our drinking water is our priority.

Commissioner Starr: I do think we need to be more proactive and look to what other states have done because I don't think it's good enough to only protect those sources that have already been developed but if an aquifer wherever an aquifer exists we should not allow it to be polluted with anything dangerous and the same with streams even if we aren't currently exploiting that particular resource.

Commissioner Buck: Thank you so much for the presentation. Lenore said they're using a five year timeframe to set priorities within the water protection plan? What thoughts do you have on the DOH water quality?

Ms. Seto: Each of the branches has their own timeline so it varies between the branches and the different documents that are incorporated within the Water Quality Plan.

Commissioner Buck: And they range from, short-term, long-term, again the goal is to...

Ms. Seto: So the implementation plan that I mentioned for the non-point source pollution program is a twenty year plan. They have that developed and then you have other programs, so I'm not sure what the timeline is for the recycling water guidelines.

Commissioner Buck: How do you see the nexus being your plan and let's say your budget requests based on your updates.

Ms. Seto: Our budgets are...

Commissioner Buck: As you know we've got the public, they don't know the difference between water quality, water protection, they kind of lump it all in one big thing. We're trying to create some strategic action between the two plans.

Ms. Seto: At this time the primary source of funding for all of the Environmental Management Division programs is the Environmental Protection Agency so we are not so dependent upon the general fund at this time but when we have to think about that we will do that.

Commissioner Buck: We're trying to get you more money and adequate budget from the state funds. I'm not trying to create more work. We're trying to get some compelling reasons, so if there's some way you could as much as can be consistent at least when the 5 year frame that would help the integration process when we look at the plans down the line. Thanks.

Commissioner Pavao: The cesspool elimination is that regardless of land use zoning, location is that across the board?

Ms. Seto: Yes. You're talking about the proposed rule?

Commissioner: Yes, and when will it take effect?

Ms. Seto: It has not been drafted yet so they still need to go through public hearing process.

Commissioner Pavao: And an acceptable alternative is a septic system?

Ms. Seto: Septic systems or individual wastewater system.

Chair Case: What's the timing in terms of getting that rule going out to public hearings?

Ms. Seto: I believe that they wanted to get it out by the end of this year. As far as going to public hearing.

Commissioner Pavao: Take your time.

Commissioner Antolini: I think it's required by EPA. Isn't this mandated by the Clean Water Act that the State eliminates cesspools?

Ms. Seto: No.

Chair Case: This is just a rule about no new cesspools, right? There's no requirement of conversion but there's a tax credit to help people if they would like to change it.

Ms. Seto: Correct.

Commissioner Starr: Commercial you have to.

Ms. Seto: The large capacity cesspools is the one that is required.

Commissioner Antolini: Thank you for your presentation. I had a couple of questions, and I'm trying to reflect what we've heard at some of the workshops. One question is about the TMDLs and I know those are complicated and difficult and take a lot of staff time but what is the status of the commitment to working on TMDLs, I know there's been some staffing changes. I guess you said there's three or four watersheds that are being focused on.

Ms. Seto: They're actually existing watersheds that they've been focusing on for the last 2-3 years. So they continue to do that and the staff person working on TMDLs is still there so she continues to work on that.

Commissioner Antolini: The next question is about recycled water. So the guidelines that are coming out, how far is that, I mean they're guidelines, where are we in terms of DOH's leadership on using recycled water because it seems to me to be so critical and it's a long standing critical issue, where are we, how far can we go, how fast?

Ms. Seto: Right now we have a meeting that will be coming up in early July for the irrigation committee, I believe, and they are the ones that are looking at the impact of reuse water over drinking water aquifers, so that is one part of the, I think there's 3 different committees that they have and they are working to get that out by the end of this year.

Commissioner Antolini: What would those guideline accomplish?

Ms. Seto: What type of reuse water you can use and where and how.

Commissioner Antolini: And without the need for changes in the Administrative Rules?

Ms. Seto: I believe so.

Commissioner Antolini: The other thing is on the ground water contamination issue and also the link to surface water contamination. I agree with Commissioner Starr we heard a lot about that and we kept saying that's DOH and this effort was to try to bring that conversation together so that links to one more thing. So 3 things link together, you indicated a lack of public comment on your October 17 draft and I'm just wondering how do we bring these pieces together? People are really concerned about the ground water contamination, surface water contamination and yet there was not much public comments. So how do we get that conversation going and how is that reflected in the plan at a level that satisfies community inquiry?

Ms. Seto: This plan is not required to go to public hearing so we would most likely put it up on the three different, or all of our websites to provide the public with opportunity to comment further on the plan. At this time I don't have plans to have another public information hearing meeting on the document. I have set a September 30th deadline for all the programs to give me whatever they have most updated and that is the cut-off date for when we are going to set the final plan.

Commissioner Antolini: I'd like to encourage you if there is a way, I don't know why there wasn't enough or a lot of public comment but it seems to me there should be a lot more engagement and sometimes it's a matter of I don't know an outreach is really difficult, I know that. I would just encourage you to try one more time to get the word out, do a press release, provide food.

Ms. Seto: Food policy, I need to get Comptroller's approval.

Commissioner Antolini: Okay scratch the food. I think it's so critically important. You're doing all this incredible work and I just see a disconnect between what we're hearing and the good work you're doing and so maybe try one more time.

Commissioner Pressler: I think it's clear that Chair Case and I need to get together to get DLNR and DOH working together on this issue.

Commissioner Starr: This has been the first time since really the planning structure was put together under the Water Code that a serious and dedicated effort has been put toward the different aspects of the state water plan, especially the Water Quality Protection Plan. Previous administrations have never been willing to deal with it and I just want to compliment Department of Health in particular for really taking this seriously and doing a good and thorough job in creating something that will help protect our future so thank you, DOH and other agencies for doing this.

Chair Case: Thank you very much. Any public testimony on this item? Thank you very much. Next we have Maui Department of Water Supply. Am I missing a page? Okay I'm just not following, okay b. Agricultural Water Use and Development Plan

Mr. Hardy: If I can introduce, Brian Kau from the Department of Ag. will be giving a presentation.

