

IN THE CIRCUIT COURT OF THE FIRST CIRCUIT  
STATE OF HAWAI'I

-----)  
SIERRA CLUB, ) CIVIL NO:  
 ) 19-1-0019-01 JPC  
 Plaintiff, ) (Environmental Court)  
 )  
 vs. )  
 )  
 BOARD OF LAND AND NATURAL )  
 RESOURCES, et al., )  
 )  
 Defendants. )  
 )  
-----)

DEPOSITION OF GLENN R. HIGASHI  
RULE 30(B)(6) WITNESS FOR DLNR/BLNR

Taken on behalf of the Plaintiff Sierra Club,  
at the Department of Attorney General, 465 South King  
Street, 3rd Floor, Honolulu, Hawaii, commencing at  
9:03 A.M., on Friday, October 4, 2019, pursuant to  
Notice.

BEFORE: APRIL D. GEDNEY, RPR, CLR  
Hawaii CSR No. 470  
California CSR No. 11756

Exhibit Y-36

1 APPEARANCES:  
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 20 Maui Irrigation Company, LLC:  
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1 HONOLULU, HAWAII  
 2 FRIDAY, OCTOBER 4, 2019; 9:03 A.M.  
 3 \* \* \*  
 4 GLENN R. HIGASHI,  
 5 having been first duly sworn, testifies  
 6 as follows:  
 7 \* \* \*  
 8 EXAMINATION  
 9 BY MR. FRANKEL:  
 10 Q. Can you state your name for the record.  
 11 A. Glenn Higashi.  
 12 Q. Do you understand that for each question,  
 13 you must provide a spoken answer rather than nodding  
 14 your head or shaking your head because the court  
 15 reporter has to record things?  
 16 A. Yes.  
 17 Q. Okay. And can you wait for me to finish the  
 18 question before answering it, because it's difficult  
 19 for her to do the transcript?  
 20 A. Uh-huh, yes.  
 21 Q. Okay. If my question's not clear, will you  
 22 ask me to explain it?  
 23 A. Sure.  
 24 Q. Have you taken any medication that would  
 25 affect your ability to answer fully and truthfully this

1 INDEX  
 2 EXAMINATION BY: PAGE  
 3 MR. FRANKEL..... 4  
 4  
 5  
 6 INDEX OF EXHIBITS  
 7 PAGE  
 8 (NONE OFFERED.)  
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1 morning?  
 2 A. No.  
 3 Q. Okay. You understand that although your  
 4 attorney might object to a question, you must still  
 5 answer the question unless she instructs you not to  
 6 answer because doing so would violate the  
 7 attorney-client privilege?  
 8 A. Yes.  
 9 Q. And you understand your testimony today is  
 10 being made under oath?  
 11 A. Yes.  
 12 Q. And you have the opportunity to review the  
 13 transcript of this deposition afterwards.  
 14 Would you like to do so?  
 15 MS. WESTON: Yes.  
 16 THE WITNESS: Yes.  
 17 BY MR. FRANKEL:  
 18 Q. And do you understand you're speaking today  
 19 on behalf of the Department of Land and Natural  
 20 Resources and the Board of Land and Natural Resources?  
 21 A. Yes.  
 22 Q. And who determined that you would speak on  
 23 behalf of them today?  
 24 A. I don't know. I guess it was -- I guess it  
 25 was the AG's office.

1 Q. All right. And did you see a copy of the  
 2 plaintiff's notice of taking deposition upon oral  
 3 examination of representatives of DLNR and BLNR  
 4 pursuant to HRCP Rule 30(b)(6)?  
 5 A. Yes.  
 6 Q. Okay. And just to be clear, you've been  
 7 designated to speak about three sort of the topic areas  
 8 that are numbered there. The first is 1A regarding  
 9 information regarding stream life; is that right?  
 10 A. Yes.  
 11 Q. And then 4A, which is the efforts regarding  
 12 protecting native stream life?  
 13 A. Yes.  
 14 Q. And 4B, little i?  
 15 A. Yes.  
 16 Q. All right. Great.  
 17 Now, if I use the term "revocable permit  
 18 parcels," do you know what I'm talking about in East  
 19 Maui?  
 20 A. Does that mean taking back the permits?  
 21 Q. Okay. So let me take a step backwards.  
 22 A. Okay.  
 23 Q. Today the questions focus on this area in  
 24 East Maui which the Department of Land and Natural  
 25 Resources has allowed Alexander & Baldwin, EMI to use

