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LAND USE COMMISSION

STATE OF HAWAI'I

CONTINUED HEARING

A12-795 WEST MAUI LAND COMPANY, INC.)
KAHOMA RESIDENTIAL, LLC)
_____)

TRANSCRIPT OF PROCEEDINGS

The above-entitled matter came on for a Public Hearing
at the Courtyard Maui Kahului Airport, Haleakala Room,
532 Keolani Place, Kahului, Maui, Hawai'i, commencing
at 9:30 a.m. on October 4, 2012, pursuant to Notice.

REPORTED BY: HOLLY M. HACKETT, CSR #130, RPR
Certified Shorthand Reporter

A P P E A R A N C E S

COMMISSIONERS:

SHELDON BIGA

THOMAS CONTRADES

RONALD HELLER, Presiding Officer

LANCE M. INOUE

ERNEST MATSUMURA

EXECUTIVE OFFICER: DAN ORODENKER

CHIEF CLERK: RILEY HAKODA

STAFF PLANNER: SCOTT DERRICKSON

DEPUTY ATTORNEY GENERAL: SARAH HIRAKAMI, ESQ.

AUDIO TECHNICIAN: WALTER MENCHING

Docket No. A12-795 West Maui Land, Inc. (Maui)

For the Petitioner:

JAMES GEIGER, ESQ.

HEIDI BIGELOW

West Maui Land Co. Inc.

For the County:

JAMES GIROUX, ESQ.

Deputy Corporation Counsel

KURT WOLLENHAUPT, Planner

For the State:

BRYAN YEE, ESQ.

Deputy Attorney General

RODNEY FUNAKOSHI, OP

Intervenor:

MICHELE LINCOLN

Intervenor:

ROUTH BOLOMET

Also Present:

KUMU MICHAEL LEE

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1 PRESIDING OFFICER HELLER: Let's get
2 started. The first order of business is the adoption
3 of minutes of our September 14th meeting. Does
4 anybody have corrections or comments on the minutes?
5 Is there a motion to approve?

6 COMMISSIONER INOUE: So moved.

7 COMMISSIONER MATSUMURA: Second.

8 PRESIDING OFFICER HELLER: All in favor say
9 aye. (voting: Aye) Any opposed? Okay. Tentative
10 meeting schedule. Dan, you want to give us a quick
11 update?

12 MR. ORODENKER: Yes, Mr. Chair. The next
13 meeting of the Land Use Commission will be on
14 October 19th on the Big Island. It will be Y-O
15 Limited Partnership. November 1st and 2nd we'll be
16 back here on Maui for Kauonoulu Ranch Order to Show
17 Cause motions.

18 November 15th and 16th is the continuation
19 of the Kauonoulu Ranch Orders to Show Cause.

20 And December 6th and 7th we will be back
21 for the West Maui Land oral argument and
22 decision-making. That takes us through the calendar
23 'til the end of the year.

24 xx

25 xx

1 PRESIDING OFFICER HELLER: Thank you. Next
2 item on the docket is A12-795 West Maui Land Company,
3 Inc. Kahoma Residential LLC, Maui to reconsider the
4 reclassification of approximately 16.7 acres of land
5 from the Agricultural District to the Urban District
6 at Lahaina, Maui, Hawai'i for a residential
7 subdivision to provide 68 single-family affordable
8 housing units to families earning less than 160 of the
9 median family income of families in Maui County,
10 Hawai'i TMK No. (2) 4-5-10:005.

11 Will the parties please identify themselves
12 for the record.

13 MR. GEIGER: Good morning, Chair,
14 Commissioners. James Geiger on behalf of the
15 Petitioner. Also present with me is the Petitioner's
16 representative Heidi Bigelow.

17 MR. GIROUX: James Giroux on behalf of the
18 Department of Planning County of Maui. And with me is
19 Kurt Wollenhaupt, Planner.

20 MR. YEE: Good morning. Deputy Attorney
21 General Bryan Yee on behalf of the Office of Planning.
22 With me is Rodney Funakoshi from the Office of
23 Planning.

24 MS. LINCOLN: Michele Lincoln Intervenor.

25 MS. BOLOMET: Routh Bolomet Intervenor.

1 PRESIDING OFFICER HELLER: Thank you. Let
2 me update the record in this matter. The following
3 materials were received at the September 7th, 2012 LUC
4 meeting on Maui: From Michael Lee, Clare Apana and
5 Intervenor Bolomet, written correspondence from Clare
6 Apana, Daniel Kanahale regarding Michael Lee, and
7 Kaniloa Lani Kamaunu regarding Michael Lee.

8 A copy of the email from Stephen Gingerich,
9 Ph.D. Research Hydrologist to Routh Bolomet; papers
10 referring to Michael Lee marked as Exhibits 1-6 not
11 attached to any document.

12 Advertisement of Pule Kala and Kapu Kapu
13 Ceremony for the Pu'uone of Wailuku and Waikapu
14 traditional Hawaiian ceremonies with Kahu Mike Lee
15 March 3 and 4, 2012.

16 From Michele Lincoln: Exhibit 15, revised
17 testimony of Elle Cochran, substituted for earlier
18 submitted testimony.

19 From Maui County: A bio of Rowena
20 Dagdag-Andaya, Deputy Director - Maui County
21 Department of Public Works, County Exhibit 9;

22 From Petitioner Maui Land: Petitioner's
23 Rebuttal Exhibit List, Exhibit 40.

24 From Intervenor Bolomet: Papers Marked:
25 Grant 11073 to Pioneer Mill Company, Ltd.; Grant 2998

1 to W.Ap. Johnes J-o-h-n-e-s being also a portion of
2 Parcel 5-A Kahoma Stream Flood Control Project. And
3 Motion to Disallow Michael Dega's Incomplete
4 Archaeological Assessment submitted with Papers marked
5 out of sequence Exhibit 1, 2, 3, 3a, 4, 5, and 6.

6 On September 11th, 2012 the Commission
7 received returned mailing of Certified Mailing of
8 Certified Mail Return Receipt Requested sent to
9 Intervenor Bolomet with errata notice re: correction
10 to Bolomet order.

11 On September 14, 2012 the Commission
12 received written correspondence from Cindy Blair.

13 On September 18th, 2012 the Commission
14 received return mail from U.S. Postal Service
15 containing agenda notice sent to Intervenor Bolomet
16 marked "P. O. Box closed USPS unable to forward";

17 Petitioner's Memorandum in Opposition to
18 Intervenor's Motion to Disallow Michael Dega's
19 Incomplete Archaeological Assessment; Appendices 1-2,
20 Exhibit 1.

21 The LUC sent an e-mail to investigate the
22 cause of postal and telecommunication problems with
23 Intervenor Bolomet.

24 On September 21, 2012 the Commission
25 received Petitioner's declaration of Michael Dega.

1 On September 24, 2012 the Commission
2 received an e-mail from Intervenor Bolomet providing
3 her explanation for her postal and telecommunication
4 problems and what was being done to resolve them.

5 On the same day the Commission also
6 received the Office of Planning's Memorandum in
7 Opposition to Intervenor Routh Bolomet's Motion to
8 Disallow Michael Dega's Incomplete Archaeological
9 Assessment.

10 On September 26, 2012 the Commission mailed
11 the agenda notice for the October 4-5, 2012 LUC
12 meeting to the parties and to the statewide and Maui
13 mailing lists.

14 On September 27, 2012 the Commission
15 received Maui County's Joinder in Petitioner's
16 Memorandum in Opposition to Intervenor's Motion to
17 disallow Michael Dega's Incomplete Archaeological
18 Assessment.

19 Let me briefly describe our procedure for
20 today on this docket. First, I will call for those
21 individuals desiring to provide public testimony to
22 identify themselves. All such individuals will be
23 called in turn to our witness box where they will be
24 sworn in prior to their testimony.

25 If the proceedings on this matter are not

1 concluded today, they will resume tomorrow at
2 9:00 a.m. Public testimony for this agenda item,
3 however, will be taken today only.

4 The Commission will then consider any
5 additional exhibits that the parties wish to offer
6 into evidence.

7 After the admission of exhibits, if any,
8 Intervenor Bolomet will make her presentation on her
9 Motion to Disallow Michael Dega's Incomplete
10 Archaeological Assessment.

11 After the completion of her presentation we
12 will receive any comments from Petitioner West Maui
13 Land, Inc., Maui County, the State Office of Planning
14 and/or Intervenor Lincoln.

15 After we have received the comments of the
16 Petitioner, the County and the State and Ms. Lincoln,
17 the Chair will decide on Ms. Bolomet's motion.

18 After the Chair has decided on
19 Ms. Bolomet's motion we will continue proceedings on
20 Docket No. A12-795 starting with the remainder of
21 Intervenor Lincoln's testimony and presentation.

22 We will then hear from Intervenor Bolomet
23 and rebuttal witness, Rory Frampton.

24 The Chair anticipates closing the evidence
25 in this docket by tomorrow. I'd like to add a comment

1 here that we very much want to get through the
2 evidentiary portion of this hearing. And it's our
3 goal if not today to at least complete by tomorrow.
4 Are there any questions regarding our planned
5 procedures for today?

6 MR. GEIGER: No questions, Chair.

7 PRESIDING OFFICER HELLER: Hearing none, is
8 there anyone in the audience who desires to provide
9 public testimony on this matter? Has anyone signed up
10 for public testimony?

11 MR. ORODENKER: We have no one signed up.

12 PRESIDING OFFICER HELLER: Is there anyone
13 present who wishes to provide public testimony? (off
14 mic) That's okay. You can just step forward. Before
15 we start is there anyone else present who desires to
16 provide public testimony?

17 MS. BOLOMET: Can I say something? We have
18 some farmers who would like to come but on Thursdays
19 are the days that they do their chores on their farms.
20 So they might come, be able to come in the afternoon.

21 Would there be an opportunity for them to
22 speak then? Because it's every Thursday and you're
23 not going to have any public testimony on Friday.

24 PRESIDING OFFICER HELLER: The meeting was
25 announced and scheduled. And those people who want to

1 provide public testimony are being given that
2 opportunity right now. We're going to proceed.

3 MS. BOLOMET: Okay.

4 CLARE APANA

5 being first duly sworn to tell the truth, was examined
6 and testified as follows:

7 THE WITNESS: Yes.

8 PRESIDING OFFICER HELLER: Please state
9 your name, and then your address for the record
10 please.

11 THE WITNESS: Clare Apana, 220 Halenani
12 Drive, Wailuku, Maui.

13 PRESIDING OFFICER HELLER: Ms. Apana, let
14 me remind you that previous testimony is already part
15 of the record and need not be repeated. Please go
16 ahead.

17 THE WITNESS: Thank you. Thank you for
18 allowing me to come to testify before you,
19 Commissioners and Intervenors and developers, staff.
20 It's been a wonderful, long process for myself. And I
21 have truly learned a great deal in doing this Project.

22 And today I just want to clarify a point
23 which is a very pertinent point for those of us who
24 believe in defending our culture and our cultural
25 rights in this state.

1 Sometimes what I've seen from the different
2 AIS's that I have read people do very, very good jobs.
3 I know you read all the EIS's and the DEIS's, FEIS's,
4 EA's, FEA's. And you know that sometimes they're
5 very, very long, very detailed and sometimes very
6 short.

7 But in the case of the one that comes with
8 this Project I have never seen one where lands that
9 are not in the Project are the ones that are described
10 as being the lands of the Project. And I cannot say
11 why it's that way or what purpose there was in doing
12 such a thing or was it just a simple mistake.

13 But I want to show you how far -- I don't
14 know if you have much -- you know, I know you drove
15 out and had the site visit. But if you know where
16 Lahaina Town is to the site and the beginning of
17 Lahaina Town, that is where the Project lands are
18 being described in this report. And it is 7-miles
19 away from where the Kahoma Project is.

20 (Stepping up to map) It's here. And so if
21 you can see all of this in between that's how far
22 apart it is. I mean I ask you. You can go up and
23 look at it. But I testified the last time and said
24 that how far it was. It is 7 miles apart.

25 There's something wrong with that. And

1 it's not even to say this is my culture, you know, you
2 must respect me. I have found this.

3 It is the wrong area. And I ask you to
4 please take that into consideration that this is not
5 complete. It's not, it's not acceptable to have such
6 work. And I know Mr. Dega. And I've spoken to him
7 for years. I've watched him in Burial Council. I've
8 watched him in different Planning Commission meetings.

9 And I have never seen this so bad. All
10 those questions, but this is really the wrong place.
11 So I thank you for letting me say that today.

12 PRESIDING OFFICER HELLER: Okay. Thank
13 you.

14 MR. GEIGER: No questions.

15 MR. GIROUX: No questions from the County.

16 THE WITNESS: And I broke your mic. It's
17 falling down, if somebody wants to fix it.

18 MR. YEE: No questions.

19 PRESIDING OFFICER HELLER: Ms. Lincoln?

20 MS. LINCOLN: No questions.

21 PRESIDING OFFICER HELLER: Ms. Bolomet?

22 MS. BOLOMET: Ms. Apana. The TMKs that are
23 listed in the archaeological report, are they all of
24 'em? Are they part of the proposed Project site?

25 THE WITNESS: No, they're not.

1 MS. BOLOMET: And are those the ones that
2 you were pointing out the two different areas because
3 they were in two different areas?

4 THE WITNESS: Yes. They're describing a
5 different piece, portion of Maui than is this Project.

6 MS. BOLOMET: Have you ever known of a
7 project to have an archaeological report to propose
8 TMKs or LCAs in two different areas?

9 MR. GEIGER: Chair, I'm going to object.
10 This seems to be very far afield from what the
11 witness's testimony was. And she's not being offered
12 as an expert. It's just public testimony which should
13 be limited to this Project.

14 PRESIDING OFFICER HELLER: Ms. Bolomet,
15 please confine your questions to what Ms. Apana
16 testified about rather than going into new questions.
17 If you have any questions about what she said those
18 are appropriate questions.

19 MS. BOLOMET: Okay. Okay. Do you have
20 anything else to say?

21 THE WITNESS: Thank you for allowing me to
22 be part of this process.

23 MS. BOLOMET: Thank you.

24 PRESIDING OFFICER HELLER: Commissioners,
25 any questions? Thank you. That concludes public

1 testimony. Do any of the parties have any additional
2 exhibits that they wish to offer at this time?
3 Petitioner?

4 MR. GEIGER: Yes. We would have one
5 additional exhibit. We would expect it would come in
6 during the rebuttal of Mr. Frampton but I have it here
7 available now and I can hand it out for everybody if
8 you'd like. Or I can do it during a break, whichever
9 is the staff's preference.

10 PRESIDING OFFICER HELLER: Okay. Let's do
11 it at the break.

12 MR. GEIGER: Thank you.

13 PRESIDING OFFICER HELLER: County?

14 MR. GIROUX: We have no additional exhibits
15 at this time.

16 PRESIDING OFFICER HELLER: OP?

17 MR. YEE: Nothing more.

18 PRESIDING OFFICER HELLER: Ms. Lincoln?

19 MS. LINCOLN: No.

20 PRESIDING OFFICER HELLER: Ms. Bolomet?

21 MS. BOLOMET: I'll have one additional but
22 I can hand it out at the break.

23 PRESIDING OFFICER HELLER: Okay. Thank
24 you. That brings us to Ms. Bolomet's motion.
25 Ms. Bolomet, go ahead and make whatever presentation

1 you want to make at this time.

2 MS. BOLOMET: My motion was to have
3 Mr. Dega's archaeological report removed or excluded
4 because it was incompleted -- or incomplete from,
5 based on just the criteria that it was supposed to
6 represent all the lots in the Project Area. In there
7 it only represents four of the LCAs.

8 And the reason that I found that so
9 important to know, see the boundary descriptions of
10 all the LCAs is because in the other LCAs it actually
11 points out archaeological features.

12 And had they included those you would see
13 that where the trenches were put, actually dug, was
14 nowhere near any of these archaeological features.

15 So if you dig in an area that's far away
16 from archaeological features, you're not gonna find
17 archaeological features. But those survey notes and
18 boundary notes are actually a road map to tell you
19 where to look.

20 And also there's maps that they were
21 referring to, 1884 maps. They put these microscopic
22 maps in. So I got the big map and we found some other
23 maps. And it actually shows the archaeological
24 features of the site. And none of the trenches are
25 near those features.

1 Now, this is the first time I've ever read
2 an Archaeological Assessment. So I was quite confused
3 as to why the cover at SHPD would have one name on it
4 called Makila I think. And then in the Petition it
5 has another name. It says Moali'i, but then it
6 includes LCAs from Aki, LCAs from Moali'i and then
7 other LCAs Kilawea.

8 So it was very confusing to me. And I kept
9 digging and digging and just following their own
10 evidence. And it was conflicting. It seemed like
11 there were things either mistakenly left out or
12 purposely left out. But the things that were left out
13 showed the archaeological features. And, therefore, I
14 felt that it was incomplete.

15 And I understand the rules are unless you
16 have a complete picture of what the site is, it's very
17 difficult for you as Commissioners to make a decision
18 as to if this should be changed into urban.

