IN THE CIRCUIT COURT OF THE FIRST CIRCUIT

STATE OF HAWAII

SIERRA CLUB, Plaintiff, vs. BOARD OF LAND AND NATURAL RESOURCES, et al., Defendants.	Cv. No. 19-1-0019

TRANSCRIPT OF PROCEEDINGS

Had before the HONORABLE JEFFREY P. CRABTREE, Judge presiding, on AUGUST 3, 2020, regarding the above-entitled matter; to wit, JURY-WAIVED TRIAL.

APPEARANCES:

DAVID KIMO FRANKEL, ESQ.	For the Plaintiff
DAVID SCHULMEISTER, ESQ. TRISHA AKAGI, ESQ.	For Alexander & Baldwin
WILLIAM WYNHOFF MELISSA GOLDMAN Deputies Attorney General	For State of Hawaii (DLNR/BLNR)
CALEB ROWE Deputy Corporation Counsel	For County of Maui

REPORTED BY:
Jamie S. Miyasato
Official Court Reporter
First Circuit Court
State of Hawaii

I N D E X

EXHIBITS Page

AUGUST 3, 2020

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THE BAILIFF: Circuit Court of the First Circuit is now in session. Calling Case No. 1 on the calendar. Civil No. 19-1-0019. Sierra Club versus Board of Land and Natural Resources. Jury-waived trial. Counsel, appearances please starting with plaintiff.

MR. FRANKEL: Good morning, Your Honor. This is David Frankel with the Sierra Club. Here with me virtually is Marti Townsend, the director of the Sierra Club's Hawaii Chapter.

THE COURT: Hi. Good morning. Welcome.

THE BAILIFF: And the State of Hawaii.

MR. WYNHOFF: Good morning. Deputy Attorney Generals Bill Wynhoff and Melissa Goldman, the State's representative, and also I guess -- well, the State's representative is Suzanne Case, who is virtually here.

THE COURT: Welcome. And Mr. Wynhoff, you're coming through much more clearly, so thank you for whatever adjustments you folks made. They worked.

MR. WYNHOFF: Thank you, Your Honor.

THE BAILIFF: Alexander & Baldwin.

MR. SCHULMEISTER: Good morning, Your Honor. David Schulmeister and Trisha Akagi for Alexander & Baldwin and East Maui Irrigation Company.

THE COURT: Good morning. I'm not seeing Ms. Akagi on the screen.

THE BAILIFF: She's not going to argue so she wanted to keep her camera off.

THE COURT: Okay. Got it.

THE BAILIFF: And then County of Maui.

MR. ROWE: Good morning, Your Honor. Deputy Corporation Counsel Caleb Rowe on behalf of the County of Maui.

THE COURT: Good morning. Welcome.

I understand there's some initial housekeeping type questions you have. So who wants to take those up?

MR. FRANKEL: Your Honor, the parties have agreed to stipulate a series of exhibits into evidence. And I think the desire is to take care of that before opening statements, if that's all right with you.

THE COURT: That's fine.

MR. FRANKEL: So I guess -- I'll go ahead and read this off. I think Lauren Chun with the State is probably most familiar. I don't know if she's handling that or not. But I'll go through this. I'll try to go relatively slowly. Please tell me to stop if I'm going too fast.

So the joint exhibits J-1 through J-29 are stipulated into evidence.

Exhibits 2 -- these are plaintiff's exhibits. So Exhibits 2, 3, 4, 10, 11, 13, 15, 16, 17, 18, 19, 23, 27, 28, 32, 33, 34, 35, 88, 102, 104, 105, 106, 107, 110, 111, 112.

For the BLNR defendants' exhibits, they are S-2 -- oh, sorry.

MS. GOLDMAN: I'm sorry. 115, 117, 122, 123. They're also stipulated.

THE COURT: Was that you, Ms. Goldcap?

THE BAILIFF: Goldman.

MS. GOLDMAN: Yes, Your Honor. Melissa Goldman.

THE COURT: What did I say?

THE BAILIFF: Goldcap.

MS. GOLDMAN: It's okay.

THE COURT: I promised myself at about 8:30 this morning I was not going to do that again. I apologize.

MS. GOLDMAN: No problem. I'm sorry. Melissa Goldman for the State on the record.

Mr. Frankel, did you get that?

THE COURT: Time out. Just a brief cautionary note to everyone. You know, for our court reporter's benefit, please identify yourselves if you're going to, you know, jump in and say something. Then she doesn't

have to guess who it is. All right? Thank you.

All right. Go ahead.

MR. FRANKEL: So my notes say the last series of exhibits stipulated into evidence is 112. I'm not aware of other ones. And I don't think the County are aware that you folks want to stipulate to them. So I don't think we should take them up at now.

MS. GOLDMAN: Okay. This is DAG Melissa Goldman. That's fine. I actually had sent an email to you, Mr. Frankel, but we'll deal with it later. Thank you.

MR. FRANKEL: I'm sorry. So now, the BLNR defendants exhibits are S-2, S-3, S-19, S-26, S-39, S-42, S-43, S-48, S-49, S-50, S-51, S-57, S-76, S-78, S-79A, S-79B.

THE COURT: Got it.

MR. FRANKEL: The County exhibits --

MR. SCHULMEISTER: This is David Schulmeister. I think you skipped over 21.

MR. FRANKEL: I did. When Trisha and I talked on Friday, that's a joint exhibit already, I believe. We might want to -- Melissa, she's nodding her head.

I believe it's already a joint exhibit, David, and if it's not, we can -- you know, I'll stipulate it in later. But it would be redundant, I think.

THE COURT: Do you know which of the joint exhibits it is? 'Cause it's not 21.

MR. FRANKEL: No. It is -- and I think I'm -- I'm guessing a little bit here, but I think it might be J-29.

MR. ROWE: That's what I recall from our conversation as well. J-29.

THE COURT: J-29 is not in either.

MR. FRANKEL: J-29 is a joint exhibit. J-1 through 29 are all in evidence.

THE COURT: I'm sorry. I was looking in the column of the plaintiff's exhibits. I apologize. Got it.

MR. FRANKEL: Okay. So those are the BLNR defendants exhibits stipulated into evidence.

The County exhibits stipulated into evidence are the first three, M-1, M-2, and M-3.

THE COURT: Can you repeat that please?

MR. FRANKEL: Sure. M-1, M-2, M-3.

THE COURT: Got it. All right. Any -- everyone --

MR. FRANKEL: For the --

THE COURT: Go ahead.

MR. FRANKEL: For the Alexander & Baldwin exhibits, they are 3 -- AB-3, AB-8, AB-9, AB-11, AB-12,

AB-13, AB-18, AB-28, AB-31, AB-40, AB-65, AB-66, AB-67, AB-68, AB-69, AB-70, AB-104, AB-108, AB-109, AB-112, AB-146, AB-147, AB-148, AB-149, AB-150, AB-170, AB-171, and AB-172.

THE COURT: Got it. All right. Good. Anyone have any objections or clarifications on any of that, or you're all in agreement? Please make a statement for the record.

MR. SCHULMEISTER: For A&B we're in agreement.

THE COURT: Thank you.

MR. SCHULMEISTER: David Schulmeister.

THE COURT: Thank you.

MR. ROWE: This is Caleb. The County's in agreement.

THE COURT: Thank you.

Ms. Goldman.

MS. GOLDMAN: Just a moment, Your Honor. Sorry about that.

MR. WYNHOFF: Yes, Your Honor. The State agrees with all of those listed. There may be others that are still -- we might be able to add some more later. But all of those that Mr. Frankel kindly listed, the State agrees that they can and should be received into evidence in this trial.

THE COURT: Thank you. All right. Any other

issues we need to take up or can we go to openings?

(Exhibits J-1 through J-29 were received in evidence.)

(Exhibit Nos. 2, 3, 4, 10, 11, 13, 15, 16, 17, 18, 19, 23, 27, 28, 32, 33, 34, 35, 88, 102, 104, 105, 106, 107, 110, 111, and 112 were received in evidence.)

(Exhibit Nos. S-2, S-3, S-19, S-26, S-39, S-42, S-43, S-48, S-49, S-50, S-51, S-57, S-76, S-78, S-79A, and S-79B were received in evidence.)

(Exhibit Nos. M-1, M-2, and M-3 were received in evidence.)

(Exhibit Nos. AB-3, AB-8, AB-9, AB-11, AB-12, AB-13, AB-18, AB-28, AB-31, AB-40, AB-65, AB-66, AB-67, AB-68, AB-69, AB-70, AB-104, AB-108, AB-109, AB-112, AB-146, AB-147, AB-148, AB-149, AB-150, AB-170, AB-171, and AB-172 were received in evidence.)

MR. WYNHOFF: Two things, Your Honor, from my point of view. No. 1, witness exclusion rule. I think everybody agreed that the witness exclusion rule is in effect.

THE COURT: That's correct.

MR. WYNHOFF: Ordinarily that would be really easy for the court clerk, as many times people when come into the courtroom and who are you, etc. But I don't really know how it's set up, but you know, it's possible that some people could be accessing this -- this trial.

And I'm absolutely 100 percent confident that all of the attorneys are telling their witnesses not to do that, but you know, witnesses do kind of crazy stuff.

And so I'm just going to ask -- I probably -- I might just mention it from time to time whether there's anybody listening when they're not supposed to be listening.

THE COURT: All right.

MR. WYNHOFF: The other thing --

THE COURT: Well, before we move on from that point, people have to call in to get access to this; right? So we ask them to identify themselves. And we have a list. So I guess theoretically they could be lying, but I doubt it. We will keep -- we'll keep you informed if you have any questions about who's listening.

THE BAILIFF: And they can see also.

THE COURT: And you can see it on your screens too, I assume, same way I can.

MR. WYNHOFF: Oh, okay.

THE COURT: Mr. --

MR. FRANKEL: Along those lines, Your Honor, maybe we could -- there's a couple people's names on there who I don't know which party they're associated with. And maybe each party could identify attorneys or paralegals or whoever they are that are on -- whose names

are posted there and who haven't already been introduced with the appearances.

THE COURT: I see a Candace Stahl, S-t-a-h-l. County; right?

MR. ROWE: Yes. That's my secretary.

THE COURT: And then Li'Ula Kotaki. She's with Native Hawaiian Legal Corporation, apparently listening in.

And then we have Vince Raboteau, also with Native Hawaiian Legal Corporation apparently.

So that's who we have so far. All right. Anything further along those lines?

MR. WYNHOFF: Not along that, Your Honor.

THE COURT: What's your next issue?

MR. WYNHOFF: Your Honor, I'm sorry. For the court reporter, this is Bill Wynhoff. The other issue, I think a really small issue, but just so we're -- just so we're all clear, I notice that we didn't all stand up when we -- when you came in and we're not standing when we're talking. Are you okay with that, Your Honor? I think it's appropriate and personally no disrespect, but as long as everybody's on the same page.

THE COURT: I appreciate your raising it. But I have absolutely no problem with people remaining seated. We've had lots of hearings where people stand up

and all I can see is their belt line, which is not very helpful. So we'll just do without that.

MR. WYNHOFF: Thank you, Your Honor.

THE COURT: All right.

MR. WYNHOFF: Oh, Your Honor, Bill Wynhoff again. One more thing. I think probably before too long we're going to be launching into opening statements. It's my understanding and recollection that the parties -- the plaintiff had up to 30 minutes and the defendants collectively have up to 30 minutes. We've agreed amongst ourselves that -- I believe I'm stating this correctly -- that Mr. Schulmeister will take up to 20 minutes on the defendants' collective time. Mr. Rowe will go second. I'm not a hundred percent sure how much he'll be taking, but I guess 4 because I'll be taking 6.

THE COURT: That's fine. And you know, given the circumstances we're working under here, I'm planning on running a more relaxed trial than usual. So I do not have a clock running. You know, I'll ask you folks to keep to the time limits as best you can, but I'm not going to tell anyone to sit down if they start running over their allotment.