1 for years through what's called a revocable permit.  
 2 So if I refer to the revocable permit  
 3 parcel, is that clear to you?  
 4 A. (No audible response.)  
 5 Q. Okay. Have you been to that area?  
 6 A. Yes.  
 7 Q. Okay. And what qualifies you to speak on  
 8 behalf of the Board of Land and Natural Resources and  
 9 the Department of Land and Natural Resources today on  
 10 those subject matters?  
 11 A. Well, I've been an aquatic biologist for 34  
 12 years. I've spent most of my career doing stream work  
 13 and surveying streams statewide. And yeah, I'm very  
 14 knowledgeable about stream organisms.  
 15 Q. And that's your title, "aquatic biologist"?  
 16 A. Aquatic biologist, yes.  
 17 Q. And that's the same position you've had for  
 18 the 34 years?  
 19 A. Yes.  
 20 Q. Okay. How did you prepare for today's  
 21 deposition?  
 22 A. I kind of looked over the things that you  
 23 had me, you know, talk about -- we're going to look at  
 24 and asked me to talk about, and then I looked over all  
 25 the stuff that we had done in the past, the letters,

1 recommendation to see and whatnot, and basically that's  
 2 all -- that's what I did to prepare.  
 3 Q. Okay.  
 4 A. Yeah, there's -- that's a lot done in  
 5 10 years, and I needed some kind of a, I guess,  
 6 reference.  
 7 Q. And you assembled some documents --  
 8 A. Yes.  
 9 Q. -- to look at?  
 10 A. Yes, yes.  
 11 Q. And you have them here today?  
 12 MS. WESTON: Yes.  
 13 MR. FRANKEL: Are you going to hand them  
 14 over to me?  
 15 MS. WESTON: Yes.  
 16 MR. FRANKEL: I've seen that.  
 17 BY MR. FRANKEL:  
 18 Q. Okay. Just these three things?  
 19 A. Two letters, yeah, and that.  
 20 Q. And as -- okay. That's great. I've seen  
 21 these before.  
 22 How long would you say you took preparing  
 23 for today's deposition?  
 24 A. I'd say about eight hours' worth.  
 25 Q. Okay. All right.

1 A. Yeah.  
 2 Q. So let's talk about the information that the  
 3 department had and the board had back in November 2018  
 4 regarding stream life.  
 5 First of all, what kind of information did  
 6 the board have about why stream life was important?  
 7 MS. WESTON: And that would be the board and  
 8 DLNR -- or DLNR. Sorry.  
 9 THE WITNESS: Yeah, well, I mean, it's --  
 10 they're native species that are in Hawaii and not found  
 11 anywhere else in the world. So, you know, that's  
 12 what's really important about what we have in our  
 13 native streams.  
 14 BY MR. FRANKEL:  
 15 Q. Okay.  
 16 A. And if you look at the animals, I think all  
 17 of them are endemic, so yeah, only found in Hawaii.  
 18 Q. And protection of them is important  
 19 because -- because of that?  
 20 A. Well, you want them for perpetuity and for,  
 21 you know, the future generations as well as culturally.  
 22 You know, they're important culturally as well.  
 23 Q. Okay. So let's talk about diversion  
 24 structures.  
 25 Do diversion -- do diversion structures pose

1 a threat to these native aquatic species?  
 2 MS. AKAGI: Objection; vague. Calls for  
 3 speculation.  
 4 MS. WESTON: Join.  
 5 You can go ahead.  
 6 THE WITNESS: Okay. They do and they don't.  
 7 It depends on the diversion structures. Each diversion  
 8 structure is different.  
 9 BY MR. FRANKEL:  
 10 Q. Okay. So you need to assess each one  
 11 individually?  
 12 A. Yeah, yes.  
 13 Q. Does the department or the board know which  
 14 diversion structures within the area we're talking  
 15 about in East Maui, the revocable permit area, cause  
 16 the greatest threat of entrainment to native aquatic  
 17 species?  
 18 A. Yes, they know. We've provided  
 19 recommendations from a letter from DAR to -- and you  
 20 have that copy of that letter from DAR to CWRM.  
 21 Q. That's a letter that was sent within the  
 22 last few months, correct?  
 23 A. No. It was sent a while back.  
 24 Q. Is that within here?  
 25 A. Yes.