Mr. Kau: Good afternoon, my name is Brian Kau of the Department of Agriculture, Administrator for Agriculture Resource Management Division, and thank you for inviting us to give an update to the Agricultural Water Use and Development Plan. With me I have another Brian so just direct your questions to Brian, one of us will answer. This is just to give you update on its planning progress. What we did was, you folks have heard of what the framework is, we won't go over that again. What we've done is started a process back in 2003, we had a plan that came out, then we had another update in 2004. Then we had some research done in 2009, then we're today doing a full update of what we call the 2004

plan and will incorporate the 2009 research into this. Brian is helping us with the research and data collection so I will turn it over to him to give you a background and then move on to what we're trying to accomplish in the, I guess 2016 is when it's going to be, hopefully done, what we're calling the 2016 update.

Mr. Ishii: The framework was developed in 2000, and we defined that framework for this update of the plan.

Commissioner Antolini: What is this Brian's last name?

Mr. Ishii: Ishii. In 2003, they started the planning. In 2004, they revised the 2003 Agricultural Water Use and Development Plan. The 2004 plan had all of the state-owned irrigation systems and four other systems. The state-owned systems are managed by Agricultural Resource Management Division out of HDOA and Agribusiness Development Corp. In that plan as Lenore mentioned they computed average irrigation water demand of 3400 gallons per acre per day for diversified agriculture. It was based on one farming area, because that one farming area had multiple diversified agricultural farms, it also used good farming practices. It was metered data over historical of eight years and was averaged but it did not include system losses so it was the ag demand for water at the farm. It also did a forecast of water demand for 20 years, the end plan period was 2021. It was a guide for water use. It looked at water trends from 1997 to 2001 to set a base line trend. It had two scenarios. One was a worst case scenario that was the lower limit which was status quo on all agricultural farming operations and the best case scenario was to implement partial replacement for imported agricultural commodities by using Hawaii grown commodities. That was the forecast at that time. These are the irrigation systems that were studied in the 2004 plan. The other systems were Maui Land & Pine system and Pioneer Mill system, the East Maui and West Maui systems and the Kauai Coffee system on Kauai. The state owned systems on the Big Island were the Lower Hamakua Ditch and Waimea, the Molokai Irrigation System, the Upcountry Maui system that you guys acquired somehow.

Mr. Kau: It's under development, we're actually doing it right now.

Mr. Ishii: And the Waimanalo System on Oahu. Agricultural Business Development Corporation manages East Kauai, Kekaha, Kokee on Kauai and Waiahole on Oahu. So those were studied, inventoried in the 2004 plan. In that plan they came up with a capital improvement budget for improving the state-owned systems based on the current means for that system and the future demand based on their forecast. Examples of the type of CIP programs were flume and trestle renovations, piping of certain open ditch sections and the renovations of the intakes and diversions. All of these systems are a hundred years old or more so they are in need of constant repair and renovations. The Big Island plan got derailed with the 2006 earthquake that changed the whole CIP program for the ag resource management division as they had to repair all the earthquake damage. I think most of it's completed.

Mr. Kau: Damage caused by the earthquake has been completed but we continue to do improvements to the reservoirs because of the change in the dam safety laws so we're still playing catch up on that. That is probably going to be an ongoing effort for the next several years.

Mr. Ishii: Brian mentioned that in 2009, they started a research project that looked at different ways to look at crop irrigation water days by crop. They started to do a spatial analysis of what the potential service area for each of the ditch systems could be and they also looked at other ways to project water use for 20 years I think that time period was 2030. So this is one of the spatial analyses done in the 2009 report. They used satellite imagery to try and inventory the system to come up with a surface area and system itself. So they mapped the surface area, the windward side of Oahu, these are tunnels that go across, I don't know if you can see it but different symbols represent different parts of the system. Dash lines are tunnels, and it comes to open sections in the Mililani area and down towards Kunia. The pink is areas being cultivated at the time within the surface area. The yellow was areas that could be cultivated in

the future if they wanted to and the orange areas that probably wouldn't be cultivated. So did that for all the state-owned systems. So they did that kind of analysis back in 2009. Jump forward to now, we are going to inventory the private owned systems that weren't inventoried in the 2004 study. We are going to provide analysis of water demand to see if that 3400 non-sprinkler days is still adequate. We're going to try to update the forecast for 20 years and then develop based on all of the data developed by CIP program for the irrigation systems in the state. So these are the private systems we're looking at. On Kauai, it's basically the old Kilauea Plantation Systems the Lihue Systems and the McBryde Water Systems. Oahu is basically the Dole System, Kamehameha Schools, Wailua Systems, the new Kahuku Irrigation System put in by the Department. The Kau water system, Kohala Ditch and the Kehena Ditch. We're going to use GPS to inventory all of the ditches, hopefully we can get some near accuracy on all of the alignments and data points. We're going to login each start point for each tunnel, where's the open ditch, where's the pipeline and compare various components of the system and turn that over to the Department in a GIS format that they can use in the future. To do the land use analysis for each system we are going to follow the 2009 protocol using satellite imagery at two meter resolution. We augment that with aerial imagery at four cm for certain farm areas and then we are going to field verify it after we get compilation all completed. So this is a satellite image of the Waialua area at two meters resolution, you can see pineapple crops, coffee in this area and this is areas being tilled getting ready for planting and this is brush. So we use that as a first cut as to what the land use is within the water system area. We took a four cm aerial resolution, you can see these are banana plants, diversified ag produce and everything waiting to be planted from another crop. Take all that together, you analyze it, come up with a raw system like this, the white is waters and reservoirs, the brown is areas being tilled to be planted, this is grazing lands, corn, mixed produce is the pink and the yellow is banana. But we are going to take this, go out into the field, make sure that, try to make sure that is what is currently there because the satellite image was in 2011. So as far as updating the water demand we're looking at all the meter readings from the Department of Agriculture on the different metered systems. We're interviewing farmers and seeing if they had water records as to what they are planting and how much they're planting and what their water use was. Once we get all the data we'll start analyzing the demands and see what kind of numbers we come up with. Once we finish up all the data collection we'll start to do forecasting, the framework of the plan and look at a low, medium and high. From the forecast we'll start developing a development plan CIP program for the water systems. Brian wanted me to touch on some challenges we're having right now with the data collection. One is the difficulty in gaining access to the private systems, a lot of them are reluctant to allow us on the site to inventory the ditch system itself and to look at what is actually growing on the system. Statistically, there's a very limited amount of farms so if you try to do a statistical analysis of a commodity within a region, there's not enough farms to really come up with a good number and because everything is confidential to the farmer, we can't just report one farm's activity and if you look at sugar there's only one sugar company in the State now. Pineapple, there might be two growers so it hard to get a very good statistical analysis of what the water demand is per crop. There is a lack of historical knowledge on what the yield and market data is for the State of Hawaii. The best data would be collected by the Market Branch of the Department of Ag but that collection ended in 2009 when the state laid off a lot of employees. Right now we're collecting data, hopefully we can finish the collection this summer, and hopefully I can get a draft to Brian Kau hopefully in December. Thank you.

