

**LANA'I PLANNING COMMISSION
REGULAR MEETING
OCTOBER 19, 2022**

A. CALL TO ORDER

The regular meeting of the Lanai Planning Commission (Commission) was called to order by Mr. Reynold Gima, Chair, at approximately 5:00 p.m., Wednesday, October 19, 2022, online via BlueJeans videoconferencing platform, Meeting No. **981 420 093**, and at the Current Planning Conference Room, One Main Plaza, 2200 Main Street, Wailuku, Hawaii, 96793, and at the Maui County Council, Lanai District Office, 814 Fraser Avenue (entrance on Gay Street), Lanai City, Hawaii 96763.

A quorum of the Commission was present. (See Record of Attendance)

Mr. Reynold Gima: So welcome everybody. Tonight is the October 19th, 2022 meeting of the Lanai Planning Commission. Let the record show that we do have quorum. We have on camera Zane de la Cruz. Zane, do you have anybody with you?

Mr. Zane de la Cruz: No, there is no one else here.

Mr. Gima: Okay. Thank you. Also, we have Lisa Grove on camera. Lisa, anybody with you?

Ms. Elisabeth Grove: No.

Mr. Gima: Okay, thank you. We have Erin Atacador on camera. Anybody with you, Erin?

Ms. Erin Atacador: No, there's no one with me.

Mr. Gima: And Sally Kaye is on camera. Anybody with you, Sally?

Ms. Sally Kaye: No.

Mr. Gima: Okay. Thank you. And I am also alone. Nikki Alboro will be joining us a little later. She had some personal business on Maui and missed the last boat, so she's trying to get that all coordinated. Okay, so just some housekeeping items. Again, the Planning, the Commissioners must all be on video and whenever we take votes, we'll have to vote by show of hands. And if I do not catch you, Commissioners, you know, please jump in if you want to provide input.

In terms of public testimony, those in attendance, please sign up with Leilani via the chat. Please provide your name and which agenda item you wish to testify on. Until such time that you do testify, please keep your audio, mute your audio and video. And I will be contacting Leilani at the County Building to see if we have any testifiers in person there, and with Denise at the Lanai Council Office to see if we have anyone there in person to testify.

Other than that, we can move on to the first agenda item tonight, which is our second workshop. And I guess I'll turn this over to you, Ann, before the Water Company and CWRM.

Ms. Kaye: Chair, I'd just like to point out that Commissioner Trevino is also here.

Mr. Gima: Oh, I'm sorry, Chelsea. So Chelsea is on camera, and Chelsea, is there anyone else in the room with you?

Ms. Chelsea Trevino: No, I'm alone.

Mr. Gima: Okay, thank you. Thanks, Lisa. Okay, over to you Ann.

B. WORKSHOP

Water workshop provided by Lanai Water Company and the Commission on Water Resource Management.

This is for information purposes.

Ms. Ann Cua: Good evening Commission Members. So, Chair, you wanted me to go -- I'm sorry. I was on the phone with our attorney on another matter. So did you want me to just call the first item? I can't hear you.

Mr. Gima: Yes, workshop number, workshop number two with Lanai Water Company and Commission on Water Resources Management.

Ms. Cua: Yeah. So our first item of business tonight is just that, a workshop as was requested by the Commission, a water workshop by Lanai Water Company and the Commission on Water Resources Management (CWRM). And I know Keiki-Pua is here today, and I'm not sure exactly who's presenting, so I would turn it over to Keiki-Pua to start us off.

Dr. Keiki-Pua Dancil: Aloha Commissioners. Joy Gannon, our Director of Water Utilities will be presenting on of Lanai Water Company. And I do believe we have several representatives from CWRM on the call. And I'm not sure who from CWRM will be presenting if it's going to be Patrick or someone else. But we usually follow CRWM, so CWRM, Patrick are you going to presenting or is someone else going to be presenting? Neal?

Mr. Ryan Imata: Hi. I'm Ryan Imata. I'm going to be doing the presentation for the Commission.

Dr. Dancil: Thank you Ryan. So Ryan will start and he'll do introduction of CWRM and their staff, and then Lanai Water Company will follow. Mahalo.

Mr. Imata: Okay, thank you. Hey, good evening, Chair Gima, Commissioners, Ryan Imata. I am with the Groundwater Regulation Branch at the Commission on Water Resource

Management. Tonight with me, with the Groundwater Regulation Branch, are Patrick Casey and Robert Chenet. And then with our Planning Branch, are Katie Roth and Neal Fujii. And that's, I think everybody from our side that I see on the call.

So this is --. Oh, we're not used to using BlueJeans, so bear with me while I try to share my screen with you. But I have a presentation ready to go. I'm going to share my screen. Let me start my presentation first. Okay, this is kind of messed up because I think the, my presentation overlaps BlueJeans so give me a second.

Ms. Joy Gannon: Ryan, this is Joy. If you want, you can email it to me and I can upload it as well.

Mr. Imata: Um, I've got it. I just got to figure out how to share screen.

Ms. Gannon: Okay.

Mr. Imata: Share screen. Okay, now you're seeing me in presentation mode. So I don't know how to switch it to my third screen. Let me see if I can drag it over. Joy or anyone else, do you know how to share multiple screens? Okay, you know what, I'm going to improvise and share with you in the presentation mode, and so you're going to see what I'm -- you're going to basically see what I'm presenting. This might be a little harder to read, but I'm sorry. I'm not prepared to give a presentation in BlueJeans. But let's just start with the, the presentation. Can everybody see that okay?

Mr. Patrick Casey: No.

Mr. Imata: Yes? No?

Mr. Neal Fujii: Negative.

Mr. Imata: Okay, sorry.

Mr. Casey: It was on there for -- there you go. Okay, now it's, now it's shared.

Mr. Imata: Okay, so apologies for that. This is the Commission's update briefing to the Planning Commission, so thank you for having us tonight. So this is going to be an overview of our briefing tonight. We're going to give you a brief history of the Commission's actions regarding Lanai and the designation. There's a Lanai Water Company drought watch which I think that Joy can update you folks on. I'm going to give you an update on the USGS study for groundwater recharge for recent and future climate conditions. I'm going to talk a little bit about well seven, the pump installation permit, and well 10, the hydrology chemical investigation. And give you some updates on our data for the groundwater modeling on the island.

So a little bit of history on Lanai designation. As you probably know, March, March of 1989, we received the petition to designate the island as a groundwater management area. In March of 1990, the Commission denied that decision, and, but imposed eight conditions. In October of 1994, Lanaians for Sensible Growth requested for the Commission to reconsider designation. And then, in June of 1995, the County created the Lanai Water Subcommittee. September 1995, the Commission approved a numerical model. In April of 1996, the Lanai Water Subcommittee created the Lanai Working Group. And in February of 1997, the Lanai Working Group report was presented to the Commission. April of 1997, a reconsideration for designation was denied, but there were five new conditions that were added. On August 15 of 2012, formal adoption of the Lanai Water Use and Development Plan. October, public information meetings ceased with adoption of that plan. On February 14 of 2019, public information meetings restarted with County of Maui, Lanai Planning Commission, and Pulama Lanai. On August 19 of 2020, the Commission gave a public informational briefing to the Lanai Planning Commission.

So this, I think this slide, I'm going to refer the Lanai Company drought watch over to Joy, if you want to speak on that Joy. I'm going to stop sharing at this point and I'm going to reshare once we're done with that.

Ms. Gannon: Thank you. Thank you, Ryan and the Commissioners. I'll just talk about the drought watch. So as we all know, we have not had a lot of rain here for the last two years. We were out of drought watch for a brief period of time. Up until recently, we've had some major -- we got a big storm in December and then it dried back up again. So we did declare a drought watch early this year. We are still in that drought watch. It's getting better. We're starting to see the wells instead of continuing to drop, but they are, they're now starting to flatline with some of the more recent rains. We're not seeing recovery yet at this point in time, but we are seeing basically stabilization. We're still in severe drought and every time it rains, you're seeing me do a happy dance. So we are working with customers on water conservation throughout the island, and hoping that the rains continue. Thank you, Ryan.

Mr. Imata: Thank you. All right. So I'm going to continue sharing my screen. Okay, so I want to, now I want to talk a little bit. You guys can see that right? I want to talk a little bit about the USGS study to estimate groundwater recharge for recent and future climate conditions, and specifically for the island of Lanai.

So this study was jointly funded by the US Geological Survey, the Commission and Pulama Lanai. Our project period was December 2020 to December of this year. The project entailed simulating different climate scenarios for a mid and end of century on the Lanai based on current global climate models. And the, the study will eventually develop estimates of future recharge.

All of the data for creating the water budgets have been input into the recharge model. Preliminary recharge model runs have begun. USGS scientific report on the study is being

assembled based on the preliminary data, and presentation on their preliminary findings by the U.S. Geological Survey was, was done in the Commission meeting in January of 2022.

Now I'm going to talk a little bit about well seven.

Mr. Gima: Excuse me, Ryan?

Mr. Imata: Yes?

Mr. Gima: Ryan?

Mr. Imata: Yeah?

Mr. Gima: Ryan, can you hear me?

Mr. Imata: Yeah, I can. Yeah. Can you hear me okay?

Mr. Gima: Yeah. Um, couple of, a couple of things. Can you explain why the study was needed? And please keep in mind when you're presenting that we are all laypeople. Please don't make the assumption that we know certain things.

Mr. Imata: Sure.

Mr. Gima: That would be helpful. Thank you.

Mr. Imata: Sure. Why are the study was prepared and perhaps Neal can speak a little more about this? But in general, we wanted to see the changing climate conditions what would potentially be the impact in different scenarios on recharge to the aquifer. So we're looking at maybe, perhaps in the USGS model, different scenarios, some of which estimate it based on current trends, in all possible dry scenarios. It also modeled a possible winter scenarios. But gives us a range of tools that we can incorporate in trying to figure out how to best, best manage the resource as we push forward into this century and beyond. I hope that answers your question. That, it's kind of a general answer, but it, but it always, but for the Commission staff, we always look at getting different tools to best give us information to manage the resource. Which, as you'll see further in the presentation, also involves us looking at rainfall events and water levels. And so making sure we have a good handle on what's happening with the aquifer right now, and using tools like the USGS recharge study to estimate what could potentially happen in the future.

Ms. Grove: Can I ask a quick question, Chair?

Mr. Gima: Yes, go ahead.

Ms. Grove: Thank you so much for sharing this information and sorry if this is coming up in the presentation, forgive me. But I was just curious to know how aggressive are your models in terms of scenarios?

Mr. Fujii: Ryan, do you want me to jump in?

Mr. Imata: I would love for you to jump in.

Ms. Grove: And even if you guys are getting it to it at a different point, please just keep moving.

Mr. Imata: No, I don't have, I don't have anything prepared, you know, for the U.S. to expound on the USGS study. But I think Neal can expand on that.

Mr. Fujii: Okay. My background looks like it's kind of going and forth, so I'm going to turn it off. But anyway, Neal Fujii, also with the Water Commission. I'll just go circle back a little bit to Chair Gima's question. Maybe I don't know if Ryan fully answered it, but from time to time, the Commission, like Ryan, says, especially in light of climate change and these changes that we're seeing in rainfall, you know, Commission goes and looks to see what the consequences of any climate change will be on recharge in the Hawaiian Islands and water availability in the future. So that's the main. We do it from time to time.

This, this study with the USGS actually initially didn't involve Lanai, but Pulama Lanai thought it would be, you know, a good idea to also do it for Lanai. So they, they came up with some funding, the Commission did a little bit of cost match and added Lanai as kind of a second phase to the statewide estimates of future recharged by USGS. So that's the kind of circled back.