1 Q. What you've given me?  
 2 A. Yes.  
 3 Q. Which document -- are you referring to the  
 4 May 2010, April 2010, or your --  
 5 A. The May 2010.  
 6 Q. You're telling me that this document talks  
 7 about which structures?  
 8 A. That one and then there was the other one  
 9 that might have the ratings for the different  
 10 diversions.  
 11 There's one that has the index cards, the  
 12 diversion cards, and I think it might be that other  
 13 one.  
 14 MS. WESTON: The letter?  
 15 THE WITNESS: The other letter, yeah,  
 16 because I know one of them attached that one.  
 17 BY MR. FRANKEL:  
 18 Q. So, okay. I understand what you're  
 19 referring to.  
 20 This is focused on just some streams, right?  
 21 A. Yes.  
 22 Q. So is this a systematic analysis of all the  
 23 diversion structures within the revocable permit or  
 24 just some of the streams?  
 25 A. It's some of the streams. Okay.

1 Q. Okay. So could there be more diversion  
 2 structures than those in this April 1st, 2010, letter  
 3 to Ken Kawahara that pose a greater threat of  
 4 entrainment to native species?  
 5 A. I think based on the streams that we  
 6 surveyed, we looked at the different diversion  
 7 structures, and I think these were the most -- you  
 8 know, these were the ones that we felt were a threat or  
 9 needed to be modified.  
 10 Q. Okay. I want to -- I understand that, but I  
 11 want to break this up into several parts.  
 12 First, I want to focus on entrainment. This  
 13 isn't focusing exclusively on entrainment issues, is  
 14 it?  
 15 A. It's entrainment and it's also flow.  
 16 Q. Okay. Entrainment and flow. What about  
 17 migration upstream?  
 18 A. That's also considered entrainment.  
 19 Q. Oh, it is?  
 20 A. Yes.  
 21 Q. I thought entrainment was just capturing.  
 22 A. Well, entrainment is capturing, but if you  
 23 have a diversion gate, let's say, and you're releasing  
 24 water, the animals are going to come up, and if that  
 25 diversion is into a ditch, then they're going to get

1 entrained.  
 2 Q. Sure, sure.  
 3 But there's also -- you could also be  
 4 blocked in a way that is not entrainment where, for  
 5 example, the water flows over the lip of something --  
 6 A. Right.  
 7 Q. -- and there's no pathway for the species,  
 8 the fish to go upstream?  
 9 A. Usually if the water flows over the lip, the  
 10 spillway or dam or whatever it is, the animals can't  
 11 climb above that.  
 12 Q. Okay. Okay. So getting back to your  
 13 April 2010 list, your survey didn't include a number of  
 14 streams in East Maui, right, just focused on some  
 15 streams?  
 16 A. It focused on whatever CWRM asked us to do.  
 17 I think it was something like -- I didn't go on all the  
 18 surveys, but maybe it was about 19 streams.  
 19 Q. Okay. So again, so my question is --  
 20 A. Yeah.  
 21 Q. -- there could be streams that were not  
 22 looked at that have diversion structures that pose a  
 23 greater threat to native species?  
 24 A. Well, we talked with CWRM about streams to  
 25 survey. We looked at the streams that had the

1 greatest, you know, habitat as well as the greatest  
2 number of species, and, you know, that's basically what  
3 we kind of judge that on.

4 Q. I understand. But there are other streams  
5 that you didn't look at that, again, may have diversion  
6 structures that pose a greater threat to native  
7 species, that you guys didn't actually look at those  
8 streams.

9 MS. AKAGI: Objection; calls for  
10 speculation.

11 MS. WESTON: And asked and answered.

12 THE WITNESS: No, I think -- I think we  
13 hit -- we were the ones that were concerned about those  
14 issues of entrainment.

15 BY MR. FRANKEL:

16 Q. Okay. What's a habitat unit?

17 A. A habitat unit is the area of habitat  
18 available for the native stream animals.

19 Q. Okay. Are all habitat units essentially  
20 equivalent?

21 A. It varies depending on the species that  
22 you're talking about, and then where in the stream  
23 you're talking about, because the species -- the  
24 animals do distribute themselves within different  
25 reaches of the stream.