19 From what I can see there's going to be
20 houses built on precious archaeological finds that --
21 I did a lot of digging and I've actually submitted a
22 letter to Theresa Donham which is the archaeology
23 person at SHPD pointing out point by point.

24 It's a 16-page letter of all the things
25 that we found that were either missing or conflicting.

1 And, you know, that's a lot of things that are not
2 correct.

3 To me it makes it an incomplete survey.
4 'Cause in your, in the rules it goes point by point
5 all the things that need to be covered. And those
6 things aren't fully represented. So I don't know the
7 procedure. I'm told that you cannot make a judgment
8 on a SHPD report.

9 However, you should be able to make a
10 judgment on whether something fulfilled the criteria
11 or not whether there's a letter in there or not
12 because we're talking about two different areas.

13 So in my mind it's obvious that it did not
14 fulfill the criteria. That's my argument.

15 PRESIDING OFFICER HELLER: Okay. Anything
16 else you want to say at this point?

17 MS. BOLOMET: Please take this into serious
18 consideration because I think it will be of great
19 imminent harm to my culture and our cultural practices
20 that occurs on the land.

21 PRESIDING OFFICER HELLER: Thank you.
22 Petitioner, any response?

23 MR. GEIGER: Yes. I'm not going to repeat
24 what was in the Memorandum in Opposition, assume the
25 Chair's read it since the Chair's going to rule.

1 Effectively the motion's defective because
2 procedurally it doesn't meet the requirements.

3 There has to be an affidavit in support of
4 any of the exhibits that are not part of the record.
5 No affidavit is attached to the motion.

6 The second thing is, as the Chair has
7 heard, this argument only goes to the weight, it
8 doesn't go to anything else. All of these things
9 should have been brought up in cross exam of Mr. Dega
10 so he would have an opportunity to respond to all
11 those.

12 The choice was not to bring any of this up
13 in Mr. Dega's questioning but, instead, to go ahead
14 and bring it up in a motion after he's done.
15 Obviously they're now arguing about the weight of
16 this. They're not arguing about anything else. The
17 motion should be denied in all respects.

18 PRESIDING OFFICER HELLER: County?

19 MR. GIROUX: We have no argument. We join
20 in the objection.

21 PRESIDING OFFICER HELLER: OP?

22 MR. YEE: As we indicated, to the extent
23 the request is to exclude the documents and the
24 testimony that the time period to make that objection
25 has passed. In fact she's stipulated to the admission

1 of the documents. We believe that right was waived.

2 To the extent she's asking for a
3 determination under Chapter 6E, that is not within the
4 Land Use Commission's jurisdiction to make a
5 determination of incompleteness under 6E.

6 To the extent she's asking simply that she
7 does not believe that this particular Archaeological
8 Assessment fulfills the criteria under the Land Use
9 Commission's determination as to whether this land
10 should be reclassified, that is simply an argument
11 that should be brought up at the time of final
12 argument and is not appropriate to bring up at this
13 time. For these reasons we oppose the motion.

14 PRESIDING OFFICER HELLER: Thank you.
15 Ms. Lincoln?

16 MS. LINCOLN: No comment.

17 PRESIDING OFFICER HELLER: Ms. Bolomet,
18 I'll give you a chance to rebut.

19 MS. BOLOMET: Okay. Thank you. So I keep
20 hearing there's rules that I'm supposed to follow and
21 with affidavits and that sort of thing. And I
22 prepared a whole stack of evidence that I actually
23 have sent to Theresa Donham. But I was told I
24 couldn't put those in because it was after the
25 timeframe.

1 However, it wasn't until I heard Mr. Dega
2 speak in Lahaina that it just -- it really didn't make
3 sense to me. So I went looking. Up to that point
4 when I looked at this Petition, first of all I didn't
5 even know what to really look at, you know. I mean I
6 read it. I assumed it was true. But as we kept
7 looking, and as time went on we kept seeing the
8 contradictions.

9 So it's kind of impossible to, when you're
10 not familiar with an area that you don't live in every
11 day to know all the nuances of that area. Obviously I
12 think some of the things that we pulled out just by
13 looking at different archaeological reports that are
14 in SHPD, there was some obvious things that were
15 missed that could have been put in. And Mr. Dega, I
16 believe, said that they get their information from
17 SHPD reports.

18 So I just looked at the same things that
19 they looked at. And I didn't even know to go and look
20 at these things because I just assumed everything in
21 there was truthful, everything was complete just like
22 you assumed that everything is complete.

23 So until you start hearing contradictions
24 from what you read and what they're saying you don't
25 go looking. And that's why I didn't know to put

1 things in.

2 I didn't know to look for additional
3 evidence because I didn't hear it until I believe it
4 was August 20th where we had the testimony with
5 Mr. Dega. And I was told I had to get everything in
6 by August 1st. But by August 1st I wasn't aware of
7 these things.

8 So it's a bit difficult and I think
9 prejudicial if I can't bring in additional information
10 to rebut the very things that were said that came out
11 that made it evident that it was, there were some
12 contradictions that needed to be looked at. And
13 nobody else is looking. And I did. And I found, you
14 know, the contradictions.

15 So for that reason I don't know the
16 procedure to ask how to do this. I understand you're
17 not SHPD and you can't make a determination. But I'm
18 under the understanding that you can make a
19 determination if something is in an area and
20 represented properly or not.

21 I don't think that takes the State
22 Historical Preservation people to determine that.
23 It's right on the map in front of us. So I didn't
24 think that would take a big procedural go 'around with
25 SHPD to make that decision.

1 So I'm asking that based on what's in front
2 of us -- I know you can't change SHPD's report. And
3 in time I hope they will give us a rescinding letter
4 and ask for an archaeological study.

5 But up 'til now this is, you know, in the
6 timeframe that I had this is was what we were able to
7 support. And I have a very thick set of documents, 53
8 pages of evidence, showing what we found in there
9 through other archaeological reports.

10 Oh, and can we speak to Mike Dega again
11 tomorrow? I mean is that part of the rebuttal? Or
12 should we just stop here with my evidence?

13 PRESIDING OFFICER HELLER: The rebuttal
14 witnesses called by each party are up to that party.
15 I don't know if there's any intent to bring them back.
16 In any event I don't think that question is before us
17 right now.

18 MS. BOLOMET: Okay.

19 PRESIDING OFFICER HELLER: Let me just
20 clarify. The motion seeks, as I understand it, to
21 strike Petitioner's Exhibit 7 or at least the
22 archaeological assessment that's included in
23 Petitioner's Exhibit 7 and Petitioner's Exhibit 19
24 which is the written testimony of Mr. Dega, correct?

25 MS. BOLOMET: That's correct.

1 PRESIDING OFFICER HELLER: Is there any
2 dispute that those exhibits were provided to you in a
3 timely manner in accordance with our procedural order?

4 MS. BOLOMET: No, there's no dispute on
5 that.

6 PRESIDING OFFICER HELLER: Then the ruling
7 I'm going to make is that motion is denied in so far
8 as you're seeking to strike those exhibits from the
9 record. They are part of the record. They were
10 admitted by stipulation. They were timely provided.
11 Any objections could have and should have been raised
12 at the time they were offered to be admitted.

13 Now, to the extent you're challenging the
14 credibility of the Archaeological Assessment or the
15 testimony of Mr. Dega, you have every right to argue
16 the credibility. And, in fact, you've done that by
17 submitting your motion. You will have further
18 opportunities to submit final argument, and to submit
19 proposed findings and conclusions.

20 You can make whatever points you want to
21 make regarding his credibility or the asserted lack
22 thereof. But the motion to strike the exhibits from
23 the record is denied.

24 MS. BOLOMET: Okay.

25 PRESIDING OFFICER HELLER: Which I think

1 now gets us to proceeding with Ms. Lincoln's case.

2 MS. LINCOLN: Thank you. Do I need to be
3 sworn in again or just get started?

4 PRESIDING OFFICER HELLER: I guess if
5 you're testifying we should officially have you do it
6 under oath.

7 MICHELE LINCOLN
8 being first duly sworn to tell the truth, was examined
9 and testified as follows:

10 MS. LINCOLN: I do.

11 PRESIDING OFFICER HELLER: Proceed.

12 MS. LINCOLN: There was some questions last
13 time about where my witnesses lived. So I put little
14 Post It notes, I don't remember who asked, but just
15 showing where they lived, if that's important. And
16 then these were the condos and the townhouses here
17 that are all developed. And then this is the Weinberg
18 property I was telling you about that was 24 acres.

19 I tried to find out how many homes are
20 going in there. I was not able to get that number,
21 but it is part of the General Plan that they were
22 working on there.

23 Also I just wanted to make sure a couple
24 things that I said last time to clarify. When I
25 quoted Elle Cochran's letter and she said that the

1 general planning committee allowed for 16,000 units on
2 West Maui, thousands of those are single-family
3 dwellings but those also include multi-family dwelling
4 and timeshare.

5 So I just wanted to make sure that's not
6 all single-family dwellings. That's the capacity for
7 units. I just don't want to misrepresent anything.

8 But my point is that there's plenty of
9 pre-approved housing already on the books. And one of
10 the other things I wanted to bring up was when we were
11 talking about the retention basin I had said West Nile
12 Virus from the mosquito population. It's dengue
13 fever. I wanted to make sure I clarified that. We do
14 not have West Nile in Hawai'i. Thank goodness. We
15 have a mosquito that carries it but we don't have it.
16 I meant to say "dengue fever". So my point there, I
17 guess, was just that mosquitoes can cause harm and
18 just something to be considered.

19 And also when we were talking about digging
20 the 8-foot retention basin they were talking about
21 hitting bedrock. Well, the section all along that
22 whole property was previously a stream. And so you
23 hit bedrock in less than 8 feet. And I believe sewer
24 lines go below that.

25 So I just never really considered that

1 before until I started hearing about the bedrock
2 issue, that that is gonna be quite a noise for either
3 blasting or pounding to get it out. That will be a
4 significant impact to the existing neighborhood
5 because it will take longer. And it will be more of a
6 noise thing which I never really considered before we
7 talked about that.

8 (Approaching maps) And I was finishing up
9 talking about the flooding. Just to kind of show on
10 the property here. This is where, this wall is at the
11 top of the property, then this comes down.

12 When we did the tour they were saying that
13 the kind of housing starts more at the bottom of the
14 treeline and goes down here.

15 As you can see when the water comes this is
16 the direction. This side is all going to be developed
17 eventually on the finishing phases of Emerald Plaza.
18 But you can see when the water comes down how it comes
19 up here. So if something were to happen with that
20 retention wall, or if floodings gonna happen, this is
21 the natural flow 'cause that's the low spot right
22 there.

23 And I also wanted to point out the bypass
24 bridge -- you may have remembered seeing that -- is
25 above this wall. Then there's a bridge at the bottom

1 of the property which the people from this property
2 would be using to access in and out of the property.

3 Then it has one more bridge that crosses
4 Highway 30 and one more bridge at the bottom that
5 crosses Front Street. So there's a series of four
6 bridges that cross this property.

7 And I just wanted to bring up a couple
8 flood facts which I got from floodsmart.gov and
9 FEMA.gov. Quote, "Flash floods are the number 1
10 weather-related killer in the U.S. They can roll
11 boulders, tear out trees and destroy buildings and
12 bridges.

13 Zone X, which is what this property is,
14 zone X for flooding is considered moderate to low risk
15 areas. The risk of being flooded is reduced but not
16 completely removed. These areas submit 20 percent of
17 the National Flood Insurance program claims and
18 receive one third of disaster assistance for flooding.

19 Again, who's liable in the event of a
20 flood? I don't believe it should be the Petitioner
21 because they may not be around when it happens or they
22 may not have the finances to be able to compensate the
23 families that are living there. But I just think that
24 that is something being built next to a flood channel
25 that does need to be addressed.

1 Continuing on with my presentation. On
2 Page 68 I had done a revised Kahoma Residential
3 Subdivision. When I met with Isaac Hall for that
4 consult on how to write this paper, he said, you know,
5 "You need to have an alternative to denial." And I
6 had this blank look on my face. He goes, "You don't
7 know what I'm saying."

8 I'm like, "No." He goes, "You need to have
9 a Plan B." I'm like "Okay." So he hands me this
10 paper. And he had penciled in the two lots behind
11 where my house is on one of the Petitioner's papers
12 that they had submitted.

13 And he goes, "Ask them to put the park
14 there instead." And I looked up at him and he goes,
15 "You're not gonna do that, are you." And I'm like,
16 "No, I am not."

17 And he says, "Will you promise me you'll do
18 an alternative to denial and come up with a plan?" I
19 says, "I will but it's not gonna be asking them to put
20 the park in my backyard."

21 So I started thinking about it. I'm like:
22 Okay. If they feel like they have to have these
23 houses, and all the other thousands of houses that are
24 pre-approved for the west side are not adequate, we
25 need 68 more, then what could we do.

1 So I tried to think what would be best for
2 the entire community. So I started thinking about it.
3 One of the main issues is the traffic because of our
4 old existing neighborhood. You can put in a
5 cul-de-sac there. You can get a county waiver to do
6 that. So if they made it a cul-de-sac for those 68
7 homes so that there's not through traffic, that would
8 alleviate a lot of the concerns for the local
9 neighborhood.

10 The other is taking away our only open
11 space and park. By leaving a larger area at the top
12 that would not just service this small neighborhood
13 but the entire existing community. That would be
14 meeting some of the need you're taking away. Lot of
15 the acreage but it could have several acres to
16 actually have a real park in at the top so we have
17 nice views like we've got now. At least we'd salvage
18 that.

19 By putting the bike paths and the walking,
20 the sidewalks behind their properties, if you look at
21 my plan they go around the outside perimeter of it.
22 When you do go walking like you're hearing Jane talk
23 about walking with her dog, crossing 68 driveways
24 would be problematic.

25 But if you could walk around and you're not

1 crossing anybody's driveways, little kids riding their
2 bikes and their little scooters and whatnot, the
3 property of the bike path and the walking path went
4 around the backside perimeter that would also protect
5 that.

6 In addition to that, also it would be more
7 affordable because the lots would be smaller so they
8 wouldn't be able to put 'ohanas on 'em. So therefore
9 the impacts at schools -- like right now the Princess
10 Nahienaena said they were 80 students overcapacity
11 from last year. They're a hundred students over.
12 They're lacking two teachers at this point.

13 They don't even have, I think it's the
14 kindergarten, and I'm not sure if it's a third or
15 fourth grade teacher. But they're short staffed right
16 now without even adding these additional homes.

17 So just by having a little smaller
18 community would help with the less negative impact.
19 So that's what some of my things... One of my things
20 on there is moving the rocks from behind my house up
21 to that property.

22 And back in June when this paper was due I
23 had only four days to work on it. And I work fulltime
24 so I only had, like, three hours of sleep at night.
25 And I'm working on this thing.

1 I told my husband -- it was on Father's
2 Day, I go, "Can you just celebrate Father's Day 'til 3
3 o'clock? And can you help me 'til you go to bed just
4 type some stuff? 'Cause else I'm not going to get it
5 done in time to get it in the mail on that date."

6 So he comes in at 3. This is about the
7 part where I was at and he's typing this part about
8 the boulders. And he's, like, "They've got to move
9 the rocks to the park." I'm like, "Yes."

10 He goes, "That's a deal breaker." I'm,
11 like, for me it is because those rocks right behind my
12 house are kind of in a semi-circle. I go, "Those are
13 my Ebenezer." I don't know if you're familiar with an
14 Ebenezer.

15 But an Ebenezer is a rock of remembrance.
16 You don't worship the rocks but you look at the rock
17 and you're reminded of God's faithfulness in the past.
18 What has he done for you in the past? And when you're
19 going through really difficult times, which we all go
20 through, you look at them and you go, "What am I
21 thankful for right now? What is God doing in my life
22 right now?" And then you just know He's going to
23 sustain you to the end so that you can be assured that
24 He's going to be with you.

25 And you probably know Ebenezer best by the

1 movie that comes out at Christmastime, "A Christmas
2 Carol," and Ebenezer Scrooge and he has the ghost of
3 Christmas Past, Christmas Present and Christmas
4 Future.

5 And that's exactly what State Land Use
6 does. You look at the past use of this land, what was
7 this land used for in the past. You're looking at
8 what's the present use, what are we using it for right
9 now and what's going to be the best future use.

10 So with that in mind that's what I kinda
11 wanna look at. So the past would be Hawaiian history
12 is acknowledged. No one here has denied that there
13 was a Hawaiian village there and this is where
14 Hawaiian history happened.

15 But what they're saying is there's not
16 enough physical evidence because it was compromised by
17 150 years of plantation history. So it's basically
18 two histories that have collided in this one
19 particular area.

20 The beauty of it is is that it is
21 historical. It can be remembered. And because it's
22 not sacred ground, they're not finding these sacred
23 spots necessarily, it's a place that the public can
24 actually go on and enjoy and learn and not have this,
25 you know, area that's roped off that you can't go

1 there. But it's definitely historical.

2 The proximity to the elementary school,
3 intermediate school, high school, the Maui College
4 annex is right across the highway from where this
5 property is.