Now to answer the second question on how aggressive. I can't remember, but it's, it's fairly aggressive, RCP, it's 8.5, future carbon emission scenarios. And the USGS also looked at both dynamic and statistical downscaling based on these, these carbon emission scenarios. So there is a wide range of -- not a wide range there. They're fairly looking at, um, I would guess, high carbon emissions in the future, as well as looking at a couple of different types down scaling for these global climate models. As you all know, Hawaii is like a little tiny blip on these global models so the researchers and climate scientists will use methods of downscaling, they call it, to kind of get these models to run in these smaller spatial scales that Hawaii is. So um, hopefully --. Well, we can provide a link or the USGS presentation in which is on our website, but we'll be happy to send that to the Planning Commission, Lanai Planning Commission staff after the call or after this presentation. Hope that answers your questions?

Ms. Grove: Yeah, that was helpful. Thanks.

Mr. Fujii: Okay. You're welcome.

Mr. Imata: Okay, thanks, Neal. Were there any other questions about the USGS study?

Mr. Gima: Yes. What can you tell us about the status of recharge?

Mr. Imata: Well, I can tell you that the estimates, you know, some of the preliminary estimates look at recharge potentially decreasing. But that's preliminary right now, and I'm not sure, you know, how to, how to, how exactly we want to quantify that because again, it's looking at various scenarios, right? So how and eventually finding what the final information comes out from USGS. So the preliminary data does look like there's a slight decrease in recharge. And again, as Neal said, we can provide the link to the USGS study that gives you some more additional data.

Mr. Gima: And if in fact, if in fact, this study confirms that the recharge is decreasing, will CWRM make a change in the sustainable yield for the island?

Mr. Imata: Yeah, I think that's going to -- when we establish sustainable yields through the Water Resource Protection Plan. So it would probably come with the update of the Water Resource Protection Plan and re-establishment of any sustainable yield taking the best available information that we have.

Mr. Fujii: Ryan, do you want me to do a little bit, follow up on that?

Mr. Imata: Of course do. Thanks.

Mr. Fujii: Yeah, okay. No, that's a great question. As Ryan said, you know, the, the results that we have our preliminary provisional. The process that we normally go through at the Water Commission is when we get new recharged information or estimates of future recharge, the Commission will actually convene like what we call water professionals working group including hydrologist scientists. And we will go and evaluate all the future recharge estimates and looking at other factors as well. And you know, not only for Lanai, we're going to probably do it for the statewide, especially if we find significant changes and future recharge either decreasing or increasing. The Commission as a policy has usually gone with the conservative or, in other words, the lowest, the lowest recharge to be conservative, right? And so, you know, we will see how that affects, you know, the estimates of future recharge. But it will be like Ryan had mentioned, it would be probably a partial update to the Water Resource Protection Plan. There will be opportunities for public input. We would have to do public hearings on all islands that are affected if we do decide to make a change in the recharge. So that's kind of the process.

As far as timeframe for that, you know, USGS report is expected maybe the end of this year, maybe early in 2023. Once we get that report, you know, we would evaluate that. So, you know, I don't want to give a timeline on this, but it's at the earliest, is going to be mid to late 2023, if we, you know, if we go with that.

Ms. Grove: Can I ask a question, please? Is the recharge that -- the reduction in recharge a situation that you are seeing on every island or is that specific to Lanai?

Mr. Fujii: The preliminary and provisional results from the USGS on this specifically -- there's other people that look at the future recharge -- but specific to the USGS, yes, there are, we are seeing decreases on other islands. Um, for the most part, there are some, there are some places that we are seeing an increase in recharge, especially on the wetter sides, on the windward side of some of the islands. But I know you guys want to hear some definitive answers. You know, it's, it's again, you know, we have the report isn't out yet. USGS, I'm not sure if they're doing the peer review process, but it's coming. And so kind of the short answer is, yeah, we've been seeing decrease, decreased rainfall and therefore decreased recharge in many places. But again, there's also a few places that we are seeing an increase. And again, it depends on which . . . (inaudible) . . . which downscaling model is utilized in, in creating this the recharge model, right? So yeah, there's a range and, and, depending on the model. And there are some -- the two, the two downscaling methods have some agreement and some disagreement. So that's something the Commission have to look at very carefully when the report comes out. And we need to assess in what we're going to do with this information.

Ms. Grove: Thanks.

Mr. Gima: Ryan, will you and Neal talk about why this recharge information is important to our Planning Commission and how does it, how does it relate to what our Planning Commission needs to do?

Mr. Fujii: I'll take that Ryan, I guess so.

Mr. Imata: Thanks.

Mr. Fujii: Yeah, so specifically to Lanai and Lanai Planning Commission, you know, our current, the current recharge, I believe on Lanai in the, I guess, this win, windward and leeward, or I think it's three MGD for each of the aquifer systems. And this is where a bulk of the water is developed on Lanai, right? Um, so the significance of the recharge and evaluating recharge, and looking at how it may affect sustainable yield in the future, um, you know, the Commission may -- thanks. Right on. -- yeah, yeah. So that's where the bulk of the water is developed on Lanai, and, you know, changes in future recharge and therefore modifications of sustainable yield.

So just to back up a little bit, you know, sustainable yield, one of the main factors going into sustainability yield is recharge, right. So how much water gets back into the aquifer? There are several ways of doing it, but the current method was the State uses the Robust Analytical Model (RAM). But um, so you know, in the future -- not in the future -- but when we get that information, we can evaluate that, and, you know, not only on the Lanai, but again on the other islands that may affect sustainable yield. Now if sustainable yield changes, you know,

we go back to Ryan's slide talking about the original petition to designate Lanai, I think, was 1995, yeah. So there are criteria for designation. And um, and you know, one of them looking at is, you know, what, what the current withdrawals the pumpage is with in relation to the sustainable yield rate, right? So 90 percent of sustainable yield is one of the criteria for designation of ground water. So the short answer is these future recharge estimates may affect the Commission, the water commissions, estimates of sustainable yield, and water availability, which may affect, you know, this possible designation. Does that makes sense?

Mr. Gima: Yeah. And will you briefly explain about designation and what that would mean if Lanai was designated?

Mr. Fujii: I'll hand that off to Ryan.

Mr. Imata: Yeah, yeah.

Mr. Fujii: Thank you.

Mr. Imata: So, so designation as you might have heard in Lahaina means that there were criteria met to designate it as a groundwater management. Well, Lanai -- I'm sorry -- Lahaina was designated as a ground and surface water management area. What that means is some of the criteria were met to warrant the State coming in and regulating the water used from the aquifer in a more detailed way than we would regulate it throughout the State. And so should somebody want to develop a source for groundwater, one would need to get a well construction and pump installation permit. Those are applicable throughout the State. But in a groundwater management area, one would also need to get a water use permit.

Now what goes into a water use permit? We have criteria to get a water use permit. Among them you have to show that your use is reasonable and beneficial. And maybe most germane to this discussion is the amount that you're requesting has to be available within the resource. So say, for example, say sustainable yield was --. Well, you know, sustainable yield, we look at them as full numbers. So we look at them as three million gallons per day. Recently we reduced, I think it was Waialae West on Oahu to a point five number, but generally they're holding numbers. And so I'm not sure if, you know, recharge estimates were changed to what degree we would reduce the sustainable yields. But all that to say that if there's, if there's three MGD of sustainable yield in the Windward, the aquifer system, and there were allocations issued for 2.8 MGD, if somebody came in for something greater than 0.2, it wouldn't have, there wouldn't be a valuable resource for us to issue a permit, and thus someone wouldn't be able to get a water use permit to use a well in that aquifer system.

So it's a -- so designation is a, is a more stringent requirement for one, for an applicant to use water. And among those other requirements, you know, you have to prove that your use is efficient. You have to prove that you don't have alternative sources of water. There's a bunch of criteria that we look at evaluating how we would approve a water use permit.

So again, designation just puts a finer tooth comb on our analysis of what would constitute a reasonable and beneficial use of what alternatives we have so that we can make sure that we're managing the resource appropriately. I hope that answers your question, but let me know if you have additional questions.

Mr. Gima: Thank you, Ryan.

Mr. Imata: Were there any other questions moving forward?

Mr. Gima: Oh no, not on recharge.

Mr. Imata: Thank you. Okay, so, so I'm just going to continue the presentation. Just some updates on permits that we've issued recently. Well seven, there's a pump installation permit that we approved on August 3rd of 2020. The permit was extended and expires on August 3rd of 2024. This permit allows a larger pump to be installed. The original pump capacity was 700 gallons per minute. The new pump is going to be for a reduced, a reduction to 350 gallons per minute for municipal use. We require a pump tests and well completion reports to be completed, and submitted, and acceptable to us for the well to be put in use. But to, to this date, that pump hasn't been completed yet.

Regarding well 10, well 10 was being looked at for hydro geochemical investigation by Dr. Don Thomas of the University of Hawai'i at Hilo. He was looking at doing this investigation to expand, understanding the dynamics of groundwater systems within very specific geologic regimes within Lanai's Palawai Basin using portrait technology. Well 10 is not the optimal location for investigating geothermal activity. But I think it was chosen for proximity and access. Well 10 was drilled down to minus 3,466-feet below ground elevation, which is a very deep well. The use of that is limited by some anomalous geology and but, you know, it, I wasn't aware of any work that had been done since the last presentation that we gave to you. I did speak to Dr. Thomas, and he said no additional work has been done on doing any sort of investigation, partly because of the pandemic and partly because of emerging issues that are, that we are dealing with pertaining to the Red Hill crisis.

The last thing I'm going to talk about is some groundwater modeling, monitoring -- I'm sorry -- on Lanai. We have pumpage water levels and chlorides conductivity. Total reported pumpage is available online, and you can see that on the link that I've shown. And again, that's something that we can email you folks if you have interest in seeing the total reported pumpage. But the next slides we're going to talk a little bit about some of the wells and some of the data that we're collecting. So here, as you can see, it's probably kind of hard to see. I'm sorry, I'm not in presentation mode, but could see the leeward and the windward sectors. And you see that systems and you see that most of the wells are concentrated within the center portion of the island.

Now here's a graph of the total pumpage from all of the wells, high level wells on Lanai. You see this, this, this line, the dash line shows actually the, the absolute pumpage values, and you see the blue line shows the 12 month moving average of the pumpage.

This, this is a little bit hard to see, and I think Patrick may be able to expand on this. But these are, this is a graph that shows you monthly pumpage versus what the water levels we're seeing there. And so let's see, the, this, these blue lines are the total pumpage throughout the aquifer and, and, these, these lines are all showing on water levels in different well locations. But generally, we're seeing pretty stable water levels.

And then this is a graph of precipitation data from the airport, and from another location when other data is unavailable for precipitation. But it shows precipitation versus water levels. And again, it's, it shows pretty stable water levels despite, you know, changes in rainfall. I think there's a spike, like, right here. And that's, that's all I have. So I don't know if you had any questions on anything I presented or maybe anything else that anybody from our staff here can answer. I'm going to stop sharing my screen now, unless we need to reference back for any of the slides.

Mr. Gima: Okay, Commissioners, any questions for Neal or Ryan? Okay, I have one or two. Can CWRM comment on the changes in the periodic water report that you guys enjoy receiving from the Lanai Water Company? It is no longer available to the public unless you go looking for it in their website. And can you talk about the chloride level changes in their data?

Mr. Imata: I'm sorry who was that a question? Was that a question for us?

Mr. Gima: Yes.

Mr. Imata: Um, changes in chloride levels. So Bob, I don't -- Bob and Patrick, I don't know if you want to speak to chloride changes and what you guys are seeing in that data.

Mr. Casey: I -- in the update, I looked at the water levels and precipitation data, we didn't prepare anything for the chloride changes. I think we were just updating the presentation from last year. I think we can pull something together, but it will take a little bit to do that. I don't know if, you know, Bob can weigh in on, on that, but that's, that's not something we had prepared to talk about is the any, any changes in the chloride or conductivity levels.

Mr. Imata: So I apologize, Chair. Were there specific wells that you are referring to that I can look up and maybe kind of speak to?