All right. What else? Okay. Looks like we've covered the pretrial issues. So are we ready for opening? Looks like we are.

Okay. Mr. Frankel, you're on.

MR. FRANKEL: What's the difference between ignorance and apathy? I don't know, and I don't care.

For decades, the trustees of the public streams in East Maui did not know how much damage A&B and EMI were causing to the streams of East Maui. And once they learned, they did not care enough to take necessary action to protect the streams and the aquatic life dependent on them.

By 2005, DLNR officially acknowledged that it knew that stream diversions and insufficient streamflows were a key threat to aquatic species on Maui, `opae and `o`opu.

THE COURT: Mr. Frankel, I'm very sorry to interrupt. I truly apologize, but I forgot to do something that just arose. So we need to be very careful when we're talking about acronyms. So DLNR, BLNR, they sound very similar to the court reporter and to the Court. So you might want to use Department versus Board or some other method of communications.

And again, I apologize. I don't like interrupting people during their opening, but I wanted to make that general statement. Please go ahead.

MR. FRANKEL: Thank you, Your Honor.

So in 2005, the Department of Land and Natural

Resources officially acknowledged that it knew that stream diversions and insufficient streamflows were a key threat to native aquatic species on Maui, `o`opu and `opae.

In 2009, the Department's Division of Aquatic Resources concluded that typical diversion structures in East Maui blocked the stream, captured 100 percent of the streamflow except during storms, captured all of the `o`opu and `opae, and destroyed downstream habitat.

In May 2010, the Department's Division of Aquatic Resources informed the Department that, quote, The removal of stream diversions and complete restoration of streamflow would be the best possible condition for native aquatic animals.

The Division of Aquatic Resources also concluded that streams need at least 64 percent of their naturally occurring base flow to allow native stream animals to grow and reproduce.

The Board of Land and Natural Resources may not have known that fact back in the Year 2000, when it voted to issue the four revocable permits to Alexander & Baldwin and East Maui Irrigation, but it did know that in 2018 and 2019, when the Board of Land and Natural Resources rubber-stamped A&B and EMI's requests -- drain public streams dry and to let harmful diversion

structures remain in place.

Although some of the issues dealing with East Maui streams can be very complex, the issues in this case are quite simple.

The evidence in this case will show four things. First and most importantly, DLNR failed to protect the streamflows within 13 streams. Second, DLNR failed to deal with the harmful diversion structures on public land. Third, DLNR failed to hold Alexander & Baldwin to its burden. And fourth, DLNR failed to ensure that A&B cleaned up its trash that litters public land.

First issue, the 13 streams. In renewing the permits, DLNR authorized A&B and EMI to take all the water from 13 East Maui streams, all of it. The Board did not require that 64 percent of the base flow remain in these streams.

More than three decades ago, the Water Commission set flow standards for all streams in East Maui. The standard was whatever was flowing on June 15, 1988. The Board, however, doesn't know how much water was flowing in these 13 streams as of June 15, 1988. And so the existing diversion structures can capture as much water as they've been taking for decades, all of this flow, plus more. When all base flow is taken, you're left with a dry stream bed. Board of Land and Natural

Resources knows that or it should.

Among the 13 streams, A&B can completely dewater our Ho`olawa Stream and Kolea Stream. You'll see photographs showing A&B's diversions taking all of the water from Ho`olawa Stream.

THE COURT: Can you spell that?

MR. FRANKEL: Sure. It's in the glossary, but it's H-o-`-o-l-a-w-a.

THE COURT: Thank you.

MR. FRANKEL: The Department's Division of Aquatic Resources concluded that restoration of streamflows to Kolea Stream would benefit native species.

And perhaps most importantly, A&B provided DLNR a study showing that the diversion of water from these 13 streams reduces suitable habitat to native aquatic species by 85 percent.

But the Board did not care enough to protect the flow of these 13 streams. It did not protect the `o`opu and `opae that should thrive in these streams.

Second issue. Diversion structures. Diversion structures on the 13 streams harm `opae and `o`opu. Diversion structures on other streams need to be modified as well. The Board knows that diversion structures harm native aquatic species. They block migration and can entrain or capture them and their

larvae. Diversion structures also facilitate mosquito breeding and they mar natural beauty. That includes diversion structures of Puohokamoa and Hanawi Streams.

Again, the court reporter should have the glossary on that.

The Department's Division of Aquatic Resources concluded that it would be relatively simple to modify the diversion structures on these two streams. But the Board has ignored the Division of Aquatic Resources' recommendations and concerns expressed by the Department's Division of Forestry and Wildlife. The Board did not require modification of any structures on any of these Maui streams on public land, nor did the Board set any deadlines for modifying the harmful diversion structures.

Third issue. A&B's burden. The Board has catered to A&B's whims without requiring adequate information from A&B. It has not asked A&B and Mahi Pono how much water is necessary for each crop. It has not asked why alternative water could not be used for these crops. Before making its decision, the Board did not know precisely how the diverted stream water had been used or how it would be used.

The Board authorized A&B to take 66 percent more water this year than it took in 2019, but it doesn't

know which streams the increased diversions will come from. It hasn't even bothered to ask. It does not know how much of the diverted water is wasted, and it did not ask about A&B about mitigation measures.

Fourth issue. Trash. Trash continues the litter these lands. DLNR has asked A&B to clean up its mess, but the Department has not followed up. It has not investigated, it has taken no enforcement action, even when A&B's claims have been shown to be hollow.

For years, the Board of Land and Natural Resources defendants have sat by while A&B leaves our streams bone dry and public lands littered with rubbish.

On its website, the Division of Aquatic Resources states, Maintaining the natural pattern of water flow in streams is the single most important requirement for protection of native Hawaiian stream animals. Nevertheless, the Board of Land and Natural Resources has rubber-stamped A&B's continued use of public land and diversion of dozens of streams instead of protecting them as is their constitutional mandate. Thank you.

THE COURT: Thank you. All right. Who's going next for any of the defendants?

I assume, Mr. Schulmeister, you're going first? All right.

MR. SCHULMEISTER: Yes. And I intend to refer to a map that is part of J-20 at 58. So if the Court could get J-20. Is the Court going to be able to look at the map while I make my opening statement?

THE COURT: I'm clicking on it right now. Let's see if this works. Hang on.

You said J-20; right, Mr. Schulmeister?

MR. SCHULMEISTER: Yes. That's correct.

THE COURT: It's a Draft EIS?

MR. SCHULMEISTER: Right. Yes.

THE COURT: Which page do you want me to look at?

MR. SCHULMEISTER: The primary page -- the primary map I'm referring to is one on page 58, Bates stamp page 58.

THE COURT: Okay. Hang on. Okay. I got it. Thank you.

MR. SCHULMEISTER: All right. And there's also a map at Bates stamp page 40 that I may also be referring to. But I just wanted to make sure the Court was able to look at it.

The other exhibit that I'm going to be referring to extensively is Exhibit J-14, which is the Water Commission's 2018 Findings of Fact, Conclusions of Law, Decision and Order on the IIFS petitions. I'm going

to be quoting from it. If the Court wants to follow along, you know, I'm just giving the Court a heads up that I'm going to be quoting a lot from Exhibit J-14.

THE COURT: All right. Let me go ahead and open that one then so at least I'll have it ready. Hang on. Okay. I have both -- I have both those up and ready.

MR. SCHULMEISTER: Okay. So I think that the trial memorandum that the Sierra Club filed is -- is very useful. And to me, the point of departure from our opening statement I think is best taken from the last few pages of it where they summarize the relief that they're asking for in this case.

So -- and I think it's very telling and important that notwithstanding the argument that we had yesterday and that we've had in the past about whether the Sierra Club was seeking a declaration that the revocable permits are invalid, you'll see that they do not refer to that as being among the relief that they're asking for in this case.

And what they say is the Sierra Club's preference is that the Court order the cessation of diversion from all 13 streams.

THE COURT: Hang on. Hold on. I've got the -- you said their trial brief; right?

MR. SCHULMEISTER: Yeah. The trial memo. I'm at page 49 of their trial memo.

THE COURT: Okay. Hold on.

MR. FRANKEL: Your Honor.

THE COURT: Yes, sir.

MR. FRANKEL: I know it's unusual to object in an opening statement, but I do want to point out that it's opening statement. It's not opening argument. Opening statement is supposed to be about the facts that are going to be discussed in the case rather than legal argument.

THE COURT: I appreciate that, but there's no jury here, and the Court is welcoming any and all information anybody wants to give it. So objection's overruled.

All right. Mr. Schulmeister, I'm at page 49. Go ahead.

MR. SCHULMEISTER: All right. So the -- at the bottom of the page, I mean they say what their preference is, which is the cessation of all diversions or the diversion from all 13 streams and a deadline for removal and alteration of harmful structures. But then they say they recognize practical realities, etc.

And then in the second to last line, they say Thus the Sierra Club offers a more nuanced approach. And

then from there forward, we see that this essentially is now where the Sierra Club is in terms what they're asking for.

And if you go to page 50, the first full paragraph, it says, At the conclusion of the trial, Sierra Club will offer specific language for injunctive relief, etc. For the present, the Court can consider the following. And they're asking for injunction.

The critical thing is what happens on the next page, which is page 51, because the entirety of what is listed on page 51 -- if you look at the first bullet, it's talking about essentially interim instream flow standards for the 13 streams.

The second bullet point, same thing.

Third bullet point, BLNR defendants require the applicants to assess diversion structures, etc., and which again is something that is -- all of these things are specifically within the exclusive jurisdiction of CWRM.

And in the next bullet, evaluate all the diversions and degree to which it affects adversely native life, etc. And then requires removal and altercation of these modification structures.

And then even on the next page, the bullet there says BLNR defendants justify allowing less water

than is needed to provide suitable habitat.

All of these bullets are things that are covered in the Exhibit J-14, which is the Water Commission's finding.

And so -- and basically -- so the first point that Mr. Frankel makes is the -- the allegation that the public trust was breached by not protecting the 12 or 13 streams.

CWRM has exclusive jurisdiction over the interim instream flow standards for all streams in the state, including the 12.

In the D&O, Conclusion of Law No. 10, Commission shall have exclusive jurisdiction and final authority in all matters relating to implementation and administration of the code.

Since August the 1st of 2016, neither BLNR nor this Court has any supervisory jurisdiction over CWRM. And I hope the court reporter's following me. CWRM is what I mean when I say CWRM.

At that time the water code is amended to say that any other law to the contrary notwithstanding, including Chapter 91, any contested case under this chapter shall be appealed from a final decision and order or preliminary ruling directly to the Supreme Court for final decision.

And then this is -- HRS 174C-12.5(a) and 12.5 (b) says, The Supreme Court shall give priority to contested case appeals of significant statewide importance and shall decide these appeals as expeditiously as possible.

So since August 1st of 2016, this Court has no supervisory jurisdiction whatsoever over anything that is in the exclusive jurisdiction of CWRM. And the setting of interim instream flow standards is particularly what the public trust requires for setting those. And the modification or removal of the diversion structures are both within the exclusive jurisdiction of CWRM. And they were both addressed in the J-14.

So if CWRM is not a party to and cannot be made a party to this proceeding, it's not going to be bound by any ruling this Court makes regarding whether an IIFS amendment is required for the 12 streams. The only way an IIFS amendment for these 12 streams can be made is for a petition to be filed with CWRM for amendment because nobody appealed the -- the 2018 decision.

Sierra Club could have and still can file such a petition. Sierra Club has not exhausted its remedies with regard to the pursuit of an amended IIFS for the 12 streams. And if Sierra Club does file an IIFS petition, its only recourse for challenging any failure by CWRM to

amend the IIFS for the 12 streams is an appeal to the Supreme Court of Hawaii. No recourse is available in this court. In other words, the bus never stops here in Circuit Court on any challenge to what CWRM does with regard to setting an IIFS.