Commissioner Starr: Have you been able to get fairly complete data on what's Kauai, KAA's lands and whose farming, and what crops?

Mr. Kau: Kekaha's lands?

Commissioner Starr: Yes. Do you know how much water they're using and what their acreage is?

Mr. Kau: I could probably try and get some of those numbers from ADC. My understanding is that, please forgive but I'm not from ADC so I don't know exactly how their agreement works for distribution of water, but my understanding is that they're not metered for individual use. So I'm not sure how they

would come up with their use estimates. I think they have an idea of what their system transports but I'm not sure they would be able to drill down to the actual individual farm lands.

Commissioner Starr: In the agreements between ADC and the farmers isn't there a requirement to meter flows?

Mr. Kau: I don't want to speak for them. I'm not sure but I don't believe in every case there are these requirements. Some of the requirements go back, and there are agreements, invested costs in everything, and it may set up maximums, but again I'm not sure how that works with ADC.

Commissioner Starr: I was at a public function last night and actually a former corporation counsel for the County of Maui came to me and wanted to talk about the Pioneer Mill and Maui Land and Pine systems in West Maui and the contention is that monthly more and more of that system water is being taken over by private developers who are using it to build mansion, gentlemen farmer mansions, with water that was former ag ditch water. I noticed that they were taken into account in the 2004 plan. I'm wondering what you're doing with those systems now and if you have any suggestions as to how that water can be kept in agricultural use.

Mr. Kau: That's the one system that has the biggest question mark over it. Its ownership is extremely unclear. The State of Hawaii does have some interest as it has some agricultural land along the ditch itself, but as far as a singular entity that operates and maintains the ditch, to the best of my knowledge, there isn't any. I believe the state lands are currently managed by Land Division. I do not believe that they are with the Department of Agriculture. My understanding is that at last count there were at least six or seven varied owners and those owners would probably not be able to be identified without a full title search on each parcel. Even that might not reveal the exact ownership of the irrigation system as it goes along the borders of some of these parcels. That being the case, the Department has no regulatory authority over how the water is used especially because it's not a state run irrigation system. The information provided in the 2004 update on the Maui Land and Pine and Pioneer system was basically the best that we could get from asking people to give us that information, but there was no ability to verify what was presented to us. We don't have any way and one of the issues that was brought up in the challenges was we don't have any authority to compel any of the private irrigation systems to provide us with any of their usage information, or future plans or anything and they don't even let us on or answer their phones if they don't want to, so that is one of the largest challenges that we do face when we do these systems. A lot of these larger owners are very, very cautious about talking to anybody, even though we're telling them that we're from the Department of Agriculture, the information that you include or give to us to be included in this plan could potentially be used for future funding for your systems and what not. We face a very, very difficult time trying to get any information on that .

Commissioner Buck: Who has jurisdiction over private water systems, ag water and how much they use and what they're using it for?

Mr. Kau: Well they need to report to the Water Commission. But as far as what they do with it, we, the Department of Agriculture, has no control over private systems.

Commissioner Buck: But you can just consult with DLNR to get that information?

Mr. Kau: Whatever is reported, sure.

Commissioner Starr: I'd like to ask that a later date we have a discussion about this at a future Commission meeting.

Commissioner Buck: Water use reporting?

Commissioner Starr: Well specifically what the Pioneer Mill, Maui Land and Pine System and how the public trust waters are more and more being taken over by private entities for consumptive use.

Commissioner Antolini: Just a follow up and a question to Roy, but under the Water Code the Commission has the authority to enter to obtain information, 174C-5 may enter after obtaining consent to the property owner at all reasonable times upon any property other than dwelling places for the purpose of conducting investigations or studies or enforcing any provisions of the Code being liable for actual damage if consent cannot be obtained reasonable notice shall be given prior to entry, and it sounds like there's nothing equivalent on your side. Given our role as a trustee of the resource that this plan is essential to the State Water Plan and if the information is not being provided there then we, as a Commission, you got the statutory authority to enter and get the information. To not have the information, it seems unacceptable. It seems completely unacceptable. I just wanted to point out, the authority is there under the Water Code so use it if you need it. This is not just an Ag responsibility, overall it's a Water Commission...

Mr. Kau: It's the whole Water Commission.

Mr. Hardy: We're using it right now in the management areas as we're trying to collect all the data from ground water sources, because not all wells are required to have a water use permit, domestic, a lot of them are individual domestic that don't report so we're actually doing that right now.

Commissioner Antolini: Could that help them with their getting stuff.

MR. Hardy: Certainly, it applies to that case too.

Commissioner Antolini: It's a partnership after all, right?

Chair Case: Any other Questions?

Commissioner Antolini: Could I ask one more question? What's the definition of diversified ag that you're using? Is that non-sugar, non-pine?

Mr Ishii: That was the old definition. The old definition of diversified ag took out the major crops, pine and sugar. Now because there's only one sugar grower and two pineapple growers we're going to define it in the plan as everything is diversified ag.

Commissioner Antolini: Everything is diversified ag? Including seed corn?

Mr. Ishii: Yes it is considered diversified ag. It's not sugar or pine.

Commissioner Antolini: I hope you make a clear definition.

Mr. Kau: There has been no definition of diversified ag in rule or statute, or I believe even ordinance, I'm not sure.

Mr. Ishii: There's a definition of agriculture. But the diversified ag was only used in the 2004 report and previously to not include sugar or pine. But now it's like everything is diversified ag.

Commissioner Antolini: When you get to that point, please do clearly define it under current understanding.

Mr. Kau: I think one of the issues has to be brought up again, we'll point it out in the report though that definition of diversified ag for purposes of this report is not necessarily going to be the definition of

diversified ag going forward for everybody. We have to include sugar and pine in, as a diversified ag for statistical analysis purposes because there's no other way to break it out because there's just not enough plantations anymore.

Mr. Ishii: I think even the national statistics that are put out for agriculture now for Hawaii, lumps all of sugar and pine into one.

Mr. Kau: But for other planning purposes though they may still be broken out as separate.