Mr. Gima: No, I mean, at the last, at the last presentation Commission on Water Resource Management provided was, was in person with Kaleo there, and you guys praised the Lanai Water Committee because they're the only one that provides consistent data to, to the Commission. Since then, the data has changed in the periodic water report, and I was trying

to find out if you guys have any concerns about the changes in the way the data was presented, especially since we don't get the, we don't get the data unless we were looking for it nowadays.

Mr. Imata: I can definitely look that up and get back to you about any potential changes in salinity.

Mr. Robert Chenet: I can make one comment on it. I believe some of the changes occurred that they do conductivity readings now rather than chloride measurements. But as far as the trends, again, we're not, I'm not prepared to present. But we could look into trends. But they switched over to conductivity because it's easier measurement to, to take, but they put measures the same as a chloride measurement would the salinity groundwater. That's about all I can say for that without digging deeper.

Mr. Gima: Okay. Hopefully, Joy can address that too, because the author of the Periodic Water reports. Okay, thank you. Any other questions, comments from the Commissioners for the presenters from the Commission on Water Resource Management?

Mr. de la Cruz: I have a question.

Mr. Gima: Go ahead, Zane.

Mr. de la Cruz: Something that just came up when you were talking about the change from chlorides to conductivity. So with the conductivity testing, does that mean they're just testing -- like that's, from my understanding that's just total dissolved solids are not specifically to chlorides? Is that, is there an assumption that the chlorides are like the gross majority of the conductive material in the wells?

Mr. Imata: Patrick?

Mr. Casey: Yeah, perhaps I can address that. You know, there are, there are three basic tests for, you know, our concern for salinity or the saltiness of the, of the water. Conductivity, which is just the, it's a measure of the water's ability to conduct electricity. And for our purposes, you know, that's basically the chloride ions. That's the, the, the active element. Salinity is a total of all dissolved non carbonate salts in water. And chlorides, it's a little more difficult to test because it's, it's a titration generally to measure the chlorides. So for us, you know, since we lower instrumentation down in wells, you know, the conductivity is the only really practical way to measure, say, the profile of how we measure the freshwater down through the brackish to the seawater with our instrumentation. But they're, it's just as accurate. It's just a different way of, of measuring the, the content in the water.

When you're talking about total dissolved solids, it's a, that's a different thing. You're looking at whatever is suspended in the water, which doesn't always equate to the amount of chloride or anything else for that matter. That's why chloride are measured, you know, as a, a lab

process. But conductivity in the, in groundwater is generally a very comparable means of measuring the ability to transmit electricity, which is the, the chloride ion. That's the, the, the main, the big factor. I hope that helps.

Mr. de la Cruz: Yeah. So it sounds like conductivity is just a good analog for the chloride tests.

Mr. Casey: Yeah. Yeah, chloride, chloride -- I mean, it's been used for forever and like salinity, they were, you know, you know, a 150 years ago, they were using grains of salt as a measure and, you know, for, for salinity. But you know, we've come a long ways from, from those days. So conductivity, you know, for, for us is a much easier way to measure and it's just as accurate in terms of how the water, you know, conducts electricity, which is, as I've said, primarily the chloride ion that's dissolved in the, just associated in the water. So, yeah, conductivity is a far easier way for people measuring their own wells to keep a handle on it. So hope that helps.

Mr. de la Cruz: Yes, thank you. That was very helpful. The other question I had was in regards to the graph showing, I believe, it was the recharge rate versus precipitation, and there was a statement made that the recharge rate remained fairly stable even with changes in precipitation. And I was wondering if that suggests that, like the, does that suggests that the landscape has kind of reached a saturation point in charge, in relation to the infiltration rates, as in, like, more rainfall wouldn't necessarily mean higher recharge rates because the system is saturated.

Mr. Imata: Um, I think the slide you were referring to was the slide of precipitation versus water levels. I think that's slightly different from recharge rates. But again, I think that's something that Patrick and Bob can speak to. They're the geologists. They understand better at the hydro geology and time difference between precipitation events and what would happen with respect to water levels.

I don't know, Patrick, did you want to kind of expand on that, and I guess the question is whether large rainfall events see any kind of maybe saturation point at which you're not going to see increase in water levels. I think that was the question, right? So and I think that a lot of, a lot of times in the speaking from a, from my engineering, you know, my training is that seeing these huge rainfall events definitely are not going to result in any significant changes in water level because when you have that degree of soil saturation, you're going to have a lot of runoff, right? The large rainfall events might not impact the recharge as much as we think that that just because of the surface runoff. I don't know if you wanted to expand on that, Patrick, but --

Mr. Cheney: Sure. Yeah, you're, you're right on the money, Ryan. It depends if you get huge rainfall events that overpower the subsurface's ability to allow it to percolate into the subsurface, it's sheet runoff. It just runs off, you know, into the ocean. And it, it really depends on location. You know, as you go down the islands from Kauai down to the Big Island, things change pretty radically because you, on Kauai, you have a very thick soil profile and so you get runoff a lot easier than you do on the Big Island. Plus, there's lots of perched water, you

know, in those soil profiles. And on the Big Island, I mean, we monitor wells all up and down the chain, and there's a couple of wells that show a pretty dramatic change in water level after big rainfall events. And that's because there is almost no soil on the Big Island. You know, it's, it's inches thick and so it percolates, you know, it infiltrates very easily. So it, as I say, it depends.

On Lanai, you know, you've got, you've got some soil developed. So again, if you get soil saturation, then the water can't move through it very, very readily. So it depends on the location and the degree of, of rainfall. But yeah, it's, it's a moving target.

Mr. Imata: If I can circle back.

Mr. Gima: Zane, do you have any more questions?

Mr. de la Cruz: No, I'm good. Thank you.

Mr. Imata: If I can –

Mr. Gima: Okay, go ahead . . . (inaudible) . . .

Mr. Imata: If I could circle back to maybe address, Chair Gima, your question regarding any kinds of changes in salinity. So while Patrick was speaking, I just pulled up a random sampling and I'm going to share this, share my screen. I pulled up a random sample of selected water use report data. What I found is, what I found was in general conductivity throughout, I guess, just from last from the, from, from about June/July of last year has remained pretty stable in all of the wells that I pulled up samples for. So back here, it seemed that conductivity decreased right from there. So, so I think what we're seeing is more stable, more stability in conductivity at least within the last year. I don't know if that addresses your question. But that's the data that we have.

Mr. Gima: So the conductivity numbers are the same as the prior chloride levels that we used to see in previous periodic water reports?

Mr. Imata: Yeah, that I don't know because I don't know, and maybe Joy can kind of speak to that because I don't think we have chloride data. Maybe we do, but I got to look at the database, how far back it went. Yeah . . . (inaudible) . . .

Mr. Gima: No, no. You have decades. You have decades worth of chloride levels in the periodic water reports. And that's why I asked the question because can we compare historical chloride levels in the periodic water report to the now conductivity numbers? Or is it apples and oranges, or the apple and apple?

Mr. Imata: Patrick, Bob, do you want to kind of speak to the conversion?

Mr. Cheney: Sure. They're both linear measurements. So, for example, I've got a chart that that we, we can equate one with the other, or compare one with the other. So for, for fresh water, you know, a 1,000 micro- semons per centimeter, which is the conductivity reading, is the same as about 220 milligrams per kilogram or liter of chloride. And at the high end of the, you know, when you get to half salt, you know, at 8,500 milligrams per liter of chloride, you've got 17,000, or excuse me, 25,000 measurements of, of conductivity. My point being, they're linear. The scales are linear, so you can pick a spot on one scale and have it close to a number on the other scale. So yes, we can compare them because they're both linear. It just takes a little bit of doing, doing that. But since you've got a great historical record of those, you know, we can, we can compare and see how, how it's performing relative to what was recorded with the chloride readings.

Mr. Gima: Yeah, you can understand that but the layperson reading the periodic water report doesn't know how to make that conversion. So may I ask that you require the Lanai Water Committee to either provide both conductivity and the chloride levels, or go back to the chloride levels because if you don't, it's hard to compare current chloride levels to historical data. Go ahead, Zane.

Mr. de la Cruz: If I could make maybe a compromising suggestion is if we could perhaps convert the historical chloride tables into the conductivity, the new conductivity measurements, that might be easier for everyone involved.

Mr. Cheney: Well, since you're going to continue, likely to continue with chloride measurements that would make the most sense. We'd have to look and see what kind of level of effort that would take. But I think it's doable.

Mr. Gima: Yeah, people providing testimony and a lot of the applications coming before the Lanai Planning Commission, they talked about chloride levels. They don't talk about conductivity. So it's important that we're all on the same page and not have different scales. It just makes things confusing. So again, please be require, please require Lanai Water Company to make the changes, or have both conductivity and chloride levels on the periodic water report. Thank you.

Okay, Commissioners, if there are no other comments or questions for the presenters from the Commission on Water Resource Management, we thank CWRM for their presentation tonight, and then we can now move on to Joy and the Lanai Water Company. Thank you, guys.

Mr. Imata: Thank you.

Mr. Fujii: Thank you for having us.

Ms. Gannon: Thank you. Could I ask a quick question before you guys leave altogether? Robert, are you still here? Nope. Okay.

Mr. Imata: I'm here. Yeah, we'll stay on.

Ms. Gannon: Robert, was it 2013 when the Commission started accepting conductivity as an alternative to chloride testing? Is that the year it was done?

Mr. Cheney: I say 2018.

Ms. Gannon: Okay, I can't remember what year it was. In my head, it was 2013, but yeah. But yeah, that was the main reason we looked at switching to conductivity as it was an acceptable form for the Commission, Commission, and it's a much easier and simpler test and to do it and to perform. But with that said, I will switch to my regular presentation. One second. Give me one second. Commissioners, can you advise us you're seeing my slide show?

Mr. Gima: Yes, I can see it.

Ms. Gannon: Okay. Please feel free to just stop and ask questions as we go through. Most of this material is probably pretty familiar. We have two drinking, public drinking water systems on the island. Public water system 237, which is the Lanai City water system. In this picture on the, on the slide, the Lanai City water system is shown in blue, so those blue lines all belong to the Lanai City water system. It consists currently of wells three, six, and eight, and we're in the process of bringing, well seven online. There's still quite a bit of work that has to happen. If you drive over by the stables, you can see that there's construction work happening. There's still a lot of approval process that needs to happen with CWRM as well as DOH and we're working through that process.

We have three reservoirs, one behind Sensei Hotel, one behind the Villas, and then there's that little tank as you're heading down the hill towards K-pau. So the total reservoir is about 2.77 million gallons. And about 36.5 miles of water mains, and this water system about 1,400 customers, and we're averaging about almost 0.6 million gallons per day.

Excuse me, PWS 238, our public water system 238, is the Manele water system. That's the red lines that you see in the picture. It provides, its water is provided by wells two and wells four. So as you're driving down the hill towards Manele, if you look up, you'll see a gray tank that is the Hi'i Reservoir. Well two is about half a mile past the Hi'i Reservoir, and then about three quarters of a mile further is well four. So that's kind of up on the, the second bench area. We've got a total reservoir going down to Manele of essentially two million gallons. Thirty-one miles of water main. Only about a 135 customers on that system, but it includes the Manele Resort, which is a large customer. And so it's averaging about 0.45 million gallons a day.

There's also a brackish irrigation system, which includes wells one, nine, 14 and 15. Well nine has been out of commission for quite a while. So I got a little asterisk on that one. We're not sure if we're going to be bringing that one back online or not at this point in time. So it's got a little asterisk by it.

We have three reservoirs. Two kind of on that back road, heading down to Manele, and then the large reservoir, which is right essentially at the turn when you're heading down to Manele. We have 11 miles of water main, 48 customers, and also serves as the irrigation point for Manele golf course. So we're averaging about 0.57 million gallons a day, roughly.