So -- now, completely apart from the fact the Court lacks any supervisory jurisdiction over CWRM, CWRM is not required by the Public Trust Doctrine to order the restoration of every stream. Sierra Club argues as if all that matters is that diversions reduce available habitat. But -- this is quoting now from Waiahole. The public has a definite interest in the development and use of water resources for beneficial and private offstream purposes. Therefore, apart from the question of historical practice, reason and necessity dictate that the public trust may have to accommodate offstream diversions inconsistent with the mandate of protection, to the unavoidable impairment of public instream uses and values. That's *Waiahole,* 94 Hawaii 97, page 141.

So in other words, reason and necessity dictate that not every stream must be restored.

Now, the fact that diversions can reduce habitats is not a controversial proposition. And today you're going to hear testimony from Mike Kido, which basically says in generic terms, yeah, these diversions

can be bad for habitat of these species. That's not a controversial proposition. This has been known for a long time. That's not what the case is all about. This case is not about whether diversions can impair habitat.

What this case is about is the extent the streams need to be restored or diversions need to be modified, you know, where will it be restored and what will the modifications be. And Mr. Kido's not going to have anything to say about that.

So reduced habitat and diversion is a given, but it's not enough standing alone to establish the restorations requirement.

For a stream to be restored, it needs to be done strategically. And it is CWRM's job to do the balancing and make the strategic choices regarding which streams should be restored and by how much.

Now, here we have an integrated ditch system. And if you look at the exhibit, page 58 of J-20, you'll get a bird's eye view of the system in relation to the licensed areas and the stream. So if the Court could take a look at for a moment.

THE COURT: I have it right up in front of me, so go ahead.

MR. SCHULMEISTER: This is a very useful exhibit. As I'm sure the Court has seen in much of the

memos, there are four licensed areas. Huelo is the pink one on the left. And so the color coded areas -- Huelo, Honomanu, Keanae, and Nahiku -- those are the licensed areas. And then you can see that this system crosses the licensed areas and it also crosses areas that are not within the licensed areas.

So I think that it's important for the Court to understand that -- that this is a single system. And the -- what this particular map reflects is how the CWRM D&O allocated restoration amounts among the -- among the streams.

The -- the 12 streams that are going to be talked about are in the Huelo licensed area. If you look at the color code, the blue color coding is referred to as non-IIFS streams but really non-petitioned streams.

And if you go further to the right, you'll see in Keanae, for example, pink streams, which are full restorations.

Basically what ended up happening is CWRM needs a judgment about how much water would be restored where. And in coming to that judgment, CWRM considered the total amount that historically has been collected from the ditch system. And this includes water not only within the licensed areas but also outside the licensed areas.

But the important issue here for the 12 streams is that it includes water collected from the 12 streams and it also included water collected west of the 12 streams. And if you flip to page 40 of J-20 for a moment -- if you have that.

THE COURT: I'm there.

MR. SCHULMEISTER: What you see there -- yeah. What you see there is the dark green area is the licensed areas, but the larger area in red is the collection area.

So what this shows is that water collected from the licensed areas is perhaps most but not all of the water collected from the system. You also have water collected from privately owned land, you know, in the Huelo area in particular. You'll see that a lot of the lower ditches there are actually on EMI land.

And there's also private land to the west of the licensed area. And you know, Maliko Gulch is to the left of the licensed area. And all of the volume calculations of water collected by the system in the D&O are based on water collected at Maliko Gulch. That includes --

THE COURT: Time out.

MR. SCHULMEISTER: -- all of the petitioned streams, includes all of the non-petitioned streams that are within the license area, and --

THE COURT: Mr. Schulmeister. Mr. Schulmeister. Mr. Schulmeister.

MR. SCHULMEISTER: Yes.

THE COURT: You're just going way too fast for me right now. Just letting you know.

MR. SCHULMEISTER: I'm sorry?

THE COURT: You are going way too fast for me right now. You're making reference to places on this map that I can't read as easily and as quickly as you're moving. So you want to dial it back a little bit and give me a chance to keep up with you. All right? Thank you.

MR. SCHULMEISTER: Okay. All right. I'll try to do that.

THE COURT: Thank you.

MR. SCHULMEISTER: So I'd like to refer now to the D&O itself, which is Exhibit J-14 at page 41.

And this is Bates stamp page 41.

THE COURT: I'm there.

MR. SCHULMEISTER: All right. So basically what you have here is a list of streams that -- that CWRM considered. And for the Huelo licensed area, you'll see Huelo licensed area and there's a list of streams. The streams that are underlined are petitioned streams. The streams that are not underlines are the 12 streams that

are being complained about. So these are all in the Huelo licensed area.

And then if you go below that, No. 59, which is -- talks about additional streams, which is Honopou and Maliko Gulch. And then at the bottom of the page there's one stream and then there's five more on the next page.

So basically what they're citing here is the fact that the collection system includes not only the petitioned streams, but the 12 non-petitioned streams in the Huelo licensed area and another 6 streams to the west of the Huelo licensed area.

So what CWRM had to do then was to look at what the total amount collected was and to the extent that restoration was going to be ordered, it had to strategically decide where the restoration was going to be.

So if you go back to J-20 at 58, what you'll see is that the restoration is concentrated heavily in the Keanae area to the east. And as you move to the west, there's -- you know, the 12 streams, as has been pointed out, were non-petitioned streams. And so there was no amendment for those.

So -- so the assumption of the analysis was that the restoration would be, you know, obviously

concentrated in Keanae, which was advocated for heavily by the Native Hawaiian Legal Corporation. And it was also spread out. And the other thing is even in Huelo, you'll see that the Honopou Stream, which is the furthest to the west, is a full restoration stream and also the Hanehoi Stream. And then there's some other. What the facts are going to show is that 40 percent of the water that has been historically collected from the -- this system is from the Huelo area.

So when the Water Commission in balancing offstream and instream demands -- they need a judgment that they're going to concentrate restoration in Keanae and Huelo. They're going to do it in Honopou and Hanehoi. And the remaining streams weren't going to be restored. And as I point out, they don't all have to be restore under the Public Trust Document. There has to be a balancing.

In order to accommodate agriculture in Central Maui, there had to be streams that will continue to be diverted. And that's what the Water Commission decided and concluded, these 12 streams.

Now, if you look at J-14, page -- Bates stamp page 44, very important finding here, which is that the Division of Aquatic Resources, DAR, supports the following positions. And this is the middle paragraph.

The prioritization of the East Maui streams, in other words, where are we going to restore and where are we not going to restore, is based on the "biggest bang for the buck" concept where priority is placed on streams with the greatest potential to increase suitable habitat.

The next paragraph. Very critical. The restoration of suitable flows to a single stream is more appropriate than the return of inadequate flow to multiple streams. DAR supports the tradeoffs on the restoration of a smaller number of streams with sufficient water over the return of insufficient water to a larger number of streams.

And if you go back to -- okay. So the point is that the Water Commission had the discretion and the obligation to prioritize. And that's what they did. And it included the 12 streams.

Now, on diversion structures, the Water Commission specifically found -- and this is at page 19. There's two pages I'm going to refer to. Page 19 of the D&O and page 292. At page 19 --

THE COURT: Mr. Schulmeister, please don't use the D&O. Please use an exhibit number.

MR. SCHULMEISTER: Exhibit J-14.

THE COURT: Thank you. What page?

MR. SCHULMEISTER: Page 19, Bates stamp page

19.

THE COURT: Okay. I'm there. Go ahead.

MR. SCHULMEISTER: We recognize that a universal remedy to modify or remove diversions is not practical. At this time, the Commission's overall guidance is to not remove diversion structures if modification can achieve the desired results.

And then the other page is 292, which is, you know, obviously --

THE COURT: I'm there.

MR. SCHULMEISTER: So page 292 is -- this is part of the order.

It is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed.

This Order does not require that every diversion on every tributary be removed or modified. The Commission is only looking at modifications to main stem and major diversions to accomplish the amended IIFS set forth above. It also recognizes that it is not the purpose of this proceeding to determine how the diversions will be modified. That issue will be before the Commission in a subsequent process.

The intent of the Commission is to allow for

the continued use and viability of the EMI ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS.

So this is the core of what the breach of trust claim is and the relief being sought -- is we want the Board to essentially redo the analysis of what the appropriate strategic restoration of streamflow would be and we want the Board to redo what the Water Commission has already decided within its exclusive jurisdiction in terms of dealing with diversions.

So I realize my time is getting a little short here and there's a lot of things I want to say, but I'm going to try and sum up here.

You know, the evidence will show that there is no emergency that requires this Court's intervention. The Sierra Club is simply trying to enlist this Court in an attempt to prelitigate in a non-binding way issues that are not yet ripe with regard to the pending Environmental Impact Statement and the Board's later action on the long-term lease obligation.

Sierra Club will not be able to show they will suffer any harm in being left with Chapter 343 -- once an Environmental Impact Statement is accepted and its opportunity to be heard and to challenge any future action by the Board on the long-term lease disposition.

There's no reason and no legal basis for the Court to inject itself into the IIFS and diversion modification process, the only purpose of which will be to interfere with the first phase of the diversified agricultural rollout, which the Board of Land and Natural Resources has unanimously found to be in the public interest, which CWRM has unanimously found to be consistent with the Public Trust Doctrine, and which the County of Maui and its mayor unequivocally support.

Final point I think that -- if you look at J-14 at page 289.

THE COURT: I'm there.

MR. SCHULMEISTER: And this is finding -- I mean, it's Conclusion of Law No. 152.

It says, While the commission recognizes that the water that may be licensed by the Board from the petitioned Maui streams may not be sufficient to satisfy the full implementation of the diversified agricultural plan -- and this is a critical point -- it is expected that a sufficient amount of non-instream water would be available under this decision to provide the initial phase of allowing the lands already designated as important agriculture lands in Central Maui to be developed for diversified agriculture.

Now, what --

THE COURT: Just a moment. Mr. Schulmeister, hold on, hold on, hold on.

Just for the record, you added a parenthetical during that quote. I don't think it was deceptive at all, but I just don't want the record to think you were quoting exactly 'cause you weren't. That's okay. Go ahead.

MR. SCHULMEISTER: So basically, you know, I think that the Court needs to consider, given its lack of authority under the Water Code to second-guess or review what the Water Commission did, what exactly is really being sought here and whether or not it makes any sense.

We obviously believe that, you know, Sierra Club has a remedy with regard to both the issues of instream protection and diversion modification, which is to petition the agency that does have the authority. And if they don't like it, they can take an expedited appeal to the Supreme Court. That issue is not intended to ever be adjudicated in this court. And you know, this Court shouldn't be making advisory rulings just to position Sierra Club for later EIS challenges or later lease challenges that aren't ripe yet.

And that's really what's happening. There's no harm to the Sierra Club of being left to whatever remedies it has before the Water Commission.

THE COURT: All right. Thank you. And before I hear from anyone else, we're going to take a break. Ten minutes. Please come back at five minutes after 10:00. Thank you. We're in recess.

(A recess was taken.)

THE COURT: All right. Court is recalling the case. All counsel appear present on the video screen. So who's going next? Ms. Goldman? Mr. Rowe? Okay. Go ahead.

MR. ROWE: Thank you, Your Honor.

The County's position in this case is primarily to -- the public interest in the reissuance of the revocable permits.

This position is twofold. On the one hand, there is immediate needs of domestic drinking water to approximately 35,000 people in Upcountry, Maui. This includes major population centers such as Kula, Makawao, Haiku, and Pukalani. And this use has been recognized as a public trust purpose by both the Commission on Water Resources Management and the Board of Land and Natural Resources.

The evidence will show that while the County have made efforts to reduce its reliance on water from the licensed areas since Judge Nishimura's decision in *Carmichael*, the County still relies heavily on the

delivery of water from East Maui Irrigation, especially during low flow conditions which limit the availability of water at the County's two other treatment plants in Upcountry Maui.