6 They could teach agricultural, study of
7 nature, history, culture. Let people see how history
8 collided and they can go to that rock pile and go,
9 "Heiau or push pile?" They're both history.

10 What's the present day use? The present
11 day use, if you watched my DVD, is used as natural
12 beauty. It's used as the study of nature. You
13 probably are wondering on my Page 13 of my exhibit
14 there's this, like, picture of this bird in the
15 corner. It's just a small one. But I never carry my
16 camera out there. I just walk out there. I thought,
17 well, if I can find someone to make that disk I'll do
18 it. If I can't I won't worry about it.

19 And so I'm walking out there with my camera
20 and six giant frigate birds, they have a 7-foot wing
21 span -- they flew right over my head and circled for a
22 long time. Now, I have a camera that doesn't have a
23 little view finder so I just had to point my camera up
24 in the sky and shoot. But I got a picture. And
25 that's why I put it in there.

1 You're probably wondering why did she do
2 that? But you see Nene out there. You see all kinds
3 of really amazing birds. But these frigate birds were
4 the most amazing I've seen out there. There were six
5 of them and they just hovered for a long time and then
6 they flew away. They came back again the next time,
7 the next day and I haven't seen them since. But also
8 we used to have an owl --

9 THE REPORTER: Ms. Lincoln, would you
10 just --

11 MS. LINCOLN: Slow down? I'm sorry. Also
12 I have a story of an owl that hunted out there for
13 years. Their expert didn't see it. That's too bad
14 because it was an amazing thing to see.

15 But a little boy moved in our
16 neighborhood -- he's actually pictured on Page 53
17 where I was showing the height of the illegal dirt
18 that was put at the bottom there -- but Kai moved in
19 in March of 2005. So I know the owl was there at that
20 time and after that because he's the one who named it
21 Moon Face.

22 And so Moon Face hunted out there. We
23 would see him. We walked more like along the road
24 there with our dogs and then Moon Face would hunt for
25 mice and rats and whatnot out there. And then those

1 dead trees behind our house, Kai calls the Halloween
2 trees. He'd go up in those trees and eat his prey.
3 It was pretty amazing to watch.

4 I do know that Moon Face was still there in
5 July 2009 because we adopted a little dog that's
6 pictured on one of the pages in here too. And the dog
7 weighed about 13 pounds when we got here. I noticed
8 we were walking and Moon Face was flying right
9 overhead. I'm thinking, "Cool."

10 All these years I've been out here walking
11 and I've never seen Moon Face that close. Then I
12 realized it was checking out Emma, my little dog. So
13 I had to go rescue my dog.

14 But those are the two memories I know for
15 sure that the owl was still there then. Moon Face is
16 gone. I don't know what happened to him, if he was
17 killed or died of natural causes. But he was there
18 during that time.

19 I have seen other owls out there but I've
20 not seen them hunt regularly like that one. So I do
21 know that the study of nature does go on.

22 Of course, it's a buffer zone between the
23 present use for this land, be a buffer zone between
24 the light industrial and the existing housing.
25 There's walking, jogging, biking done out there. It's

1 a dog park. That's how Jane and I met walking our
2 dogs out there. It's a playground, a driving range
3 and other recreational activities.

4 The county has used it since the Kahoma
5 Flood Channel was built for dumping silt and dirt,
6 sand, sludge, driftwood, anything that would clean out
7 and maintain the flood control and any of the other
8 debris areas they've been dumping.

9 So that major part at the bottom was just
10 more recently. But through the years every winter
11 they clear out the flood channel there. So the county
12 uses that land.

13 Also access for machinery. I was gonna
14 point this out. Okay. (pointing to map) This is the
15 county access right here. When we did our tour, when
16 you guys did the onsite visit you actually drove up
17 right here. There is a cliff right here. Because of
18 the angle of this and coming around to here, regular
19 trucks can make it. They clean out the basin.

20 But the big machinery that they needed to
21 get up to build the footings of the bridge and to
22 build the bypass bridge, one of the big machines went
23 over the cliff there.

24 So they had to bring in big boulders and
25 rocks so that these machines could get enough force to

1 get up this little incline here and around the corner
2 and then up. So I don't know if you guys remember
3 that when you were in the van. They kinda had to make
4 a little right for it here to get around. But that
5 part that we actually drove on is not the county
6 access road. That belongs to Kahoma.

7 And at the bottom of the property where we
8 accessed it the big machines could not get around the
9 county access road -- and I don't have a picture of
10 it, but there's a pole there right at the end of the
11 bridge. And regular maintenance trucks can make it
12 around that and get up along the access road.

13 But the big vehicles, those big machinery
14 that they needed to get up there to do the
15 construction, they had to move the boulders at the
16 bottom of the hill where we access the property --
17 that's gonna be the future ingress and egress for this
18 property -- that's how those big machines got up
19 there.

20 And I'm thinking: Okay. Well, when this
21 is all developed -- I know it's a brand new bridge,
22 but a hundred years from now it's not gonna be a brand
23 new bridge.

24 Or if we had an earthquake and something
25 happened with the footings and they had to get up

1 there, how are they supposed to access the bridge and
2 this retention wall? If something's to happen with
3 this and I mean cement doesn't last forever. Rebar
4 doesn't last forever.

5 So if they have to get big equipment up
6 there, how are they going to get up there on that
7 access road that they cannot get the machinery up
8 there right now without having to access where they
9 move the boulders, where the access for this property
10 would be *and* this corner up here is not that wide?
11 They can't get the machines around it.

12 (resuming seat)

13 So those are just things that need to be
14 taken into consideration before we develop that area.

15 So in its current condition it's meeting --
16 so the land in its current condition is meeting many
17 needs in the community and for the county.

18 So now you're looking into the future. And
19 they have a beautiful subdivision planned. Their home
20 plans are absolutely fabulous. The way they have the,
21 you know, the streets lined out, they're gonna be
22 wider than normal. They're gonna have sidewalks.
23 They're gonna have bike paths, those little turnouts
24 with the landscaping. It's really going to be a very
25 beautiful community.

1 So if you look down into the future and you
2 guys choose to do that, it will be a darling little
3 community. But it's going to be nestled between 40
4 and 100 year-old houses. I live in an 80 year-old
5 one. It's going to be nestled between Light
6 Industrial which is not completed yet. Light
7 Industrial is going clear up to here.

8 So you'll have-- here's these homes that'll
9 all be built in here. And you will have 40 to a
10 hundred-year-old homes right here, industrial here,
11 bridges here. There's condos, townhouses below the
12 property.

13 And this will be your greenway, that little
14 gravel road right there, and then the flood channel.
15 That will be what that community looks like.

16 This picture right here, that's what it
17 looks like right now, nobody doing anything to it. In
18 fact that's showing over 20 years of abuse and
19 neglect. People dump trash on it. The county's been
20 dumbing stuff on it.

21 When they dump their dirt -- if you look on
22 the picture on my exhibit there's a tire sitting out
23 of it -- they're not just dumping dirt. There's parts
24 of road signs and rubbish and all kinds of stuff.

25 This land has been abused and neglected.

1 And I hope you watch my DVD because it's still
2 beautiful out there. Doesn't matter what you do to
3 this land. It still is beautiful and keeps on giving
4 and giving to the community even though that's what's
5 happened to it. So imagine this is what it looks
6 right now with no water, no care, people dumping junk
7 on it and no one taking care of it. So what could be?

8 So that's 20 years of abuse and neglect and
9 the land is still beautiful, natural beauty serving a
10 densely populated and growing community with a clean
11 and healthful environment and the last greenway in
12 Lahaina.

13 As funds would allow the future could hold
14 many possibilities: Paths for bikes, strollers,
15 wheelchairs, a community garden, a plantation,
16 historical playground and picnic area at the bottom
17 and a Hawaiian Heritage Park at the top.

18 The fourth grade kids at our schools learn
19 about Hawaiian history. Can you imagine if you had a
20 playground designed around a Hawaiian culture theme
21 and they could go there and learn about Hawaiian
22 history playing on a playground that's around that
23 type of theme? And they plant their little native
24 plants in their little milk cartons. When it gets too
25 big for the milk carton they bring it down, plant it

1 in the native garden.

2 And picture our high school shop class
3 builds these beautiful canoes. When they did the
4 Festival of Canoes our kids built canoes. And then
5 they put them on exhibit when they're finished up at
6 the high school.

7 And I'm thinkin' how cool would it be to
8 get it in a rotation system and have Hawaiian canoes
9 on exhibit for kids to crawl on, make play structures
10 so they can really imagine what it was like with the
11 Hawaiians coming over on those canoes and that huge
12 ocean and finding these tiny little islands.

13 And just the amount of history that can be
14 taught there through active learning where instead of
15 just with books you're out exploring. The college is
16 expanding their Hawaiian classes. And they also have
17 building classes.

18 Can you imagine if they can reconstruct --
19 there's plenty of rock out there -- some of the old
20 Hawaiian structures and make them picnic areas and
21 just areas for people to enjoy.

22 And also in the event of a tsunami this
23 would be a great staging area for people for all those
24 houses. Look at all the houses. I mean you have all
25 these houses right here but this doesn't show off

1 here, here and here.

2 Imagine these people being able to come up
3 here and get above the tsunami line. And pets aren't
4 allowed into the school. So there's a lot of people
5 who would be able to take their pets and be able to
6 stay there during tsunami warnings.

7 There's a couple mango trees that have
8 managed to survive on that property without water.
9 I'm just picturing what if we got water there which
10 there are stream diversion plans. I found them
11 online. They don't look that complicated to do,
12 divert the stream water. But imagine a mango grove.
13 That land used to grow some serious mangoes. And we
14 can do it again.

15 Our neighbor's crop was going off in April
16 and May and the first part of June. And our crop on
17 our trees was going off June, July and August.
18 There's six months right there. We're not farmers.
19 We don't even know what we're doing and our trees give
20 us mangoes.

21 So I can't even imagine with somebody that
22 could grow some mango trees you could have a lot of
23 months of mangoes growin' out there. A good cause for
24 community fundraiser. Can you imagine having an
25 annual mango festival?

1 We can't just think about the here and now.
2 You gotta think about the future. You start growin'
3 those mango trees now, in the future they could have
4 festivals that could help you either sell the mangoes
5 to help defray the cost of park maintenance, or you
6 could donate it to local food banks. But there's a
7 lot of possibilities of what this land could be.

8 And it doesn't take anything to make it
9 beautiful 'cause it's beautiful right now. And you
10 can just grow it as the community would allow, funds
11 would allow.

12 I love the state motto. "The life of the
13 land is perpetuated in righteousness." I'm sure you
14 get a lot of intervenors. And a lot of them are in
15 the "Not in my backyard" kinda people. That's why I
16 really love the people I got to testify for me.

17 Cindy Cajugal, this is her father-in-law.
18 And he's dying. And he was not even physically able
19 to come to the last meetings but he was at the county
20 council ones. But he just wants to know before he
21 dies what's going to happen with this land. Why would
22 a man dying give a rip? It's not gonna affect his
23 property values, his bottom line bank statement. But
24 he cares about that.

25 Jane making the comment about, "Well, maybe

1 by the time it goes through I'll be dead and I won't
2 have to worry about finding another place to walk my
3 dog, Mana."

4 I found people in our community that live
5 by this property that have wisdom. And I heard them
6 speak at the county -- well, not Jane but Herman and
7 the Cajugal family. I heard them speak at the county
8 council meetings and that's why I called them up when
9 I found out I was going to be an Intervenor to ask if
10 they'd testify for me because they speak with wisdom.

11 And they've been in this community a lot
12 longer than I have. And I think it's important to
13 listen to people who have age and it's not just
14 knowledge, it's wisdom. They know stuff.

15 And I get to speak because it is in my
16 backyard. That's what qualifies me to do this. So
17 I'm really concerned about all agricultural land. I'm
18 not just concerned about that little strip of land.

19 I'm concerned that West Maui Land has had
20 thousands of acres that they got. They describe this
21 piece as a remnant piece. It bothers me that they're
22 not planting anything. It bothers me that we are not
23 putting in more active agriculture. We just keep
24 building subdivisions.

25 From Ukumehame -- I'm concerned about all

1 of Hawai'i, but really my heart's passion is for
2 Ukumehame to Honolulu Bay. It's like that's my
3 hometown west side girl. I'm concerned. It's like we
4 need to take care of the land. You take of the land
5 and the land takes care of you.

6 We live thousands of miles away from the
7 continent. They're having global droughts. To think
8 that we can't have a dust bowl happen again? We are
9 sadly mistaken. It can happen again. There's a lot
10 more people on this planet. We need to start
11 planting. We need to start growing our own food and
12 raising our own livestock.

13 At the same time it's going to keep our
14 island beautiful. People fly thousands of miles and
15 spend thousands of dollars to come. They're not
16 comin' to look at strip malls and they are not comin'
17 to look at housing subdivisions. They're coming to
18 look at our beautiful green island and our beautiful
19 beaches.

20 So when you're driving along the pali I
21 don't want to see a bunch of greenhouses. I wanna see
22 green plants growing up and mango groves and plumeria
23 groves. And we should be sustainable. We should not
24 have to ship anything here that can grow here. It
25 should not be flown here.

1 These are things I'm concerned about. You
2 know, when I looked up the word "perpetuated" in the
3 dictionary, "The life of the land is perpetuated in
4 righteousness." It means "last for eternity".

5 People will always need food and water. So
6 these things we must guard and protect at all costs.
7 "The life of the land is perpetuated in
8 righteousness." Pono. Do what is right. You
9 Commissioners are appointed into making decisions that
10 are gonna affect the land and the people forever. And
11 I will trust in your wisdom.

12 And I will pray that you guys make wise
13 decisions not just on this land but everything you do
14 because it really is affecting our islands forever.
15 And you have to think about, "What am I doing today
16 that a hundred years from now are going to make a
17 difference?"

18 And I don't know if there's anything I'm
19 doing but I know there's things you guys are doing.
20 Because you're affecting by your decisions. And I'm
21 not just talkin' about this land. I'm talking about
22 all the stuff that you guys have to consider. It's
23 pretty weighty stuff.

24 The decisions you're making are affecting
25 whether Hawai'i's gonna make it or not in the tourism.

1 Whether it's gonna make it or not -- if there's a
2 global drought our people here, what are we gonna do?
3 They're not gonna ship food to Hawai'i. We're gonna
4 be last on their list.

5 We can grow stuff here. It's more healthy
6 and nutritious. And if you just make it where they
7 can't ship it here if it can be grown here, then it
8 will be financially more feasible. And I think
9 there's a lot of farmers that know how to do it. The
10 plantation days are over. I agree that they can't do
11 it the way they used to do it.

12 But there are other ways to farm. And I
13 think that we need to find that. And I think that we
14 need to protect our open spaces and watch out for
15 people instead of our bottom lines.

16 And I just want to thank you for letting me
17 have this opportunity to speak and share my thoughts
18 with you and hope that it will help you give a
19 perspective on whatever decisions you're making.
20 Thank you.

21 PRESIDING OFFICER HELLER: Thank you.
22 Petitioner, questions?

23 MR. GEIGER: Yes, we do.

24 xx

25 xx

CROSS-EXAMINATION

BY MR. GEIGER:

Q Ms. Lincoln, thank you very much for your comments. You understand that the Commission is here acting and receiving testimony, receiving facts concerning certain criteria that they have to review for this Petition, correct?

A Yes.

Q Okay. And those are facts as opposed to opinions. You understand that.

A Yes.

Q And you were allowed to intervene. In fact you were provided a copy of the criteria you were allowed to intervene on, four separate criteria, correct?

A Yes.

Q Okay. I want to talk to you about those four criteria and find out what facts, not opinions, but facts you have about those four criteria. Okay? First of all, let me make sure you're not claiming to be a soils scientist.

A (Laughing) No.

Q And you're not claiming to be an agronomist.

A No.

1 Q You're not claiming to be a biologist. And
2 you're not claiming to be a real estate appraiser.

3 A Absolutely not.

4 Q Or you're not claiming to be a planner.

5 A No. I'm an absolute nobody. Got it right.

6 Q I didn't say you were a nobody. That
7 wasn't what I was saying. I just want to make sure
8 that you're not trying to tell the Commission that
9 what you've said has any basis as far as an expert
10 opinion, correct?

11 A Absolutely not. And I said that, I think,
12 last time.

13 Q I want to talk to you first about an
14 opinion you just made that said: Well, let's make it a
15 long cul-de-sac one road going in, correct? That's
16 what you suggested.

17 A Yes.

18 Q Did you take a look at the design criteria
19 for subdivisions in the county of Maui?

20 A No. But I called and talked with the
21 subdivision department. And they said the county
22 could make a variance for that. I asked Will Spence
23 during his testimony. He said that they could do
24 that.

25 Q Do you know what limitation is in a

1 subdivision?

2 A Twenty homes.

3 Q No, no, no. What the limitation is for the
4 length of a cul-de-sac, not the number of homes it
5 serves, the length of a cul-de-sac.

6 A But from I asked with the --

7 Q That's not my question.

8 A -- I don't know. You already said that I'm
9 not an expert on this.

10 Q Understand. It will go easier, Ma'am, if
11 you answer my question as opposed to try to say
12 something else. Okay.