There are two recycled water plants on island. It's kind of hard to see in this picture. The first one, the pink lines that you see here in the city is the, the Lanai auxiliary plant. Right now, all that water is going up towards Sensei Resort and over where the Adventure Center is. And then the Manele wastewater treatment plant, there's this teeny tiny little pink dot down there by the treatment plant, and essentially 100 percent of that is sent over to the golf course. . . . (Inaudible. Internet connectivity problems.) . . . monitors the open reservoir, which is right below the treatment plant, and then takes the water every day and mixes it with brackish water, basically at a three to one ratio.

So if you're curious about the recycled water, we did take place, take part in a Voice of the Sea episode, and we do do a tour of the two recycled water facilities on island. And you can Google Water Reuse Voice of the Sea and you'll find that episode if you're curious.

So kind of the simplified regulatory environment that we are working in, there's certainly more than what I'm showing, but this is kind of the first . . . (Inaudible. Internet connectivity problems) . . . for supply. Same, same standards as any rain related water system.

Water rates and customer rules and regulations are regulated under the Public Utility Commission. And then also the Division of Consumer Advocacy plays a part in that. We were actually expecting to file a rate case this week. It will . . . (Inaudible. Internet connectivity problems) . . . This is getting, getting started again. There will be an . . . (Inaudible. Internet connectivity problems) . . . so that process is, will be soon starting itself back up.

And then water quantity is essentially regulated by DLNR, the Commission of Water Resource Management. And also, there's various regulations associated with Maui County ordinances, there's guidance document of Lanai Water Use and Development Plan, and then there's various project condition. . . (Inaudible. Internet connectivity problems.) . . . contaminants that are actually more strict than the Federal Safe Drinking Water Branch. Not a whole lot, but essentially they mirror the Safe Drinking Water Branch. Um, every three to five years -- right now, they're doing them every five years -- Department of Health conducts a Sanitary Survey of each of the public drinking water systems. So what a sanitary survey means . . . (Inaudible. Internet connectivity problems.) . . .

Dr. Dancil: Joy, if you can hear me, it's Keiki-Pua. You're cutting out. So if you don't mind killing your video, and I'll run the video from my side and then you can just increase the bandwidth on your side. Chair, may I share my screen? Chair Gima, is it okay for me to share my screen please?

Mr. Gima: Yeah, go ahead Keiki-Pua.

Dr. Dancil: Mahalo.

Ms. Gannon: I apologize I should have --. Yes. I apologize. I should have done this from my office and I did not. Sometimes my, my bandwidth isn't great, so I apologize. So DOH will come into a sanitary survey. They're actually be coming next month, November, to do the sanitary survey for the Manele water system. And then last year they did the sanitary survey for the Lanai City system. And it's essentially if you're, if you're familiar with . . . (Inaudible. Internet connectivity problems) . . . who are they going to hold responsible for any water quality or water quantity decision. And also the person who's responsible for making sure that there is a certified water operator available on island at all times. And so that responsible charge is me. The substantial modifications; anything that's considered a substantial modification has to be approved by the Department of Health Safe Drinking Water . . . (Inaudible. Internet connectivity problems) . . . that's adding up pressure reducing valve, adding Hokuau, those will all be considered potentially be considered a substantial modification and go through an approval process with Department of Health.

And now we also every year publish what's called a Consumer Confidence Report. That's kind of our annual report card to the, the customers of the water system. In that Consumer Confidence Report, it has all of our water quality tests for the past five years. So it will . . . (inaudible. Internet connectivity problems) . . . It will also include any violations or any abnormal, anything that we say if there was a problem in the system than we would have to report it in our report card. So that's the Consumer Confidence Report. That comes out usually every June of the year. Next slide.

So . . . (inaudible) . . . quality starts at the wellhead itself. So when we do a new well, there is two testing that is done. So this is actually the testing that will need to be done for a well seven. We've got micro microbial chemicals, radionuclide, alkaline conductivity, turbidity PH and there's a long list. But that's the, the very start of setting up a new well. Go ahead, next slide.

Generally speaking, our drinking water wells are superb. We have really, really good water quality coming from our wells. The picture right there is actually well two. And if you kind of notice in the background, all you see is trees, and that kind of gives you an idea of why we have such good water quality at the wells. There's been a source water assessment completed for each of our wells. That was actually done by the University of Hawaii. And then there was a wellhead protection plan written by Hawaii Rural Water Association. Next slide.

So it all starts at the wells, at the at the, at the watershed. And if you haven't had a chance to be up in the Hale area and experience that, I really do encourage you to hike up there. It's absolutely beautiful. This is kind of a picture from a few years ago. You can see the green Hale area, which is where a lot of our recharge occurs. Next slide.

And if you haven't had a chance, this is what it looks like. Quite a bit of our recharge is happening through rainfall, as well as fog drip. And you can see in these pictures kind of that fog drip that's happening. If you look closely at some of those ferns, there's, it's a pretty thick mat of vegetation. Next slide.

So once we pump out of the wells, we add what, what's called sodium hypochlorite, which is a form of chlorine. It's about 12.5 percent chlorine, the sodium hypochlorite itself. So essentially at the wellhead, we're adding about 0.6 parts per million chloride. So that's not quite two chlorine atoms, two chlorine -- no, one chlorine atom for every two million water molecules. So the maximum amount that you could add is four. We're adding 0.6. And then every week we go and we test various locations to make sure that we have a chlorine residual throughout the island. And so that chlorine residual what we're shooting for is about 0.2 parts per million down at the Beach Park and down by K-pau. So at the very end, we're shooting for 0.2, which means one chlorine atom for every five million molecules of water. Go ahead, next slide.

In addition to our, and I apologize this one's hard to read, in addition to our new well water quality samples that we do, this is actually the schedule for PWS 237 Lanai water system. And so if you can -- I will make this slide available, presentation available -- every component has its own routine sampling plan. So we take the total coliform bacteria in town three times a month. We take nitrates once a year. We take disinfection byproducts once a year. We take lead and copper every three years. So there's a schedule for each different potential contaminant. This one shows you the last time we took the sample, and when the next time it is due. Next slide.

Our water system is actually monitored by what's called SCADA, supervised -- and actually a little bit controlled by SCADA, but we do the programming to control it. So SCADA stands for Supervisory Control and Data Acquisition. The picture you see on the left shows you all of our transmitters and our radio receivers. And so we have kind of a radio system basically throughout the island, going from various tanks and wells, and all heading to our servers either at the Lanai Water Company or at Central. And ultimately, I can, the picture you're seeing on the right is from my phone. And so I can actually see any water level in any tank, well, or what, how much flow is happening on . . . (inaudible) . . . and actually turn on and off wells as needed, or look at trends of what's happening. Next slide.

We have data loggers in the wells that are monitoring well levels. So what you're seeing here is essentially how it's set up to measure, to measure the water in the well. And then on the other picture that you're seeing is how our system works. So this actually is Hi'i tank and probably this is well four. So Hi'i tank is set, says when Hi'i tank gets to a certain level, turn the well on. When the Hi'i tank rises to a certain level turn, turn the pump off. And the dark blue line you're seeing there is the water level in the well. So when we turn the pump on, water level in the well drops. And when we were pumping, it stays fairly, fairly close to a lower level. As soon as we turn it off, it goes back to a static level. And you can see as the tank, the water level goes down, Hi'i -- and in this particular case, you kind of see these little plateaus.

That's because of the breaker tanks going down the hill. And so the various tanks are calling. Go ahead.

So every 28 days, we do what's called the Periodic Water Report, and it's submitted to CWRM. So that link that CWRM provided actually is based on the data that we're providing them, and it's sent to them every 28 days. This is the first ten periods of 28 days through the beginning of the 2022 period, 2022 reporting year. So what you're seeing here is the, the bottom line is the brackish pumping. I mentioned earlier, or you all probably remember, the golf course doing a pretty significant irrigation upgrade in 2017-2018. So you can see the drop in water usage brackish pumping. That's largely is the golf course. Some of it is the smart meters, but for the most part, that one is the golf course. Those middle blue line is the drinking water pumping. In 2017 is when we started the smart meter project. So you're seeing a pretty decent impact of that project as well. And for the past couple of years, as mentioned, we have been, we've had some real bad drought conditions, so we've had higher usage than we have had in the past. The total, green line, is both the brackish and the drinking water added together. Next slide.

I thought I'd include some pictures of Manele's Sensei and Lanai Farms. So these projects have come online in recent years. We are doing quarterly reporting at Sensei and Manele Hotel. Each of these projects, all three of these projects have substantial sub meters within the project site itself. So not only are we monitoring the main meter, we're also monitoring quite a few sub meters inside. So if there is a leak, say at one of the greenhouses, we can identify which greenhouse it is and kind of pinpoint the problem. Same with irrigation sub meters on the two hotel properties. Next slide.

I already mentioned the golf course and the substantial savings that occurred with the irrigation project. It's estimated to be about 60 million gallons a year, roughly. Go ahead, next slide.

So in 2000, gosh, what year was it? 2016, I think it was. Yeah, 2016 there was an Act that was approved, called Act 169, and it required the Lanai Water Company to do a water audit for the Lanai City System. So that is due, the due date for that is -- I believe, Neal is still on the phone -- I believe July 1st or June, June 1st, one of the two. So we submit that every year to CWRM, and then CWRM . . . (Inaudible. Internet connectivity problems) . . .

Mr. Gima: We lost you, Joy.

Ms. Gannon: Next slide. Thank you. Let me see if I can get a better --. Okay, the best I've got. Uh, every . . . (Inaudible. Internet connectivity problems) . . . actually do a monthly audit in house. And just to make sure that we are staying on track for our, our water, our non-revenue water goals and making sure that we get the numbers we want at the end of the year. Next slide.

Part of this water savings has to do with our smart meters, so I'm not showing any secret stuff. This is actually me and my water use data, which I'm sharing. In August of 2021, you can see

my water use at the beginning of August 2021 is 3,000 gallons per day which for me on August 1st is completely out of line versus typically what's around 100 gallons per day. And that was a leak that showed up on a leaky toilet. And I got a notification of that leak, and so I was able to address that fairly quickly versus not knowing about it and letting it continue on until I got a water bill. Next slide.

So here is how it does this . . . (inaudible) . . . soon that at some point in time, I'm not up and either flushing the toilet or running the sink. So on a normal day, on the left, you can see that the, the x axis starts at midnight and goes to midnight. So I'm sleeping until that particular day about four a.m. It looks like I got up and then later went back to bed, got up again, made breakfast. And you can kind of see it gives quite a bit information about my day. Versus a leaked day where it's just running 24 hours a day. And so when it gets one full 24 hours a day, it's going to send a leak alarm to, to my email. Go ahead.

Really encourage everyone to sign up for Eye on Water and those leak alerts. They're super, super valuable. A lot of people have no idea when they have a leak. I certainly did not. Another thing that we did was start working on in 2020 was GIS at the water system. So we actually do have a pretty decent GIS system now for the water system. We'll be working on the wastewater system in the not too distant future for Manele. And this will be help us work with our service line surveys that's coming up with the lead and copper rule changes. Next slide.

Another project that we did is we now have a calibrated hydraulic water model for PWS 237 or the city system. We're still in the process of calibrating the Manele system. But what this does allow us to do is to first make changes on the computer and say, okay, if we add, if we open this valve, what do we expect to have? What, what are the butterfly effects of that change or if we close this valve what happens to, throughout the city? Or if we went with DOH, they asked us to run our model for Hokuau to make sure that we were not impacting any other customer. Next slide.

So some of the projects that you see us, see that we've been working on. Some of you probably remember us working on a fire hydrant out on Lanai Avenue a few months ago. We've been working on kind of disconnecting some of those old water lines throughout the, throughout the city, and you'll see us continuing to work on that throughout the next year. Next slide.

We did have a community meeting regarding the service line survey. Just briefly mentioning, if you live in an area, develop before 1989, Lanai Water Company will be doing a service line survey in your area. We'll be testing both sides of the meter for a scratch test and magnet test. And then requesting to document the point of the building connection. What we're looking for is to see if there's any lead components on your service line, and then we'll be updating the community on that. Next slide.