The second level of public interest that the County is concerned with is all the importance of the agriculture, especially diversified agriculture as a source of jobs and food security for the County. This interest is qualified in the Maui County's General Plan 2020 and is also a priority for the current administration, as the managing director Sandy Baz will testify to on behalf of Mayor Michael Victorino.

And so we believe that the evidence will show that the Board did undertake the proper balancing of the public trust considerations in reaching a determination to reauthorize the revocable permits. Thank you.

THE COURT: Thank you.

All right. State of Hawaii.

MR. WYNHOFF: Your Honor, we'll ask that you have available or get in front of you at some point page 580, 580 of J-20.

THE COURT: All right.

MR. WYNHOFF: I'm going to make some reference to that.

THE COURT: Hold on one second. When you

stand up, you move away from the microphone and it gets worse. All right. J-20. What page? 500 something?

MR. WYNHOFF: 580, Your Honor.

THE COURT: 1-2-8-0?

MR. WYNHOFF: 5-8-0.

THE COURT: All right.

MR. WYNHOFF: 0-5-8-0. So I'm talking about 580.

THE COURT: Got it.

MR. WYNHOFF: Thank you, Your Honor. So Your Honor, I'm going to plow some of the same ground that Mr. Schulmeister and Mr. Rowe have plowed, but I just want to -- you know, put it in context a little bit. It's always a little scary when you start off 300 years ago. But 100 years ago, as we all know -- yeah, 100 years ago, the economy in the State of Hawaii was sugar. And sugar has three needs, mainly water and sun and land. And so 100 years ago the economy and the political structure of the then Territory of Hawaii was sugar.

And during that era, water was diverted famously into well known Ewa Plains. James Campbell came up and dug an Artesian well. Water came from the Leeward side of Oahu to the other side. That's why we have the Waiahole case. Water came from -- more specifically, water came from East Maui watershed to the central plains

of Maui.

Prior to water coming there, the central plains of Maui were essentially a nonproductive dust pool and water there brought life to sugar.

Now the sugar companies have gone out of business over the years. When I started off in 1979, worked for Cades Schutte Fleming and Wright, and we still represented Pioneer Mill and HC&S. Those folks were there. During the '80s and into the '90 they went out of business. So there's always the State of Hawaii -- the historic question and the historic choice what are we going to do with the water that is now no longer needed for sugar?

Your Honor, at page 580 that I've asked you to look at is similar to and to some extent overlaps the map that Mr. Schulmeister asked you to look at. It emphasizes different things. The colored area is the entire watershed. The one that Mr. Schulmeister showed you had just the license -- the revocable permit area.

The entire watershed is 56,000 acres of licensed area. That is the land that the state owns. In this watershed is some 33,000 acres. So I join Mr. Schulmeister's emphasis that what this case is about, despite what Sierra Club would have you believe, is it's about the entire watershed.

And so circle back to my historical time line. As the sugar companies went out of business in the 1980s -- in the '80s and '90s, this matter then became presented to the State -- what are we going to do with our water. It's clearly our water. When I was at Cades Schutte in 1979, that was a remarkable tour de force for Mr. J. Russell Paige that now is our public water, wherever it comes from.

Now, this matter, Your Honor, has been before the Board of Land and Natural Resources since at least the Year 2000 and to some extent before. It's been before the Counsel on Water Resource Management, CWRM, since at least 2008, from some 12 years ago, when Na Moku and I forget the rest of it, and I apologize for that, brought some petitions with respect to some of the streams in this watershed area.

Another petition was filed in 2010. Mr. Frankel talked about administrative hell. I guess we can decide -- we can argue about whose administrative hell it was, but in any event, it went up and down the courts for quite a while. Then CWRM came out with that remarkable several hundred page decision that you have in front of you as J-14, in which the Sierra Club said the other day, extremely importantly, they do not take issue with and they do not disagree with.

So what we have here when we look at this entire watershed, Your Honor...

So what we've talked about is we have a 66,000 acre watershed. We have 33,000 acres that are covered by the revocable permits. Historically the water system that was built 100 years had a total capacity of 450 million gallons per day. That's MG -- MGD is an important abbreviation that you'll hear. Million gallons per day. Historically the system had 450 million gallons per day capacity. Back when sugar was thriving, it was using 160 to 165 million gallons per day. More recently, that is in the '80s and '90s, it was 126 million gallons per day.

In 2019, Your Honor, the present limitation on water that comes from that watershed is 45 million gallons per day. And in fact, what is in fact coming out is less than 30 million gallons per day.

But not satisfied with this 80 percent reduction in water coming -- already 80 percent water coming out of the watershed, Sierra Club asks you to put water back into the 13 streams, ignoring or asking this Court to ignore the fact that the water from the entire watershed has already been reduced by 80 percent and that over a 12-year span, taking enormous amounts of evidence, that CWRM has decided that it would be appropriate to

leave this amount of water in the instreams.

Some of the things that I want to emphasize to you again are things that you heard from Mr. Schulmeister. I want to emphasize to you that Mr. Frankel on behalf of Sierra Club told us on Friday that they were not attacking and do not disagree with CWRM's discussion. So I would like to point out to you the same thing -- that at Finding of Fact No. 150 of J-14, In not requiring full restoration of all streams, the Commission has allowed for some streams to continue to be diverted so that the Board may license the diversion of water not needed to meet the IIFS from these streams for noninstream use.

The Commission -- one of their findings on page 27 -- well, Mr. -- Mr. Schulmeister already read to you that the provision where -- I'm just going to summarize because I don't have it -- what DAR said. Division of Aquatic Resources indicated that and the CWRM adopted that there are other uses besides instream uses. We're talking about most bang for the buck and we're talking about the idea that DAR believes it's better to fully restore some of the streams rather than partially restore all of 'em.

I echo Mr. Schulmeister's comment that nobody disputes that it would be better for one particular

public trust interest to leave all the water in the stream. Of course it would be better for the -- for the animals in these particular streams. There would be more animals in these particular streams if there was more water in these particular streams. But these animals are not the only interest in the world. They also have -- and the Board was required or the CWRM was required to consider and the Board was required to and did consider other public interests.

For example, we have -- we have the -- we have agricultural lands. Even though that isn't potential commercial use and is not the highest possible public trust use, arguably it still is public trust use. We're talking about -- let's see -- we have -- we have 30,000 acres of agricultural land in Central Maui. Of these 30,000 acres, 22,254 are important agricultural uses.

At page 179 of Finding of Fact 334 of the CWRM decision, the CWRM points out the important agricultural land designation is a commitment to keep those lands in productive agricultural use over the long term.

Public interest the CWRM decided at its decision and order at the end -- I'm sorry I don't have the page. But it was Decision and Order d, as in dog. The public interest includes not only protecting instream values but also preserving agricultural lands and

providing adequate water supplies for the County of Maui.

In addition to -- in addition to that important interest determined by the people of the State of Hawaii in their statutes, important agricultural land, and the people of the County of Maui in their plans, we also have the domestic water use, which is in fact a special and specific public trust interest and was explained to you by the County and that you'll be hearing more about in this case.

The -- what the Sierra Club is asking you to do is to cavalierly substitute this Court decision of the balancing for the public trust -- it's not like nobody else thought of this, Your Honor, and nobody else cares about it. We understand that it would be better for the biota to have -- in those particular streams to have more water in those streams.

But the public trust requires more than that, Your Honor. The Constitution specifically provides that the use of the resource has to be balanced and has to include development. And for the Sierra Club to come in and cavalierly tell you that this is a simple case and that you can simply put water back in these 13 streams without taking into account the enormous amount of evidence and work and thought that has gone into this over the years is merely remarkable.

Your Honor, let me speak briefly to the other matters that have been talked about. With respect to diversion, I would simply echo what Mr. Schulmeister has said. I don't -- I don't mean to quote it again, but -- said that they don't ask you to overturn the CWRM's decision. The CWRM specifically said -- specifically said that these diversions should stay there. They can be closed. They said some are closed, some are not closed. But don't forget this is an interim instream flow standard. It may be at some point some of these things are going to be reversed.

And also in the CWRM decision, the CWRM points out that in order for these diversions to be taken out, you need to have building permits from the County of Maui. You need to have information from Office of Coastal and Conservation land because some of it is on conservation district land. You need to have input and permits from the U.S. Army Corp.

So it's not just that this Court can cavalierly and simply tell the -- tell A&B to take out these diversions. Doesn't work that way, Your Honor.

With respect to trash, and I probably should resist but I won't, one man's trash is another man's treasure. The evidence will show that there isn't any trash in there. Once trash was found it was taken out.

What Sierra Club calls trash in many cases is simply building supplies. That are these diversions. And the work up there are in very remote areas. And so a bunch of building supplies are left up there. It's rather cavalier to simply call them trash.

So Your Honor, to sum up, when you're listening to the evidence in this case, please keep in mind that this is an entire system that has been studied extremely carefully for more than -- certainly for more than ten years, but probably for more than twenty years.

A very reasoned decision was made that not all the water stays in the watershed. A very reasoned decision was made that the public trust demands that water be used for domestic use and that water be used for important agricultural land. A very reasoned decision was made that certain streams would be fully restored and others would not be restored at all. A very reasoned decision was made, in other words, that we would get more bang for the buck by restoring water to some streams and not for others.

And I also echo Mr. Schulmeister for Sierra Club to come in after 80 percent of the water has already been restored to the streams and say, oh, it's no problem for you to just put more water back in these 13 streams is an extraordinary request, Your Honor.

Whether or not you can do it, we leave that for later on. Mr. Schulmeister has talked about jurisdiction. If this Court will be tempted to do so, we simply ask that you listen to the evidence and determine -- we would ask you to determine that the reasoned decision and the reasoned balancing is appropriate and correct. Thank you, Your Honor.

THE COURT: All right. Thank you.

All right. That finishes our opening statements.

I think under our schedule, Mr. Kido is going to be the first and only witness today? Do you need some time before you get him on or what? I'm sorry. You're muted, Mr. Frankel.

MR. FRANKEL: Sorry. I believe he's in the virtual waiting room. So I think if the clerk -- I texted him a few minutes ago letting him know we're just about there, so he should be in the virtual waiting room.

THE BAILIFF: He's not.

THE COURT: Okay. Before we go there, one brief comment. I'm not going to mention any names, but we have some sort of eye rolling and so forth going on on the video screen and we need to cut that out. I don't allow it in the courtroom. I'm not going to allow it on video either. You folks need to keep a professional

demeanor. Thank you.

All right. We ready to bring him in? Apparently there's no one in the waiting room. We'll take a brief recess. People can stretch their legs and so forth and just come back in a few minutes. All right. Thank you.

(A recess was taken.)

THE COURT: Okay. It looks like we have everybody present. Everyone ready to go? Okay. We're back on record. All counsel and party representatives are present.

I believe Ms. Case I think is on the phone now instead of video. Oh, there she is. Okay. Chair Case is now visible.

We have Mr. Michael Kido on the video. I believe that's the witness; correct?

All right. Go ahead, Mr. Frankel.

MR. FRANKEL: We need him sworn in, Your Honor.

THE CLERK: The witness doesn't have to stand. Judge said it was okay. So if he raises his right hand, that would be fine. And ready?

Do you solemnly swear or affirm that the testimony you're about to give will be the truth, the whole truth, and nothing but the truth? If so, please

respond by saying, I do.

THE WITNESS: I do.

THE CLERK: Thank you.

THE COURT: All right. Mr. Kido, please say your full name and then spell it.

THE WITNESS: Michael Kido, M-i-c-h-a-e-l K-i-d-o.

THE COURT: All right. Thank you. Go ahead, Mr. Frankel.

MICHAEL KIDO,

Called as a witness by the Plaintiff,

having been first duly sworn,

was examined and testified as follows:

DIRECT EXAMINATION

BY MR. FRANKEL:

Q So Mr. Kido, this is the first time a lot of the attorneys have done -- well, done any sort of virtual trial. So I want to make things really clear. Is your screen on the video the entire screen there in front of you?

A It is now. Yeah.

Q Okay. And do you have any notes in front of you?