Commissioner Antolini: So then when you get to that point since that 3400 number's so important as a planning number, when you drill down and get more information which is great, you're headed in a great direction, are you going to be able to say, like I mean there's such a huge difference between water needs for different crops, are you going to get down to that crop specific level?

Mr. Kau: Yes. That's the intent. One of the bullet points in the presentation was that the 3400 gallons per acre per day was developed from studying one system and that truly was a diversified system. There was no pine, there was no sugar in that study. The thing is though, the guys from the pine industry, the guys from the sugar industry they have really great numbers already for what their crops need. I mean those are the oldest crops basically that were studied at that point so they have a pretty good idea of what their requirements are, getting those numbers are probably not going to be that difficult to show what they are and separate them out and not to not include them in the 3400 gallons per acre per day. It is something that we, the Department of Agriculture, tries to impress upon anyone who calls us or contacts us to do agricultural planning. When they ask, hey there's this number out there, oh god it's that number again, and then at that time we're telling them what all the caveats, are how it was developed, what it should be used for. It really does depend, the other issue is too is that the 3400 gallons per acre per day is an average number. It's not what would be used in a drought year nor is it something that would be used in forty days and forty nights of rain. So use it appropriately, use it with caution.

Commissioner Antolini: You are going to get a lot more specific right?

Mr. Kau: We're going to try to.

Mr. Ishii: Like I said, because there's only one or very few growers in a specific region you may not have the ability to report it that way, depending on how many growers there are. If there's only one grower in the area that grows lettuce, everybody's going to know that's their water use.

Commissioner Antolini: I'm sure you'll do your best to be crop specific I think that would be very helpful.

Commissioner Starr: This is not a just a report, this is the Agricultural Water Use and Development Plan that we're moving toward with it and I think it's very essential that the chemical companies with their plantations are not just added into the diversified ag category but rather kept as a plantation category and that would be separate from diversified ag. I know there will be a point when it comes back to us and I'll be very firm on that because this is a plantation and its successors to a lot of the sugar and pine that was there before. It really is essential that it not create the feeling that diversified ag is growing where really it's not. It's just more monotypic factory farming.

Mr. Kau: Are you specifically referencing seed corn?

Commissioner Starr: Well perhaps that should be a category.

Mr. Kau: It's seed corn. We'll have to look into how we can report that out.

Commissioner Starr: It's as much a category as sugar was or pineapple was. It's different from what a diversified ag small farmer would do, or a medium size farmer would do, in terms of practices and water use.

Mr. Kau: We'll look into that.

Chair Case: Thanks, any other questions? Thank you. Any testimony?

Pam Townsend: Good afternoon, Chair and Commissioners, my name is Pam Townsend with the Department of Water Supply. So we're pleased to give you an update today. So the Lanai Plan was approved in 2011 and in May 2015 the Department hired additional staff to assist with water resource planning. We're hoping that we can complete the Maui plan by 2016 to the Commission processes and so on and Molokai should follow closely behind the Molokai Community Plan which is undergoing some initial public hearings right now as the public process. We're also collaborating with the Planning Department on key water issues on Molokai so that we can provide a good foundation for the water use and update plan. So the initial approach for the Maui Water Use and Development Plan was by our Department of Water Supply district starting with the Central district, your Commission identified your shortcomings, summarized on this slide which were addressed in our revised project description that you approved. In response, this plan will address Maui island in its entirety and include all the PUC regulated systems and not just our Department's systems. We'll provide the hydrologic focus and address native Hawaiian issues and incorporate legal decisions such as Na Wai Eha and East Maui Contested Case, and for the state framework, the plan will allocate water to land use for the Maui Island Plan which was adopted in 2013. We are going to use the integrated planning process which builds on the, what's really been a decade long public process of the Maui Island Plan. The Department, as you know, has aggressively co-funded various scientific studies which are useful in evaluating the resources and alternative scenarios. So while the Maui Island Plan does not provide any detailed guidance for privately owned public systems, the water use and development plan will assess source and alternatives and conservation strategies for those systems consistent with the land use framework of the Maui Island Plan. So we think conservation and potentially reclaimed water systems are likely to be the most feasible options for the private systems. Identification of planning objectives is important in focusing the plan. We want to deal with real issues, objectives have been identified from our existing planning documents, and through a series of public meetings tend to cover the subjects in the Hawaii Water Plan, such as the water availability and quality, sustainable and efficient use of water and reliability of water service. Ground and surface water, cultural resources, environmental impacts, also equitable and cost efficient water management in DHHL and Ag water needs and then consistency with planning documents is another objective that's been identified. So the East Maui Contested Case creates significant uncertainty and affects our ability to really adopt or develop a comprehensive strategy for East Maui, Upcountry and HC&S. Since majority are management decisions, or management request questions relying on decisions about allocation of instream flow volumes, that our approach is necessarily going to be status quo plus what if scenarios so that's the crux of the whole plan and what's going on with the contested case and that's a big if that's going to remain a big if. One aspect we'd like to highlight and Lenore talked about this, is the Maui ground water project lead by Pacific RISA to inform decisions about the sustainability of our ground water resources specifically on Maui under future climate conditions and as was spoken about there's a new hydrologic model that's been developed to assess the impacts of changing climate and land cover on ground water recharge on Maui. So we do have some preliminary findings which tend to point towards increased water supply issues and we expect the report along with the maps and data to be available this year, hopefully in time to integrate and have some impact on our Water Use and Development Plan.

Commissioner Antolini: You project mean annual rainfall increasing? Can you just comment on that?

Dave Taylor, Director of Department of Water Supply: These were the findings by RISA and not by us, so we're incorporating them, so we just summarize their findings into our presentation, so we don't have any detailed back up for you at this time.

Commissioner Antolini: That's just intriguing.

Mr. Taylor: When they gave their presentations to us, it was surprising to us. Essentially what we heard was that climate change is going to help Maui County, Department of Water Supply not hurt us, so that was surprising, we never heard that before. The wet areas where we get the water are supposed to get more wet, then the dry areas get drier, so the net was a plus for us so that's what we heard from them. Which was a surprise to us.

Commissioner Starr: It's also going to be flashier which works against you.