Other projects. We've already talked about well seven. Cavendish Water Line Replacement is in permitting right now. South Airport Water Line Replacement is in permitting. Uh, we have

water pumps replacement scheduled for well 14 and well 15. We're also working through electro, electrification of well eight. Projects that are under design is the Hi'i water line and then a public water system interconnect. Next slide. And with that, that's all I've got. And I'll leave my video off since I'm having connection problems.

Mr. Gima: All right. Thank you, Joy. Commissioners, comments, questions for Joy?

Ms. Kaye: Yeah, I have, I have one Chair, if I may. I'm sorry, Joy, you –

Mr. Gima: Go ahead Sally.

Ms. Kaye: -- you were on such a roll Joy that I didn't want to interrupt you. But the slide before you showed your personal use, I think the last thing you referenced real quickly was an annual, something about what you're going to do for the next year.

Ms. Gannon: Yes. So that's part of the annual water audit. So when we're having that conversation with CWRM, part of that conversation is here's our non-revenue water and you might not be familiar with that term non-revenue water. It's somewhat similar to water loss, but not quite the exact same thing. Here's the non --

Ms. Kaye: That one slide, it, really my question was, it was, so sorry, it was the slide right before your personal water use. And I'm just wondering --. Okay, right before that, I thought there was something that, yeah, annual, yeah, there you go. In your action plan for improvements for all systems. All I wanted to know about that is that an internal document, is that required, or is that shared with any other entity?

Ms. Gannon: It's required. It's a part of the requirement of the annual water audit submitted to CWRM, so that would be a public document. And it basically says, here's our non-revenue water, what are your plans to further improve your water system in the coming year? And so part of our coming year improvements are what kind of pressure changes can we make? We're looking at additional monitoring of our pressures this year, and then further making improvements to our water lines, et cetera. But yes, that is a public document.

Ms. Kaye: Okay, I'm sorry, and I interrupted you. You were about to explain what non-revenue water is. Thank you. Sorry.

Ms. Gannon: It's very similar. I believe you in the Water Use and Development Plan you called it, I think, water loss. It's not quite the same thing, but it's very similar.

Ms. Kaye: Okay, thank you.

Mr. Gima: Commissioners, any other comments? Lisa?

Ms. Grove: Hi, thank you so much for that presentation. My question is about recycled water, the R-1. I notice that there's three, three categories: R-1, R-2, and R-3.

Ms. Gannon: Yes.

Ms. Grove: Can you explain the difference, like what the scale is or something that perhaps someone like me can understand?

Ms. Gannon: So it's, the different levels of treatment is how the R-1, R-2, R-3. So R, for recycled water, the best you can have is R-1 which is what we make. And that has the fewest restrictions. There are still restrictions on it, on what you can do with R-1, but it has the fewest restrictions. R-2, you're essentially you're filtering it, but you're not necessarily going through a disinfection process. So there's, there's more restrictions. And so that's essentially how it works. We make the highest level that's regulated.

Ms. Grove: That's extremely helpful. It's exactly what I was looking for. Thank you.

Mr. Gima: Other comments questions from the Commissioners? Chelsea? Erin? Zane? Go ahead, Zane.

Mr. de la Cruz: You had mentioned that you could make a copy of your presentation available to us. I would like to get a copy of that, the power point that you just went through.

Ms. Gannon: Yeah.

Mr. de la Cruz: I just couldn't follow everything that was going on in real time.

Ms. Gannon: I apologize. I got thrown off. Thank you. But yes, we can.

Mr. de la Cruz: Thank you.

Mr. Gima: Zane, I made the request from Commission on Water Resource Management also to provide their power point to us.

Mr. Imata: Thanks. This is Ryan. I'm still on. I'm emailing the copy, both of our presentation and the USGS preliminary study to, I think, it's planning at Maui County dot gov.

Mr. Gima: Alright, thank you. Joy, a couple of things. Number one, can you talk about what the water loss unaccounted for water percentage rate is for say for the last year?

Ms. Gannon: Oh boy, Butch, I don't have that one off the top of my head. It's somewhere between 14 and 17 or 18 percent. It's, I'd have to look that up for you. It's been hovering around that 15 percent number.

Mr. Gima: Okay, thank you. And then over, over the years, Pulama and Lanai Water Company has shied away from allocation levels for different projects. So since the Lanai Water Company and Pulama does not want to ascribe to allocation levels, how, how do you guys determine if you're using too much water, let's say, in Hokuau, or Sensei Farms, or the Manele Project District, or in any of the other projects? How do you guys know when you're using too much water?

Ms. Gannon: Well, I've been in water now for 26 years. I also have a degree in Chemistry and a degree in Environmental Engineering, so I've been doing this for a while. And part of what we do is we monitor the well levels and so we are constantly monitoring the wells. And every day when I come to work, I also check the Eye On Water, and so I can see what's happening on a day to day basis for pumping. I also check on customers with continuous flows or leaks. If it's particularly bad, I will keep calling people or emailing and saying, hey, have you guys noticed this? And if there's a long term trend, then we also work with that customer. So we've had community meetings down in Manele working with reductions on their water use, as well as the Koele Resort. But generally speaking, we follow the Maui County standards and we try to stay within that.

Mr. Gima: But that's somewhat of a nebulous parameter. I mean, how do you know when the Manele Project District has a whole, you know, golf course landscaping, hotel, how do you know when they use too much water if you don't have an allocation for the Manele Project District?

Ms. Gannon: We're monitoring them pretty much on a daily basis, and then we're doing quarterly reports to the Commission. If you're looking at the long term trends of the Manele District, it's pretty stable.

Mr. Gima: No, you didn't answer my question. How do you know it's when it's too much?

Ms. Gannon: I don't know — then I'm clearly not understanding your question. We have, we plan for 600 gallons per day for single-family unit. We have plans for how much we anticipate the hotel to use, like, Koele Sensei is about 88,000 gallons per day, so we monitor against that amount. So I'm not quite sure I'm understanding.

Mr. Gima: At one time, at one time, the Manele Project District had an approximate allocation of, I think, about 1.1 million gallons a day. Um, Pulama, Castle & Cooke, the Water Company moved away from allocation, so I mean, if, if the Manele Project District used two million gallons a day, is that too much? Then if so, why is that too much?

Ms. Gannon: Well, specifically, if you look at the Lanai Water Use and Development Plan, as you read the introduction allocations were specifically taken out of the Lanai Water Use and Development Plan, and that is what we're following.

Mr. Gima: Correct, but you didn't answer my question. If Manele Project District uses two million gallons a day is that too much? And when is it too much? I'm asking these, I'm asking these questions because it's pertinent, it's pertinent for the Lanai Planning Commission to know how much water is being used, how much water is available, how much do we have in reserve? We need that information in order to make an informed decision on whatever application comes before the Planning Commission.

Ms. Gannon: And every 28 days we provide how much water is being used in Manele, and how much water we're pumping. But to . . . (inaudible) . . . that's not something I'm going to engage in.

Mr. Gima: Okay. Okay, Commissioners, any further comments, questions, for Joy?

Ms. Kaye: I have a follow up question for Joy. Joy back when the Lanai Water Advisory Committee and CWRM and everybody was putting together the Water Use and Development Plan, the water loss was really bad. It was like a 28 percent. And you, I think, mentioned just a while ago that it's down to between, well, it was around 15 percent. I thought you guys had gotten it down to 12. So is there a physical explanation for the increase or was that 12 percent not right?

Ms. Gannon: To my knowledge, looking at the data, I've never seen the data show 12 percent. But that's just from what I've seen.

Ms. Kaye: Okay, so you'd agree then that you guys started back in Castle & Cooke days was like 28 percent loss, most of it in Palawai with the old pipelines, and now it's down to 15, and that is a result of replacing pipes, and is that a project that's continuing?

Ms. Gannon: So yes, we are. Can you hear, can you all hear me? I'm having audio problems. Can you hear me? Okay. So yes, we are continuing to replace pipes, as mentioned, Cavendish, South Airport Line, as well as others. Another really large section of that water loss was actually the smart meter.

Ms. Kaye: Okay. So, so maybe, maybe what I'm misremembering is that industry standard is around 12 percent. So is that a target?

Ms. Gannon: I apologize, my computer's having issues. We're certainly trying to get it lower than we've got it right now. That's certainly true.

Ms. Kaye: Okay, thank you.

Mr. Gima: All right. Last call on comments and questions for Joy. Okay, hearing none, thank you very much Joy. Look forward to next year's water workshop by the Lanai Water Company and Commission on Water Resource Management.

Okay, at this time let's take a recess and it is now 6:42 p.m. I mean -- let's be back in ten minutes. All right.

(The Lanai Planning Commission recessed at 6:38 p.m., and reconvened at 6:48 p.m.)

C. COMMUNICATIONS

- 1. MS. KEIKI-PUA S. DANCIL, Ph.D., Senior Vice-President of Governmental Affairs, PULAMA LANAI, submitting the 2021 Annual Report regarding the water usage at Manele pursuant to Condition No. 24 of the Special Management Area Use Permit and Project District Phase II Approval five-year time extension for Residential and Multi-Family Development at Manele, TMK: 4-9-017-001, 002, 003, 004, 005 and 4-9-002:049, Manele, Island of Lanai. (95/SM1-015) (95/PH2-001)**

The Report is provided to the Lanai Planning Commission for its review.

Mr. Gima: Zane, and Lisa, and Sally back on camera. Erin's back on camera. Just waiting for Chelsea. One, two, three, four, or five. Okay, we can, we can start up. So we're in the communications section of our agenda. First one is Keiki-Pua Dancil, Senior Vice President of Governmental Affairs, Pulama Lanai, submitting the 2021 annual report regarding the water usage that Manele pursuant to Condition 24 of the Special Management Area Use Permit and Project District Phase Two approval, five-year time extension for residential and multi-family development at Manele. So I'll turn this over to you, Keiki-Pua. If you could just do a short explanation of the time, time extension, please.

Dr. Dancil: Aloha Commissioners. Thank you for having me. We'll start off with Agenda Item C.1. as described by Commissioner Chair Gima. The five year time extension that was applied for in 2017, and was awarded to Pulama Lanai at the time. That's all. That's my explanation. So this was, you know, there is no more -- we're not asking for anymore five-year extension. So do you have any questions on that?

Mr. Gima: No, not on the extension.

Dr. Dancil: Okay. Does anyone have any questions? If you read through Item C.1., you'll see some of the items that Joy covered in her water report. The consumer report that she said is made available in June is part of this report, which is why we don't publish it until after that report is made available. I'll stand by for questions.

Mr. Gima: Okay, Commissioners, comments, questions for Keiki-Pua regarding the first communications item? I have a couple, Keiki-Pua, on –

Dr. Dancil: Commissioner Zane had his hand up. I'm sorry.

Mr. Gima: Oh, I'm sorry. Go ahead, Zane.

Mr. de la Cruz: I guess, um, I just, I guess for clarification, um, we're talking about the, we're currently talking about the packet with the water use for Manele, right?

Dr. Dancil: It's agenda Item C-1. It is the Special Management Area Use Permit for the Project District Phase Two five-year time extension for residential and multi-family development. I'm not sure what is in your packages is, but it is agenda Item C.1. if it's by agenda item.

Mr. de la Cruz: So I guess there's --

Mr. Gima: Zane . . . (inaudible) . . .

Mr. de la Cruz: There's some -- I'm just had some confusion because there's --. It's, this packet also has a bunch of other information, including some of the, like, metal levels and reference to a fog drip study. I'm just wondering if I'm asking the right questions in the right place or if my packet is somehow put together wrong.

Dr. Dancil: Thank you, Commissioner de la Cruz. You are correct. You are on I believe you're on the right one. It's the one that has the consumer confidence report as an exhibit.

Mr. de la Cruz: Um, I just was wondering if, like for the fog drip study, is there, is that publicly available and or is there a way for us to obtain it?

