

Kūlana ʻŌiwi Hālau, Kalamaʻula, Molokai, 10:00 a.m. to 3:00 p.m.

USGS Presentation

Answers provided by Delwyn Oki unless otherwise noted.

Q: The color coding – orange, fresh water is blue?

A: Color not showing the salinity at all.

Q: When you're taking us near the Sustainable Yield (SY), hardest part is to estimate how much water is in dike system. MIS – one dike is dry. Don't know how much is in the dike. Big question mark – how much water is in the dike system. How much – precautionary principle – we're talking about 90% of our drinking water on this island.

A: Pumping is going to have an impact.

Q: Study doesn't really tell you the breadth of the aquifer, does it?

A: Does show how the water is flowing. Based on conceptual understanding, inference – there are lots of places where we don't have any data. Places on O'ahu that are hot spots – we're measuring. On Molokai, we don't have many wells to gather data. CWRM can address the SY issue.

Q: Are the scenarios assuming that wells are pumping at the same time?

A: Yes.

Q: If they pump at different times, will the same thing happen? Morning, night, alternating – will it have the same effect?

A: Similar effect. Can try to minimize the impacts, but on a long-term basis, you're still moving that water around.

Q: No matter what, it looks like we're in trouble. Why it was salinity levels – what was it that made the pumpage so high?

A: Could ask the water purveyor why -- the demand might have been higher back then.

Q: Can they pump above the allocation? Impressive, but we're in trouble.

A:

Q: 1990's – Was one of the worst droughts we ever had.

A: Also the time when County's production well started coming on line.

Q: Any question on the Waikolu tunnel?

A: Don't maintain those gauges, but we do have some data.

Q: DOA reporting to CWRM? In Waikolu – have some wells, but not how much is coming out of the tunnel?

Q: Can we show the impacts on the shoreline?

A: Yes – that's next.

Q: What is infrastructure on the previous (groundwater management) slide? How many wells?

A: Those are the wells, and there are four. When CWRM set SY, the intent was to protect those wells to prevent salinity increases.

Q: Talking about Kualapu'u -- what about Kawela?

A: Not going to talk about Kawela – that was earlier. Can show some data on the discharge in that area, but just focused on the Kualapu'u aquifer.

Q: When you come again, will you be talking about Kawela? 1,000 on the waiting list. If water for DHHL, what about impacts to Kawela?

A: Not part of this study – ran out of time.

Q: Why is Kawela not included in eastern part of aquifer system? No other well available?

A: CWRM would know if there are other wells being drilled to the east.

Q: Is there groundwater reduction data for scenario 9?

A: Not comparable. Shows a reduction of groundwater discharge by 50%.

Q: What about the study in May 2017 with DHHL?

A: [OHA] Mapped the fishponds because they could be impacts. Effort in the 1990's to study subsistence.

Q: Communities are going to have to decide some of these questions -- how is community going to be involved when USGS evaluates? CWRM going to _____.

A: USGS can share info, quantify impacts, but can't make recommendations – that's not what we do.

Q: Would be good if you could come back, hold meeting in the evening. Community really want to know this info.

A: We could come back in the evening – we can work something out. A [Halealoha]: Everything's been posted to the DHHL website.

[Everett Ota – OHA. Presented info to community members – with Pulama Lima. Gov's Subsistence Task Force Report – created an overlay for USGS scenarios. 1, 5, etc.]

LUNCH BREAK until 12:30.

DHHL Presentation

Answers provided by Jonathan Scheuer or Halealoha Ayau unless otherwise noted

Q: DHHL water, and County – how much water do they want?

A: 0.9 mgd, but they're going to present after me.

Q: What is DHHL's responsibility when CWRM doesn't respond to our request in a timely fashion? Ability to subdivide and give lots to our children – impeding the HHCA – what can be done?

A: DHHL is moving this forward. Want to take more water responsibly, needed more data, also needed to resolve the Kukui case.

Q: But now, reservation doesn't mean anything.

A: Admin Rule re: reservation (slide).

Q: Other public trust uses – can you give me an example?

A: Subsistence uses along the coast.

Q: If Kawela has a private system, who do they answer to?

A: They also answer to the CWRM.

Q: Kawela has a need, why hasn't this presentation been given to them?

A: CWRM is going to present after DHHL and the County.

Q: MIS – water comes from mountains – could it be looked at as a supply of drinking water? If we took over the MIS, then we'd have more control over that alternative.

A: Going to do a due diligence study, June HHC Meeting.

Q: Molokai Ranch – County and DHHL should become part of the process to buy Molokai Ranch. Won't have to wait so long to get drinking water. Instead of drilling a well, maybe just buy the Ranch and their wells. Climate change – mauka MPL lands would be better. Opportunity for agencies to get involved. Should be considered as an alternative.

Q: If Molokai became Molokai County, how would water be handled?

A: Water permits would still be issued by the CWRM – wouldn't be affected.

Q: 2017 Water Study – is a well being considered in 'Ualapu'e?