1 A. Well, usually the gates are open if they're  
2 providing 100 percent flow, so we didn't -- we haven't  
3 gone up there and looked at those, you know, that have  
4 been restored to 100 percent flow.

5 Q. Uh-huh, but the entrainment issue wouldn't  
6 go away?

7 A. The entrainment issue, if it was -- would go  
8 away if they did 100 percent returning of the flow back  
9 into the stream.

10 Q. Right, right.

11 Okay. And for those streams that are not  
12 100 percent restored, you're definitely going to have  
13 that entrainment problem?

14 A. Yes.

15 Q. Okay. So back in November 2018, what  
16 information did DLNR or BLNR have whether there was  
17 enough water flowing in each stream in East Maui to  
18 ensure that populations of native aquatic organisms  
19 within them had not been adversely affected?

20 A. You mean what did we do or what did they do?

21 Q. So here today you're speaking -- although  
22 it's kind of unusual for you --

23 A. Yeah.

24 Q. -- you're speaking on behalf of the  
25 department and the board, so I -- my question is, what

1 Q. Sure.

2 But so they're roughly equivalent but not  
3 identical?

4 A. Yeah, they're roughly equivalent.

5 Q. All right. These diversion structures that  
6 are identified in the April 2010 letter, how many of  
7 them are still -- still exist in the streams?

8 A. I think all of them do.

9 Q. Have any of them been altered?

10 A. Some of them have tried to be altered, but  
11 those are only experimental.

12 Q. So they still cause a problem?

13 A. Well, yes.

14 Q. A significant problem?

15 A. Well, I'll just say a continuing problem as  
16 what they were before.

17 Q. So even in the streams that the water  
18 commission ordered essentially 100 percent of the water  
19 stay in the stream, there are still diversion  
20 structures that are interfering with native aquatic  
21 species?

22 A. Yes. There's diversion structures that are  
23 still -- still there. Yeah, still there.

24 Q. And causing -- and still threatening or  
25 adversely affecting native species?

1 information did the board have back then,  
2 November 10th, 2018, regarding whether there was enough  
3 water flowing in each stream to ensure that the  
4 populations of native aquatic organisms had not been  
5 adversely affected?

6 A. I don't know because I don't deal with the  
7 board.

8 MS. WESTON: It's the board or DLNR.

9 THE WITNESS: Or DLNR, yeah. Well, they had  
10 the information. They have the information.

11 BY MR. FRANKEL:

12 Q. So what information do they have?

13 A. They had the information that we had  
14 recommended.

15 Q. In terms of how much water should be  
16 flowing?

17 A. In terms of how much water should be  
18 flowing, yes.

19 Q. Did you -- did the department of -- sorry.

20 I know it's difficult because you wear the  
21 hat of the Division of Aquatic Resources.

22 So did the Division of Aquatic Resources  
23 recommend more water be restored to streams than the  
24 Commission on Water Resource Management ordered to be  
25 restored in June of 2018?

1 A. Well, of course we requested more water. I  
 2 mean, more water is better. But again, that -- you  
 3 know, the water use does not come under our  
 4 jurisdiction, so we don't have anything to say about  
 5 that.  
 6 Q. Right.  
 7 So more water in streams is better for the  
 8 native aquatic species?  
 9 A. Yes. But then, again, you have streams that  
 10 you may have losing streams and, you know, I mean,  
 11 under natural conditions, streams -- Hawaiian streams  
 12 are dynamic.  
 13 So basically, you're going to have some  
 14 streams that are dry in middle sections anyway  
 15 regardless of whether you restore 100 percent flow, and  
 16 it's those freshets that actually provided that  
 17 connectivity.  
 18 Q. Sure.  
 19 Have you -- had the department or the board  
 20 been able to go out and look at whether the streams  
 21 that have been restored have recreated a more living,  
 22 healthy stream ecosystem?  
 23 MS. AKAGI: Objection; vague as to time.  
 24 THE WITNESS: No, we haven't. We haven't  
 25 gone back to all the streams that, you know, they