13 A Okay.

14 Q Would it surprise you to know that the
15 length of a cul-de-sac in a subdivision under county
16 ordinance is 550 feet?

17 A How does Lahaina meet that criteria?

18 Q No, that's not the question, ma'am. You
19 don't get to ask a question in response. You have to
20 answer. Would that surprise you?

21 A Well, that does surprise me because
22 Lahainaluna is a cul-de-sac and has been for over a
23 hundred years. And that is more than 500 feet.
24 There's no other ingress or egress out of Lahainaluna
25 in all that community other than the...

1 Q Do you understand what the definition of a
2 cul-de-sac is?

3 A It's one -- no, I guess I don't. Go ahead,
4 explain.

5 Q Do you understand Lahainaluna has other
6 roads that connect to it, other streets that connect
7 to it?

8 A Not in and out of it.

9 Q That's not my question. You understand
10 that Lahainaluna has intersections where other streets
11 connect to it, correct?

12 A Yes.

13 Q For example, Kalena Street is one.

14 A Sure.

15 Q A cul-de-sac doesn't have any other streets
16 that connect to it. It's strictly one way in, one way
17 out, no off connectors. You understand that now?

18 A No. Because if you want to get out of
19 Lahainaluna you have to -- it doesn't matter. You can
20 go down Kalena and you can come down Aki and all the
21 rest, but you still cannot get out of the bottom of
22 the hill. You're stuck.

23 Q Then by your definition Crater Road would
24 be a cul-de-sac, correct?

25 A Sure.

1 Q Do you know how long the property is?

2 A No.

3 Q If the property is 2400-foot long, that's
4 almost five times or excuse me, that's almost five
5 times what the maximum length of a cul-de-sac is. Do
6 you understand that?

7 A Yes.

8 Q So in light of that did you ask anybody
9 from the county: Would it be likely to receive a
10 variance that's five times the length of the
11 cul-de-sac for a subdivision design?

12 A I was given the impression that pretty much
13 if the county council approved it they could do
14 anything they wanted to do. And there is the county
15 access road right along the property. So if you'd
16 like to make a couple roads connecting to the county
17 access road for safety, you could do that as well.

18 Q You understand that would have to then be
19 improved, correct?

20 A Sure.

21 Q It would have to be paved, correct?

22 A If you needed that to be -- if that was a
23 criteria, sure.

24 Q You're suggesting that we should do that.
25 So I'm making sure you understand that this greenway

1 will no longer be a greenway. It will be paved over.

2 Is that what you wish?

3 A So you're just saying grey cement versus
4 grey gravel.

5 Q No. You're the one who suggested it should
6 be connected to the county roadway. I'm saying --

7 A No.

8 Q -- if you understand that then that would
9 be the result.

10 A No. What I said was it should be left as
11 open space but I promised Mr. Isaac Hall that I would
12 come up with a plan B. That is what I said.

13 Q And maybe your plan -- well, let me go on
14 to something else. You bought in the neighborhood in
15 1992, correct?

16 A Yes. But I've lived there since 1983.

17 Q And that's in this neighborhood, correct?

18 A Yes, sir.

19 Q You understand that the Lahaina Business
20 Park on the other side of the Kahoma Stream Flood
21 Control Channel also went through a boundary amendment
22 with the Land Use Commission.

23 A Oh, I'm sure lots of land on the west side
24 has. That's why I'm saying it's not -- my concern is
25 not just this land. It's all of the ag land getting,

1 yeah.

2 Q It was a boundary amendment from
3 Agricultural to Urban. Do you understand that?

4 A Yes.

5 Q That was done in the early '90s. Do you
6 understand that?

7 A Yes.

8 Q But you didn't participate in that
9 particular proceeding, did you?

10 A I had a baby on September 11, 1992. My
11 priorities were a little different. And I didn't know
12 that until I called someone at the county. And I
13 think I made that clear when I called the county to
14 say that, you know, find out if West Maui Land had
15 brought it up to State Land Use. Someone at the
16 county told me I could be an intervenor, I didn't know
17 I could do that. I didn't even know you could go to
18 county council meetings and say anything.

19 Q Ma'am, I understand. My question was you
20 didn't intervene in the Lahaina Business Park Land Use
21 Commission proceeding, did you?

22 A No because I had a baby. He's 20 now. I'm
23 an empty nester. I have time for this.

24 Q You want to talk about maintenance of
25 agricultural resources. Would you agree that the

1 Department of Agriculture classified this land as
2 Other Important Agricultural Lands?

3 A I don't know what that means.

4 Q Did you read the exhibits that were
5 attached to the Petition?

6 A Not in its entirety.

7 Q Did you look at the Final Environmental
8 Assessment?

9 A Absolutely not.

10 Q Did you look at the testimonies of the
11 witnesses, the direct testimonies of the witnesses
12 provided by the Petitioner in this case?

13 A Yes.

14 Q Did you review the testimony of
15 Mr. Singleton the agronomist?

16 A That was your friend.

17 Q No.

18 A That was Dr. Singleton?

19 Q It's Dr. Singleton.

20 A I'm just trying to get it in my head who he
21 is, yes.

22 Q Did you review his testimony?

23 A Yes.

24 Q Okay. And in his testimony he pointed out
25 that other Important Agricultural Lands, that's what

1 this land was classified, correct?

2 A I don't remember but I'll agree with you if
3 you saw so.

4 Q And in fact Exhibit 7, which is the Final
5 EA, also contains a map published by the State
6 Department of Agriculture that shows what the land is
7 classified. And he referred to that in his testimony.
8 Did you understand that that is the lowest level that
9 Ag land could be classified at?

10 A Like you said I'm not an expert on this.
11 What I did remember Paul Singleton saying was about
12 that mango trees grew there and why aren't there mango
13 trees. And I remember him commenting about how it's
14 highly densely populated.

15 So he didn't see why having agriculture
16 there would be a good thing because, like he mentioned
17 the pig farm -- and I love bacon, but I really don't
18 want a pig farm there. I agree with him on that.

19 I do remember him saying, though, you could
20 -- "anything can grow there" is what he said. It's
21 just not a great place because the rocky and because
22 it's surrounded by highly densely populated which is
23 kind of my point because we don't need more houses
24 there. So, yeah, I agreed a lot with what he said,
25 and he mentioned mango trees. And there are still

1 mango trees there so...

2 Q You understood he said that this land would
3 not be commercially viable for agriculture.

4 A I agree. Not commercially viable. Does
5 everything have to have a bottom line?

6 Q Did you read or review the State
7 Agricultural Functional Plan?

8 A Can you remind me what it is? I probably
9 did read that one.

10 Q Well, it's one of the criteria that you've
11 intervened on. Did you take a look at the State
12 Agricultural Functional Plan in connection with your
13 intervention in this matter?

14 A I probably did but I don't remember.

15 Q Well, let me refresh your memory then. Do
16 you recollect that there were two objectives, two
17 fundamental objectives of the State Functional
18 Agricultural Plan?

19 A Can you -- no, I don't. I remember reading
20 it but, no, I don't.

21 Q The two objectives, to refresh your memory,
22 are: To have continued viability in sugar and
23 pineapple industry. And to have continued growth and
24 development of diversified crops and products.

25 Now, let me ask you. You would agree that

1 this land would not be suitable for sugarcane anymore,
2 correct?

3 A I think in my testimony that's what I was
4 saying. We're past the plantation era. I'm not sure
5 sugarcane and pineapple is the answer. But growing
6 food that we can eat is and I do believe that could
7 happen there.

8 Q Now, did you take a look at what
9 diversified crops and products were in the State
10 Agricultural Functional Plan?

11 A I don't recall.

12 Q In the State Agricultural Functional Plan
13 diversified crops and products are to be market niche
14 driven and Hawai'i differentiated for the export
15 market.

16 Is there anything in particular that you
17 have heard Mr. Singleton say or anyone else say that
18 this land could be used for market niche driven in
19 Hawai'i differentiated products for export?

20 A I heard him mention manges. It does have
21 mango trees on it. And it did have mango trees on it.
22 And mangoes are expensive in the market. And I think
23 if they started planting orchards all over the
24 islands, yeah, I do think we could export mangos
25 instead getting those horrible things that they import

1 from South America. Ours are way better.

2 Q Have you done any research to find out if
3 it would be commercially viable to export mangoes?

4 A No, I have not but that's what my concern
5 is that no one is doing that. They're taking all this
6 Ag land that used to be sugarcane and pineapple and
7 they continue to build houses on it. And they're not
8 looking into making this -- we're an agriculture
9 place. We should remain in agriculture and be
10 self-sustainable.

11 Q How many acres of Ag land are there
12 available on Maui?

13 A I don't know. That's not my -- that's not
14 my area of expertise but I care.

15 Q So you can't tell the Commission what
16 percentage of the agricultural land available on Maui
17 this particular 16 acres makes up.

18 A No, I cannot.

19 Q Would it surprise you it's less than 1/10th
20 of 1 percent of the available Ag land on Maui?

21 A But if you say that for every project, and
22 every project they condemn it, then we're gonna run
23 out of it.

24 Q Ma'am, I appreciate you want to argue with
25 me about this but you need to answer my questions.

1 Would that surprise you?

2 A I forgot the question.

3 Q I understand. You have your -- you have
4 your agenda you want to get out. What I'm asking is
5 would it surprise you if this land is less than 1/10
6 of 1 percent of all the available Ag land on Maui.

7 A No. That wouldn't surprise me. It's 16.7
8 acres. That's wouldn't surprise me. We're an island
9 but we're not that small.

10 Q And you understand "Hawai'i differentiated"
11 would mean things like Kona coffee or Maui onions,
12 don't you?

13 A I'm sorry?

14 Q You understand "Hawai'i differentiated",
15 which is a marketing term, would mean like Kona coffee
16 or Maui onions, correct?

17 A No, I don't know what you're talking about.
18 I'm not an expert in those sorts of things.

19 Q Okay. Let me talk to you a little bit
20 about another area that you wanted to intervene on,
21 that's on the commitment of state funds, which was the
22 traffic aspect.

23 A Okay.

24 Q Now, we know you didn't review the Final
25 Environmental Assessment. Are you aware that the

1 Final Environmental Assessment contained a Traffic
2 Impact Assessment Report? Or 'Analysis' Report. I'm
3 sorry. Traffic Impact Analysis Report.

4 A I think what I was trying to say with the
5 traffic is that we're looking at different things. I
6 agree that 68 houses, I agree with the traffic impact
7 is not going to make a difference on our roads having
8 68 more homes.

9 I'm just talking about what Herman was
10 talking about in his testimony. And that's just the
11 logistics of our neighborhood which you don't live
12 there so you don't know. So that's the only expert.
13 So it's just his opinion versus our opinions because
14 we live there.

15 Q And you're not an expert traffic engineer.
16 And you're not purporting to be an expert traffic
17 engineer, correct?

18 A No, I already said that. On every point
19 you're bringing up I am not an expert.

20 Q You understand that there's going to be
21 absolutely no impact on the Level of Service in any of
22 the intersections in the area that were addressed in
23 any of the Traffic Impact Reports whether or not this
24 Project is built. Level of Service will be the same.

25 A I will agree to that if you'll agree that

1 Jane and Herman and my neighborhood will be affected
2 by extra cars driving through it. Because I don't
3 care what your traffic expert says. They're talking
4 about ingresses and egresses. They're talking about
5 highways. We don't care about that. We're caring
6 about our streets that we live on to make 'em safe.

7 We're apples and oranges here. It's
8 different. Of course your assessments are correct.
9 But that's not what we're talking about. We're
10 talking about safety in the existing neighborhoods.

11 Q You have no basis, no facts that you can
12 provide to this Commission that the neighborhood will
13 be any less safe as a result of this Project.

14 A No. I guess you're going to have to hit a
15 kid or something for me to get my point across.

16 Q Ma'am, I'm not going to hit anybody. The
17 point is you have no facts that you can provide us.

18 A No. Of course not. Because it's not done
19 yet.

20 Q You would agree with me, wouldn't you, that
21 if there were other ways to get individuals to the
22 park as opposed to walking on the streets that that
23 might be a nice way to handle some of your concerns
24 about safety?

25 A Are you talking about the less than 1-acre

1 park that has no features on it that's in the middle
2 of the thing with no views? Is that the park you're
3 talking about?

4 Q That's the park I'm talking about.

5 A Yeah. No, that doesn't seem like a
6 destination that's gonna, like, restore me after a day
7 of work. But no.

8 So I don't think any amount of extra
9 sidewalks because we need a bigger park than that.
10 That's really only big enough if you even wanted to
11 say for 68 families?

12 I can't even imagine all the kids out it
13 there. What are they supposed to do? So, no, I don't
14 think that park is adequate. That's why I had my
15 revised plan for a bigger park.

16 Q And you're not an expert on recreation,
17 correct?

18 A Am I a parks and recreation person? No, I
19 am not.

20 Q You're not here providing any facts to this
21 Commission that says that parks are adequate or
22 inadequate. It's just your opinion you think it
23 should be something else.

24 A I have raised a family. I have hanai'd a
25 bunch of kids. Every week at my house during the

1 school year I have anywhere from 30 to 60 kids. I
2 feed 'em dinner. So I do know a little bit about kids
3 and recreation and games and space that you need for
4 that sort of thing.

5 So am I an expert? Do I have a degree?
6 No. But do I have expertise in recreation? Yes.
7 I've got all the baseball mits. I've got all the
8 volleyball setup and I've got the games for kids. So,
9 yeah, I do know something about recreation and what
10 kind of space you need.

11 Q Okay. Do you know what the county
12 requirements are, design requirements are for a park?

13 A Nope.

14 Q Would it surprise you that the county
15 design requirements are 500 square foot per lot?

16 A For a neighborhood park you mean.

17 Q Yes.

18 A Yes.

19 Q That's what we're talking about here.

20 A That's what I'm saying your park that
21 you've designed is perfect for your little
22 neighborhood. But I'm saying it doesn't meet the
23 neighborhood's needs from 40 to 100 years ago which is
24 what's abutting this property.

25 That's my point exactly is that no parks

1 were, you know, implemented back when Jane's house was
2 built a hundred years ago and mine was built 80 years
3 ago. They didn't have that requirement. So that land
4 out there is our park space. It was our park space.

5 Q Well, when the houses were built 40 to 80
6 years ago that land was in sugarcane production,
7 correct?

8 A It was a stream bed with mango trees and
9 plum trees.

10 Q Are you telling the Commissioners that the
11 whole 16.7 acres was a stream bed?

12 A No.

13 Q The majority of the land was in sugarcane
14 production, correct?

15 A No. There was a pond behind there. There
16 was a pig farm behind my house. Jane was telling me
17 about some of the stuff that was back there. There
18 was a flume that came down. So during that time it
19 was further over.

20 Q You've seen the aerial photos that were
21 introduced into evidence, is that correct?

22 A From the '70s, yes.

23 Q Yes.

24 A But I'm talking Jane's been around since
25 the '30's. So I'm talking going back to that era when

1 she was talking about her little bento lunches and
2 stuff.

3 I'm talking, like, that era when the houses
4 were actually built. My house was built in 1932.
5 You're showing pictures from 1977.

6 Q And at that point in time there was no park
7 there. It was used as sugarcane production, correct?

8 A No. It was used as a park. That's what
9 Jane said.

10 Q In 1977 with the photograph is that your
11 testimony?

12 A Oh, no. When Jane was growing up when she
13 was younger. And I didn't get there until the '80s so
14 I didn't use it 'til then.

15 Q You understand that the park, the
16 neighborhood park as is designed is going to exceed
17 the county design standards for parks.

18 A And I've already said for your little
19 neighborhood that is adequate.

20 Q Ma'am, that wasn't my question. My
21 question was you understand that it exceeds the county
22 requirements.

23 A For a subdivision, yes.

24 Q Again, it exceeds the county requirements,
25 correct?

1 A It exceeds the county's requirements for...
2 a...subdivision.

3 Q For a neighborhood park.

4 PRESIDING OFFICER HELLER: Mr. Geiger, I
5 think the point has been made.

6 MR. GEIGER: I think so too.

7 Q Let me move on to the provision of housing
8 opportunities to low, low-moderate and gap groups.
9 That's another area in which you intervened. You
10 would agree that this Project is a 100 percent
11 affordable Project under Maui County rules?

12 A Under HUD guidelines yes, it is.

13 Q Under the Maui County rules.

14 A Which are HUD guidelines, yes.

15 Q Now, you just mentioned today that you are
16 arguing that there are over 16,000 new units. I thank
17 you for correcting your testimony. Because it isn't
18 all single-family, correct?

19 A That's correct.

20 Q Now, included in your count, because you
21 asked questions about this of other witnesses, was the
22 Villages of Leialii'i, correct?

23 A Yes.

24 Q And that Project was approved sometime ago
25 for approximately 4850 units. Is that your

1 understanding?