Ms. Townsend: So our schedule here allows for adequate policy and community review of the draft plan before it's presented to you and we may be coming back in the fall to provide a status report if you so desire. But hopefully you'll be seeing the plan early next year. So during the water use and development plan process we're continuing to aggressively pursue resource preservation and we committed about two million dollars to protection of resource quantity and quality through our watershed management and restoration on the Islands of Maui and Molokai. We're continuing to pursue our wellhead protection ordinance, addressing land use restrictions and BMPs. We've also formalized our leak detection program and added staff to address some significant losses in some areas, and our conservation efforts are ongoing, and we hope to improve analysis of cost efficiency. We also want to highlight again that we are doing things while we're proceeding with the planning process, so here's some recent or ongoing CIPs that help to address the Water Use and Development Plan objectives. So in summary, our approach is consistent with the Hawaii Water Plan and State Framework and we've been able to address the issues raised by your Commission. That concludes the briefing.

Commissioner Starr: I was interested in the comments that you're utilizing a straight line in terms of East Maui water but with a concern about that in relation to the instream flow and so on and I'm curious whether, if there's a need for more domestic water than the offstream uses. Domestic is kind of a priority use as a reasonable and beneficial use. There might not be a request or consideration to giving for, adding to the water that is available to Department of Water Supply where you seem to be fearful of a diminution of it. Have you given any thought to that?

Mr. Taylor: We've given a lot of thought to that and we are a party in a contested case and we testified at length during the contested case on those issues and repercussions of those issues.

Commissioner Starr: I don't really want to get into the contested case but I'm just saying it's kind of a two edged sword. I don't know if it would be out of process if there were an expression of need for additional water for domestic use, what that process would be or not, I'm just putting that out there.

Mr. Taylor We did express that and we currently, about 80% of our water upcountry comes from surface from the East Maui streams through diversions. We have a waiting list upcountry of roughly a couple million gallons, we have roughly eight million gallons a day of service in that area and we have at least two million gallons of desire for additional service. We could definitely utilize two million gallons a day more from surface water, our plants could process that if we had it at the right times of year. It would be the most cost effective way to serve our customers that dovetails, I don't want to get into the contested case but we don't have direct access to their diversions. We use the HC&S diversions to get us the water so what we've had, and this is public, we testified to this in the contested case, if we're allocated water, but HC&S for whatever reason stops operating, we have no practical way to operate the ditch system so all of sudden we're land locked from the water. So there's ways the Commission could allocate us water but allocate HC&S none for example and have them fold, then there's no one to operate the ditch and then

we don't get the water. So there's a number of different scenarios that concern us, as long as we can get the water we can process it.

Commissioner Starr: You're talking about a total of 164 million gallons a day, an additional two is not great out of that, so I think whatever your position is should be stated clearly and that should be possibly an option in the planning process. I'm also hoping that the planning, this planning process examines the possibility of joining the upcountry essential systems to give you more flexibility and source. I know there's a community plan issue but that's something the Council could take care of and that might also be useful, I'm just hope that's being taken into account in your process.

Mr. Taylor: The idea of joining those two like we just mentioned, it in discussions with our County Council just within the last couple of months, it's something that's definitely in our long range capital improvement plan whether or not all aspects of the long range capital improvement plan migrate into the water use development plan, I'm not sure because it might be almost too detailed for this. The long range capital improvement plan for the County of Maui, Department of Water Supply gets into a lot of detail, much more detail than you want to see in the Water Use and Development Plan. The Department of Water Supply only uses between 10 or 20% of the pumped and diverted water on Maui Island. So in order to make a non-DWS centric document, we don't want to spend the whole document just writing about power pumps, and our plants, fill 90% with that and just 10% with all these other issues which actually account for more of the water. So we don't have a problem mentioning that in there, that is something we would like to do eventually. Like I said, whether or not the details of our infrastructure get, and what our timelines for that, get into this document, we're not sure yet but we'll certainly take that into account.

Commissioner Starr: In a historic perspective we came very close to doing it in around 2002, when I was on Board of Water Supply, and it was not an expensive alternative. We actually had the pipe sitting on a hill in Waikapu and there was one political individual who managed to block it but I think that's an area you might look at.

Mr. Taylor: The issue Commissioner Starr is referring to ended up with an environmental impact statement that was challenged in Court, there was a consent decree that is still held between ourselves and a private entity that is still binding and we've been dealing with that in Court recently, so we are still constrained by a legal consent decree that came out of that issue.

Commissioner Buck: I just want to thank you so much for your leadership on watershed protection, you set the model for the counties. You're the first County to join the watershed partnerships, the biggest funder in both research and implementation of the partnerships, so I just want to thank you and commend you for that.

Chair Case: I want to second that it's been a tremendous leadership on watershed protection and water provisions.

Mr. Taylor: I want to thank you for that and just give credit where credit is due. Former, former Director, David Craddick, I believe started that, recognizing that just like we do preventative maintenance of mechanical systems, preventative maintenance of the watersheds is where that starts. So he personally started that and we just continued on but I think we should all recognize that that was his vision that we just carried on.

Commissioner Starr: I made the motion at the Board of Water Supply meeting.

Mr. Taylor: And Mr. Starr.

Chair Case: Any other questions? Any public testimony? Thank you so much.

Commissioner Antolini: Can we do a time check and quorum check? Are we going to lose quorum at 1:20? Can we just kind of look at what we have remaining and try to.

Commissioner Starr: I can probably do 1:30.

Commissioner Buck: I'm out the door at 1:30 at the latest.

Commissioner Antolini: So just given what we have remaining, not to short anybody, but can we just kind of look at what we have remaining.

Commissioner Starr: Madam Chair, can I request that we defer item C1., C2. because I really want to hear it.

Chair Case: How about we defer it for now until after section D. and see if we have time. We're going to skip ahead to Item D1. Approval of Kauai Water Use and Development Plan Project Description.

Ms. Ohye: This submittal item is to get your approval of a project description, and we have both the County and the Consultants here to present and then we'll get to the submittal recommendation.

Good afternoon, Kirk Saiki, Manager Chief Engineer, Kauai Water Department. Lynn Malinge, Fukunaga & Associates, she can give you a project description.