A: Same study as this one. Know that we need other wells to fully utilize the reservation. Near the tanks – roads and utilities, storage – not a good place for a well.

Q: Partnership with the County to provide water to the homesteads. There is a Maui County water supply – could you partner with County to provide water to 'Ualapu'e?

A: DHHL system doesn't extend to 'Ualapu'e, would have to discuss with HHC.

Q: Could that include a spigot?

A: We could look into that.

Q: On Maui, DWS(?) takes a little water from the river. Could we do that, not fully diverting, from the riverbeds to supply homesteaders? A: That's surface water diversion.

Q: Where is the infrastructure in relation to HHL?

A: Tank is on DHHL lands, well is on State lands.

Q: 2026 – 2031 – what happens during that time? Why does the demand suddenly shoot up?

A: DHHL plans are phased – the first 5 years, 10 years, etc. It jumps because the future development is more toward the end of the plan. We can project more clearly in the near term.

Q: Are these plans available?

A: They're all available on the DHHL website, on the Planning Office page.

Q: Question for Delwyn – haven't done a study for the east end of the island. Would you think that would be a good idea?

A: The well that wasn't a good idea was actually mauka, not in 'Ualapu'e.

Q: When will DHHL consider developing a well on the east end?

A: We're focusing on Ho'olehua now.

CoM DWS Presentation

Answers provided by Eva Blumenstein (CoMaui DWS) unless otherwise noted

Q: How long has the County been using water from the tunnel?

A: The Waikalae tunnel? I don't know the year. Within the last 20 years. We don't use the Waikolu tunnel.

Q: My understanding is that the County has been using water from the Waikolu tunnel to supply Kaunakakai.

A: We are just using water from the Waikalae tunnel, but I can research it.

Q: Is the County interested in buying Well 17? A: I don't see an interest – it's never been a consideration. County is not looking at buying that well – it's on MPL land.

Q: Line is right next to County's line – it would be an easy interconnect.

Q: County water truck – opening up the fire hydrants past 20 MM – letting it run for an hour or more. Why?

A: System has to be flushed – it would be done from a fire hydrant. Have to let it out from the end of the line. It's done on a regular basis.

Q: Could it be run into the taro patch? Should talk to the community.

A: We'd be interested in your idea – give us more information.

Q: Talking about system in 'Ualapu'e – is it the County system? The state system?

A: Tank is owned by County, which has an easement with DHHL.

Q: Why are you allowing swimming pools?

A: That's a type of use - not something that DWS regulates.

Q: This is an issue for us – applicants who are using water for swimming pools, but we can't get new water meters. Need to prioritize how we use water – impacts traditional and customary practices. How are you protecting DHHL's uses of water?

A: If there's a leak, if they exceed the capacity of the meter, we can do something, but the swimming pools themselves, that's just not how we regulate it, not part of the DWS' code.

Q: It's coming from the same source. I have some concerns about that.

Q: Molokai is a WMA – how come we got so much problems with water? DHHL takes care of us, the Hawaiian people. Water is life – cannot go without it. So many swimming pools popping up. For eating and drinking – plenty water in the ocean, go swimming there. God gave us all the things we have today – nothing is about money – it's greed that has set in. Coming here to build. To make money. Appreciate what you have – we fight for Molokai. You guys gotta get your act together, so you know what's going on. We're blessed – don't need all that rubbish they giving us.

Q: Does DWS do anything to recharge the aquifer?

A: We support watershed protection, watershed management to maintain native forest covers to maintain recharge, working with folks like The Nature Conservancy – we do that throughout the County. We value that.

Q: Where is the wellhead protection zoning bill now?

A: Been developed over a decade, was heard last year in committee, passed Maui and Lana'i PC's, Molokai PC wanted more info on impact of zoning on DHHL land.

Q: Does the County have the capacity to manage Well 17? A: We build infrastructure to strict department standards, and I don't know if they have that info, so we don't know.

Q: Do you have the capacity to service development in Kawela?

A: we're one of two purveyors there. County has a well in Kawela. We do conservation together, but not operations.

Q: Is Kawela aquifer getting salty?

A: [USGS] The chloride levels are sensitive – there's a relationship between pumping and salinity.

Q: If anything happens to if there is a drought 3, 4, 5 years, starting tomorrow, what would be your plan?

A: We would start looking at conservation measures.

CWRM Presentation

Answers provided by CWRM staff unless otherwise noted.

Q: Is it true that Molokai Ranch does not have a permit for Well 17?

A: Since 1992, no permit, but was in contested case until December of this year.

Q: So in order to get a permit, they have to prove how much they need?

A: They have domestic uses, so we're trying to quantify that. Latest application just came in.

Q: If/when the Ranch leaves, would the lawsuit against DHHL end?

A: I'm not a lawyer, but I would think it would.

Q: Who is Waiola o Molokai?

A: The applicant name for Molokai Ranch. You can go to the DCCA, can get more info that is state record.

Q: Waiola o Molokai – you know what that means, right?