2 A Yes.

3 Q How many of those units have been built?

4 A I don't know.

5 Q Did you review the written direct
6 testimonies that were provided in this matter by the
7 Petitioner?

8 A I don't know which one you're referring to.

9 Q I will refer to you to Anthony Ricky
10 Gonsalves' written direct testimony. He indicated he
11 worked on that Project. And only 101 units were
12 built. Is that consistent with your understanding of
13 how many units were built?

14 A I don't know, but I just know that there's
15 a lot that are approved, that are on the books.
16 Whether it happens now or whether it happens 50 years
17 from now the fact is it's already designated for
18 construction and for pavement and for homes. So I
19 don't understand why we need to keep taking out Ag
20 land or open space. That's just my contention.

21 If the Commissioners decide that that's
22 what's best for it, I will honor that. But just to
23 keep saying: "Well, that project didn't go all the
24 way through," that doesn't make it right to keep
25 taking Ag land out and making it -- because it is

1 already pre-approved before whether it's going to
2 happen now or 50 years or a hundred years from now we
3 have to look a little bit beyond our lifetime to make
4 decisions. But go ahead. So, no, I don't --

5 Q The county council approved this Project.
6 You understand that?

7 A The county council -- I was at that meeting
8 and I heard all their objections up and down. They
9 all had to say their little thing before they voted.
10 And if they had denied this and you guys brought it to
11 these guys, and they approved it, they would not have
12 gotten all their amendments in.

13 And they got some very good amendments in
14 there about like the time restraints, and the capping
15 of the pricing and all that. So they wanted to make
16 sure that if they didn't vote it in it would have come
17 without modifications.

18 Don Couch made a point of saying that
19 before it got passed on. But almost every one of 'em
20 made some comment about, like, the traffic or Ricky
21 Hakomo was big about the flood issue. And what's the
22 one guy? He didn't say anything the whole time. And
23 the end he goes, "I don't see how 685 is affordable."

24 I mean they all made their little comments.
25 But I think they also understood it was gonna come to

1 these guys to make a decision and it was better to get
2 their amendments. That's what I took from that.

3 You took it as a stamp of: Hey, let's get
4 this through. And I took it as a: Hey, it's gonna go
5 to State Land Use regardless what we decide. So let's
6 make sure our amendments get in there. That was my
7 take from it. You had a different take. That was my
8 take.

9 Q Ma'am, I just asked you the question:
10 "Didn't the county council approve it?" The answer
11 would be "yes", correct?

12 A Yep.

13 Q And the vote was 7 to 2, correct?

14 A Yes. And the one who voted against it was
15 our representative who represents the people of the
16 west side and what our feelings are. Yes, that's
17 correct.

18 Q Now, are you aware that certain projects
19 that have gone before the Maui county council for
20 affordable housing under the fast track have been
21 denied?

22 A Oh, I'm sure. Like you said I'm more
23 involved in kids, in regular household and working
24 than in county issues.

25 Q The county council in the past has shown

1 that if they didn't want to approve a project for the
2 affordable housing they would deny it, correct?

3 A Oh, I'm sure.

4 Q In fact, you heard the testimony of
5 Ms. Bigelow that another project for affordable
6 housing in Lahaina at the south end was denied by the
7 county council two times. You remember that
8 testimony?

9 A I remember that testimony.

10 Q Isn't it correct that the county council
11 ultimately decided that it was more important to have
12 housing than these other concerns?

13 A I don't feel that. Like I said I feel like
14 what I just said before. I think that if it had --

15 PRESIDING OFFICER HELLER: Mr. Geiger.

16 MR. GEIGER: Yes.

17 PRESIDING OFFICER HELLER: Just in terms of
18 scheduling it's about time to give our reporter a
19 break. Are we at a convenient place to take about a
20 10 minute break?

21 MR. GEIGER: This would be fine.

22 PRESIDING OFFICER HELLER: Let's take a
23 10-minute recess.

24 (Recess was held 12:10)

25 PRESIDING OFFICER HELLER: Okay. Let's go

1 back on the record. I believe, Mr. Geiger, you were
2 in the process of questioning Intervenor Lincoln.

3 MR. GEIGER: Thank you, Chair,
4 Commissioners.

5 Q Ms. Lincoln, let me move on to a couple
6 other things. First of all, with regard to the flood
7 rating that you mentioned. Have you reviewed any of
8 the flood maps that were published by FEMA for this
9 Project or for this area?

10 A No, other than just noting it was flood
11 zone maps.

12 Q Do you know where flood zone X falls within
13 the classification of flood zone?

14 A No. I just looked up online what FEMA said
15 about it.

16 Q Flood zone X is the lowest classification
17 that they make of flood zones. Would that surprise
18 you?

19 A No. That's what I said in my testimony.
20 It's a low risk. But 20 percent of the flood
21 insurance claims are from flood X. And one third of
22 our disaster relief is for that flood zone. So a
23 third of our disaster relief, that seems pretty
24 significant for even minimal risk.

25 Q You understand that the FEMA went through

1 and updated the flood maps for the Lahaina area in
2 2009?

3 A No.

4 MR. GEIGER: Pass the witness.

5 PRESIDING OFFICER HELLER: County?

6 CROSS-EXAMINATION

7 BY MR. GIROUX:

8 Q I'll keep this short and nice. I just want
9 clarity. Your position is that you want this piece of
10 property to remain in Ag?

11 A Well, open space. And then if we can use
12 it for all the things I mentioned like community uses
13 and it can grow mango trees or put in a community
14 garden, but not commercial Ag, but Ag growing native
15 plants and be able to use it more for educational
16 purposes than commercially viable agriculture. That's
17 my heart's desire.

18 Q Okay. But as far as a zoning for open
19 space do you know if that's a permissible -- approved
20 permitted use? Because when we're talking about open
21 space there's a Community Plan Open Space, right?

22 A Well, it's in the West Maui Community Plan,
23 the 1996 it is as open space had quite a bit of
24 dialogue regarding that wanting it to be left as open
25 space.

1 Q What about possible uses in the Community
2 Plan then?

3 A The community -- what do you mean? The
4 Community Plan said to do minimal just like put
5 pasture? Is that what you're talking about?

6 Q Right.

7 A I'm not sure what your question is.
8 They -- when they discussed it they said put, like,
9 they didn't want it to be a ball field. Is that what
10 you're asking? I'm not exactly sure of your question.

11 Q I'm confused because, I mean, if the desire
12 is to put it into open space, but the concern is that
13 you're losing ag, is that a contradictory in wants of
14 use?

15 A Oh, I think you can do both. I think you
16 can do -- you can grow native plants and be
17 educational and beautify. Can have mango grove like I
18 mentioned. You can have a community garden. I don't
19 see where they're not compatible from one another
20 providing a habitat for bird watching and growing
21 things.

22 I'm just saying commercially viable? No,
23 it probably would not be a good commercially viable.
24 But I don't understand why it can't be growing food
25 like all those condos down at the bottom. Those are

1 the people who mentioned the community garden. I
2 won't be in the community garden but the people in the
3 condos below are the ones that had mentioned to me,
4 the ones that walk up. They're going, "It'd be nice
5 if there was a garden for us to use."

6 So that's the only reason I brought that
7 up. I think that land, it does grow things. People
8 have grown things out there. There's mango trees
9 still out there.

10 So I don't understand why you can't have an
11 open space, community space *and* be growing food and
12 native plants for medicinal purposes or whatever. I
13 don't see how they're not inclusive all together.

14 Q I mean just for clarity because that
15 depends on ownership, right? I mean who actually owns
16 and controls that property will depend whether this
17 property will meet your vision of the use of the land.

18 A Yes. So, but I guess I'm confused why the
19 county council back in 1996, when they wrote that, why
20 they thought it was their land to decide that on in
21 the first place what, you know, was there a question
22 of ownership at that point. That was one of my
23 questions.

24 Q Right.

25 A Because what made them assume -- that they

1 made some comments in the minutes about: Well, let's
2 not beautify this point. Let's use our resources to
3 buy *other* land for parks and open spaces.

4 It made me assume that they thought that
5 that was part of their control. And that land. So
6 I'm confused why the council when they made those
7 decisions didn't say, "Hey, let's go ahead and buy
8 this property." They kind of assumed that in the
9 whole testimony there.

10 So that was one of my concerns as well.
11 And I'm sorry I just don't know how to research to
12 find what would make them -- I tried to call some of
13 the past councilmembers that had testified and they
14 just didn't remember specifically that parcel of land.
15 I wasn't able to ask them what made them think that
16 they could put that as open space when it wasn't their
17 land to do it with.

18 The concept -- and I could look it up if
19 you wanted me to, but the minutes said: When they
20 looked into it it's like they researched it. It
21 seemed like it was county land. So I don't know why
22 they had that impression.

23 Q Okay. So as far as the research that
24 you've done you've confirmed that the county never put
25 funds aside to purchase this property?

1 A No. Because it sounds like they assumed
2 that they already had control of it. That was what I
3 took away from the minutes of that. I can look up the
4 testimony if you want to wait.

5 Q No, I don't think we need to go into that
6 depth. It's just that as a fact that property has
7 never been county property. And it has never been put
8 aside as county property.

9 A I don't know if that's true because I don't
10 know if you can own a stream bed. And it was a stream
11 previously. So I'm not sure that the county didn't
12 own it. I think that -- I don't know if people can
13 own rivers, stream beds. I'm not -- I'm from Montana.
14 You can't own a stream bed or a river in Montana. If
15 the river moved over onto your property you lose your
16 property. So I don't know Hawai'i.

17 But that was mostly stream bed. So I'm not
18 a hundred percent sure that what you're saying is
19 true, that it was never county owned. I don't know
20 that.

21 Q We can agree that the majority of that
22 property is not county to this date.

23 A I don't know where the stream bed went. So
24 I would not necessarily agree to that treatment.

25 Q All right. Well, the county council, would

1 you agree, is the policy maker for the county?

2 A Yes.

3 Q Okay. And the county council is the body
4 that determines community planning?

5 A Yes.

6 Q Okay. And it's the same body that
7 determined the 201-H process for this property?

8 A I believe that they made that decision
9 based on it had to come to State Land Use and they
10 wanted their amendment. So, yes, I would agree to
11 that.

12 Q Okay. You made the statement that your
13 opinion was that if they didn't vote for it that the
14 State Land Use would have the ability to do affordable
15 housing without county authority. Was that your
16 statement?

17 A Yes.

18 Q Okay. Would it surprise you that the
19 actual law is that if they didn't vote or take action
20 in a certain amount of time, then it would go to the
21 Land Use without any input from the county?

22 A Yeah, that they had to make a decision.
23 That's why they were kinda rushing it through. 'Cause
24 they had to have a certain deadline that they had or
25 it just came through without any -- their big thing is

1 they wanted to talk about their modifications and get
2 their modifications in before it came to State Land
3 Use so that the county could have their input.

4 But the ultimate decision is really with
5 State Land Use because it's over 15 areas. So it
6 really wasn't their final decision. It's State Land
7 Use's final decision.

8 Q Well, they had the opportunity to do an
9 absolute no vote on this Project.

10 A If they did an absolute no vote, though,
11 it'd still come to State Land Use because it's still
12 their decision.

13 It just would have been harder to get it
14 through State Land Use without having the approval of
15 the mayor and the county council. But it would not
16 have been impossible.

17 The State Land Use -- I guess -- maybe I'm
18 misunderstanding. I thought State Land Use was the
19 person, the people who decided on parcels of land over
20 15 acres. I thought they were the discerning body on
21 that. Am I incorrect on that?

22 Q Well, I'll let the state attorney general
23 advice you on what --

24 A Okay. That might have been my
25 misconception. That was my understanding is that it's

1 their decision. And that it could have come to these
2 guys first and then gone to the county. But there's
3 no --

4 Q Okay.

5 A It's just easier to get it through the
6 State Land Use if it's already gone through the county
7 process.

8 Q You understand that the State Land Use
9 doesn't have authority to zone something open space?

10 A I believe that the Commissioners can, as
11 being appointed officials, can uphold our
12 constitutional rights.

13 And if a constitutional right is for people
14 like me to have an open space and a healthful
15 environment, then I think in that context that
16 possibly they do.

17 I'm not a lawyer. I don't know all the
18 nuances of laws, but I do know we have the
19 Constitution of the state of Hawai'i in that there are
20 certain people who are supposed to be watching out for
21 that. So I would imagine as appointed officials that
22 that would be part of their criteria.

23 Q Do you understand the powers that they have
24 is about a designation. And the designation that
25 they're looking at is Ag and moving it out of Ag into

1 affordable housing Urban.

2 A Right. And I guess my contention -- that's
3 why I'm here -- if they still say that that's what it
4 needs to be I will agree with them. They're wise
5 people.

6 Q They don't have a -- they don't have the
7 option of open space. That would be a county
8 designation.

9 A I'm not sure that they don't have the
10 option of open space.

11 Q Okay.

12 A If they are upholding the Constitution of
13 the State of Hawai'i --

14 Q You answered my question. That's
15 sufficient.

16 A But if they believe that that's in the best
17 interest of the public, then I don't see why that
18 wouldn't maybe be in the bounds of their authority.

19 Q Okay. You understand that if it's left in
20 Ag that this Commission would have no control over how
21 that Ag process would go about? Do you understand
22 that?

23 A Yes. I guess I do. If it's left Ag
24 someone could put a pig farm in there. Is that what
25 you're saying?

1 Q Right.

2 A Okay.

3 Q And you understand the Right to Farm Act.

4 A Sure. I'm from Montana.

5 Q Okay. So if it's the status quo you would
6 not have any input or control over that property? Do
7 you understand that?

8 A I don't have any over it right now.

9 Q Well, you are an intervenor and you do have
10 the right to participate in this procedure.

11 A True. And I'm sure if something went in
12 there was offensive to the majority of the community
13 there would be some forum in the community to speak on
14 that.

15 Q That's true.

16 A Yeah.

17 Q But it would remain in Ag.

18 A Sure.

19 MR. GIROUX: I have no further questions.

20 PRESIDING OFFICER HELLER: OP. Yes.

21 MR. YEE: No questions.

22 PRESIDING OFFICER HELLER: Ms. Bolomet?

23 MS. BOLOMET: I have questions.

24 xx

25 xx

CROSS-EXAMINATION

BY MS. BOLOMET:

Q Following the line of questioning you just had, do you understand the Right to Farm Act? Do you know the laws on that?

A I don't.

Q Would it surprise you to know that if a farmer was spraying chemicals and it came into your house they don't have the right to do that?

A I didn't know that, but that's good.

Q Despite the Right to Farm Act.

A Okay.

Q Did you know that you as a people if your health is being affected the Right to Farm Act does not protect the farmer? Do you understand that?

MR. GEIGER: I'm going to object. First of all, it's argumentative. Secondly, it calls for speculation. The witness has testified she doesn't know about the Right to Farm Act.

PRESIDING OFFICER HELLER: Sustained. She's indicated she didn't have knowledge of the Act. Asking her what she suspects or doesn't suspect is not a useful exercise.

Q (By Ms. Bolomet): Okay. Do you understand that there's different forms of commercial

1 agriculture?

2 A No, I'm not a -- know a lot about
3 agriculture.

4 Q Could you please give us your definition of
5 what commercial agriculture is?

6 A Well, usually you think of it as --

7 MR. GEIGER: Chair, I would object. She
8 said she doesn't know what commercial ag is. Now
9 they're asking for a definition of something she
10 doesn't know. So I think it's calling for speculation
11 and I think it's cumulative.

12 MS. BOLOMET: I'm asking specifically what
13 her definition of commercial ag is.

14 PRESIDING OFFICER HELLER: She indicated
15 that she was opposed to commercial agriculture or at
16 least didn't believe the property was suitable for
17 commercial agriculture. So I'll allow the question to
18 clarify what she meant by that statement.

19 THE WITNESS: Just like when they were
20 mentioning in their thing, I believe it was Paul
21 Singleton's testimony, when he said that you can't
22 bring the big machinery in and what it would take for
23 the large production type. That's what I meant.
24 Because normally you think commercial agriculture you
25 think really large-scale stuff with big equipment and

1 all that.

2 But I know that there are what -- I don't
3 know if they call it boutique farming. They used to
4 call it share cropping after the plantation days were
5 over. So I don't know what they call it will now. I
6 know there are smaller ways of growing things that
7 would be viable.

8 But as far as what their definition of
9 "commercial" was with the large machinery and the big
10 sprayers and whatnot, I would agree with Paul
11 Singleton's assessment on that that, you know, it's
12 too small for giant machinery to go in there.

13 But he also said things would grow there as
14 well.

15 Q Would you have any opposition to lo'i farms
16 being there with Hawaiian farmers growing and making
17 money selling their kalo?

18 A I don't think I've ever had lo'i. I don't
19 know what that is exactly. Can I still walk out there
20 with my dogs?

21 Q You still can.

22 A All right. Then no problem.

23 Q Are you aware that lo'i ponds are just
24 ponds with kalo being grown into it?

25 MR. GEIGER: I'm going to object. She's

1 already testified she doesn't know what it is. Now
2 we're having the questioner testify.