Ms. Malinge: Basically what we wanted to point out on this slide that Lenore had presented earlier, there's various components of the Hawaii Plan. I wanted to just point out that the Water Resource Protection Plan was being relied heavily upon for the quantity of water that's available to safely be used from the ground water aquifer as well as from the stream so with consideration of the instream uses so we rely on the Water Resource Protection Plan to provide that number. The State Water Projects Plan will provide information on the State needs and Ag Water Use and Development Plan to provide information on agricultural needs so as you heard from DOA, they're working on it, so those numbers aren't really available yet but we'll do our best with what's available. The information from all of those components needs to be incorporated into the County levels plans. As you know, all of the plans are on different schedules and at different stages of development. Also wanted to point out the Hawaii County Water Use and Development Plan that was adopted in 2011, we have a similar approach, so it is very similar in the technical approach and through that process the identification of the sensitive areas occurred which were the Keauhou and Waimea aquifer systems, so we're going to be doing something very similar to that. The Water Use and Development Plan objective in the Code is to set forth the allocation of water to land use, so that's what our focus will be and key goals would be to provide the guidance for the management of the island's water resources to ensure that future water needs of the County are met, while preserving the integrity of the island's water resources and also to ensure that sustainable water resources are integrated into the formulation and development of the land use policies. So we've been working closely with the Planning Department as well and they're working on their update for the general plan and they just started that process now. We are following the framework, and the goal of the framework was to facilitate the coordination and integration of the various components, and through that we are looking, highlighting some of these elements that allow for that to happen. We are doing the data analyses based on the hydrologic units that are established by the Commission, presenting this project description for approval, we have continuous coordination, and we work closely with your staff and include stakeholder and public involvement. So, guiding principles for the Water Use and Development Plan Update: Public Trust Doctrine, waters of the State are held for the benefit of the citizens of the State; water is the most precious resource, we should use it wisely, conserve it, don't waste it; highest quality of water should be used for the community's highest beneficial use - what we're talking about here is potable ground water that doesn't need very much treatment for use by human consumption; and then lower quality water is reuse water, surface water, brackish water should be used whenever possible. Key tasks involved for the

update process would be to inventory the sources, the uses, the existing water systems, we are going to assess land use plan and policies, protect future water needs, demands based on a twenty year projection, identify resource options and obtain the stakeholder and public input. For the inventory of the existing sources we are relying on the Commission database which is provided based on the hydrologic units. The Water Resource Protection Plan will provide the sustainable yield numbers that we need to follow and ground water information is from their well database, including the pumping information that they collect. Surface water is from the information that you do have in the database from the declared diversions as well as any information on reported surface water use. Other sources might be catchment systems and we're looking at reclaimed water systems and also if there is desalination occurring. So for the island you have three aquifer sectors and 13 aquifer systems, and then the Commission database we have all of the wells and where they're located and the types of use. From the Commission database we have this map, the white lines are the surface water hydrologic units established by the Commission and they're numbered clockwise around the island. I want to point out that what we're doing is we're overlaying the aquifer systems and sectors, and this is for our purposes for the analysis and presentation of the information to simplify it, so the intent would be to do a chapter on each of the aquifer sectors and systems, just for simplification and presentation on the information. Then we would refer back to the watershed units that way. As you can see several diversions on the island and the brown lines are all of the irrigation systems. The existing uses will be inventoried based on the Commission categories, domestic, industrial, irrigation and ag, military and municipal. We'll identify existing water systems, the Department of Water systems, privately owned public water systems - that information comes from the Department of Health Sanitary Surveys and public water systems are defined as any system that serves more than 15 service connections, sixty days out of the year - the irrigation systems, drinking water systems and individual catchment systems. This map gives you an idea of where the service areas are. It's still a work in progress as indicated but basically what it's showing in a red line is a Department of Water systems, and the blue hatched areas are the metered parcels, so it gives you an idea of where that is and the yellow is what we're kind of thinking might be a catchment area served by catchment, because we did an analysis on the building values for the parcels, and if there's something greater than 10,000 dollars, then we'd assume they had some kind of water need, so and they're not hooked up the water system. Land use plans and policies, this state land use classifications need to be looked at, County General Plan which is the general conceptual land use of the County, it's their "vision". Community Plans take that conceptual land use onto the community level and then County Zoning is the allowable development by ordinance. State land use classifications, there's four districts: ag, conservation, rural, urban, but it's too broad and for us to develop useful water demands so we're not going to be using this for water demand determinations, but I want to point out on this map the brown areas are the Department of Hawaiian Home Land areas which we're going to be using the State Water Projects Plan demands and we're going to allocate whatever is in the State Water Projects Plan and that would be what covers the Department of Hawaiian Home Lands because they are not subject to State or County land use policies. General Plan, there's eight categories that we can start to develop more need for water demands and then the zoning there's about 50 which has a lot more detail and we can see get a better idea of how much water demand might be associated with those land use policies. So similar to the Big Island's approach, we're going to do an islandwide comparison using the same measuring stick, do a preliminary evaluation on the sustainability of the land use policies, the general plan and zoning, in order to identify sensitive or less sensitive areas which would mean, and we're looking at a possible full build out. Full build out is when all land, we're assuming that it would be when all land is built out to the maximum extent possible that does not consider roadways, buffer areas or the topography so maximum is very conservative, but this is just a kind of broad-brush evaluation to see what sensitive areas would need to be looked at more closely. We are going to apply standard water planning methods, the water systems standards, to the existing land use plans and policies and basically this is focusing on domestic demands and in comparison to ground water sources. So these are the units, water use units, reached in the water systems standards that will be applied, and again you can see that we have the Ag Water Use and Development Plan number, 3400, which Brian said to use with caution. What we wound up seeing is the sustainable yield from the Water Resource Protection Plan, and then we're going to develop the general plan full build out demand, so again maximum extent possible of the general plan, and there's no time element to this, and then what the