A No.
Q Okay. Great. Mr. Kido, do you have an opinion regarding the impact of stream diversions?
A I do.
Q Before you tell me what your opinion is, what do you do for a living?
A I'm currently retired from the University of Hawaii at Manoa.
Q And what did you do before you retired?
A I was a research biologist with the Center for Conservation Research and Training at Manoa Campus.
Q And what was your primary research focus as a research biologist?
A Primary research focus was on Hawaiian ecology.
Q You're breaking up a little bit. Can you say that again?
A Stream research -- the focus was on Hawaiian ecology.
Q Are you getting a little bit of feedback, Your Honor?
THE COURT: We're doing okay. But I think it will really help if he stays a consistent distance from his microphone instead of moving back and forth.
THE WITNESS: Okay. I'll try that.

BY MR. FRANKEL:

Q Okay. So how long have you been studying Hawaiian streams?

A Pretty much my entire career, so about 30 years.

Q And how many Hawaiian streams would you estimate you studied?

A Well, there are 376 perineal streams in the State of Hawaii, and I estimate that I've been to a third of those. So roughly 125 streams.

Q And how many of those streams have you performed a biological integrity assessment on?

A Other than this case, (indiscernible), 34 streams statewide.

Q What kind of research have you done on the biological integrity of Hawaiian streams?

A The focus of that -- of looking at these indexes of biological integrity or IBIs, as it's called in the industry, is to evaluate the human impact on stream ecosystems. We're interested in what level of human impact affects a stream from mountain to sea. So primarily focused on the habitat but also human species presence in relation to the area species presence.

Q And what is the Hawaii Stream Research Center?

A It's -- the Hawaii Stream Research Center is a

laboratory that we established within the Center for Conservation Research and Training at Manoa Campus.

Q And what's your relationship with the Hawaii Stream Research Center?

A I was its director.

Q How many papers, reports, and studies have you prepared on Hawaiian streams?

A 67.

Q What kind of academic training did you receive?

A I have a master's degree from University of Hawaii at Manoa in Zoology.

Q I'd like you to take a look at, if you have it there on your iPad, Exhibit 99.

A Okay.

Q Give people time to get their copies.

MR. WYNHOFF: May I have a second to get this on my screen, Your Honor?

MR. FRANKEL: Absolutely.

THE COURT: Sure. Which party's exhibit is it, Mr. Frankel?

MR. FRANKEL: Sorry, Your Honor. Sierra Club's Exhibit 99.

THE COURT: All right. Thank you. That is not in yet; correct?

MR. FRANKEL: Correct.

MR. WYNHOFF: I have it, Your Honor. Thank you, Mr. Frankel, for the courtesy. I really appreciate it.

MR. FRANKEL: I think we all have to pause for each exhibit to know what's going on throughout the whole trial.

BY MR. FRANKEL:

Q Do you recognize Exhibit 99?

A I do.

Q What is it?

A It's a copy of my CV.

Q Did you prepare it?

A I did.

MR. FRANKEL: Your Honor, Sierra Club would like to offer Exhibit 99 into evidence.

THE COURT: Is there any objection?

MR. WYNHOFF: Your Honor, if I was in a jury trial, my objection would be cumulative. But I'll waive that objection and I do not object to receiving Exhibit 99. Bill Wynhoff on behalf of the State.

THE COURT: All right. Mr. Schulmeister, any objection?

MR. SCHULMEISTER: No objection.

THE COURT: All right. Mr. Rowe?

MR. ROWE: No objection, Your Honor.

THE COURT: Okay. Exhibit 99 is received. No objection.

(Exhibit No. 99 was received in evidence.)

MR. FRANKEL: Thank you, Your Honor.

BY MR. FRANKEL:

Q What is the Hawaii Stream Bioassessment Protocol?

A The Hawaii Stream Bioassessment Protocol was developed with funding from the State Department of Health. It consists of two multimetric indices, one looking at habitat and the other looking at the level of native species present within that stream site that we're looking at. It is -- it is based -- is there a comment?

THE COURT: I think that was just a stray noise. Go ahead, Mr. Kido.

THE WITNESS: So it is -- it's called the HSBP. That's how we refer to it. It consists of two multimetric indices, as I mentioned. It looks at the native species presence -- the level of native species presence in a particular stream site and the level of supporting habitat for those species.

As I mentioned, it was funded by the Department of -- Hawaii Department of Health. The protocol consists of a standard methodology. So every

time we apply it, we follow the same protocol. For example, the stream site is measured and the site -- site length is 20 times its mean width. We go through a pretty elaborate process of setting up a grid within that site. (Indiscernible) -- 100 meters. And the habitat metrics, there are ten of 'em.

They're looking specifically on how they would support native species and what -- (indiscernible). So we're looking at flow within that system. We have certain expectations of what a flow would be. So we actually took a flow meter and walk up the site and measure to see if everything we expect is there.

I should mention also that the basis of the project is to compare them to other sites in the state. So the first go-around was to visit the best streams in the State of Hawaii and then of those streams apply a protocol and ensure that we're looking at the right -- right metrics.

So there are ten metrics for habitat, ten metrics for the IBI quality, index for biometric integrity. So habitat is important in that you're looking at human impact, what levels of streamflow are there. Depends on if they're able to block -- to handle static coming in from the watershed. Are there any obstructions like diversions or road crossings. All that

is taken into account.

The biological part is called the index of biological integrity. That's another industry term labeled IBI. And in that protocol there are also ten metrics which we are also looking at the number of species present as I mentioned, the relationship to any species present.

So in high quality streams basically we do not see any alien species except the -- (indiscernible). So the idea is -- (indiscernible) -- metrics or these two protocols and then come up with a score for that site. Our reference streams always get a hundred percent so they're always in the excellent category. For example, Honokapiai Stream on Kauai is one of our reference streams. Every time we sample it -- we probably sampled it a dozen times. So every time we sample it, it reaches a hundred percent, and it's in excellent condition.

So when we apply the protocol to another stream, what we're doing is comparing it to the reference stream sites using the two separate methods that I mentioned.

BY MR. FRANKEL:

Q And before I go on, I want to make sure I -- are things -- can the Court hear things clearly enough?

THE COURT: Just barely. It could be better.

BY MR. FRANKEL:

Q Okay. So Mr. Kido, if you could get closer to your monitor. Maybe try to speak up a little more.

THE COURT: Hold on one second.

THE COURT REPORTER: It's too muffled. I think he's too close. Maybe if he puts on that thing and it's softer, it might be clearer. If he puts on his headset?

THE COURT: Let's try it then.

What we're doing -- we're having a three-way conversation between me, the court reporter, and court staff. We're sort of taking an inventory on how this is working or not working.

Mr. Kido, apparently you folks tested -- you were wearing a headset? And we decided not --

THE WITNESS: That seems to be better.

THE COURT: We would like you to try that again just so that we can see how it sounds.

THE WITNESS: Okay. Testing. Hawaii Stream Research Center, University of Hawaii at Manoa.

THE COURT: That's a little better. Thank you. Let's try that.

BY MR. FRANKEL:

Q All right. Mr. Kido, how much is the Sierra Club paying you to serve as an expert in this case?

A I'm working on this case pro bono. Only my travel expenses are being reimbursed.

MR. FRANKEL: Your Honor, we'd like to offer Michael Kido as an expert in Hawaiian stream ecology.

THE COURT: Any objection? I'm not seeing any. No one's raised their hand. So there is no objection, and that request is granted.

BY MR. FRANKEL:

Q Mr. Kido, can you please describe the quality of a pristine Hawaiian stream with high biological integrity?

A Sure. So this would qualify as one of our referenced sites. What we see in a pristine stream or what we refer to more accurately as a least human impacted stream is robust flows. So nothing preventing full flow coming down the stream system from mountain to sea. So these are streams within ahupua`a.

Within these streams we find populations of native species in the right locations along the stream continuum and in very high densities. We also find in the habitat itself not much accumulating sediment. So the system is able to process sediment coming in during floodings or for that matter that naturally falls in, it's all moved downstream and processed. These are nutrients that are put out into the ocean and support the

marine fisheries.

So this is pretty much what we are looking at when we look at -- we're thinking of a reference stream site or a very high quality stream in the State of Hawaii.

Q Thank you. Can I just ask -- I'm sorry.

Mr. Wynhoff, can you folks mute your link? When you shuffle your papers, it's coming through. Thank you.

Can you briefly describe the `o`opu `alamo`o and the `o`opu nopili and their life cycle?

A Sure. First of all, all of the native stream animals are indigenous. So this is kind of a peculiar life history in which all species have mixed marine larval phases. So they produce larvae that needs to get out in the ocean with the plankton in order to mature.

`O`opu -- there are also Gobiidae species. So instead of having a separate pelvic fin, the pelvic fins are fused into a sucking disk. The `o`opu use those to navigate the flow in the river. They can climb waterfalls and move past normal -- even climb normal waterfalls.

`O`opu `alamo`o and `o`opu nopili we consider sensitive species in our biotic metrics because they are the first species to disappear from the assemblage. As

human impact increases, we start to see those two species disappear first of all followed by lowering densities of everybody else. So -- and `o`opu `alamo`o tends to be found in the higher reaches. So a lot of times we find it coexisting with `opaekala`ole, the mountain `opae, which is found way up high in the system.

`O`opu nopilis tend to like the lower to middle reaches so we find their highest densities in that section. `O`opu nopili is an obligate herbivore, so it has to feed on algae.

`O`opu `alamo`o also feeds on algae, but it can also pick on insects. So I think this is the reason why they're so sensitive to human impact, because one of the first things that happens is that you see the algal base grow. The algal base is influenced by sediment piling up or organic matter piling up within the system, and the habitat becomes smaller.

THE COURT: What base is that? I didn't hear that. Algal base?

THE WITNESS: The algal base. The algae that's in --

THE COURT: Algal base? Thank you.

THE WITNESS: Algae, yeah. So nopili particularly are subsisting on diatoms. And the `alamo`o tends to pick off algae, which has insects in it, which

is I think why we find insects in its diet.

BY MR. FRANKEL:

Q Can you very briefly describe the life cycle of the `opaekala`ole.

A Sure. `Opaekala`ole, the mountain shrimp, is actually still sought after as food by local people. And as I mentioned, it is found in the highest reaches of the streams. Oftentimes we find the highest densities of `opae above waterfalls. For example, Limahuli Stream on Kauai. High density of `opae are at the top of the falls. And they are also indigenous, so their larvae needs to get out into the ocean and mature with the marine plankton. And as I mentioned earlier, they are still sought after as food for local people.

Q What kind of impact can diversion structures have on the biological integrity of a Hawaiian stream?

A As I mentioned, one of the key things we're looking at when we look for a reference site is whether there was natural flow within the system. So obviously diversions affect flow. One of the obvious things found that diversions can do is dewater the section of stream below the dam.

In particularly prolonged drought periods, the stream sections below the diversion s and the dams can be totally dry. And depending upon when the rains come

back, we may see pools accumulate. If animals who head upstream get isolated in those pools, they usually die off. We've seen large die-offs in the Wainiha River, for example, of `o`opu nopili after a prolonged drought period. So that's one thing that diversions do, is dry up the stream.

The other thing they do is depending upon where the diversion is located along the continuum, they prevent -- they will entrain larvae that are produced above it. Any larvae that `opae or `o`opu are producing are getting entrapped in the diversion system, dropping through the diversion, and getting -- put -- moved into their irrigation system.

So that's two things -- dry up the streambed below it. Also then entrain, recruit larvae that's being produced above it. They also are really effective barriers from animals that are trying to pass it. So depending on where we are, what kind of diversion it is, any juveniles retreating from the ocean may not be able to pass the diversion system.

The other thing it does is I mentioned a flow is important in processing sediment and nutrients, organic nutrients from the watershed. If the flow is reduced for extended periods, this doesn't occur and we basically see accumulations of organic matter -- leaves,

branches, stuff like that, and mud.