1 restored flow to.  
 2 BY MR. FRANKEL:  
 3 Q. Okay. What information did DLNR/BLNR have  
 4 regarding whether freshets upon which native species  
 5 depend flow beneath each stream diversion?  
 6 A. What do you mean "flow beneath each stream  
 7 diversion"?  
 8 Q. So freshets could be captured by the  
 9 diversion system.  
 10 A. Yes.  
 11 Q. So the question is whether these freshets  
 12 are able -- flow below each diversion -- below each  
 13 diversion structures, or do we know -- does the  
 14 department know whether the freshets actually flow  
 15 below them or not?  
 16 A. I don't know if they know that or not.  
 17 Q. Okay. Okay. What efforts did BLNR and DLNR  
 18 make prior to November 10th, 2018, to protect native  
 19 stream life in those 12 streams unaffected by the 2018  
 20 CWRM order?  
 21 A. I don't know.  
 22 Q. So just -- again, so you're speaking for the  
 23 department, the board?  
 24 A. Yes.  
 25 Q. If you don't know, that would mean nobody

1 knows if any efforts were made?  
 2 A. Well, I don't know if, you know, CWRM or  
 3 whatever had any -- did anything other than just  
 4 maintaining those streams the way they were.  
 5 Q. So -- okay. So as far as you know, the  
 6 board and the department took no efforts prior to  
 7 November 10th, 2018, to protect native stream life in  
 8 those streams unaffected by the 2018 CWRM order?  
 9 MS. WESTON: Objection; mischaracterization  
 10 of his testimony.  
 11 MS. AKAGI: Join.  
 12 THE WITNESS: Some of those streams were --  
 13 when I look at the list, some of those streams were  
 14 looked at, surveyed, but basically, they were just  
 15 surveyed.  
 16 BY MR. FRANKEL:  
 17 Q. Okay. So but -- so there's no efforts made  
 18 to actually protect the stream life in those 12  
 19 streams?  
 20 MS. WESTON: Same objection.  
 21 MS. AKAGI: Join.  
 22 THE WITNESS: Well, we always try to protect  
 23 the stream life in the streams. I mean, that's one of  
 24 our mandates for our division.  
 25 So, you know, if we see something wrong, we

1 will make recommendations to CWRM.  
 2 BY MR. FRANKEL:  
 3 Q. Okay. But I'm not talking about  
 4 recommendations. I'm talking about what was actually  
 5 done -- well, I guess a recommendation is an effort.  
 6 I'll give that to you.  
 7 Has the board or the department actually  
 8 done anything specific to protect the stream life in  
 9 those 12 streams that are unaffected by the CWRM order?  
 10 A. When you say have they done anything, in  
 11 what sense are you talking about? I mean, making a --  
 12 making us go out there and say that people can't take  
 13 animals out of the stream?  
 14 Q. So okay. That -- it is not something that I  
 15 had thought of, but that's something, so let's sort of  
 16 go through a laundry list of possibilities.  
 17 The board could order Alexander & Baldwin to  
 18 do something, to take less water from these streams.  
 19 It could order Alexander & Baldwin to remove or alter  
 20 diversion structures on those streams. It could begin  
 21 the effort to establish in stream flow standards for  
 22 the streams.  
 23 Has anything been done to protect -- to  
 24 actually protect native stream life in those 12  
 25 streams?

1 MS. WESTON: This includes what DAR does.  
 2 THE WITNESS: What DAR does, yeah, we do.  
 3 We provided input on streams of what kind of flows, and  
 4 it's based on basically the amount of habitat is there.  
 5 Some streams have more habitat than others.  
 6 We also provided our take on minimal flows, what is  
 7 required for the animals to reproduce, to, you know,  
 8 provide for growth and everything else, and then we  
 9 also mentioned about the dry season, what was needed  
 10 for connectivity.  
 11 BY MR. FRANKEL:  
 12 Q. So I just want to remind you, the water  
 13 commissioner had a long proceeding about a two dozen --  
 14 more than two dozen streams. I'm not talking about  
 15 those. And I know you provided a lot of input into  
 16 that, but I'm not talking about the CWRM proceeding.  
 17 I'm talking about those 12 streams that are  
 18 listed in the deposition notice that were not part of  
 19 that proceeding.  
 20 So -- and I just want to be clear, I'm not  
 21 criticizing DAR. I'm not attacking DAR at all. But I  
 22 want to know what the department has done or the board  
 23 has done to actually protect stream life in those 12  
 24 streams.  
 25 Can you name me specific things that have