A: That's the name on the application.

Q: DHHL is going for a well permit. Water for DHHL is free.

A: CWRM/State is not charging DHHL for the water. If water is coming from state land that you need a water license for, you have to pay for that. Historic times, 1921 – it was licensed during plantation times, they had to pay, except for DHHL - that's what "free of all charge" means.

Q: You said that there has to be an objection in order to have a community meeting – can you just have it go automatically to the community?

A: The code says a written objection, there's nothing about standing, etc. Even if there's no objection, it still has to go to the CWRM at a public meeting. We're pretty liberal about it. All the time frames are by law – the rules. We haven't accepted the Waiola o Molokai application yet, so haven't set the meeting date yet.

Q: SY is 5mgd – what we heard this morning from the USGS is that when it gets to 4mgd, it's getting salty already. Do you make your decision on 5, or on 4 before it gets salty?

A: SY is 5mgd, but with new info on recharge rates, it's still at 5mgd. The 5mgd in the WRPP assumes that the pumpage is evenly distributed, but if you spread it out, you could get up to 4.5mgd. Also just looking at the map. Wells are a 3-D thing – the depth of the wells is really important, drilled prior to the current well standards – new well standards are shallower, so there's less up-coning. Wells are going deeper than we would allow today.

Q: When we first started, it was 7mgd. What worries me is that DHHL is already asking for 5mgd, all of that has to come to the CWRM. Legally, we use the 5mgd to analyze. Delwyn's model is doing more than the assumptions of the 5mgd.

A: [USGS?] In my opinion, if we could spread the wells even further east, we could get to 5mgd, but it's going to cost money to drill new wells.

Q: Spent thousands and thousands of dollars on this model, but we're still at 5 mgd.

A: It's not an official report – response to the community's desire to have an info update.

Q: The Study won't be finalized until the end of the year? What role does this model play in the CWRM's decision making process? This is groundwater recharge, etc. – that's why we invested in having it done.

Q: Would you wait to review those WUPA's until this study is official, and honor all the work USGS has done for so many years? Because of the interest in developing this model, we funded it, but we need to use that data, it's taken three decades. Can you commit to honoring this data in your decisionmaking process?

A: The decision was to wait for the model – certainly we can wait for the model. If we were going to accept the Waiola application, County's numbers won't change, DHHL is revising theirs, timeframe only starts when CWRM decides to accept the application. We have to go through the review process. Based on the current CWRM, considering how close we are to getting an actually published model, the CWRM would probably say to wait.

Q: We've waited a long time. We should walk away knowing that. Who takes priority on the permits? The DHHL application came in first. We're drawing from the same groundwater, from what I see, with climate change, we need to know what the full buildout of HHL will be.

Q: I can hear the urgency – why would you have to wait for the official report to decide to hold off on all approvals until you know what the final info is?

A: I think we know that we need to hold off until we have all the data and the final applications.

Q: People need to know who uses what system, there needs to be more education – who could do that? Would be a good thing so we can make more informed decision.

Q: How can we change the 5MGD to 4.5MGD SY – what is the process to reduce the SY?

A: It's done through the WRPP update – going to CWRM in July for final approval, but a chicken and egg situation – we're always updating parts of it.

Q: Should have already known that you need to have 1 MGD less - conserve back – don't spend it all. People who do need water always get the short end of the stick.

A: We could do a talk story about how we calculate the SY – it's precautionary – it's a range and we always use the low end of it. Education and outreach are important – that's a priority for us in the WRPP. We are going to start to look at a more robust outreach and education program. Impact of climate change on these numbers – impact on recharge values. Going to start looking at that. It's already 10 years old, so need to update, want to get it approved. SY is tied to spacing of the wells, we're reevaluating aquifer system boundaries. There's an opportunity to comment in July on the WRPP, particularly the SY for Molokai. The meeting will be on O'ahu.

Q: Enforcement is number one. People are doing things in Pelekunu – need to protect the public trust. What is the penalty, what is the fine? Please address enforcement.

Q: How do you test scenarios to decide if it's 4 or 5mgd?

A: Can test a whole suite of conditions. Can test well locations. The highest I pumped was 4.5mgd. It's conceivable that we could pump more, but I can't say if it's 4 or 5. We don't have enough data, so there's

uncertainty – lack of information. This will be the best tool to evaluate how much water can be taken from the aquifer. There are more advanced models – what the state is using now is a pretty simple model.

Q: Does this model analyze what impact all the wells would have? Would the technology change things?

A: I could make the wells shallower. Research that I've done – existing wells, more productive areas are deeper – the model can be run with shallower wells, but the aquifer might not have sufficient supply for the wells.

Q?:

A: All things being equal, water goes where it wants to go. We'd want to reduce the amount of saltwater that comes up – could drill shallower – there are such wells on O'ahu and Maui. 'Ualapu'e and Kawela wells are infiltration – skim water from the upper part of the aquifer. Have to be willing to discuss the alternatives – wastewater reuse, etc.