If you think about Kalihi stream when you drive by right there on Nimitz Highway, it's just pure mud. So all of the habitats, the cobblestone streambeds that native species require is totally gone.

And the last thing they do is because the flow is slowed down, we start to see alien species like guppies, swordtails, those kinds of fishes that can -- do not like fast flow, they can't accommodate fast flow. And they become more common in those systems. These animals can transfer parasites to native `o`opu. And in the best streams, in any reference stream we go to, we never find any alien aquatic species except macrobrachium lar, which has been here since the '50s.

THE COURT: Before you continue -- hold on. Can you repeat the last word you just said, Mr. Kido.

THE WITNESS: Macrobrachium lar, the Tahitian prawn.

THE COURT: Can you spell?

THE WITNESS: It's Tahitian, T-a-h-i-t-i-a-n; prawn, p-r-a-w-n.

THE COURT: Thank you. And then a couple times in your last answer, you used the word entrain. I'm sorry. I'm just not familiar with that word. Can you explain that, and then repeat whatever points you

were trying to make about entrain again so I get it.

THE WITNESS: Simply meaning that it's a diversion. If spawning populations are located above a diversion, the animals simply fall into the ditch system, become entrained in it, actually swept into it by flow.

THE COURT: Got it. Thank you.

All right. Go ahead, Mr. Frankel.

BY MR. FRANKEL:

Q And is it fair for a layperson to assume the word entrain kind of means capture? Mr. Kido, is that a --

A Yeah, yeah. It's an accurate term. It is caught by the flow pulling into the system.

Q Now, what is the -- what impact do diversion structures have on temperature?

A Generally a -- (indiscernible) -- passed away about 20 years ago. We looked very closely at this. And what we find is that below diversions, we see temperature rise in the stream below it, the segment below it. Of course if the diversion takes all of the water all of the time, there is no flow below it and it's just a dry streambed.

Q Now, what effect did a steel grate within a streambed have on the ability of `o`opu and `opae to migrate upstream?

A The streambeds that have steel grates across it -- and usually the ones I've seen, the grate extends across the entire channel. The entire stream channel is -- has this steel stream -- steel grate embedded inside it. So that's the level of the streambed. Anything coming down, trying to get down to spawn, for example, drops into that. Any animal trying to come up it comes up falls into it also. It's pretty much impossible for any native stream animal to pass through that steel grate system.

Q That's true for the larvae floating down as well?

A Yes.

Q Do `opae and `o`opu grow in stagnant pools of water?

A They cannot. It's too warm. They eventually will die off.

Q What problems do pipe culverts pose to `o`opu and `opae?

A Pipe culverts -- I usually see these where there is some kind of road crossing. And in order to allow the crossing to go over the streambed, they'll drop a culvert pipe into it. Usually these are fairly large 12-inch concrete pipes that always extend outside such streams. So there's no way an animal can pass that. It

would have to be able to climb up and climb around and get in the pipe, which is pretty much impossible for any of those animals to do.

Q What problem does water flowing over a concrete barrier pose to `o`opu and `opae?

A Concrete barrier -- I assume we're talking about a typical kind like we see on Kauai. These are concrete barriers that are poured across the stream and water will overtop and enter the flood levels. Anything below that flood level will all go into the ditch system. So you'll have a dry streambed behind it. Those kinds of impalements are a little easier for animals to pass if there's any flow coming over it. What happens is that over time that concrete starts to get clogged and then you see cracks in the sides.

For example, in Wainiha Dam, there's a huge flow on one side of it. And we actually see native animals climb past that. But the idea for those dams is to take as much water as they can, and most of it is going into the irrigation system.

Q Now, how is impact from a grate within a streambed different from a traditional kalaloi (phonetic)?

A The traditional kalaloi that I looked at on the Big Island in the Waialua River in Waipio Valley --

and that's a traditional one in which the kuleana, the families, all manage each -- I think there are like seven diversions or seven `auwai diversions within that stream or maybe more. And there's a family that's -- whose kuleana it is to manage that diversion. The diversion is always placed at natural bends in the stream. The diversion itself is just rocks piled up along the stream, inside the stream to channel water into it. It's really porous so water just flows through it. In Waipio, the diversion never takes more than 30 percent of the flow that's in the stream. And we figured this out by measuring flow above and below it and inside the `auwai. No more than 30 percent is actually getting into the stream, in the `auwai. And the barrier is so porous anyway that most of the water is passing through the barrier. The stream itself is flowing continuously, so native animals have no trouble passing up that system.

Q Have you visited any of the streams in East Maui?

A I have.

Q When?

A Initially as we were developing, we were looking for reference streams in the state. We looked at Palauhulu, which goes into Keanae, Alelele Stream and Hanawi. And of these Hanawi turned in one of the

reference stream sites.

Q And you also visited East Maui streams in February as well?

A That's correct.

Q I want to ask you about a series of photographs from your site visit in February 2020. And for everyone's convenience, we're going to be looking at Sierra Club's exhibits 50 through 55. But we're going to start with No. 50.

So Mr. Kido, we're going to give everyone a minute to get up their screens and what have you, take a look at Exhibit 50, Sierra Club Exhibit 50.

THE COURT: You said 58; right?

MR. FRANKEL: No. 50, 5-0.

THE COURT: Okay. Sorry. Court's ready. Everybody all set?

MR. WYNHOFF: I'm ready. Thank you, Your Honor. Bill Wynhoff.

MR. FRANKEL: Looks like Mr. Schulmeister's still looking so I'll just wait a second.

THE COURT: You know, usually in trials, usually hard copy courtesy exhibits. This is working -- digitally this is working much better. I'm going to use this from now on. I'd still be looking for that exhibit, and there's six binders I have back here. It's easier to

just click on it.

MR. SCHULMEISTER: I'm good.

MR. FRANKEL: Okay. Thank you.

THE COURT: Go ahead.

BY MR. FRANKEL:

Q So do you recognize Exhibit 50?

A I do.

Q What is it?

A This is a photo of Ho`olawa lii lii stream at the Waialua Ditch diversion site.

Q Is it a true and accurate depiction of Ho`olawa lii lii stream that day when you visited it?

A It is.

MR. FRANKEL: Your Honor, Sierra Club would like to offer Exhibit 50 into evidence.

THE COURT: Any objection? I'm sorry. Whoever just answered, you got cut off.

MR. WYNHOFF: No objection from the State.

THE COURT: Mr. Schulmeister?

MR. SCHULMEISTER: No objection.

THE COURT: Mr. Rowe?

MR. ROWE: No objection, Your Honor.

THE COURT: Exhibit 50 is received. No objection.

(Exhibit No. 50 was received in evidence.)

MR. FRANKEL: Thank you, Your Honor.
BY MR. FRANKEL:
Q What happened to the --
THE COURT: Time out.
MR. WYNHOFF: Objection, Your Honor. Objection. So this is -- this is -- we had this discussion. He's not allowed to testify to any expert testimony other than what's in his report. This is not in his report. He's now identified this as a true and accurate depiction of that, site but he's not allowed to give expert opinions as to what happens to that water. Not in his report.
THE COURT: Time out. I didn't get the question because I was about to tell you you needed to mute. So what was the question again, Mr. Frankel?
BY MR. FRANKEL:
Q Sure. What happened to the water that was flowing in the stream? Or I can refine it to say, what did you see happen to the water that was flowing in the stream? I'm not asking for an expert opinion. I'm asking for what he saw, his factual observation.
MR. WYNHOFF: On that particular day. What happened to the water on that particular day. Thank you, Mr. Frankel.
That resolves my objection, Your Honor.

THE COURT: Okay. Go ahead and answer.

THE WITNESS: At that level of flow on that day in Ho`olawa lii lii stream, all of the water is flowing into the Waialua Ditch.

BY MR. FRANKEL:

Q Thank you. Please take a look at Exhibit 51.

Do you recognize Exhibit 51?

A I do.

Q What is it?

A It's a photo -- stream level photo of the steel grate system on Ho`olawa lii lii stream going into the Waialua Ditch.

Q Is that a true and accurate depiction of that stream in February?

A It is.

MR. FRANKEL: Your Honor, Sierra Club offers Exhibit 51 into evidence.

THE COURT: All right. Mr. Wynhoff, any objection? Sorry. I didn't hear you. There you go.

MR. WYNHOFF: Okay. All right. No objection, Your Honor.

THE COURT: Thank you. Mr. Schulmeister?

MR. SCHULMEISTER: No objection.

THE COURT: Mr. Rowe?

MR. ROWE: No objection, Your Honor.

THE COURT: Exhibit 51 is received, no objection.

(Exhibit No. 51 was received in evidence.)

BY MR. FRANKEL:

Q Okay. Please take a look at Exhibit 52. Do you recognize it?

A I do.

Q What is it?

A This is a photo of that same ditch diversion on Ho`olawa lii lii going into the Waialua Ditch. It's taken about 100 feet below the diversion site.

Q And is it a true and accurate depiction of the stream in February?

A It is.

MR. FRANKEL: Your Honor, Sierra Club offers Exhibit 52 into evidence.

THE COURT: Mr. Wynhoff?

MR. WYNHOFF: No objection.

THE COURT: Mr. Schulmeister?

MR. SCHULMEISTER: No objection.

THE COURT: Mr. Rowe?

MR. ROWE: No objection, Your Honor.

THE COURT: All right. Exhibit 52 is received, no objection.

(Exhibit No. 52 was received in evidence.)

BY MR. FRANKEL:

Q And Mr. Kido, did you see any water flowing below this diversion structure?

A I did not.

Q Okay.

MR. FRANKEL: Your Honor, now we'd like to -- let's see -- I'd like you to take a look at Exhibit 53.

BY MR. FRANKEL:

Q You recognize it?

A I do.

Q What is it?

A This is a photo a little farther downstream of the -- this is Ho`olawa lii lii Stream, a little further downstream of the previous photograph. That's Megan Powers in the photograph. She's a community resident that actually lives on Ho`olawa Stream.

THE COURT: About how far past the grate are you when this picture was taken?

THE WITNESS: I guess it's about 100 meters.

THE COURT: Thank you.

MR. FRANKEL: Your Honor, we'd like to offer Exhibit 53 into evidence.

MR. WYNHOFF: No objection.

THE COURT: Thank you.

MR. SCHULMEISTER: No objection.

THE COURT: Thank you.

MR. ROWE: No objection, Your Honor.

THE COURT: Okay. Exhibit 53 is received, no objection.

(Exhibit No. 53 was received in evidence.)

BY MR. FRANKEL:

Q Mr. Kido, did you see dry streambeds and pools in other streams you visited in February?

A I did.

Q All right. Let's take a look at Exhibit 54. Do you recognize Exhibit 54?

A I do.

Q What is it?

A This is Ho`olawa nui Stream and the steel grate system at the Waialua -- going into the Waialua Ditch.

Q Is it a true and accurate depiction of Ho`olawa nui Stream that day?

A It is.

MR. FRANKEL: Your Honor, Sierra Club offers Exhibit 54 into evidence.

MR. WYNHOFF: No objection from the State, Your Honor.

MR. SCHULMEISTER: No objection from A&B.

MR. ROWE: No objection, Your Honor.

THE COURT: Exhibit 54 is received, no objection.

(Exhibit No. 54 was received in evidence.)

MR. FRANKEL: Thank you, Your Honor.

BY MR. FRANKEL:

Q Mr. Kido, what kind of diversion structure is this?

A This is the steel grate diversion structure similar to the one on Ho`olawa lii lii just in a different location.

Q Now, please take a look at Exhibit 55. Do you recognize it?

A I do.

Q What is it?

A This is looking downstream from the -- that previous picture. So this is probably a waterfall and, you know, it's probably a 60-foot drop into that pool, which is really stagnant. You can see it's all discolored, probably pretty warm.

Q Is it a true and accurate depiction of Ho`olawa nui Stream that day in February?

A It is.

MR. FRANKEL: Your Honor, I'd like to offer Exhibit 55 into evidence.