1 been done?  
 2 A. Well, we have surveyed some of those streams  
 3 and provided information to CWRM.  
 4 Q. How about to the department, to the Board of  
 5 Land and Natural Resources rather?  
 6 A. Well, I don't provide that information to  
 7 the board. I provide it to CWRM, and they provide it  
 8 to the board and present it to the board.  
 9 Q. Can you name me any steps that have been  
 10 taken based on information and advice the Division of  
 11 Aquatic Resources has provided that has -- that the  
 12 board has taken to actually protect stream life in  
 13 those 12 streams?  
 14 A. Can you repeat the question?  
 15 MR. FRANKEL: Can I ask you to read that  
 16 back?  
 17 (The record was read by the reporter as  
 18 follows:  
 19 "Question: Can you name me any  
 20 steps that have been taken based on  
 21 information and advice the Division of  
 22 Aquatic Resources has provided that  
 23 has -- that the board has taken to  
 24 actually protect stream life in those  
 25 12 streams?")

1 MS. AKAGI: I'm going to object; vague as to  
 2 time.  
 3 THE WITNESS: Well, they looked at -- they  
 4 looked at what we presented for flows for connectivity  
 5 and flows for reproduction.  
 6 BY MR. FRANKEL:  
 7 Q. On those 12 streams?  
 8 A. On those 12 streams. And then also, I did  
 9 testimony on Maui for the stream modeling that we had  
 10 developed for looking at habitat units.  
 11 Q. Okay. So what did the board do with the  
 12 information you provided?  
 13 Did they limit how much water could be taken  
 14 from any of these streams?  
 15 A. They did -- they did look at that, yeah,  
 16 interim instream flow standards.  
 17 Q. Again, I'm talking about the 12 streams that  
 18 are not affected by the water commission decision.  
 19 MR. FRANKEL: Amanda, do you think you want  
 20 to take a break? Would that be helpful?  
 21 MS. WESTON: Yeah, we can take a short  
 22 break.  
 23 MR. FRANKEL: Okay. I think there's some  
 24 confusion.  
 25 Okay. We can go off the record.

1 (Discussion held off the record.)  
 2 BY MR. FRANKEL:  
 3 Q. Okay. So before we took the break, I was  
 4 asking you about those 12 streams that are not affected  
 5 by the 2018 CWRM decision.  
 6 You know those 12 streams I'm talking about,  
 7 right?  
 8 A. Yes.  
 9 Q. So there's no inner stream -- there's no  
 10 quantifiable instream flow standard for those 12  
 11 streams now.  
 12 And I'm asking you whether -- describe all  
 13 the efforts, say, first the Board of Land and Natural  
 14 Resources has taken to protect stream life in those  
 15 streams.  
 16 MS. AKAGI: Objection; vague as to time.  
 17 THE WITNESS: When we go out and we look at  
 18 streams, we try to find out what's in the streams.  
 19 Because if you can't -- if you don't know what's in  
 20 them, you can't protect them.  
 21 And those streams weren't priority streams  
 22 for us. And our staff, the limited staff that we have,  
 23 we can't go survey every stream in the state. And if I  
 24 did, I could spend my whole career doing that and not  
 25 finish. I'd never retire.

1 So, you know, again, we do provide surveys  
2 and we try to protect whatever native animals that we  
3 have out there, because we also look at introduced  
4 animals.  
5 BY MR. FRANKEL:  
6 Q. Sure.  
7 So now I'm asking you about what the  
8 Department of Land and Natural Resources has done to  
9 protect those -- stream life of those 12 streams.  
10 What has the board -- what efforts has the  
11 board taken?  
12 MS. AKAGI: Objection; vague as the time.  
13 THE WITNESS: Again, those were not priority  
14 streams for us, and we surveyed what we could and --  
15 BY MR. FRANKEL:  
16 Q. Okay. But that's not answering my question.  
17 I'm not asking about DAR now. Okay? I'm asking about  
18 the Board of Land and Natural Resources.  
19 Did the Board of Land and Natural Resources  
20 make any decisions to protect native stream life on  
21 those 12 streams?  
22 A. I don't know.  
23 Q. Okay.  
24 A. To answer you honestly, I can't tell you.  
25 Q. Okay. Has anything -- other than the