Dr. Dancil: That's a great question. Since it was conducted in 2009, I would have to go back and ask for a copy of it. I do not have a copy of that.

Mr. de la Cruz: Okay.

Ms. Kaye: I do. If I could interrupt, Keiki-Pua, I'm so sorry. I have a copy of it because I was on the Commission back when it was done, and I believe the Lanai Library also has a copy of it. So I'd be happy to share that with you, Zane.

Mr. de la Cruz: So I'm just writing some stuff.

Dr. Dancil: Thank you, Commissioner Kaye.

Mr. de la Cruz: And then I guess really just one other question comment kind of relating to the question that Commissioner Grove had earlier. In your packets, you guys have gone out of your way to try to define the types of water that are delivered or the terms that are being used, and I was wondering if you could also add a key for the different designations of R-waters, like, R-1, R-2, R-3, if there could just be a short description in there, just to flesh out the material that you've already provided.

Dr. Dancil: So just thank you, Commissioner de la Cruz for that. We, we only deliver R-1 water. We do not deliver R-2 or R-3 recycled water. I can point you to -- if you go back and look at the presentation that I did in the July meeting on the Koele Project District. I spent a fair amount of time on the definitions and I also included in that power point in the source file at the bottom of the slide where you can get those very specific definitions on the differential of recycled one, two and three dealing with the different types of microbiomes, the different filtration, and oxidation, and levels for each of those different types of recycled water. There is a website and source on the bottom there.

Mr. de la Cruz: I appreciate that. So my, I guess my comment was more towards it seems as though like so for both the water reports we got for the Manele District and the Koele District, there is a little section on definitions and it might be helpful in the future if there's just like a quick, you know, R-1 is the highest quality designation, whereas R-3 is the lowest quality designation. Just so that when people, especially new people coming on the Commission or members of the public read these documents they just have a quick reference.

Dr. Dancil: I can do that. I will add that R-1 is the highest level of filtration, disinfection and other type of microbial levels limited to zero.

Mr. de la Cruz: Thank you.

Mr. Gima: Any other questions, Zane?

Mr. de la Cruz: Um, I think most of my questions are in reference to the fog drip study, so it probably, this probably isn't the best forum for them.

Mr. Gima: Okay. Any other comments, questions from the Commissioners? So Keiki-Pua, I had a couple. On page-three, when you're talking about the degradation of the watershed and improving its quality there's a statement on the second, I mean, the first paragraph, "control of deer and sheep in these increments is ongoing." So can you give us the status of, you know, of, of the control efforts? I mean, 50 percent accomplished? 20 percent accomplished?

Dr. Dancil: I don't have an exact percentage of what's accomplished. I can tell you that we did start putting in one of the fence lines recently, and we have four fence lines, we're running mauka to makai. That is one of the mitigation efforts or management efforts that are ongoing with the Kuahiwi a Kai. We also have the community hunting group that is has continued. I'm not sure if they're going to apply for next year grants, but they have been out there and they're allowed to hunt and that's another form of management and mitigation. But I'm sorry, I don't have a percent on terms of where we are in those efforts.

Mr. Gima: Okay, thanks. In paragraph three, this caught my eye -- as much as 20 percent of Lanai is unvegetated. Is this 20 percent of the entire island, or 20 percent of the watershed?

Dr. Dancil: I believe it's island.

Mr. Gima: Okay. On page five, under progress on developing tiered water usage rates, I think that first question, I mean, first sentence, PUC approved rates for brackish non-potable. I think it's an oxymoron. Brackish cannot be non-potable because you can drink brackish. So you don't need to respond to that. I'm just pointing this out.

In the second paragraph of that, G, regarding the tiered water rates, what has Pulama and the Lanai Water Company noticed, if any, now that the tiered water rates are in effect? Has been, has there been a decrease in water usage or has it pretty much stayed the same?

Dr. Dancil: So, we haven't -- those weren't approved. But that rate has, was suspended due to the pandemic, and I believe you were present in our water community meeting last month. Joy had said that we would be submitting our rate case by the end of the year. And so that's forthcoming. So it's not into effect yet.

Mr. Gima: Okay, thank you. So that's all I have on the narrative part. Commissioners, do you guys have any questions comments about the actual data that's provided in the last four or five pages? Go ahead Zane.

Mr. de la Cruz: I think this might have been covered in Joy's presentation, but I was curious to know where the, the samples for these tests are being taken from.

Dr. Dancil: Joy, if you're on the line still, but I believe she did have it in one of her slides. In one of her GIS maps, she had sampling sites. Because she might -- remember when we were, she was looking at the chloride levels and she was talking about down at the bottom of Hulopoe and at Kaumalapau Harbor. But I'm --. Joy, if you're still on the line, you can chime in. I see her on the line and she's unmuted, probably having difficulty with her connection.

Ms. Gannon: Can you hear me now?

Dr. Dancil: Joy? We can. Thank you.

Ms. Gannon: Oh man. Internet. So it depends on the contaminant. What we're trying to get is the highest concentration of the contaminants or where it's coming in . . . (Inaudible. Internet connectivity problems) . . . enough time for it to accumulate. Some tests are happening at the wellhead site itself. Lead and copper tests are happening at the home. So each location is in a testing plan that's submitted to the Department of Health based on their criteria. And then the testing locations are approved by the Department of Health.

Mr. de la Cruz: Okay.

Ms. Gannon: So it depends on the contaminant.

Mr. de la Cruz: All right. That, that helps. And just with that last point you're bringing up with like the lead, so are you taking that on the consumer side of the meter then is what it sounds like?

Ms. Gannon: Correct. So on those particular, on lead and copper --. Let me rephrase that. We take some lead and copper samples at the wellhead itself, but then the larger lead and copper testing occurs at the customer's kitchen sink. So past our meter and it's the first draw in the morning. So what we're trying to get is the water that's been sitting in the customer's pipes overnight because that . . . (Inaudible. Internet connectivity problems) . . . Thank you.

Dr. Dancil: Joy, unfortunately, you cut out for 90 percent of your response.

Ms. Gannon: I am so . . . (inaudible) . . . So we're trying to let the lead and copper leach into the pipe on those, the first draw. So we're trying to get the heaviest concentration. We do try for -- the example I used during the community meetings -- when I'm making coffee in the morning, I'll go turn my sink on while I'll get everything ready. Let the water run. And that way, I'm getting the fresher water that's coming out of the out of the main versus what's coming out of the house where I'm living, which is 1929. That's something I do recommend on older houses.

Mr. de la Cruz: And I guess just a follow up on that. Does the Company know if it has any lead lines or lead mains or anything pre consumer, on the supply side of the meter, if there are any known lead lines?

Ms. Gannon: There are no known lead lines. So no, no lead main lines, no known lead service lines. We do know that we do have galvanized service lines or laterals, galvanized steel. And back in the day there was probably lead solder that was used. And so that's part of the upcoming . . . (Inaudible. Internet connectivity problems) . . .

Dr. Dancil: So Joy cut out again. So sorry, Zane. I'll, maybe I'll finish up. We had a community meeting. Joy presented to a community last month and covered these things. I can point you to the info sheet. It should be up and available by the end of the week, and you can find a little bit more information from there. Sorry about that.

Mr. de la Cruz: No, I understand and I appreciate that.

Mr. Gima: Okay, anything else, Zane?

Mr. de la Cruz: Um, okay. Sorry, things just keep popping up. So I was just curious if they also do a lead test on the supply side of the meter just to see if there is any lead pre consumer side of the meter. And with the galvanized lines, is there an issue or even concern about an issue with zinc? I just don't know how that, like if the zinc leaches into the system the same way that lead would. I'm not real sure on that chemistry.

Ms. Gannon: We test for lead and copper at the wellhead. Our distribution sampling occurs at in the customer's home because that's where we would anticipate having the highest concentration. The zinc question, I honestly, I don't know the answer to that one. I'll have to get back with you.

Mr. de la Cruz: All right. Thank you. That's it for me.

Mr. Gima: Okay, thanks Zane. Sally? Lisa? Erin? Chelsea? So, on the data sheets, what's not on there is total gallons. You have gallons per day, so I total, totaled them up, and for drinking water for 2021, it's 85, 85 million plus gallons for the whole year. And then for the irrigation brackish, it's 145 million. So that's why I was asking earlier about how much water is too much. So 85 million gallons of drinking water too much of Manele, or is 145 million gallons of irrigation water too much at Manele? So I think from the Planning Commission's stand point it's important to know not only gallons per day, but the total number of gallons, um, say the Project District uses or what the project uses, you know, every year. So that's more, more of an FYI, and the reason why I asked that question about allocation earlier and about how much is too much. Okay, any last comments, questions regarding Communication Item number one or --?

Ms. Kaye: Yeah, I have one.

Mr. Gima: Okay, go ahead Sally.

Ms. Kaye: Sorry. Page three of the annual 2021 report, other Manele drinking water use, the single family numbers are still pretty high. I wonder if there is an explanation for that. Yeah, so I'll leave it at that.

Ms. Gannon: Keiki-Pua, do you want me to address?

Mr. Gima: Keiki-Pua, you're -- okay.

Dr. Dancil: Sorry, Joy, go ahead, you can start and I'll add on.

Ms. Gannon: Okay. I'm sorry. So a lot of that has to do with the construction that's going on down in Manele. There's a number of single family houses that are under construction. And that construction water is occurring.

Dr. Dancil: And I also want to point out, I know Commissioner Grove had asked the question and we had provided updates on some different measures not in this water report but if you look on item number C.2., page-two of the data sheet, you can see how we trended down by implementing the measures that we talked about doing. It's visible in this report and I can highlight that in the next agenda item. But Commissioner Kaye, I do recognize that you say it's pretty high. But if I look over the, you know, we're at 29,256 at the end of Q2 2022. Q2 2021, it was 26,218. So and that was before a majority of the construction had begin to, you

know, had started. So we kind of had gone up. We took measures in and we've come back down. So just wanted to point that out.

Ms. Kaye: Okay, so wait, I'm sorry. Quarter one of 2021 was 11,000.

Dr. Dancil: I'm sorry, quarter two, yeah. And then it went up when construction started. And then we started implementing some of the measures. It's gone down.

Ms. Kaye: Right. So then --. Right, so I guess and I understand I was there when you explained that it was, you know, the people that are building down there and all the construction needs and you can't use brackish, et cetera, et cetera. But that's that is such a significant increase. Are you saying when this building is done, it's going to go back down to eleven?

Dr. Dancil: We don't know.

Ms. Kaye: I'm sorry, thank you. Thank you.

Mr. Gima: Okay, Zane?

Mr. de la Cruz: I'm not sure if this gets too close into the privacy end of it, but um, so the gallon per day is definitely a nice measure to have. But would we be able to know like how much, not individual unit is, but just, you know, how many single family units, how many multifamily units there are, and therefore like kind of figure out on average how much a unit is using a day or something like that? Because that, because, you know, we take into account, you know, the usage goes up because of construction. But then I would assume there are now more houses and therefore the usage would be greater than it was prior to the construction. But is that a just a per unit increase or has the water per unit also gone up?

Dr. Dancil: I haven't looked at that granular data? I don't have access to that. That would, you know, because we get the data as single family, multifamily reported to us for these reports. We do know that during the pandemic, there are more people that came and spent time in the area. So some of the homes weren't used as often. They were, you know, they would come during once or twice a year. During the pandemic, some of the units were occupied more often than usual, and that was something else that was noted. Which is why, to my answer to Commissioner Kaye, I don't know if it's going to come back down because it's a combination of having more people occupying the units for more days per year as opposed to in the past, pre-2020.

Mr. Gima: Okay, Sally, any more questions?

Ms. Kaye: I just would recall that -- this is before you joined us Keiki-Pua -- we did get these reports and it identified how many single family units there were, how many multifamily units there were, and the usage. And you could do exactly what Zane is talking about. You could

figure out as a group, I know you can't do it individually. So historically, that was done. I have former water reports where that was part of the packet.