zoning full build out demand is, and we want to see that below the sustainable yield, and these areas are looking pretty good and its less sensitive. What we might end up doing is that the general plan might have ambitious rules or, and it needs to be looked at a little carefully with relation to the water resources. And the zoning is okay. It's still the legally allowable limit but it's under the sustainable yield, and this would be more of a sensitive area that maybe we want to take a look at and these are what triggered the Keauhou and Waimea systems. The general plan may have triggered the Keauhou and Waimea systems. The projection of the water demands for the twenty years would be based on, we are going to start with the existing water use, water meter records and pumpage to get that existing use and we're going to project info based on the socio- economic activity and that's going to be paralleled with population growth scenarios that we get from the County. They have a low, medium and high projection, and they just did that recently in support of their General Plan update, so they have an socio- economic study available, so we will be using that, and this approach assumes that the type of development in the existing area will continue to be similar to that. It will have the same feel, same type of residential expansion or resort, so we start with existing demand based on pumpage or metered data and then we have existing population, your general plan full build out is a straight line and zoning might be here. From the County's plan, they have population projection rates for the next 20 years and we're going to assume that the demand is going to follow that same rate of growth so it will increase at the same rate. This figure is showing how we meet the projected demands given a projected water demand. You need your system capacity, the infrastructure to be a little bit ahead of it to be able to allow for development as well as to account for peak demands in a day or seasonable basis. For the Agricultural Water Use projections, we've had conversations with Planning and Department of Ag and Agribusiness Development Corporation, and as you know it is complicated. For the purposes of this Water Use and Development Plan we're going to be using the 3400 gallons per acre per day as the most reasonable number for the diversified agriculture. It doesn't take into account fallow lands or areas that aren't developable or topography and we understand that but that's the best available information at this point, and the County has done a very comprehensive important ag land study recently and they have sent that to Council with recommendation that they accept. They did this big matrix and they have this score of 28 that they were recommending for consideration for important ag land so we're going to apply the 3400 to that important ag land so that at least brings it to a more reasonable approach for projections on what ag might need. Also with the knowledge that farmers would like to set up crops that can be propagated by ambient rainfall whenever possible, that they utilize capabilities of existing or irrigation systems with least rehabilitation and repair, and also maximizing the use of lower quality water whenever possible. In identifying resource options, we're going to consistently apply the demand side numbers, conservation programs, and if necessary we can look at consideration of reducing allowable development densities, maximizing use of lower quality water whenever possible, reuse, surface and brackish and development and maintain conventional water system infrastructure. For the public and stakeholder participation we have a stakeholder advisory committee there's eight people on it right now, agriculture, development, native Hawaiian groups are represented, we have a series of public informational meetings proposed. There's going to be two sets and four sides of the island. We're conducting milestone briefings and the Board of Water Supply will need to approve it so it will be presented to the Board for approval and then finally it'll have to come back to Commission for inclusion in the Water Plan. Water resource issues, watershed protection, they have a current watershed protection plan, the Kauai Watershed Alliance, consists of the DLNR, Department of Water and large landowners and they work with the Nature Conservancy and they have been doing the fencing and ungulate control as well as weed control. We're aware of the petition to restore flows to the Waimea River, there was the suspension of the Kahili Horizontal Directional Drilled Well, there has been discussion on possibly petitioning to designate the Hanamalu aquifer system and then also address climate change adaptation. Challenges, limited information, that is always based on the best available information. The information on stream diversions and instream uses is limited. The Ag Water Use and Development Plan's projections are not available yet but they may be coming available next year. The information on irrigation system capacities are limited and it really requires a lot of reasonable judgment and assumptions. It would give us opportunity to focus future efforts, identifying data needs, the identification of the sensitive areas that should be looked at a little more closely, thinking of the land planning policies with infrastructure and resource availability, and

we're using GIS and working with Planning Department and getting information from them and identifying new water resources is always difficult. Implementation, Kauai Water Plan 2020 is the current infrastructure master plan and they will be updating that, initiation of new programs based on the findings from the Water Use and Development Plan assessment, and also by identification of sensitive areas. This is our timeline. We've had a stakeholder community meeting and discussed with them the project description which we're presenting today. We're going to have our first public meeting to let the public know that we're embarking on this process and what our technical approach will be, and then after we get preliminary findings done, we'll present that to the stakeholders and again to this Commission, work on a draft plan, and then present the draft to the Commission and to the public again, and then it needs to be approved by the Board of Water Supply and then presented to the Commission.

Commissioner Starr: I notice you haven't been to a public meet yet, and I noticed you only have two public meetings scheduled for the entire process, and I think that you're going to need a lot more public meetings than that. Commission recently had a few public meetings on Kauai regarding water and they were very spirited and a lot of community came out and, assuming you don't like, hold the public meetings in secret, I think you're going to have a lot of people who have questions and comments and you're going to have to implement them, and I look at this as kind of a hard bureaucratic outline of a plan and I think the day and age where that's really a successful process maybe has come and gone. I look at what Honolulu Board of Water Supply does with their planning process, which is a much softer and much mutable approach, and an open approach with a lot of consideration and a lot of thought given to streams and the non-potable uses and the environment and cultural aspects, and I think that in this day and age might be a more successful approach. So I wonder if, my question is, are you set on doing it this way? This is kind of the way Maui started on their first go around, they were doing it in segments but they kind of got kicked backed and I'm wondering if you've given any thought to kind of making it a kind of a more...

Mr. Saiki: We'll take that under consideration and talk to Barry folks and see how they do it and see if we can't...

Commissioner Starr: From my standpoint I want to see you bring the community together and not split them asunder.

Mr. Nishimura: I'm Jon Nishimura, Fukunaga & Associates. I work with Lynn but one of the things on this particular, and our approach is really to try and tie together, or start to link the land use policies that have been set, often times independent of resource. So what we're trying to do is look at the policies first and that's why we go through all this and our conservative numbers, sometimes people tell us that we are stirring up people too much. But I think what we're doing is disclosing to the public what the policies could affect and how you can make, change your course, basically to stay within a sustainable, keep your resources minimal. So that's been the approach but like Kirk is saying we'll take that in to consideration and see how it's taken the first time based on the introduction and if you see that the project description approach is okay then we'll present it to the public and see how they react.

Mr. Saiki: It's not like we really changed the general plan as by just doing this, I mean through this Water Use and Development Plan process or Planning Department with the County has to decide to change it if they require enough water resources. So we take their information with the water use information and come up with this report, it's not so much a let's, so with the findings of this report then things can change.

Mr. Nishimura: A lot of the public comment will be coming in when you look at how you satisfy the needs. The actual trying to actually implement the land use, whatever development is occurring, that's when actually this study will show where areas are critical so when they need to really look at the resource itself. It's meant to be a guide for both the water department and the Planning Department so that when they make decisions on approving and not approving policies or zoning, things like that, land

use policies. They understand that it has implications on the available water use whether it be surface water or ground water.

Commissioner Antolini: Three quick comments, one comment is because we had such great public turn out on our Kauai meeting, we got a great list and so when you get ready for your first public meeting which is soon, if we can make sure that, and our staff can make sure that tremendous list of people...

Mr. Saiki: Most of those people are on our list already.

Commissioner Antolini: I'm sure they are but it would a great service and it would help you and I agree with Commissioner Starr's comments about not just about potable and not just about ag it's about pay attention to non, or instream uses as well even though that's not maybe in the land use development plans so that peripheral vision is really critical and the third thing, I forgot so it makes it faster.