1 gathering of information, have any other efforts been  
2 made by the department to protect native stream life in  
3 those 12 streams?  
4 MS. AKAGI: Objection; vague as the time.  
5 THE WITNESS: I can't tell you that either.  
6 I don't know.  
7 BY MR. FRANKEL:  
8 Q. Okay. Can you tell me what the board or the  
9 department has done prior to November 2018, to require  
10 the removal or alteration of any stream modification  
11 structures within a clear time frame?  
12 MS. WESTON: Objection; that's outside of  
13 his -- where are you?  
14 MR. FRANKEL: 4A2.  
15 MS. WESTON: Because -- I'm sorry. Aaron  
16 addressed that, didn't he?  
17 MR. FRANKEL: I couldn't tell you.  
18 MS. WESTON: I mean, that's something that  
19 Aaron was more familiar with.  
20 THE WITNESS: We don't control the removal  
21 structures.  
22 MR. FRANKEL: Okay. So --  
23 THE WITNESS: Okay.  
24 MR. FRANKEL: So Amanda, when we started, I  
25 thought he was going to cover all of 4A, but now you're

1 saying he's just covering 4A, little 1?  
2 MS. WESTON: Yeah. Sorry for the confusion.  
3 MR. FRANKEL: Okay. All right.  
4 MS. WESTON: And I believe -- I believe that  
5 Aaron, he already talked about 4A -- 4A4, right?  
6 MR. FRANKEL: No. I mean, it's related.  
7 MS. WESTON: You did ask him questions about  
8 that.  
9 MR. FRANKEL: I asked him about information,  
10 not the efforts yet. So that's how I've broken them  
11 down.  
12 MS. WESTON: Okay. Can you address that one  
13 (indicating)?  
14 THE WITNESS: Number 4?  
15 MS. WESTON: A4, yeah.  
16 THE WITNESS: We have looked at --  
17 MS. WESTON: Okay. Just if you have --  
18 THE WITNESS: Yeah, we have looked at it,  
19 and based on our recommendations, we had put forth that  
20 information.  
21 MR. FRANKEL: So I need to get clarification  
22 with Amanda.  
23 So he's answering 4A, little 1 and little 4?  
24 MS. WESTON: Yeah.  
25 MR. FRANKEL: But not 2 and 3?

1 MS. WESTON: Right.  
2 MR. FRANKEL: Okay.  
3 BY MR. FRANKEL:  
4 Q. All right. Okay. And can you tell me what  
5 efforts the Board of Land and Natural Resources made  
6 prior to November 2018 to protect the amphidromous  
7 species that live on those 12 streams unaffected by the  
8 2018 CWRM order?  
9 MS. WESTON: Do you know where we are? This  
10 one, because you're in 4Bi, right?  
11 MR. FRANKEL: Correct.  
12 THE WITNESS: Well, whenever -- whenever we  
13 get any environmental reviews concerning streams, we  
14 always provide comments on the protection of the native  
15 stream animals. We always provide input, BMPs that  
16 involve connectivity.  
17 And basically -- yeah, that's basically what  
18 we're looking at for, providing that connectivity to  
19 fulfill the lifecycle of the animals, but then also  
20 we -- we also input comments about diverting water  
21 entrainment for the newly hatched larvae.  
22 BY MR. FRANKEL:  
23 Q. So the other Department of Land and Natural  
24 Resources representative, Aaron, in his -- part of his  
25 deposition said that these diversion structures on



1 these 12 streams remove all the water from the stream  
 2 60 percent of the time.  
 3 Would that have an effect on native aquatic  
 4 species?  
 5 A. I think it would.  
 6 Q. And what has the board done to protect those  
 7 species on those streams from these structures?  
 8 A. I think they're looking at the flows,  
 9 instream -- interim instream flows.  
 10 Q. Except they haven't for these 12 streams.  
 11 They haven't looked at them yet.  
 12 They haven't done anything to protect the  
 13 fish on those streams, right?  
 14 A. Well, other than what we've done as far as,  
 15 you know, our surveys and stuff like that, they're not  
 16 priority streams.  
 17 Q. Okay.  
 18 A. I mean, there's only so much you can do, and  
 19 I guess those streams -- probably the water situation  
 20 in those streams aren't as great as the water situation  
 21 in the other streams in the sense that these streams  
 22 may not have more -- enough water to divert. Or if  
 23 they do, they might not have a sufficient habitat to  
 24 sustain -- to sustain populations of native fish.  
 25 Because not all native -- not all streams have native