Dr. Dancil: Thank you. I was, I sort of copied the template. Just changed some of the colors on the graphs and some of the different symbols, but I can go back and look and see what was done in the past. But I had copied what was given to me. So I'll go back and take a look. Thanks for bringing it up.

2. **MS. KEIKI-PUA S. DANCIL, Ph.D., Senior Vice-President of Governmental Affairs, PULAMA LANAI, submitting the Q1 through Q2 2022 Semi-Annual Report (Condition 14) regarding the project irrigation demand associated with the Residential and Multi-Family Development at Manele, TMK: 4-9-017-001, 002, 003, 004, 005 and 4-9-002:049, Manele, Island of Lanai. (95/SM1-015) (95/PH2-001)**

The Report is provided to the Lanai Planning Commission for its review

Mr. Gima: Okay. If, if there are no further comments and questions for communication item number one, we'll move on to item number two, which is the Quarter one through Quarter two, 2022, semi-annual report, Condition 14, regarding the project irrigation demand associated with residential and multifamily, multifamily development at Manele. Okay, Keiki-Pua.

Dr. Dancil: Thank you. So I alluded to this report when I covered number one. This is different, this is condition 14. Commissioners have any questions on the data that was provided for the first half of 2022?

Mr. Gima: Commissioners, comments, questions? Keiki-Pua and Joy, what conclusions or what patterns, if any, have you guys detected with providing the data to the Planning Commission over these years?

Dr. Dancil: Well, we can start with page one in the data. It's pretty constant. It fluctuates, some, between quarters. It could potentially be due to levels of irrigation, or whether a pipe had broken, or something happened. But in general, it's, the hotel irrigation seems pretty stable. . . . (inaudible) . . . hotel property seems pretty stable. Hotel irrigation has gone up slightly. It could potentially be due to the drought that Joy has talked about.

If you look at page two, the golf course, which is the open circles. It looks pretty slightly increasing. Pretty, not much. If you look at the dashed line with the triangle, that's a multifamily; that looks pretty stable. And the single family, as Commissioner Kaye noted, seems to have fluctuated during the pandemic. That could be due to occupancy levels or and construction; a combination of probably both.

On page three, the golf course, kind of overall in general, goes up and down. It's probably seasonal, potentially a leak in certain areas. So you can kind of make different assumptions. But in general, those levels overall stay about the same. Little fluctuations in between quarters.

If you go to page four, let's start with the multifamily, the top line, the triangles with the dash lines. It's had a slight increase, kind of ups and downs. Circle, open circle, similar ups and downs, but overall generally similar. And the same thing with closed circle, single family.

If you look on page five, there is an increase over time for R-1 use.

Mr. Gima: So, it doesn't sound like there are any concerning trends, but does, do you guys have some internal triggers, like when, if, if the, if the numbers go too high?

Dr. Dancil: Yes. And I think Joy spoke about some of those during her explanation when she looks at the Eye on Water. If she sees something that will trigger, you know, kind of, hey, something's out of the ordinary in the meter data. She'll send a note to the customer, and the customer and the water company goes out to address it. Joy, I'm not sure if you want to add anything else, but there are triggers internally at the Water Company and she contacts the customers directly.

Mr. Gima: Right. I, I'm aware of the individual account triggers, but in terms of Water Department and Pulama looking at triggers for irrigation, golf course, hotel . . . (inaudible) . .

Dr. Dancil: We're not so concerned about fluctuations from quarter to quarter. We look at overall trends. And so far the individual quarter to quarter, like, the increase in construction, dust control, that was huge, so we knew something happened there. We had a couple of leaks where we saw some things jump up. We'll go, you know, okay, what happened? Are these being addressed? What's necessary? Do we have to -- so we do look at these. We don't just report numbers and write them in a report and send them to you. We do look at trends. We are not concerned at this point in time with our water use. We're always looking at ways to conserve, but nothing is alarming at this point in time.

Mr. Gima: Yeah. And I think the Water, Water Company over the last ten years has done a good job to decrease the unaccounted for water, really beefing up their conservation program. And I hope you understand my questioning about how much is too much water. Moving on. Again last call for communication item number two. Zane, go ahead.

Mr. de la Cruz: I think it was mentioned earlier that down at Manele there's, um, like the R-1 and drinking water is like a two to one blend for irrigation. If I'm remembering that correctly, I'm just kind of curious as to what the, what the function of that blending is, like instead of just using straight R-1.

Ms. Gannon: To clarify, it's a blend of brackish water and R-1, not drinking water. The drinking water on the golf course is solely used at the restrooms because that has potential for people to be drinking or filling up water bottles. The brackish and R-1 blend doesn't smell. We don't get customer complaints if we're using it. And quite frankly, if we were, we don't make enough R-1 to water the golf course by itself.

Mr. Gima: Anything else, Zane?

Mr. de la Cruz: Um, well, I just with --. Nope, never mind.

Mr. Gima: Okay, thank you. If there are no further comments, questions on Communication item number two, we'll move on to number three which is the Quarter one 2022 quarterly report from mid-February through mid-June 2022, comprising four months, for the Project District Phase Two application for the Four Seasons Resort Lanai Koele proposed improvements. Okay, Keiki-Pua?

- 3. MS. KEIKI-PUA S. DANCIL, Ph.D., Senior Vice-President of Governmental Affairs, PULAMA LANAI, submitting the Q1 2022 Quarterly report from mid-February 2022 through mid-June 2022 (four months), pursuant to Condition No. 15 for the Project District Phase II Application for the Four Seasons Resort, Lanai, Koele Proposed Improvements (PH2 2017/0001).**

The Report is provided to the Lanai Planning Commission for its review.

Dr. Dancil: Aloha Commissioners. Item C.3., this Condition 15 at Koele, providing quarterly water reports. Is there any questions?

Mr. Gima: Commissioners questions, comments? Okay, hearing none, thank you Keiki-Pua. And so we're done with the communications portion of the agenda. Moving on to the Director's reports. Ann, will you be attending this section?

D. DIRECTOR'S REPORT

- 1. Open Lanai Applications Report as distributed by the Planning Department with the October 19, 2022 agenda.**

Ms. Ann Cua: Yes.

Mr. Gima: Okay.

Ms. Cua: So attached to your agenda are the Open Projects report. There's only four of them. Are there any questions? Okay, seeing none, the next item is highlights from Chair Gima, who attended the 2022 Hawai'i Congress of Planning Officials Conference in Kaua'i. Chair?

2. Highlights from Chair Gima who attended the 2022 Hawaii Congress of Planning Officials (HCPO) Conference, September 14-16, 2022, at the Grand Hyatt Kauai Resorts & Spa in Po'ipu, Kauai.

Mr. Gima: Okay, thanks Ann. I won't go into much detail in each workshop because you pretty much had to be there, but I went to the transportation one where they talked about how to alter traffic, speed, volume, safety and cost. One that was of most interest was the one that was about the Land Use Commission was Jonathan Scheuer, the Chair, and Dan – I forget how to pronounce his last name.

Ms. Cua: . . . (inaudible) . . .

Mr. Gima: Yeah. So Dan talked about how climate change is resetting a lot of the rules and requirements. For example, he said 100 year storms are occurring more frequently. And he talked about having counties maximize their urban core versus mis-using Ag land. Jonathan jumped on that and talked about lessons learned, and how we felt the important agricultural land law is broken primarily being used for export, export crops and residential development. Exceptions to the State Land Use District, he said, should be, the Special Use Permit should be temporary. Regarding conservation districts, he said, there are too many exceptions allowed or many of them are inconsistent with conservation value. Overall, he said, there are too many exceptions being granted, which leads, which he felt led to decreased confidence in the planning systems. So there was some discussion about whether they should repeal or change the Land Use Commission.

They mentioned about Lieutenant Governor Josh Green's plans about affordable housing project. Dan just wanted to point out that the Land Use Commission has approved 35 to 70 thousand units for affordable housing, but not all of them have been built.

Regarding getting rid of the Land Use Commission, there are several testifiers, but Dan and Jon talked about, you know, you possibly could get rid of the LUCs, but they didn't feel that the counties were ready to take on the roles and responsibilities that the Land Use Commission provides at this time. Plus, land use have statewide implications and are statewide decisions, whereas counties won't necessarily rule with the other counties in mind.

Ah, I went to the Good Housing Formula Workshop. One thing that stood out, they said there's a correlation between increased regulation and increased home prices, and four of the Hawaii counties are in the top 15 of regulations, with Hawai'i County being number one.

The lunch speaker Charles Brown from Rutgers talk about equitable cities and basically talked about the relationship between planning, its decision to prejudice, discrimination and racism; talked about systemic arrested mobility regarding voting and basically saying planning for town, towns and cities. And if, if it's difficult to ride to work and to drive, that impacts that systemic arrested mobility.

I went to the adaptive strategies to climate change, so they talked about how they're going to be changing a lot of the properties in the Waikiki area, and what mitigation strategies.

And the last one I went to was how we can sustain community and tourism. And they primarily focused on the island of Kauai. So all the panel members were from Kauai. And one of the presenters talked about it's not about marketing, it's about how you educate the, the visitor. And what came across in the breakout session was the importance of taking care of residents first, not necessarily taking, not necessarily taking care of the customer or the visitor first. What was interesting, they talked about not focusing so much on what the carrying capacity of an area is and the Kauai people were talking primarily about Haena State Park. They talked about the island's social capacity. So the example they use is Haena State Park has about 900 visitors a day. But what happens if there is a natural disaster? How do you move and or house that many people just from that one site? One of the, one of the presenters talked about unintended consequences. So Haena State Park's strategic plan has worked out well, but one of the unintended consequences is that they're seeing that the success of Haena State Park means that a lot of these visitors are going to other places on Kauai and, you know, causing some problems.

So in a nutshell, I, I think the rest of the Commissioners please consider going to the next HCPO Conference. And I think it's important that you go because I think it makes you really think about your role as a Commissioner because you get to talk to other Commissioners and what challenges they have, what works, what doesn't work. You hear about different planning concepts that we may not necessarily talk about in our meetings. And you hear other planning commissioners talk about their locale, where they have multiple applicants, whereas the Lanai Planning Commission basically has one applicant, you know, Pulama Lanai.

One thing that really jumped out at me in talking to the Planning Commissioner from Molokai is they meet twice a month from 9:00 a.m. to 5:00 p.m.. Twice a month from nine to five. So that kind of puts in perspective, you know, our meetings and when we're scheduling our meetings and so on. So that being said, it was a good time. It was a good time catching up with a lot of people that I had not seen in a while. And I had a lot of opportunities to talk story with Planning Department personnel. So I strongly suggest next year, you know, block out some time to, to attend this conference. I think you would really enjoy it and you will start thinking about being, having the Lanai Planning Commission be a planning commission instead of a reactive commission. Because that's what we are. Basically, we are a reactive commission. All right. Thank you. Back to you Ann.

3. Update to in-person/hybrid Lanai Planning Commission meetings.

Ms. Cua: Thank you, Chair. The next item is the discussion about your commission meetings and, you know, the in-person versus the hybrid. You know the Department --. Well, as a whole, there is -- we have not found a meeting place that could, where we could hold our meetings in the daytime, we would -- so that we could just go in the day and come back for in-person meetings. They would have to happen like after 4:30 or 5:00, which puts, which, which puts the requirement on us to have to stay overnight and there's no place to stay overnight. So, you know, at this point, the Department doesn't know how we could accommodate in-person meetings on Lanai. Any questions on that?

Mr. Gima: What are what are the County's requirements in terms of where you can stay and how much you guys can pay?

Ms. Cua: Our understanding is that there's just nothing available, period.

Mr. Gima: Um, and it's too bad Erin left because she's managing Hotel Lanai. But I mean, I think in the past, they used, the Planning Department used to block out third Wednesday a year in advance so that they'd have a place to stay. Is that something that the Planning Department is willing to do with, say, Hotel Lanai?