MR. WYNHOFF: No objection from the State.

MR. SCHULMEISTER: No objection from A&B?

MR. ROWE: No objection, Your Honor.

THE COURT: Exhibit 55 is received, no objection.

(Exhibit No. 55 was received in evidence.)

BY MR. FRANKEL:

Q And Mr. Kido, did you see any water flowing downstream from this point at below that pool that day in February?

A I did not.

Q Okay. Please take a look at Exhibit 67. Do you recognize it?

A I do.

Q What is it?

A That's a waterfall on Wai -- Waiohue Stream. It's dropping into a fairly large plunge pool.

Q Is it a true and accurate depiction of Waiohue Stream that day in February?

A It is.

MR. FRANKEL: Your Honor, Sierra Club would like to offer Exhibit 57 into evidence.

MR. WYNHOFF: No objection from the State, Your Honor.

MR. SCHULMEISTER: Can we be clear we're talking February of this year?

MR. FRANKEL: Thank you. Yes. Thank you, Mr. Schulmeister.

MR. SCHULMEISTER: And do we have a date in February?

MR. FRANKEL: Well --

THE COURT: It was during the time period Mr. Kido was there, I assume?

THE WITNESS: It is.

THE COURT: Right. Is that close enough, Mr. Schulmeister?

MR. SCHULMEISTER: Yes. No objection.

THE COURT: All right.

Mr. Rowe?

MR. ROWE: No objection, Your Honor.

THE COURT: Exhibit 67 is received, no objection.

(Exhibit No. 67 was received in evidence.)

BY MR. FRANKEL:

Q Mr. Kido, where was the diversion structure you observed in Waiohue Stream in relationship to this photograph?

A This is a fairly large deep, pool. The diversion structure was a sluice gate mechanical system on pretty much the opposite side of this pool.

THE COURT: Sorry. Time out.

THE COURT REPORTER: Sluice gate mechanical system?

THE COURT: Sluice gate.

THE COURT REPORTER: Okay. Thank you.

THE COURT: Go ahead.

BY MR. FRANKEL:

Q Mr. Kido, did your visit to the East Maui streams in February -- February of this year alter your conclusion regarding the negative impact that stream diversions can have on `o`opu and `opae?

A No, it didn't.

MR. FRANKEL: Thank you. No further questions, Your Honor.

THE COURT: All right. Thank you. Let me take a -- let me check something here.

All right. We can keep going. Who's going first?

MR. SCHULMEISTER: I believe that would be me.

THE COURT: Thank you, Mr. Schulmeister. Go ahead.

CROSS-EXAMINATION

BY MR. SCHULMEISTER:

Q Mr. Kido, during part of your direct examination, you were asked about stream assessment

protocol that you were involved in developing. Do you recall that?

A Yes.

Q Did you do any application on that protocol to any of the streams that you visited in February?

A No, I did not.

Q Now, you mentioned your opinion about the -- basically the negative effects that stream diversions have on habitat and the amphidromous species in streams in Hawaii; is that right?

A That's correct.

Q And this is a -- a general sort of generic impact of these types of diversions; is that right?

A It is.

Q Now, the species that you've talked about, these are the `o`opu and the `opae; correct?

A Correct.

Q Any other species in terms of the impacts you're giving an opinion on?

A Anything -- any native stream animal that is in the system. So hihiwai is also. It's the native snail. That's also amphidromous. So if that's in the system, it could be impacted.

Q So `o`opu, `opae, and hihiwai?

A Yes.

Q Hihiwai is the fresh water opihi?
A It looks like an opihi, but it's actually a different family.
Q It's a snail basically?
A It's a snail, yes.
Q All right. Now, any of those species endangered species?
A The closest one would be Lentipes concolor, `o`opu `alamo`o, which was considered for this listing at one time.
Q But it's not endangered?
A No.
Q It's not a listed endanger species; is that correct?
A That's correct.
Q None of these are; correct?
A Correct.
Q And the impact on habitat that you're talking about from diversions, that would be a localized impact in relation to each diversion; correct?
THE COURT: I'm sorry. I don't understand the question. Please rephrase.
BY MR. SCHULMEISTER:
Q The impact you're talking about on the habitat below diversion, that's a localized impact in relation to

the diversion; is that right?

A Not exactly. It is localized for sure specifically below the diversion, but because flow is affected, we start to see nutrient -- and sediment which is also impacted further downstream. But depending on where that diversion is, it can have quite a long longitudinal effect down the system.

Q Okay. Now, I mean, do you remember that I took your deposition in this case?

A Yes.

Q And a court reporter was there?

A Yes.

Q And it was February 28th, 2020? Does that seem right to you?

A That seems right.

Q And you remember me asking you, And so it would be localized impacts in relation with diversions? You remember me asking that?

A I think I do.

Q And you remember what your answer was then?

A I do not.

Q Okay. Do you have your deposition available to consult on this? And I'm looking at page 12, line 15 through line 17.

A Is it on your list, David?

THE COURT: Deposition transcripts are in a separate folder in Dropbox. They're not with the exhibits.

THE WITNESS: Oh.

THE COURT: But it's uploaded. It's there. I'm looking at it now.

MR. FRANKEL: You see the folder that says Deposition Transcripts?

THE WITNESS: Hold on. I gotta take this one out. All right. I think I lost it.

MR. SCHULMEISTER: Your Honor, would this be a good time to take a break? I have a few more questions. They're all going to potentially involve the deposition. We've been going a while. Maybe he can find the deposition and we can resume.

THE COURT: We'll take five minutes, ten minutes.

THE WITNESS: Five minutes, yeah.

THE COURT: We'll go five minutes. All right. We're in recess.

(A recess was taken.)

THE COURT: All right. We are back on record. I see -- I think I see everybody. Yes, I do.

All right. Mr. Kido, you have your deposition transcript now.

Mr. Schulmeister, go ahead.

THE WITNESS: I do. I'm looking at it.

BY MR. SCHULMEISTER:

Q Lines 14 through 17. Do you see that?

A I do. I see it.

Q So I asked you at that time whether it would be localized impacts in relation with diversions. Your answer was yes; is that correct?

A I did answer that way, yes.

Q Now, have you reviewed the decision of the Water Commission from 2019, which set interim instream flow standards for a number of these Maui streams?

A Not recently.

Q But you have reviewed it; correct?

A I have looked at it, yes.

Q Okay. And do you remember when you read the Water Commission's decision in connection with East Maui streams that there was some discussion about looking at things regionally, in other words, in terms of the health of the streams regionally as opposed to just individually stream by stream?

A Yes.

Q And so if you're trying to manage a system that crosses multiple streams, it's appropriate to look at it regionally in terms of streams that -- I mean,

having streams that are doing well or healthy that can compensate in effect for streams that maybe are not -- that are somewhat more degraded because they have more diversions on them. Is that fair?

MR. FRANKEL: Objection, Your Honor.

THE COURT: Yeah. I don't understand that question either, Mr. Schulmeister. That's got like two or three different parts to it. If you can break it down please. Thank you.

BY MR. SCHULMEISTER:

Q If you're trying to manage a system, it's appropriate to look at it regionally in terms of streams that are doing well in order to compensate for streams that maybe are somewhat more degraded because they have more diversions? Do you agree with that?

A Well, it is appropriate to look at it regionally. But I'm just a co-author on a paper published. It's on my CV. Kawika Winter is the lead author, which we look at the local system the Hawaiians use, which thinks about that idea of regional systems. To the Hawaiians, every stream was important because each stream would produce larvae that are in plankton that's sent out into the plankton and then provide recoups to any localized stream. So every stream is important in the local system to the native Hawaiians.

Q All right. So again, you remember me taking your deposition?

A Yes.

Q And do you remember me asking you if you're trying to manage a system, it's appropriate to look at it regionally in terms of streams that -- you know, having streams that are doing well or healthy that, you know, to compensate in effect for streams that maybe are somewhat more degraded because they have more diversions on them?

Do you remember me asking you that?

A I do.

Q And do you remember what your response was then?

A Do you know what page that's on?

Q Yes. On page 39 at line 12.

A Yes. So I did say I believe that's true.

Q With regard to any of the areas that you looked at in February where you saw dry areas below diversions, if that condition continues for another six months, is that going to cause any permanent harm to the ability to restore that habitat in the future?

A So you're saying that in six months, it would restore the stream?

Q I said, If the current condition continues for another six months, is that going to cause any permanent

harm to the ability to restore that habitat in the future?

A No. If the -- well, the stream is already harmed; right? So it is -- in effect has really no biological integrity, so it probably won't get any worse than it is now. But in six months, if flows return, we should see some recovery that stream.

Q And if it continued for another ten months, would that still be the same?

A For that ten months, biological integrity is low.

Q But if flow were restored, it would still recover; right?

A Eventually, yes.

Q Okay. Now, I just wanted to briefly go back to the question of entrainment, and which we -- which was covered on your direct examination by Mr. Frankel. And this is the -- the fact that larvae is coming downstream from the animals that have spawned further upstream of a diversion, because they're flowing down the water, if the water is diverted into a ditch, then the larvae will flow with the water into the ditch instead of going down to the ocean. Is that a fair description of what you're talking about in terms of entrainment of larvae?

A Yes.

Q Okay. I mean, wouldn't that be the case with any water that's diverted from a stream? If larvae is in the water, then the larvae is going to go where the water goes; right?

A True.

Q Right. Okay. So it's just kind of a necessary fact that if you're going to divert water for some offstream purpose from a stream where there's animals in it, there's going to be some larvae that gets diverted along with the water; correct?

A That's correct. But there are ways to mitigate that.

Q Okay. The other -- now, you mentioned that earlier in your career, you had looked at Palauhulu Stream in East Maui and also Hanawi Stream in East Maui; is that right?

A That's correct.

Q And you're looking to see whether they would be -- what you call reference -- you're considering them as reference streams when you're developing your model?

A Yeah. Basically we asked Skippy Hau which were the best streams that potentially we should look at. And he narrowed it down to East Maui, those three sites. And we applied our methodology there.

Q Okay. So -- and was this when sugar was still

being cultivated?

A This is in 1998, 1997, or something like that. So I'm not sure when sugar went out.

Q Okay. Well --

A The ditches were there though.

Q I think the record will show that 2016 was the last HC&S sugar crop in East Maui. So if it was -- so you're talking about decades before the cultivation of sugar was stopped, if that's correct, if 2016 was the last harvest.

A Uh-huh.

Q So this is when the diversions were operating at a much higher rate of removing water from streams; correct?

A Probably, yeah.

Q And Palauhulu and Hanawi are streams within the East Maui Ditch System; correct?

A They are.

Q So even decades before the cessation of sugar, you know, those streams were referred to you and you looked at those streams as examples of extremely healthy streams that you could use as reference streams for your model; is that correct?

A That's correct.

Q Okay.

A I'd say one thing about that though. Palauhulu Stream, according to when we did our assessment, it came out to like a C grade, like 60 percent or something like that. So it just wouldn't qualify as a reference stream for us 'cause it should be 100 percent.

Hanawi -- Hanawi, on the other hand, was at the ocean. So it is with -- below any diversion. And one of the things that was impressive about Hanawi was the level of equipment into that stream. What happens to them above we never looked at, but there was a lot of equipment going into Hanawi Stream at the mouth.

Q Very healthy stream even during the heyday of sugar; correct?

A Yeah. But it's also fed by a spring currently. There's big springs that comes in and puts water into that system.

Q And a lot of these streams have springs. Palauhulu has springs too; right?

A Yeah. But -- probably. But there's one -- in Hanawi there's one called Big Springs people talk about. And one thing I noticed about that stream is that it was really cold. So you know, we thought there must be some really strong spring input because of -- it's probably one of the coldest streams, which wasn't the case in

Palauhulu. So I don't think the stream in Palauhulu had as big of an impact as Hanawi.

Q All right. Thank you, Mr. Kido. I don't have any further questions.

THE COURT: Thank you. Mr. Wynhoff or Ms. Goldman, who's next?