1 fish. Some of them are very poor, and some of them,  
 2 you know, like, we feel that it's better to put back  
 3 water in a few streams rather than trying to put water  
 4 back every single stream, because some streams it  
 5 didn't matter. They're losing streams or they have  
 6 issues with undercut waterfalls, natural barriers to  
 7 migration, and stuff like that, so...  
 8 Q. Yeah, yeah.  
 9 A. Yeah.  
 10 Q. Have you looked at Parnam's [sic] recent  
 11 analysis of the impact of the diversions on streams in  
 12 East Maui?  
 13 A. Yes.  
 14 MS. WESTON: What was that?  
 15 MR. FRANKEL: Parnam.  
 16 THE WITNESS: Parham.  
 17 MR. FRANKEL: Parham, sorry.  
 18 BY MR. FRANKEL:  
 19 Q. In it he says that 85 percent of the habitat  
 20 units on these 12 -- actually, he talks about 13  
 21 streams that are not affected by the -- that do not  
 22 have an IFS pursuant to the CWRM decision in 2018.  
 23 85 percent of the habitat units are eliminated based on  
 24 the diversions.  
 25 Is that significant?

1 A. 85 percent?  
 2 MS. WESTON: Objection; speculation.  
 3 MS. AKAGI: Join.  
 4 THE WITNESS: If it's true, it would be  
 5 significant.  
 6 MR. FRANKEL: Okay. I don't have any other  
 7 questions.  
 8 MS. WESTON: Okay.  
 9 MS. AKAGI: I don't have any.  
 10 MS. WESTON: Okay. I don't have any.  
 11 MR. FRANKEL: Okay.  
 12 MS. WESTON: All right. So we'll review.  
 13 (Deposition concluded at 9:51 a.m.)

1 WITNESS CERTIFICATE  
 2  
 3 I, GLENN R. HIGASHI, hereby certify that I have  
 4 read the foregoing typewritten pages 1 through 34,  
 5 inclusive, and corrections, if any, were noted by me,  
 6 and the same is now a true and correct transcript of my  
 7 testimony.  
 8 DATED: \_\_\_\_\_, 2019.  
 9  
 10 \_\_\_\_\_  
 11 (City) (State)  
 12  
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 14 \_\_\_\_\_  
 15 GLENN R. HIGASHI  
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 22  
 23 Case: SIERRA CLUB vs. BLNR  
 24 Civil No.: 19-1-0019-01 JPC  
 25 Deposition taken on: FRIDAY, OCTOBER 4, 2019  
 Taken by: APRIL D. GEDNEY, RPR, CLR  
 Hawaii CSR No. 470  
 California CSR No. 11756

1           C E R T I F I C A T E  
 2   STATE OF HAWAII           )  
   ) SS.  
 3   CITY AND COUNTY OF HONOLULU )  
 4       I, APRIL D. GEDNEY, RPR, CLR, Certified  
   Shorthand Reporter, do hereby certify:

5  
 6           That on FRIDAY, OCTOBER 4, 2019, at  
 9:03 A.M., appeared before me GLENN R. HIGASHI, the  
 7   witness whose deposition is contained herein; that  
 prior to being examined, he was by me duly sworn or  
 8   affirmed;

9           That the deposition was taken down by me in  
 machine shorthand and was thereafter reduced to  
 10   typewriting; that the foregoing represents, to the best  
 of my ability, a true and correct transcript of the  
 11   proceedings had in the foregoing matter.

12           That pursuant to Rule 30(e) of the Hawaii  
 Rules of Civil Procedure, a request for an opportunity  
 to review and make changes to this transcript:

13           \_\_\_ X \_\_\_ Was made by the deponent or a party (and/or  
 14   their attorney) prior to the completion of the  
 deposition.

15           \_\_\_     \_\_\_ Was not made by the deponent or a party  
 16   (and/or their attorney) prior to the completion  
 of the deposition.

17           \_\_\_     \_\_\_ Was waived.

18           I further certify that I am not an attorney  
 for any of the parties hereto, nor in any way concerned  
 19   with the cause.

20           DATED this 14th day of October, 2019, in  
 Honolulu, Hawaii.

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 22  
 23  
 24  
 25

\_\_\_\_\_  
 APRIL D. GEDNEY, RPR, CLR  
 Hawaii CSR No. 470