Ms. Cua: I don't know if, I don't know if Leilani has had any discussions on that. I mean, I'm coming into this later than -- or even Clayton. Clayton's on the line too. I don't know if they know more than I know. You know, I was just informed that, you know, if, if we were able to do the meetings just in the day and people fly in and out, or take the ferry in and out, you know, that would be something that would be acceptable, except that there's there you know, the Senior Center is used, I think, up until 4:30, and that's where we used to meet. And so, you know, if we use the Senior Center, which is where we, we used to meet, then that puts us in the situation again of the hotel rooms. And I was just told that there wasn't anything available. Again, I don't know if Clayton or Leilani has anything to add.

Mr. Gima: Go ahead Zane.

Mr. de la Cruz: So just I guess on the logistical question, how many people does the Planning Department need to have on island for these meetings?

Ms. Cua: Well, definitely Leilani, for sure. And someone representing the, the Department in an administrative level, which is what I'm doing today for the Director or Deputy. And then, you know, the planners that's involved in the project. So I would say at minimum three.

Mr. de la Cruz: And so I mean --

Ms. Cua: Oh, we need Corp Counsel. I'm sorry. Corp Counsel. That's four.

Mr. de la Cruz: So I'm, I'm working under the assumption that we're still thinking of this as a hybrid meeting, like not entirely in-person, not entirely online.

Ms. Cua: No. So I think, the I think there's challenges --. I mean if the hybrid continues like this, then we can do it from here. You know, the challenges is where you get, where you're able to hold meetings that can do this hybrid. You can't do that at the Lanai Senior Center. You can't -- they don't have the, I guess, the Wi-Fi capabilities to conduct these types of meetings. My understanding is that the Council Members office is an option however, I think it can hold, just holds very little people. And I don't know again if Clayton or Leilani has any information that I haven't added if they could speak up now on something they may know that I haven't mentioned. Clayton or Leilani?

Ms. Ramoran-Quemado: Hi, this is Leilani. I know as far as the hotel, I know Clayton has been in touch with Pulama. They may have rooms available, but not on the days when we have our meetings. So, we've checked on that. So we have no hotel rooms. And then that's correct with the Lanai Senior Center. Yeah, they're not equipped at all. So doing hybrid without the hardware and stuff, we won't be able to do it like how we're doing it right now. So it would only have to be in-person or what we're doing now, which is hybrid.

Ms. Trevino: I have a question.

Ms. Cua: And I guess we should discuss what is the Commission's comfortability with meetings right now.

Mr. Gima: Go ahead Chelsea.

Ms. Trevino: I'm wondering if of the possibility of the use of the, the courtroom because I do believe they have hardware there as far as an option for hybrid. I've been in the courtroom personally and the foster care system, and they have a judge there physically. Sometimes they have them on the TV and then they have -- so they can see the room and so forth. And then if we're going to go into the discussion of the online format, personally, I prefer the online format, especially if we're talking about changing to a daytime hour. For me, I would not be able to participate on the Planning Commission if it's any time, Monday through Friday, daytime. But if the Commission feels like it's okay to cut out people who work eight to five, Monday through Friday, then that's, you know, that's something they can think about doing. I think at this point we do still have the in-person option through Gabe's office, I believe, right? If somebody didn't have access to internet or, you know, to be able to log into BlueJeans from home. And that's just my share on that. Thank you.

Ms. Cua: If I could make one comment. You know, one, one thing that we've noticed in Maui with our boards and commission meetings is and this was an unintended consequence of COVID. We noticed that there's more people that join meetings, hybrid meetings, because they can do it from the convenience of their home. And in terms of impact on the environment, you don't have to get in your car, drive, add to the traffic to be able to participate in a public

meeting. So again, that was not something that I think anybody thought of, but that's definitely been a consequence of these meetings. We just see a lot more participation. So whatever that's worth, I just wanted to share that with the Commission.

Mr. Gima: I agree with you and the Hulopoe Beach Park Council we have hybrid meetings. So all the Hulopoe Beach Park members meet in person and then we have people in the audience, and then we have people on Zoom attending. So you're right in, in that sense. I'm big for the in-person and or the hybrid because look what happened with Joy tonight. I mean, we lost a lot of what Joy was sharing because of network connection problems. In addition, we did not have the power point handouts, so we're pretty much at the mercy of, of seeing, seeing it on screen. That being said, will, will somebody look into the courtroom possibility because I never thought about the courtroom? Chelsea said no for daytime meetings. How about the rest of you who have jobs? Zane, what's your availability during the daytime?

Mr. de la Cruz: Pretty much nonexistent during the weekdays.

Mr. Gima: Okay. Sally?

Ms. Kaye: Yeah, no, I'm, I'm okay with either, and I see both sides of this issue. I'm just -- it's kind of like jury duty for me. It's a thought. I can't believe that employers would not allow their employees to serve their communities once a month by giving them the hours and letting them just participate. But if those daytime people that are employed find employers are that strict and draconian about their community service, then we're stuck with nighttime. And that means we're stuck with what we have, and I don't see any way out.

Mr. Gima: Okay. What about you, Lisa?

Ms. Grove: I also work full-time during the day. I have more flexibility with advance warning, but only if the meeting is like 90 minutes max. What's hard about the daytime isn't just the time commitment, it's not knowing how much time that you have to commit. And I understand what Commissioner Kaye is saying, but when you're, when you're away from your post for two or three hours that becomes difficult pretty much regardless of where you work. It certainly would impact me.

Mr. Gima: Okay. Thanks, Lisa. Erin had to leave the meeting. Shelly is ill tonight. I don't know what happened with Sherry. And I don't think Nikki logged on so I'll, I'll call or text the other members about their availability. So it looks like this is a work in progress, huh, Ann?

Ms. Cua: Yeah, you know, we'll keep --. We can, we can check on the courtroom situation. But -- and, and one comment that you mentioned, I think we can resolve that, you know, maybe in the future when we know there's going to be power point presentations, we can make sure that you have it ahead of time. And you know, that would help if we have, you know, if there's going to be connection issues.

Mr. Gima: Okay. Thanks.

Ms. Kaye: Actually, I would, I would, I would insist we have that. Because even if we don't have connectivity issues, we can't read them. They're too small. So having them ahead of time would, would be, I think, essential. Thanks.

Mr. de la Cruz: I guess I have a --

Mr. Gima: Go ahead Zane.

Mr. de la Cruz: I'm, I'm just going towards the, like, if we're still on the topic of like the hybrid meetings or in-person meetings. I know at some point there was concerns about legal issues about the hybrid meetings. But just on like a legal and logistics standpoint, I guess. if we could know what the requirements for our meetings are going to be, like if they're in-person, hybrid, or online, ah, and how many people that --. Like if it continues to be a hybrid meeting where Commissioners can meet in-person and, you know, members of the public can meet in-person, like what is the minimum number of people that the Planning Department needs to have here in person? Because that can greatly influence your ability to be here, right? Like if it's one person versus five, the housing situation is dramatically different. So I think we kind of need to know those parameters to be able to move forward on this issue.

Ms. Cua: Yeah. Well, I mean, you know, I don't know. I think it'd be --. Well unless we had the administrator of the department who, you know, would be one person presenting the projects, which they may not necessarily be the most knowledgeable because they didn't prepare the report or anything. And then you always do need your attorney, and you need Leilani. So I would say the absolute minimum would be three, but I think it's --. I think to serve you the best, to, to, to give you our best self in putting forth information, it's really important to have the project planner there. And then when you know, if you have, if you have questions that deal with policy you're not going to be able to get an answer from a planner. So again, when we, when we put ourselves in your presence at this meeting, we're trying to be able to give you whatever information that you may need, not knowing what that could be when the meeting is scheduled, because any kind of question can come up. And so, you know, when you meet once, once a month, we want to be able to be there for you. And I, you know, as, as you're asking this, I, I still would have to say in my professional opinion that to best serve you, you know, we need one from our administration in case you have policy questions, whoever the project planner is. I know what we've done before in other commission is we've had maybe one planner present somebody else's project. You know, it would really depend. And then, of course, you would not want me taking Leilani's place because, oh no, that would not be a good thing because she does her job really well. And then, of course, you know, we would be able to advise you on legal issues. That's why we have our attorney.

Mr. de la Cruz: So, so, the I guess the point I'm trying to get to is I understand that we need all those, all that representation at our meetings. But do all those people need to be here physically if we did a hybrid meeting?

Ms. Cua: Oh.

Mr. de la Cruz: So what is the minimum requirement for a physical presence? Like, and I do not know the roles of the different people involved, but, you know, if the issue is, you know, we need to set up the room, like, have the equipment set up and things in time for the meeting, like, you don't need all five of those people here, physically.

Ms. Cua: Right. I see what you're saying. I see what you're saying. Right. Yeah, I mean, I think it would just be -- because I think we could all join like how we joined now. I think it would be just somebody to set up an area for somebody to testify. Yeah, the thing with that is we don't have, we don't have anybody there, so we'd have to fly someone.

Mr. Gima: Okay, Ann, let's talk about this more later. Maybe you can grab an old agenda and see how that would work based on what Zane just asked.

Ms. Cua: We can discuss that more internally and report back.

4. Agenda Items for the November 16, 2022.

Mr. Gima: Okay.

Ms. Cua: And then in terms of the last item on your agenda, I think we only have one possible item on the November 16th meeting in terms of projects. And so we might use that as an opportunity to, to do more training. And this would be the Department's training. You know how we have the two part where we go over the land use, we go over zoning information, different permits that we process, regulations that you need to be familiar with. And then we have, like, a part two, which is our shoreline, flood, that type of training. So I've already asked Clayton if he could see if that's something that, you know, we could get a team together to do that training for you. And that would involve a power point that we could get to you ahead of time. Would the Commission be open to that?

Mr. Gima: Most definitely. Commission? Sally?

Ms. Kaye: Yeah, I, we've had training by Richelle, which was terrific. And now we've had a water workshop by the, by CWRM and the Company, which was also terrific. Nobody has mentioned the public trust, trust doctrine and the case law that goes with it. And so I would like to see that included in our next training. I'm sorry, our new people are not on the call tonight because I think that's fundamental to everything we talked about tonight. It's, it's a legal responsibility we have and I'm not sure it's been adequately explained yet. So if we could make sure that's covered, I'd be real happy. Thank you.

Ms. Cua: We can talk with our attorney, Richelle, about that because I thought couple of meetings ago she mentioned that she could provide some information on that. You recall her saying that?

Ms. Kaye: Yeah, she did, but it hasn't happened. So I'm just kind of like --

Ms. Cua: Right.

Ms. Kaye: -- you know, doing a reminder that we need, we need to make that a core of some training segment at some point.

Ms. Cua: Thank you.

E. NEXT REGULAR MEETING DATE: November 16, 2022

F. ADJOURNMENT

Mr. Gima: Okay, Commissioners, any, any requests for the November 16th agenda besides what Ann and Sally mentioned? Okay, so Ann if there is nothing else left on the November 16th agenda, and if there are no objections, meeting is adjourned for tonight. And we're ending before eight o'clock. Alright thank you everybody.

There being no further discussion brought forward to the Commission, the meeting ended at 7:55 p.m.

Respectfully submitted by,

LEILANI A. RAMORAN-QUEMADO
Secretary to Boards and Commissions II

RECORD OF ATTENDANCE

PRESENT:

Erin Atacador (excused at approximately 7:20 p.m.)
Zane de la Cruz
Reynold Gima, Chair
Elisabeth Grove
Sally Kaye, Vice-Chair
Chelsea Trevino

EXCUSED (E)/ABSENT (A):

Nicole Alboro (E)
Sherry Menze (A)
Shelly Preza (E)

OTHERS:

Ann Cua, Planning Program Administrator
Clayton Yoshida, Planning Supervisor
Michael Hopper, Deputy, Corporation Counsel (on-call)