3 PRESIDING OFFICER HELLER: Sustained.

4 THE WITNESS: I don't know what it is but
5 it sounds nice.

6 PRESIDING OFFICER HELLER: The objection
7 was sustained.

8 Q (By Ms. Bolomet): Would you have any
9 objections to farmers growing in terraces around your
10 house that would still be nice to look at?

11 A No. Anything growing, that's what I had
12 said earlier in my testimony, is I don't like the idea
13 of the greenhouse, like those greenhouses that they
14 build and then there're buildings with plants in them.
15 I like the idea of plants out where you're looking at
16 nature.

17 I love -- I don't care what kind of plants.
18 We just did a cross-country trip. I love looking at
19 any kind of plants. It's beautiful. So I'm sure any
20 native thing that you plant out there would be
21 absolutely wonderful.

22 Q Okay. So you agree that commercial farming
23 could be more than just big trucks and sprayers.

24 PRESIDING OFFICER HELLER: I think that's
25 been asked and answered.

1 MS. BOLOMET: Okay.

2 Q Would you say your chosen profession is a
3 mom?

4 A Yes.

5 Q And would you say that you're an expert in
6 child rearing?

7 A Yeah.

8 Q And as a mom did you ever have to be on the
9 roads commuting with your children back and forth to
10 school and to games?

11 A Yeah.

12 Q And as a driver on the road how many times
13 a day or how long would you spend on the road every
14 day?

15 A I'm kind of a bad one to ask because my one
16 biological son I home schooled. And so I really
17 wasn't on the road during those times. We adopted a
18 couple teenagers. Because driving on the roads making
19 that left-hand turn on Lahainaluna was so stressful, a
20 lot of times our neighbor would take the kids up to
21 school and pick them up because they had to go anyway.

22 Most of the teenagers that we hanaied my
23 husband would take 'em to school in the morning and
24 then they'd catch rides home with friends after 'cause
25 ours was the hanging out house after school.

1 So to be perfectly honest, I didn't do all
2 that commuting and running around because I home
3 schooled, and because most of the kids I hanaied were
4 high school and had cars or access to friends with
5 cars. So I'm probably not the best person to ask.

6 Q But you do drive, right?

7 A Oh, yeah.

8 Q And when you drive -- how many years have
9 you been driving?

10 A In my whole life?

11 Q Uh-huh.

12 A Since I'm 15.

13 Q So 10 years. (Laughter). So anyway so
14 that means you have experience as a driver.

15 A Yes.

16 Q And usually when you go to college to get
17 degrees to be an expert in anything you go for, say,
18 four years?

19 A Yes.

20 Q And you get a master's in six years?

21 A Yes.

22 Q And you can get a Ph.D. within eight years?

23 A Okay.

24 Q So would you say you have a Ph.D. in being
25 a mom?

1 A Yes.

2 Q And being a driver?

3 A Yes.

4 Q So you're an expert in driving on the roads
5 in Lahaina.

6 A Yes.

7 Q Is that true. And you're an expert when it
8 comes to recreation for your children.

9 A Yes.

10 Q And parks?

11 A Yes.

12 Q But not in the school sense.

13 A Correct.

14 Q Are you aware that colleges give credits
15 for life experience that will go towards degrees?

16 MR. GEIGER: I'm going to object because
17 this has no relevance to any of the issues presently
18 involved in this case or any of the testimony that she
19 had given.

20 PRESIDING OFFICER HELLER: Well, I think
21 you opened the door as to whether or not she was an
22 expert in certain areas. I'm going to allow this.
23 But I will suggest to Ms. Bolomet that questions as
24 opposed to argument are more appropriate at this
25 point.

1 Q (By Ms. Bolomet): Okay. As an expert do
2 you find that your opinion of what happens on your
3 roads more valid than an expert that doesn't live that
4 that makes a report?

5 MR. GEIGER: I'm going to object. That *is*
6 argumentative. There's no question being asked.
7 She's just asking: Do you believe your opinion's more
8 valid than somebody else's? That doesn't do anything
9 for this case.

10 PRESIDING OFFICER HELLER: OP, did you have
11 a question or a comment?

12 MR. YEE: Yeah. I think our only, I guess
13 objection, is to the extent she's using as a
14 rhetorical device the Office of Planning is willing to
15 give some leeway.

16 But to be clear, Ms. Lincoln has not been
17 qualified as an expert before the Land Use Commission.
18 We would oppose, I think, any attempt to qualify her
19 as an expert.

20 PRESIDING OFFICER HELLER: Ms. Bolomet, you
21 *will* have a chance to present further argument in this
22 proceeding. It will be an opportunity to submit
23 proposed findings and conclusions. You'll be able to
24 make your arguments. You don't need to make arguments
25 just by asking rhetorical questions of the witness.

1 With that kind of a general statement I'm going to
2 allow this question. But I'd ask you to try to move
3 through this quickly.

4 MS. BOLOMET: Okay. But can I ask you a
5 question? I'm trying to establish that just because
6 you don't have a degree doesn't make you not an expert
7 for your own neighborhood. There's a lot of strangers
8 that keep coming into a neighborhood and tells the
9 people that live there they are experts on their
10 neighborhood, what's best for them.

11 And I think that's what I heard in
12 Ms. Lincoln's testimony. And I just want to get real
13 clear, you know, on making it clear that you don't
14 need a degree to be an expert. And sometimes experts
15 are wrong.

16 PRESIDING OFFICER HELLER: And that's the
17 type of argument that you have the opportunity to
18 make. But you don't need to make argument in the form
19 of questions to a particular witness.

20 Q (By Mr. Bolomet): Okay. So were you
21 consulted for any of the planning when it came to the
22 parks for the neighborhood, the proposed neighborhood?

23 A Well, the only one we had that I was able
24 to attend was the one in May of 2008 when they asked
25 for the community input. And our neighborhood was a

1 hundred percent opposed to it. I was at that one. So
2 that was our input from the community at that point.

3 But as far as once they decided they were
4 going to go ahead with it after that, no we were never
5 consulted, like, on individual planning phases of it
6 other than the meeting in, I think it was March of
7 2010 which I was not able to attend that one. My
8 husband was. I went to the May 2008.

9 Other than that I was not consulted or the
10 community neighborhood was not consulted to my
11 recollection.

12 Q And were you a part of traffic planning or
13 any of the traffic reports?

14 A No.

15 Q Besides the county council meetings were
16 you a part of any other planning with -- regarding
17 this proposed neighborhood?

18 A No.

19 Q So your expertise was not consulted in any
20 of this?

21 A No, I don't think anybody in the
22 neighborhood was.

23 Q Okay. Oh. On September 19th you gave me a
24 call regarding some digging going on on the lands
25 behind your house. Could you please tell us what you

1 witnessed?

2 A I was in the shower and I just heard a big
3 machine out there. So I jumped out, ran up there.
4 And they just had a backhoe kind of by those rocks I
5 was telling you about that I want to move up. Those
6 are my rocks. I just wanted to make sure they didn't
7 move 'em. They didn't.

8 But anyway, they were digging a swimming
9 pool right there which shall be left empty. They were
10 just digging a big hole, the backhoe. And Mr. Dega
11 was there and another gentleman. And they were gonna
12 dig another one a little further over.

13 And I didn't stick around to watch that
14 one. But I watched them dig and they hit bedrock, I
15 believe at 8 feet or so.

16 That's what brought up my concern -- I
17 didn't really think about that in our backyard with
18 the bedrock being right there. That's going to be
19 very noisy, blasting and digging that out.

20 But, yes, they were digging back there to
21 look for archaeological findings I guess with the
22 backhoe.

23 Q Did you see them with any kind of screens
24 sifting the dirt?

25 A No, I didn't see them with that. There was

1 one guy operating the backhoe and Mr. Dega and another
2 gentleman were watching, observing as the fill was
3 coming out in rocks and whatnot. But I didn't -- I
4 didn't see any screening or whatnot going on.

5 MS. BOLOMET: Okay. That's good. Thank
6 you.

7 PRESIDING OFFICER HELLER: Ms. Lincoln,
8 normally you would get a chance to redirect, ask
9 further questions of the witness. If you have
10 anything you want to add I'll give you the
11 opportunity.

12 MS. LINCOLN: I'm fine.

13 PRESIDING OFFICER HELLER: Then,
14 Ms. Bolomet we're ready for your case.

15 MS. BOLOMET: Can we just have a little bit
16 to set up?

17 MR. GEIGER: That would be fine. I just
18 want to make sure, I don't know if the Chair needs to
19 formally get from Ms. Lincoln that she's rested her
20 case or not.

21 MS. LINCOLN: I'm finished. I have rested
22 my case. Thank you.

23 PRESIDING OFFICER HELLER: Ms. Bolomet,
24 would it be more efficient to take our lunch recess
25 now --

1 MS. BOLOMET: Sure.

2 PRESIDING OFFICER HELLER: -- and then you
3 start when we come back?

4 MS. BOLOMET: Sure. That would be great.

5 PRESIDING OFFICER HELLER: Let's try to
6 keep this to one hour and reconvene at 12:30.

7 (Recess was held. 11:30)

8 PRESIDING OFFICER HELLER: Okay. Back on
9 the record. Ms. Bolomet, are you ready to proceed?

10 MS. BOLOMET: Yes, I am.

11 PRESIDING OFFICER HELLER: Please go ahead.
12 We're going to be calling Robin Knox.

13 ROBIN KNOX
14 being first duly sworn to tell the truth, was examined
15 and testified as follows:

16 THE WITNESS: Yes, I do.

17 PRESIDING OFFICER HELLER: Go ahead.

18 DIRECT EXAMINATION

19 BY MS. BOLOMET:

20 Q Ms. Knox, could you please describe your
21 qualifications and areas of expertise?

22 A Would you like me to state my name and
23 address for the record?

24 PRESIDING OFFICER HELLER: Yes, please.

25 A My name is Robin S. Knox. I live at 28

1 Waikalani Place in Kihei, Maui, Hawai'i. My
2 qualifications are in the areas of environmental
3 science, environmental health, water quality
4 management and planning, wastewater treatment and
5 coastal restoration.

6 I'm going to expand a little bit on the
7 details of that because I think that a significant
8 issue in this case is the qualifications of
9 professionals making decisions.

10 And there's a particular professional
11 discipline that is not quite as matured in Hawai'i as
12 it is in other places operating under these same
13 federal laws. So I'm going to expand a little bit on
14 the qualifications.

15 I have a background with undergraduate
16 college courses, environmental chemistry, water
17 quality analysis and graduate level courses in civil
18 engineering and water and wastewater treatment.

19 And that qualifies me to look at two sides
20 of the equation: The impacts out in the environment
21 as well as technical issues and feasibility related to
22 technologies and levels of treatment needed from an
23 engineering standpoint.

24 I've been a research scientist. I've been
25 a planner, a water quality modeler which means

1 creating mathematical models. It's a form of
2 engineering. And I was an actual permit writer with
3 the state of Louisiana writing wastewater discharge
4 permits.

5 So I think I have a more integrated and
6 interdisciplinary background than perhaps many of the
7 professionals that you've heard from so far. I think
8 that's important because there are criteria that
9 you're required to make your decision on.

10 And the Petitioner has relied heavily on
11 the Environmental Impact Statements and the acceptance
12 of those statements to support your decision criteria.

13 So it's important for you to understand the
14 need for inner disciplinary integration of all these
15 different types of information like engineering,
16 science, hydrology, and so forth and environmental
17 decision-making.

18 I have spent more than 20 years helping a
19 variety of clients address these issues and
20 particularly issues of water quality and water quality
21 standards. So I do have the background and experience
22 to look at this from a variety of perspectives of
23 state, local and federal government as well as private
24 business.

25 I have completed 17 hours of graduate level

1 engineering courses on physical, chemical and
2 biological unit operations. And I have worked closely
3 with the Corps of Engineers in coastal restoration
4 projects and have experienced an exposure to that type
5 of engineering.

6 Q Did you submit a testimony?

7 A Yes, I did.

8 Q Is there anything in there that you'd like
9 to change at this time?

10 A No. I don't think I have anything to
11 change.

12 Q Would you like to summarize your testimony
13 for us, please?

14 A Sure. Overall as a brief summary in
15 looking at this issue I determined that the Land Use
16 Commission, pursuant to Hawaii Administrative
17 Regulations (sic) 15-15-17, the criteria for the
18 decision, include four items that I feel qualified to
19 comment on.

20 Those four items are the availability of
21 basic services including wastewater and drainage; the
22 topographically appropriate and free from danger of
23 flood, tsunami, unstable soil conditions and other
24 adverse effects; the sufficient reserve area for
25 foreseeable urban growth; and be contiguous with

1 existing urban areas. Those are the four criteria
2 that you're obligated to consider that I will comment
3 on.

4 Over all I think the most important one is
5 the basic services including wastewater and drainage
6 as far as technically what I have to say and how it
7 relates to the regulations in terms of priority.

8 I think the comments that I have to make
9 about the safety of living near a flood control
10 structure are in regard to the precious nature of
11 human life and are important from that standpoint.

12 Q Okay. Does the subject Project meet the
13 decision criteria pursuant to HAR 15-15-17 for the
14 availability of basic services including wastewater
15 and drainage?

16 A No, it does not.

17 Q Is it true, as the Petitioner claims, that
18 the public service and facilities together with
19 improvements to be constructed are adequate to support
20 the Project?

21 A That is not supported by the information
22 that I have reviewed. I believe that claim to be
23 untrue. There's not currently adequate existing
24 wastewater treatment capacity at the Lahaina
25 Wastewater Treatment Plant, which is what the Project

1 proposes to use as their wastewater treatment. They
2 have not proposed any onsite or their own independent
3 wastewater treatment.

4 According to county of Maui engineering
5 reports by CH2, M. Hill which is their engineering
6 consultant, the existing plant capacity is not
7 adequate. The existing plant discharge is an average
8 dry weather flow of 5 million gallons today -- or 5
9 million gallons per day.

10 And the existing plant capacity, average
11 dry weather capacity, what's called reliable capacity,
12 is only 4.5 million gallons per day. So the plant is
13 already half a million gallons per day over what's
14 considered to be reliable capacity.

15 Furthermore, the county of Maui in almost
16 every area where it intersects with the Clean Water
17 Act, has been having alleged non-compliance and has
18 entered into legal agreements, consent decrees and
19 other documents.

20 For instance, the collection system itself
21 is under a consent decree. These are the pipes that
22 pick up the raw sewage that you would have to put the
23 sewage from this development into.

24 And those, that collection system is
25 currently the subject of a consent decree. And if you

1 go to the county's website you can find their
2 quarterly reports that they submit to EPA and
3 Department of Health in compliance with that consent
4 decree.

5 And that says that the US EPA and state of
6 Hawai'i filed two lawsuits against county of Maui
7 alleging violations of the federal and state law. The
8 County of Maui entered into a consent decree with US
9 EPA and State Department of Health. The consent
10 decree was filed November 9th -- sorry, November 8th,
11 1999. So this is not a new thing. This is a
12 long-standing problem.

13 It does include problems in the Lahaina
14 area with force mains and sewer lines in the
15 collection system that are not adequate for the waste
16 that we currently have. So to add anything to this is
17 going to burden the existing system.

18 In addition, the wastewater facility, the
19 Petitioner and in the EIS, they talk about that the
20 Lahaina Wastewater Facility has a permit. It is true
21 they have a permit. It is an underground injection
22 control permit under the Safe Drinking Water Act.

23 There's currently -- EPA has taken an
24 action called an Order for Information, a 308 Order.
25 And in my experience that is EPA's first step when

1 they intend to regulate something. They ask for the
2 regulated entity to provide information. They have
3 asked that of the county of Maui already.

4 Secondly, there has been a lawsuit, Clean
5 Water Act citizen enforcement suit, filed by the
6 Hawai'i Wildlife Fund against the county of Maui
7 alleging that the injection wells also need, in
8 addition to the underground injection control permit
9 under the Safe Drinking Water Act; that they need
10 what's called a National Pollutant Discharge
11 Elimination System Permit. It's a wastewater
12 discharge permit in the *Clean Water Act*.

13 The significance of the difference is that
14 Safe Drinking Water Act only protects potable drinking
15 water supply. Clean Water Act protects the entire
16 resource. I think that's all I had on that question.
17 Thank you.

18 PRESIDING OFFICER HELLER: Ms. Bolomet?

19 Q (By Ms. Bolomet): Yes. What will the cost
20 be for the county to increase sewage treatment
21 capacity to accommodate this new development?

22 A According -- this goes toward the question
23 of whether or not this would burden the existing
24 system. I'm sorry. I need to explain one more thing
25 about the current situation.

1 The current underground injection control
2 permit, because it only protects drinking water
3 supplies, does not have conditions that would be
4 anticipated under the Clean Water Act permits that
5 would protect aquatic life like fisheries, the limu,
6 recreational uses, other uses.

7 And so the costs that have been estimated
8 by the county's engineers assumed that they would not
9 have to meet more stringent effluent quality limits.
10 And they assumed they could go up to
11 12 million gallons a day in capacity.

12 Right now based on what EPA has put in
13 their draft underground injection control permit, and
14 the likely outcome of the litigation, I would say that
15 we should not count on the Lahaina treatment plant
16 being able to discharge more wastewater or more pounds
17 of pollution in the future.