Chair Case: Other questions? Do we have testimony on this? If not, may I have a motion on this.

Commissioner Buck: I'll move that we approve the County of Kauai's project description for updating its Water Use and Development Plan and also authorize staff to participate in meetings and workshops as necessary with appurtenant state and County agencies to facilitate the implementation of statutory and framework provisions for updating the County Water Use and Development Plan.

Chair Case: Very well said.

Commissioner Pavao: Second.

Chair Case: Okay, any discussion?

Commissioner Starr: Can we hear from Lenore?

Ms. Ohye: Oh, no I was just going to go straight to the recommendation. Thank you.

Chair Case: No further discussion? All in favor?

Commissioners: Aye.

Commissioner Buck: Good work, Lenore.

Chair Case: Agenda Item E2.

Commissioner Pavao: Ms. Chairman, maybe in the interest of time, because we're not going to be able get all of this, maybe we should ask staff which is more important?

Chair Case: Time wise.

Commissioner Pavao: Which is more important on this action number? That you'd like to see?

Ms. Alakai: All of them, but...

Mr. Uyeno: Do you want to be briefed on the staff submittal?

Commissioner Starr: I know, I certainly studied all of these and I'm ready to move expeditiously with them if the other Commissioners are.

Commissioner Buck: I have one question for D3. and D4. but be quick.

Chair Case: So why don't we just go ahead with, can we go ahead with a Motion based on the written submittal? Any discussion or any public testimony on Item D2. Iao Stream?

Ms. Kupau-Oda: My name is Summer Kupau-Oda, Earthjustice, I'm here on behalf of our clients, Maui Tomorrow Foundation and Hui O Na Wai Eha. Real quickly, I just wanted to point out that it's rather auspicious that we're here on this action item today because tomorrow will mark the 11th anniversary of the filing of our petition for the IFS amendment. We are in support of the staff submittal, but our main concern is the timeframe for completion of the project with U.S. Fish & Wildlife Service. If you look at the first, in the submittal, sight 1, the Iao Ditch diversion, that is something that our clients believe could happen right away. There is no reason that...

Ms. Alakai: It's already been done.

Ms. Kupau-Oda: That was my point, too because we had heard from community members that there's a plate there.

Ms. Alakai: There's an 18" plate.

Ms. Kupau-Oda: And that 18" plate is...

Ms. Alakai: It's a 16" plate.

Ms. Kupau-Oda: And that's all that's going to be done for that diversion?

Ms. Alakai: No, we're hopeful we might be able to get more but...

Ms. Kupau-Oda: What's holding it up?

Ms. Alakai: Nothing, other than Avery put it in six months ago, we were monitoring it over the winter, there was a lot of water going over it. We got to monitor it over the summer, during the drought months and then evaluate, we're just in a monitoring stage.

Ms. Kupau-Oda: So far it seems like it's working, and it's fine?

Ms. Alakai: Yes, there's water in it. The dry stretch is no longer dry.

Mr. Tanaka: We just wanted to highlight it's been over ten years since the petition was filed, five years ago the Commission itself found that stream habitat modification was needed to facilitated native flora and fauna migration. If the Hui and OHA could be involved with further discussions about this project we would appreciate that.

Chair Case: Are you guys in communication?

Ms. Alakai: I talked to Pam Bun who represents OHA and I've talked to Isaac about this, the County, the land owner, leaseholders. I've already been in communication. I've talked to DAR several times about this.

Chair Case: Thank you.

Ms. Alakai: I'm real big on communication.

Commissioner Antolini: With that update, no objection?

Ms. Alakai: This doesn't affect the IFS.

Chair Case: Any other testimony?

Commissioner Starr: Madam Chair, would a motion be in order?

Chair Case: Yes, sir.

Commissioner Starr: I move to approve the staff recommendation.

Chair Case: Any discussions? All in favor?

Commissioners: Aye.

Chair Case: Oppose? Thank you. Is there any testimony on D3. or D4.?

Commissioner Buck: One quick question because I had this last time, you know your Exhibit 5 which is you standard conditions refers to construction best management practices. Are they listed somewhere? What BMPs are utilized? Is it a document?

Mr. Uyeno: Normally they are included in project plans. They will have a listing of all BMPs that they will be following. More importantly Department of Health, as far as water quality concerns go, Department of Health will outline those specific BMPs that they want.

Commissioner Buck: You're referencing something that there is no reference to as a specific condition you're putting on the applicant and you need to have a direct, otherwise we don't know what you are talking about. I know we had this before, this is a much improved stream alteration application than you did last time, I appreciate that.

Ms. Alakai: Section on page 2 that says best management practices and it outlines, it mentions follow project specific Storm Water Pollution Prevention Plan.

Commissioner Buck: I understand but the actual recommendation is referring to Exhibit 5. There is no cross reference, if I was the applicant I wouldn't know what BMPs I'm being asked to follow. I just encourage you to drill down on that. I would have no problem then approving D3. and D4.

Chair Case: Would you like to make a motion?

Commissioner Buck: I move that we approve Items D3. and D4.

Commissioner Pavao: Second.

Chair Case: Any discussions? Any testimony? All in favor?

Commissioners: Aye.

Chair Case: Opposed? The Minutes, do you want to defer that item?

Commissioner Starr: I want to make comment before we vote on it. I've had a number of problems with the minutes, there were a lot of things that I felt should be there that were left out or that were kind of softened and I started to make a bunch of amendments and I got to 20 and then threw the paper out and

decided that what we really need moving forward is a verbatim transcript and I really want to express as strongly as I can that we need to create a mechanism for doing that in the future. Having said that, unless anyone else has any comments I'd like to move that we approve the minutes.

Commissioner Antolini: Second.

Chair Case: I would like to say, I think that would be a tremendous burden to produce for these very long meetings and so maybe we could think of ways to provide enough details so the summaries are accurate without transcripts.

Commissioner Starr: I sit on a another Board now, I've sat on three others and they've all had verbatim transcripts and I will push as hard as I can, as often as I can for them. If we need to get resources for it I feel we could.

Chair Case: So right now do we have a motion for approval of these minutes?

Commissioner Starr: Yes.

Commissioner Antolini: Second.

Chair Case: Any discussion? All in favor?

Commissioners: Aye.

Commissioner Case: The meeting is adjourned.

(The meeting adjourned at 11:30 a.m.)

Respectfully submitted,

KATHY YODA

APPROVED AS SUBMITTED:

W. ROY HARDY
Acting Deputy Director