MR. WYNHOFF: I think Mr. Rowe is next, Your Honor.

THE COURT: All right. Mr. Rowe, go ahead.

MR. ROWE: Your Honor, I don't have any questions for this witness.

MR. WYNHOFF: Your Honor, I'll take -- I'll ask some questions on behalf of the State.

THE COURT: All right.

CROSS-EXAMINATION

BY MR. WYNHOFF:

Q Mr. Kido, you talked about the animals -- the larvae go downstream and the juveniles come back upstream?

A Yes.

Q What kind of a life cycle is that called?

A It's called amphidromy.

Q Can you spell that please?

A A-m-p-h-i-d-r-o-m-y.

Q Now, with respect to the animals going downstream in the larvae stage, it's true, is it not, that they tend to go down in times of high water flow?

A It depends. So depends what island, what stream. The -- the way amphidromy works in Hawaiian species is that in the fall, when the rains start, adults migrate within the system. They come downstream.

So for `o`opu nakea, for example, they'll go really close to the ocean. And they spawn right around the ocean.

For the other species, they're probably spawning up higher. And when they -- when they hatch -- so the way it works is the females come down, lay their eggs in the substrate, the males come down and fertilize, within 24 hours the eggs hatch, the larvae swim up into the water constantly, getting up into the fast flow, and then they are swept downstream.

Q It's part of their lifestyle, is it not, that they tend to spawn and move in terms of high water rather than low? You would agree with that, wouldn't you?

A Yeah. It starts in -- the rains can be seen in July.

Q Thank you, sir. Thank you. That was my question. So with respect to the --

MR. FRANKEL: Your Honor, you know, I think

counsel shouldn't be interrupting the witness.

THE COURT: Hold on, hold on, everybody. Hold on. Hold on, everybody. There's no jury here.

Mr. Wynhoff, you did kind of step on what he was trying to say. But I think he had finished answering your question, so I understand why you did that.

Mr. Frankel, you can certainly revisit it with Mr. Kido on redirect. So let's move forward.

Go ahead, Mr. Wynhoff.

MR. WYNHOFF: Thank you, Your Honor.

BY MR. WYNHOFF:

Q Mr. Kido, in terms of the animals moving upstream, are you familiar with a term called overhanging lip?

A What -- as applied to a diversion?

Q I mean, if you don't know what that term, that's fine. So I'll just move on to my next question. Do you --

THE COURT: Hold on. Overhanging what? I couldn't hear you?

MR. WYNHOFF: Lip, l-i-p.

THE COURT: Thank you. Go ahead.

BY MR. WYNHOFF:

Q What about an undercut waterfall? Do you know what an undercut waterfall is, Mr. Kido?

A Yeah. That's a typical hydrology terms.
Q And an undercut waterfall means that there's basically a ledge that projects out from the top of the waterfall; is that correct, sir?
A That's correct.
Q And an undercut waterfall is also a natural barrier to the juveniles going back upstream, is it not, sir? Do you agree with that?
A I do not agree with that. Animals can pass an undercut waterfall. There are ways they get around that.
Q So you don't agree with that. In your view, an undercut waterfall is not a barrier to upstream migration?
A No.
Q That's what I heard you say?
A Yes.
Q On the days -- looking at your photographs, sir, the days that you went out there, it looks like you were blessed with some pretty sunny weather. Am I right about that?
A That's correct.
MR. WYNHOFF: Thank you. No further questions, Your Honor.
THE COURT: Redirect, Mr. Frankel?
MR. FRANKEL: Yes, Your Honor.

REDIRECT EXAMINATION

BY MR. FRANKEL:

Q Mr. Wynhoff was asking you about the reproductive period of time for `o`opu. Can you let us know, do all the `o`opu species spawn -- I don't know if that's the right word, but do they spawn at the same time?

A As far as I we know, they do not. And I don't think anybody's really looked closely at that. But the data that I collected, it seems like they're staggered. So `o`opu nakea appears to come down first followed by nopili, and `alamo`o kind of does their own thing up in the higher watershed. But they're not all coming out into the ocean at the same time.

Q Okay. And you were asked about whether an impact from one diversion is localized. Can you explain how it would be localized but also could have a more -- a bigger impact than a localized impact if `o`opu and `opae are entrained, for example?

A Well, if we take -- I don't know if I can talk about the stream since we -- you know, the thing about --

MR. WYNHOFF: Objection, Your Honor. His testimony is at best generalized and I do object to him talking about particular streams.

THE WITNESS: Okay.

THE COURT: I can't remember if particular streams were a part of his, you know, background and experience and authorship and so forth. So if they were, he can certainly comment on that, but we need to stay away from any opinions involving the particular streams that you visited in February of this year.

THE WITNESS: Right. Sure. Can I answer David's question?

So diversions have localized impacts for sure. So you would see dry streambeds below them. If you have multiple diversions on one stream continuing, you'll have localized dry streambeds on each one of these segments. Not only does it prevent animals from passing upstream, so juveniles coming up from the ocean to repopulate the adult population cannot make it up there. Anything drifting downstream, larvae drifting, will be entrained in these systems. So they do have cumulative localized impacts maybe, I should say.

And the longer period, as I mentioned, when you get into the effect of entrainment processing, there are a lot of diversions, a lot of dry stream sections, and flow is disrupted for a really long period of time, you'll start to see accumulations of organic matter and sediment in the system to the point where the beds are -- during floods will take all this stuff down and drop it

somewhere. And you'll see segments of stream channels that are just buried in mud and organic matter.

THE COURT: What is it about mud that's bad compared to, you know, boulders on the bottom of the stream?

THE WITNESS: The stream that I always want to point out is if you look at Kalihi Stream at Nimitz Highway. Where it crosses the highway, it is just pure mud. In the case of `o`opu nakea, for example, they are migrating from upper watersheds down closer to ocean, and they need clean substrate.

They need clean rocks without sediment on top of them. And in order for the animals to spawn, they need to have cobbles inside these clean substrates in order to reproduce. So in extreme cases where you cannot -- like where you cannot found cobble in the streambed, there is no possibility of reproduction because the animals just can't find any place to spawn.

BY MR. FRANKEL:

Q Mr. Kido, can you -- this might be challenging, but can you explain to us layperson lawyers -- maybe paint a picture. When you say clean substrate, what does that look like?

A It is -- if you can imagine a streambed just with natural cobble and rock. And you would see each

rock -- this is one of the things we looked at in our habitat assessment. How much sediment is actually surrounding these rocks with cobbles and boulder substrate that's on the streambed.

So in a really good stream, a pristine stream, there pretty much is very little sediment, if any. So the boulders are all clean. The animals come down. And that's how `o`opu nopili, for example, scrapes the algae off the rock. It climbs this substrate that has bioplankton algae growing on it and it climbs up it and scrapes it with its mouth.

So if that substrate is buried in sediment, of course there's no food for animals. There's no place for animals to spawn because they need that really clean substrate. And it's all affected by flow coming down the system.

Q So when you say a pristine stream and you're describing that clean substrate, are you saying -- how much dirt would one see in the streambed of a nice, clean, pristine stream?

A Probably less than 5 percent. If you had an aerial measurement of it and did an assessment of how much is covered by sediment, probably less than 5 percent.

Q Okay. Now, I want to go back to the localized

impact of diversion structures. If diversion structures reduce the population of `o`opu and `opae through entrainment or what have you, temperature, whatever the factor is, what kind of effect does that have on the overall population of these organisms in the larger region?

A Again, I mentioned the moku system the Hawaiians used. So these regional management system where every stream was important. If you start to lower -- every stream is important because it produces larvae that are going down and are potential recruits coming back into the stream. So they go out. They are part of the marine plankton. They are living out in the ocean. At some point in time they detect fresh water, and they come back into the system.

If you have 13 streams and one of 'em or two of 'em, three of 'em are not producing larvae, then you have a lot smaller population of larvae in the plankton that can repopulate these streams.

Q And when you talk about potential recruits, obviously since some of the recruits don't make it back into the stream, they may be food for some other organism or creature that's in the ocean; right?

A Well, yeah. Plankton -- they're part of the marine plankton, right, so they are food for other

organisms. So that is another long-term effect of it, that you get less food in the ocean. What we're finding is they really impact the stream, particularly in a region or area where you see three or four streams, that would be bad.

MR. WYNHOFF: Objection, Your Honor. Objection. This is not in his original report, and it's outside the scope of any of the -- it's outside the scope of the direct and it's outside the scope of the redirect, nobody asked him about other creatures in the ocean.

THE COURT: Okay. Here's how we're going to do it going forward, Mr. Wynhoff. Don't interrupt the witness. Okay? If they give an answer that's beyond the scope or beyond whatever, make a motion to strike after they finish their answer, but do not interrupt them. All right?

MR. WYNHOFF: Okay, Your Honor. Thank you. Yes, Your Honor. Thank you.

THE COURT: All right. So Mr. Frankel, what's your response to Mr. Wynhoff's objection?

MR. FRANKEL: I'm -- the question is a direct response to Mr. Schulmeister's question about the localized impact. And so Mr. Kido's describing the impact on a broader scale than a localized impact.

THE COURT: Okay. Can you scroll up so I can

see Mr. Kido's answer before that objection came? Okay. Right there.

I should have explained to you before, counsel. Every once in a while you'll see me looking off to my left. It's not because I'm not paying attention. It's because I'm looking at the realtime text feed from my court reporter.

I'm going to allow it. But I get Mr. Wynhoff's objection. You're very close to straying into new material here. Go ahead.

MR. FRANKEL: Thank you, Your Honor.

BY MR. FRANKEL:

Q So you were asked by Mr. Schulmeister about whether a stream that's deprived of water for six months or ten months, whether that damage is permanent. And I guess what I want to know is regardless of whether the damage is permanent, is there damage during those six-month or ten-month time frame that the stream is deprived of water?

A There is damage to that system. I mean, you don't have any native animals in it. There's nobody -- there's no animals reproducing. You don't have larvae going out into the ocean. So all that time that it is damaged, the regional system suffers.

MR. FRANKEL: Thank you, Your Honor. No

further questions.

THE COURT: All right. Mr. Schulmeister, back to you. I'd like to try to finish. I'd like to try to finish Mr. Kido before we take our lunch break. But if we can't, we can't.

MR. SCHULMEISTER: I have no further questions.

THE COURT: All right. I think Mr. Rowe is next. Yes.

MR. ROWE: I have no further questions, Your Honor.

THE COURT: Thank you. Mr. Wynhoff.

MR. WYNHOFF: No further questions, Your Honor. Thank you.

THE COURT: All right. Mr. Kido, your testimony is finished. Thank you, sir.

THE WITNESS: Thank you.

THE COURT: All right. We'll take our lunch break now. Let me check with --

MR. FRANKEL: Hold on, Your Honor. I think I'm afraid to say I think we're going to be done for the day because we only have Mr. Kido. So it's more than a lunch break. It's a dinner break as well.

THE COURT: Okay.

MR. WYNHOFF: I think we should do more

housekeeping, Your Honor, if we might.

THE COURT: Hold on one sec. We'll get back in a minute. I just gotta check on something here. Okay?

MR. WYNHOFF: Thank you, Your Honor.

THE COURT: Whatever else we're going to talk about, does it need to be on record?

MR. WYNHOFF: I don't think so, Your Honor.

THE COURT: Anyone else? I'm not seeing anyone say yes. I'm going to excuse our court reporter so she doesn't have to sit here while we talk about what we're going to talk about.

(End of proceedings.)

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CITY AND COUNTY OF HONOLULU)
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I, JAMIE S. MIYASATO, an Official Court Reporter for the First Circuit Court, State of Hawaii, do hereby certify that the foregoing comprises a full, true, and correct transcription of my stenographic notes taken in the above-entitled matter, so transcribed by me to the best of my ability.

Dated this 4th day of August 2020.

/s/ Jamie S. Miyasato

_____

JAMIE S. MIYASATO, CSR #394

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