18 We should count on it needing to discharge
19 less, which means we need to find other alternatives
20 for disposal other than the injection.

21 And we need to make our treatment more
22 efficient so that the quality of what's coming out,
23 the pollution of what's coming out is less.

24 Even if we assumed that we didn't have to
25 improve either the quantity that we can treat or the

1 quality that we can treat, we would still be looking
2 at \$5.45 million just to get to 6.7 million gallons
3 per day of reliable capacity.

4 The county reported to their engineering
5 consultant that they need 12 million gallons per day
6 of reliable capacity for development needs. That
7 would cost 59 to \$76 million. So this community,
8 county of Maui, is facing a major crisis with
9 wastewater capacity and ability to treat wastewater on
10 the west side.

11 Everything from the collection system to
12 the effluent has been subject to, you know, the
13 alleged violations and subject to consent decree.
14 It's in litigation.

15 It's widely accepted scientifically that we
16 need to reduce the pounds of pollution. No matter how
17 small a development is, if you add wastewater and you
18 don't improve the treatment plant first, you are
19 adding pounds of pollution.

20 So I don't think that this Project meets
21 this criteria of having adequate water and
22 wastewater -- I'm sorry, adequate wastewater
23 facilities to meet this criteria to change it to Urban
24 from Ag. I don't think that we have the
25 infrastructure to do more Urban development.

1 Q Do you think these costs are accurate?

2 A No. As I explained earlier, I don't. I
3 think if you look at the increased flows -- another
4 assumption that the engineers made was that they would
5 not have to have non-chlorine disinfection or UV.

6 The EPA has already ordered additional UV
7 capacity for disinfection removal of disease-causing
8 microorganisms from Lahaina.

9 So, again, there are costs that weren't
10 considered in those engineering costs like expanded
11 hydraulic capacity, meaning more wastewater can go in;
12 expanded ability to remove pollutants, meaning a
13 better quality of effluent coming out; or any increase
14 in the total loads of pollutants that can be
15 discharged. Those need to go down.

16 So there are a lot of indicators that the
17 costs to get to where we need to be for all the future
18 development that's been proposed is getting pretty
19 high, up into 80, maybe even closer to hundreds of
20 millions of dollars.

21 Q The Petitioner says the wastewater facility
22 has a permit. What kind of permit do they have?

23 A As I explained earlier they currently have
24 an underground injection control permit.

25 Q What are effluent limits in the current

1 permits?

2 A The current permits actually do not have a
3 lot of limits on the quality of the effluent. They
4 have an action level that if the total nitrogen gets
5 to 10 million grams per liter at a flow of
6 9 million gallons per day, that they're supposed to
7 take some action. But it's not an actual limit. And
8 it's not considered a violation if they go over it.

9 However, in the proposed permit that's
10 currently under consideration EPA is putting actual
11 limits.

12 Q So has the EPA permit expired?

13 A The existing underground injection control
14 permit is currently expired and is administratively
15 extended and is currently being held up pending the
16 state issuing -- the Department of Health issuing a
17 Water Quality Certificate.

18 A Clean Water Act Section 401 Water Quality
19 Certificate is where the state says to EPA "because
20 you're issuing a federal permit we need to certify
21 your federal permit meets our state water quality
22 standards."

23 So that permit has not been issued pending
24 the issuance of a certificate from the State
25 Department of Health saying, "Yes, this permit will

1 comply with standards." So the jury's out on that
2 one.

3 Q Does the proposed renewed permit allow the
4 conditions assumed in the cost estimate?

5 A No. As I alluded to earlier there are
6 some restrictions that EPA is now considering. For
7 instance, the permitted injection rate and the
8 proposed permit is issued to an average of 7 million
9 gallons for any calendar week.

10 And the non-chlorine disinfection or UV
11 disinfection is required for all of the effluent,
12 100 percent of the effluent. Right now they treat
13 between 4 and 16 million gallons a day. But they only
14 have UV capacity for 1 million gallons a day. You
15 cannot reuse the water or do anything basically other
16 than inject it unless you disinfect it first.

17 The Total Nitrogen load that EPA is
18 considering is reduced to 50 percent of the current
19 load, again indicating the need that we will have to
20 have improvement to wastewater treatment facilities in
21 order for the sewage that we have right now today in
22 order to continue to meet what's required to protect
23 the ocean water quality.

24 Q Can we go back just a little bit. I guess
25 I'm not really clear on what an injection facility is.

1 Can you explain that more?

2 A Sure. That's a good question. An
3 injection well is a hole in the ground that's deeper
4 than it is wide. So to distinguish it from a maybe a
5 pond which is a hole in the ground that's wider than
6 it is deep.

7 The county of Maui uses injection wells for
8 disposal. Injection is not a treatment. It's just a
9 way of getting rid of the water after you've treated
10 it.

11 So the county does do some level of
12 treatment. It is better than the minimum
13 technology-based standards. But it in my opinion is
14 not good enough to meet the likely requirements for
15 achieving our water quality goals in the ocean.

16 Q So since they inject this untreated could
17 it get into our groundwater, the water tables?

18 A They do inject it directly into the water
19 table. The wells are relatively shallow, as injection
20 wells go. They're 2 to 300 feet deep. So people
21 think that's sounds deep but it's not really deep for
22 an injection well.

23 And when you inject freshwater -- sewage is
24 freshwater -- into the mixed salty water, brackish
25 water in the coastal areas, that groundwater is

1 brackish. When you inject freshwater into saltwater
2 the freshwater is more bouyant. And it's gonna pop to
3 the top.

4 In fact that's been confirmed in studies
5 by UH and USGS the constituents of wastewater and in
6 fact wastewater signatures that are specifically from
7 an advanced secondary treatment plant like Lahaina,
8 have been detected in those waters. That's the basis
9 for the lawsuit.

10 So we know -- we know that the effluent
11 that is not being disinfected to remove harmful
12 pathogens is, in fact, reaching the ocean in
13 recreational waters where people swim.

14 This is actually just a few feet from the
15 shoreline at Ka'anapali. There are some major seeps
16 that get a pretty good percent of wastewater. We've
17 detected up to 20 percent, I think, in some of these
18 seeps.

19 Q So where we swim and where we collect limu?

20 A Correct.

21 Q Medicine, our food?

22 A Correct.

23 Q Okay. That's disturbing. Is it likely
24 that the EPA will relax the restrictions to allow more
25 wastewater and pollutants to be discharged?

1 A It's highly unlikely. As I said earlier
2 there is some widespread consensus among scientists
3 that the injected pollutant loads along with other
4 land-based pollutant like drainage, stormwater runoff,
5 is causing rapid reef decline and endangering public
6 health.

7 Q Okay. What is the current water quality
8 status of the waters that will receive surface water
9 drainage and sewage discharge from the Project?

10 A Under the Clean Water Act there are
11 sections called 305B, which is a section that requires
12 states to assess their water quality periodically, and
13 303D which is a section that requires them to list the
14 waters that are impaired. Which means they're not
15 meeting the federally and state-mandated goals.

16 So the Department of Health, the Hawai'i
17 Department of Health has reported to the Environmental
18 Protection Agency and to the U.S. Congress that the
19 receiving waters for discharges from the Project Area,
20 which would be -- this is how they're named in the DOH
21 report -- it would be Kahoma Stream, Mala Wharf and
22 Ka'anapali. Those areas are not meeting Clean Water
23 Act goals and state water quality standards.

24 Q Okay. I going to go back again to these
25 injection wells. I'm a little disturbed by this. So

1 are you saying, like, our toilet water goes into these
2 injection wells untreated?

3 A I am saying that when you flush your toilet
4 that water goes to a collection system which has been
5 deemed inadequate and alleged to be in violation of
6 the Clean Water Act and is under a consent decree.

7 That system then carries the wastewater to
8 the treatment plant where it does receive the minimum
9 requirement of what the federal requirements are and
10 state requirements are. But it does not receive
11 treatment adequate to meet the state water quality
12 standards, which are state law.

13 So it's partially treated. It needs more
14 removal of bacteria to meet recreational standards.
15 It is highly probable that there's a need for
16 significant reduction of Total Nitrogen and in
17 particular nitrates, in order to meet those nutrient
18 standards. And there may -- it's yet unseen -- there
19 may also be the need to reduce toxic components.

20 All the pharmaceuticals, everything that
21 anybody puts in their body comes out or any cleaning
22 supplies that they use are disposed of down the drain.

23 That all comes out, goes to the treatment plant. Not
24 all of it gets removed by the treatment processes
25 there.

1 Then it's injected into the groundwater,
2 which not only is the water that goes out to the ocean
3 and we swim in and the limu and the fish, the coral
4 grow in, but it's also water that under several,
5 several proposals from developers have proposed to use
6 that water with the reverse osmosis unit and to
7 reclaim that saltwater for drinking water.

8 So this is going -- you know, there's a lot
9 of controversy about what's called toilet-to-tap like
10 recycling wastewater from a treatment plant back to
11 drinking water. The reality is on the planet it is
12 and always has been toilet-to-tap. You are always
13 drinking somebody else's wastewater. So that's why
14 it's important to treat it before it gets discharged.

15 Q So you said anything in our body like
16 pharmaceuticals. So that means birth control pills,
17 which are hormones, Viagra, which is hormones. Is
18 that why the fish are getting tumors and their
19 reproductive systems are getting messed up?

20 A The birth control pills and other hormones
21 in particular cause what's known as endocrine
22 disruption, which means that the reproductive and
23 hormonal systems of the animals are affected.

24 Animals such as amphibians and fish can
25 change gender. Animals cannot reproduce at all or

1 they can fail to grow and thrive. So there's all
2 kinds of effects from toxic chemicals. That's one of
3 the reasons that there's this momentum to get an NPDES
4 permit on the wastewater discharges because that type
5 of permit puts limits on those type of contaminants.

6 But right now those type of contaminants
7 are not limited. They are present. They have been
8 detected in the ocean waters. Any additional housing
9 that we add, any additional sewage we add is just
10 making the problem worse.

11 Q So are there any studies that actually link
12 the increase in endocrine type cancers in humans to,
13 say, swimming in the ocean and being exposed to these
14 waters?

15 A Well, I think there would be different
16 effects from different things. I've not read anything
17 about human endocrine systems being affected by
18 recreational exposure.

19 Animals who live in the water are
20 definitely affected. And that's quite prevalent in
21 the literature. The more likely impact on people
22 using the water recreationally and the more eminent
23 threat to them is the fact there's more pathogenic or
24 disease-causing organisms in the wastewater that's
25 coming out in the recreational area.

1 So there are several studies underway that
2 have not been published yet. I spoke with a
3 researcher from South Carolina who was here testing
4 for staph aureus or staphylococcus bacteria which is
5 one of the prevalent. Maui actually has one of the
6 highest rates in the country of staph infections.

7 And this researcher was very surprised at
8 the concentrations that she was seeing. They were
9 very similar to the ones I saw when I worked with
10 Hawai'i Institute of Marine Biology to do some
11 microbial testing in 2010.

12 Q So the surfers that are having problems
13 with staph infections not getting healed it's probably
14 from these wastewaters that they're getting into?

15 A That is at least one possibility. The
16 Department of Health puts out a second possibility
17 that surfers just have bad hygiene and that they're
18 all contaminating each other through their towels.

19 And they don't wash their canoes -- the
20 paddlers also, the didn't wash their canoes or their
21 surf boards or they shared towels. So that is also a
22 potential pathway.

23 In my opinion you can't just go on
24 epidemiology in these kinds of things. You have to
25 just, like common sense, look at the watershed. If

1 they're in a big honking treatment plant they're
2 discharging wastewater? Maybe that could be part of
3 it too. It's kinda common sense.

4 Q What are the water quality standards?

5 A The water quality standards are state
6 regulations. The state is required by the Clean Water
7 Act to promulgate these regulations. And the
8 standards themselves have several parts. And one part
9 is the use of the water.

10 So you've heard me say "recreational use."
11 And we've talked about fish and limu and coral. Those
12 would be "aquatic life use." Drinking water is a use.
13 Industrial use is a use of water. So all of those are
14 listed uses.

15 And there are also criteria which are
16 specific qualities of the water to be attained. So
17 criteria can be numeric like there's, there are
18 criteria for total nitrogen and nitrates.

19 And so this is where some of the
20 distinction between drinking water protection and the
21 protection of the whole water resource get important.

22 For instance, under the Safe Drinking Water
23 Act the criteria for nitrates is 10 milligrams per
24 liter which is fairly high. And that's to protect
25 from the depletion of oxygen in your blood by the

1 nitrates.

2 But for aquatic life out in the ocean it's
3 a million times less -- or more sensitive. The
4 criteria are in the micrograms per liter or part per
5 billion range rather than part per million range.

6 So there's orders of magnitude. There's a
7 need for orders of magnitude more protection to
8 protect aquatic resources and recreational use than
9 there is to protect water quality -- I mean drinking
10 water. And I think that's a common misunderstanding.

11 People think if you protect drinking water
12 that's the most stringent thing. But for many
13 pollutants the aquatic life is actually more sensitive
14 than humans are.

15 Q So no matter what we may think and how far
16 this Project may be, it will have an effect on the
17 ocean waters and the reefs. So just like the old
18 Hawaiians, they said from mauka to makai and one
19 ahupua'a everything was connected. Do you agree with
20 that?

21 A That would be the underlying premise of the
22 Clean Water Act. Those programs through mandatory and
23 voluntary controls in the center-based controls,
24 promote watershed planning and integrated water
25 resource management. So that we see that these are

1 not separate issues. That drinking water, stormwater,
2 ocean water, stream water, groundwater is all one
3 water.

4 Q What happens if water bodies don't meet
5 water quality standards?

6 A Well, under the Clean Water Act those
7 waters are considered impaired and not meeting their
8 designated uses. The responsible agencies, in this
9 case Environmental Protection Agency Region 9 and
10 Hawai'i Department of Health, are responsible for
11 determining what's called a total maximum daily load.

12 And that is simply, if you can think of it
13 as the pollution pie. It's how much total pollution
14 from the whole watershed, from every source,
15 stormwater runoff, groundwater, wastewater discharge,
16 that total pollutant load cannot exceed the TMDL.

17 We set a limit on the total load in order
18 to assure we meet the standard in the ocean. And then
19 that gets back calculated to each individual source as
20 an allocation, a pollutant allocation that they are
21 then limited to.

22 Q What are the implications of impaired
23 waters listing for the Lahaina WWRF?

24 A In my opinion misnamed, Lahaina Wastewater
25 Reclamation Facility, it does not reclaim very much of

1 its wastewater because of the inadequate treatment.
2 What DOH is reporting to EPA and Congress is that we
3 already have too much pollution.

4 The pounds per day being discharged are
5 greater than the amount that can be discharged and
6 still attain our state water quality goals, which are
7 promulgated regulations under state and federal law.

8 So it means that we need to reduce the
9 total pounds per day of pollution from the current
10 levels. So if we want to add development we've got to
11 get a whole lot more efficient in how we manage
12 stormwater and wastewater on the west side.

13 Q When you're talking about developments are
14 you talking about including all the future
15 developments that have been already approved? Is that
16 part of the equation?

17 A Well, if we were doing a TMDL, which is
18 required by law and it is on the list, so it will be
19 done unless someone de-lists it somehow -- the -- I'm
20 sorry. I lost the question. What was the question?

21 Q Let's see if I can remember the question.
22 After lunch I lose it.

23 A Oh, you asked about all the planned
24 development.

25 Q Right. Right. Including all the --

1 A The TMDL, if it was done, could include a
2 margin for future development. They can set aside a
3 reserve allocation and say: Okay, that's for future
4 development.

5 But what these reports are saying is right
6 now, today, without adding, whether it's approved
7 already or not, without adding one more gallon of
8 wastewater we are over the limit. We are not meeting
9 the goals. We are in violation of state water quality
10 standards.

11 So without -- no matter how much the county
12 has promised to people that there's capacity and they
13 can add on, what EPA and DOH are saying is "not one
14 more pound"?

15 Q "DOH" is?

16 A Department of Health, Hawai'i Department of
17 Health.

18 Q What are the implications of the impaired
19 waters listings for this Project?

20 A The implications for this or any project
21 that's not currently discharging to the system, is
22 that any new project no matter how small, is going to
23 add pounds per day of pollutants to the wastewater and
24 stormwater pollutant loads that is already too high
25 and must be reduced.

1 The treatment plant is already over both
2 process and hydraulic capacity and is not likely to
3 receive permits to allow increased effluent disposal
4 rates or increased pollutant loads.

5 Reducing pollutant loads while increasing
6 population in areas served will require upgraded
7 treatment and water reuse systems. At the time that I
8 wrote this there was currently no watershed plan. But
9 there is currently a draft watershed plan being
10 prepared for the area.

11 But there is no final watershed plan, total
12 maximum daily load or other plan in place to reduce
13 the overall pollutant loads for this area. There may
14 not be adequate treatment capacity or waste loads to
15 allow for increased pollutant loads for new
16 development.

17 Sixty-eight more homes when added
18 cumulatively with all the projects that already exist
19 and are already approved in Lahaina, will add to an
20 already problematic scenario.

21 Q So if the Department of Health says "not
22 one more pound" and the EPA says "not one more pound
23 of wastewater," how can this body approve, go through
24 a step that would essentially allow this to be built?
25 Do you have any idea?

1 A Well, I don't believe that this Commission
2 can approve this change to Urban based on meeting this
3 criteria availability of basic services including
4 wastewater and drainage. I think both from a
5 stormwater standpoint and the wastewater standpoint
6 that there are questions definitely of pollutant load
7 capacity or the ability of the system to assimilate
8 the waste and still meet standards.

9 These questions are pretty clear. The fact
10 that the pollutants are getting out there, the fact
11 that the capacity is what it is, those are the
12 county's own engineers and those are government
13 agencies saying that.

14 So those are pretty certain things that we
15 as a county are going to have to deal with. And we're
16 going to have to find ways to upgrade our treatment,
17 get more effect.

18 And there have been, in my experience, in
19 my career, times when EPA did not allow any more
20 wastewater discharge permits. They did that to the
21 City of Dallas because they couldn't resolve how to
22 meet standards and meet their TMDL's. And they said,
23 "We just don't have the money." And EPA said, "Fine.
24 No more new development."

25 And then magically they figured out how to

1 get the money. And they were able to resolve it and
2 they were able to continue development by having
3 improved wastewater treatment.

4 Q Whose responsibility is it to assure
5 compliance with state water quality standards?

6 A It's actually everyone's responsibility.
7 The state regulations say that no person or body
8 should be allowed to pursue activities or discharges
9 that cause non-attainment of the water quality
10 standards.

11 Q What is a National Pollutant Discharge
12 Elimination System Permit? DPDES.

13 A That is the permit required under the Clean
14 Water Act, which is a federal law, for the discharge
15 of pollutants from point sources to waters of the U.S.

16 Just as a point of clarification there is
17 in the county's permit, applications for the
18 underground injection control permit. There are
19 pollutants listed there as constituents of their
20 discharge.

21 Those same pollutants have been found in
22 the ocean waters which is a water of the U.S. And
23 injection wells -- well specifically the word "well"
24 is included in the definition of a point source under
25 the Clean Water Act.

1 So that is the basis of the allegations
2 that the county is in violation for not having that
3 permit is that those three criteria: Point source,
4 pollutants, waters of the U.S.

5 Q Okay. Does the Lahaina WWRF have a NPDES
6 permit?

7 A No, they do not.

8 Q Is the Lahaina WWRF plant required to have
9 an NPDES permit?

10 A That's the subject of both the EPA, Clean
11 Water Act Order for Information and a citizen suit
12 alleging that the county is discharging without an
13 NPDES permit in violation of the Clean Water Act.

14 Q What does an NPDES permit require that the
15 UIC permit does not?

16 A Site specific considerations for protection
17 of aquatic life such as limu, coral, fisheries and
18 humans consuming aquatic life or swimming in the
19 water.

20 UIC permits are for protection of the
21 underground drinking water supplies. I should also
22 add that the TMDL's that we talked about, those
23 allocations are actually what determine the limits in
24 an NPDES permit. And by law the TMDL allocations have
25 to be placed in the permit as well.

1 Q Can you tell me again what a UIC is?

2 A Underground Injection Control permit.

3 Q Okay. Does the UIC permit that currently
4 allows the Lahaina WWRF to discharge without
5 provisions to protect the aquatic life and other
6 existing uses of the receiving waters, limu, coral and
7 fishery recreation?

8 A The UIC permit does not contain any
9 provision specifically to protect aquatic life,
10 recreation or other existing uses of the water with
11 the exception of drinking water sources which it does
12 protect.

13 Q But, so the protection would come from the
14 State Constitution for protecting waters or the Water
15 Commission rules?

16 A It may fall under those jurisdictions. I
17 haven't researched that. But it definitively falls
18 under the federal jurisdiction of Clean Water Act and
19 the authorities delegated to the state Department of
20 Health from EPA under the Clean Water Act.

21 Q Do you have any recommendations regarding
22 wastewater treatment for the proposed Project?

23 A If the LUC should decide to change the land
24 use district to Urban, there should be a condition
25 requiring that any development Project, whether it's

1 affordable or not, pay its fair-share of the
2 wastewater treatment and disposal cost.

3 Q Again, what do you think that's going to
4 cost this Project?

5 A It depends on the ultimate effluent quality
6 that we have to meet and the quantity that we decide
7 that we have to build for. But it could be in excess
8 of \$80 million according to the county's estimates
9 which I think are underestimates because of changing
10 conditions with the regulations.

11 Q How would these wastewaters actually affect
12 the coral, the reef?

13 A Well, right now, as I said, we have
14 evidence that the particular nitrogen that is sourced
15 from not only from Lahaina but the Kihei Treatment
16 Plant, that that is what's fueling invasive algae
17 blooms, harmful algal blooms that are damaging the
18 coral. That part's been fairly substantively
19 demonstrated by the UH Manoa Botany Department. There
20 was a publication by Daylor, et al. I was the
21 co-author on that publication.

22 Some of the other questions are dead zones
23 on the Ka'anapali reef that we're not sure of the
24 exact, if there's a like to the wastewater or not.
25 That's still being investigated.

1 But you can envision if we had a geology
2 where we're injecting this buoyant water and it's
3 coming out wherever it can be released that it might
4 be coming out in thousands of little seeps all along
5 the reef. We do know that submarine discharges of
6 groundwater like that occurs.

7 So that groundwater movement can convey the
8 wastewater to all those places. So it's possible that
9 all those dead zones are somehow connected to seepage
10 that includes wastewater.

11 Again, there's a lot of research. A lot of
12 the world's best universities are coming to Maui to
13 study this.

14 So it's not conclusive about impacts for
15 toxicants, endocrine disruptors and things like that.
16 But when it comes to nutrients, specifically -- well,
17 I won't say specifically, nitrogen is thought to be
18 the major player. But what we find is that the algae
19 like wastewater better than they like pure nitrogen.

20 So I could go in and make a chemical
21 concentration and make it tailored to the chemical
22 concentration of pure chemical nitrogen, and put the
23 algae in it and they didn't take off and bloom. But
24 when she gave 'em wastewater it's like the perfect mix
25 of micronutrients and macronutrients and whatever the

1 algae like.

2 And they really respond. You can see it
3 visually. Their pigments get darker. They grow
4 faster. They get darker in color. So they clearly
5 take off, their growth curves take off with
6 wastewater.

7 So it's that -- we have to keep remembering
8 about wastewater. It's a combination of a lot of
9 things. And the algae just really like the
10 wastewater. They really grow well on it.

11 Q So that's the invasive algae you're
12 talking about in limu?

13 A Well, both native and invasives can grow
14 out of control and become a harmful algal bloom if
15 conditions are conducive to it. So what we're really
16 doing with environmental management and water quality
17 management is trying to control those conditions so
18 that they can provide us with, you know, the outcomes
19 that we want in terms of edible fish, swimmable
20 waters, edible limu, healthy coral.

21 Q So that's how it relates to me. It affects
22 the fish, the fish that I might eat, and the quality
23 of the nutrients from that fish?

24 A Those are the direct impacts of discharges
25 of both stormwater and wastewater on things like coral

1 and algae. There can be more direct effects to the
2 coral directly, not just with the algae. Like I said
3 we've not even begun to scratch the surface yet on
4 toxicity.

5 Sediment is a known damaging effect. I was
6 actually somewhat surprised at the amount of coral
7 that I saw at the mouth of the Kahoma Channel
8 considering how much sediment does get delivered
9 there. I was expecting it to be an area that would be
10 considered more degraded than what I saw.

11 So that kind of gave me hope that our water
12 quality programs might work and that we have an
13 opportunity here, if we manage development right, to
14 preserve those resources and protect them.

15 Q Do you know of any coral laws that's
16 protecting the corals and the reefs for the state of
17 Hawai'i?

18 A Coral laws?

19 Q Like laws that, that protect the corals.
20 Did Linda Lingle mention anything?

21 A I'm not sure exactly what you're speaking
22 of. But I am familiar with the state regulations and
23 laws related to implementation of the Clean Water Act.
24 And those definitely protect the coral and the other
25 aquatic life.

1 Q Does the Project meet the land use decision
2 criteria of "sufficient reserve areas for foreseeable
3 urban growth"?

4 A When I first read that criteria I was not
5 real clear on what the typical interpretation of that
6 criteria is for this body. But the thought that
7 occurred to me is as a watershed manager and a water
8 quality manager looking at this watershed, I think the
9 reserve area that's most needed in this urban area is
10 a reserve area for infiltration of stormwater into the
11 ground rather than running off.

12 In other words, areas that are pervious
13 rather than impervious. And one of the damaging
14 aspects of development is rooftops, roads, concrete
15 are all impervious. Water cannot penetrate and go
16 back into the groundwater. It just runs off down the
17 channel carrying pollutants with it.

18 In the Lahaina area there's not much green
19 or open space in the urban developed areas. So I
20 think a real need for reserve capacity in that urban
21 area is to just have open space where infiltration can
22 occur.

23 Q What does it mean when they say a hundred
24 year floor or 50 year flood?

25 A It's often misunderstood. People often

1 think when you say "hundred year flood" that means the
2 flood that's gonna happen once every hundred years.
3 But what it really means is the size of flood that's
4 likely, that has a 1 in 100 chance of happening in any
5 given year.

6 It's the flood that there's a 1 percent
7 chance that it's going to happen this year. So a
8 50-year flood is the one that there's a 2 percent
9 chance that it's going to happen this year.

10 Q Does the hundred year flood volume change?

11 A Yeah, I think that's important to
12 understand that it's a statistic. So it's based on
13 past data. What we know right now with global climate
14 change is that dry periods or drought periods are
15 getting longer. And while overall rainfall, the
16 amount of rainfall is getting smaller, it's falling in
17 these more intense storms. So you're likely to get
18 more water at one time even though we're experiencing
19 less rainfall.

20 So that's going to mean what is the
21 hundred year storm, that volume of water is changing.
22 So it can change when precipitation patterns change
23 like that. But it can also change due to development
24 within the watershed and more of that impervious
25 surface.

1 And so what has been happening -- that was,
2 that was designed for the hundred year flood when it
3 was designed which I think the design started in the
4 '70s. And it was finally completed in the '90s.

5 Well, both the amount of impervious surface
6 within the watershed as well as the precipitation
7 patterns, both of those things have changed. So now
8 the hundred year flood statistic is going to change as
9 a result.

10 So what we *really* need to be talking about
11 is: What is the volume of water that we expect to
12 come all at one time? And what is the capacity of
13 that structure to contain that volume safely? That's
14 a discussion I really haven't heard in all of these
15 proceedings.

16 Q Does the Project meet the land use decision
17 criteria of land with adequate topography?

18 A When I read the Petition to address this
19 criteria, the Petition mainly concerned itself with
20 the slope of the land. However, I believe that the
21 elevation of the land should also be considered and
22 its position adjacent to a major flood control
23 structure.

24 And the recorded presence by current
25 residents of wet weather flows in the former

1 streambed, that all of these things potentially make
2 this an area of *not* satisfactory topography as it is
3 not free from danger of flooding, unstable soil
4 conditions or other environmental affects.

5 As I said earlier, due to climate change
6 and changes within the watershed, we can expect more
7 intense flooding, more inches per hour, increased
8 flood volumes.

9 One of the things to understand about flood
10 control is that if a flood control structure fails,
11 there can actually be more damage than what would have
12 happened if it had never been built in the first place
13 and flooding had been allowed to naturally occur on
14 the flood plain.

15 Q Do you have recommendations regarding the
16 Project's stormwater drainage?

17 A I would recommend, first of all, to leave
18 this in some kind of open or green space. Whether
19 that's Ag or Urban, you know, is more of a
20 technicality. But leaving it open where water can
21 infiltrate.

22 And I would say that if you *did* change it
23 to Urban, which would allow more development and
24 structure, that you should require low impact
25 development which is EPA's latest design standards,

1 what's known as green infrastructure which is less
2 impervious surface, more natural systems that let the
3 water go back into the groundwater.

4 Also water quality-based standards for the
5 drainage design.

6 Q Where do you come from?

7 A I'm from Louisiana.

8 Q Were you there during Katrina?

9 A I was.

10 Q What's your opinion regarding the U.S. Army
11 Corps of Engineers design flood control structures
12 there?

13 MR. YEE: I'm going to object on the
14 grounds of relevance. We're going pretty far afield
15 if we're going to talk about the Army Corps of
16 Engineers water quality efforts in Louisiana.

17 MS. BOLOMET: The reason I'm bringing it up
18 is because her experience with flooding and the flood
19 channels like we have in Kahoma, there's going to be a
20 relationship that I think would be important for the
21 Commissioners to have to make their decision.

22 PRESIDING OFFICER HELLER: I'll allow a few
23 questions in this area. But I do think it's a pretty
24 far stretch. Let's try to get through this quicker.

25 MS. BOLOMET: Okay.

1 MR. GEIGER: I'd also point out that I
2 don't believe any foundation's been laid that this
3 witness would have any ability to comment on what was
4 just offered for the offer of proof.

5 Q (By Ms. Bolomet) Well, do you have any
6 proof of your qualifications to answer this question?

7 A As a water quality specialist I deal with
8 assessing and addressing, mitigating or avoiding the
9 impacts of projects approved and permitted by the Army
10 Corps of Engineers in some cases where they're
11 directly engaged as a project sponsor. So I am
12 familiar with the impacts of their projects.

13 And I am personally familiar because I knew
14 a lot of the technical data that was going on in
15 Louisiana where some of the reliance upon Corps of
16 Engineers did not prove to be well founded.

17 MR. YEE: May I voir dire on the issue?

18 PRESIDING OFFICER HELLER: Yes, you may.

19 VOIR DIRE EXAMINATION

20 BY MR. YEE:

21 Q Is your expertise in the review of the
22 environmental impacts on Army Corps of Engineer
23 permits?

24 A I do have that expertise, yes.

25 Q I take it you do not have an engineering

1 degree.

2 A I do not have an engineering degree.

3 Q Your review, then, of flood control
4 calculations is not based upon an educational degree.

5 A I would say that's not true. My review of
6 those calculations would not be related to the
7 structural components of the design. It would be more
8 related to the ecological, environmental or water
9 quality impacts.

10 MR. YEE: We have no objection to the
11 discussion on environmental issues. But when it comes
12 to flooding, which is a mathematical, engineering and
13 structural analysis, we would object on that basis.

14 PRESIDING OFFICER HELLER: Your objection
15 is noted. Ms. Bolomet, as I understand it these
16 questions regarding what happened in Louisiana are
17 basically just background for discussion of the Kahoma
18 Channel and how it relates to this Project.

19 Given that it's just background I'll let
20 you ask a few questions. But I'll ask you to try and
21 do it quickly and briefly.

22 CONT'D DIRECT EXAMINATION

23 BY MS. BOLOMET:

24 Q Okay. Have you reviewed the FEIS for the
25 Kahoma Flood Control structure? And if so did you

1 note any information important to this decision?

2 A That's a different question. Did you want
3 me to answer?

4 Q Oh, oh, go ahead. I'm sorry.

5 A With regard to Hurricane Katrina and Corps
6 of Engineers' structures, there was quite a hot debate
7 for close to 20 years about the environmental,
8 ecological and water quality impacts of both
9 navigation and flood control structures on the
10 Louisiana coast in the area of New Orleans.

11 The mathematical models, which I am trained
12 in, do review and do work with mathematically quite a
13 bit, those models indicated that some of these
14 structures were actually channeling water and
15 increasing velocity and perhaps increasing hazards in
16 the New Orleans area.

17 After the failure of the levies a colleague
18 notified me that he noticed -- he had been -- during
19 the storm, as the storm moved in he was looking at the
20 levy elevations on the Corps of Engineers website.
21 Shortly after the storm those elevation drawings were
22 removed from the website.

23 Later it was determined that the levies
24 were not as high as we thought they were because the
25 Corps of Engineers benchmarks had been sinking.

1 And I would like to be really clear on this
2 that I'm not casting any doubt on the professionalism
3 of the Corps of Engineers and the work that they do.
4 I just would like to draw the Commission's attention
5 to the fact that this is your decision. And because
6 somebody checked a box at an agency and said, "Yeah,
7 it meets this list," that's not the only
8 consideration.

9 We have to consider that we don't know
10 everything as humans; that we are fallible and that
11 these are powerful forces of nature. And every
12 engineering design has a limit.

13 So the question should be, if you're
14 looking at water quality and all of that, it's what's
15 the limit of the pollutant load and the mass of water
16 that can be put through the ecosystems.

17 There are other questions of safety which I
18 am not an expert on, but I have personal experience
19 with. And I just think that we all should really
20 think about the bigger picture.

21 When we see a design, understand it's an
22 engineering design. It's for a certain sets of
23 conditions. And if conditions outside that range do
24 occur, then that design may or may not be adequate.

25 Don't just assume that it's adequate

1 because 20 years ago the Corps of Engineers said this
2 is great. Well, this is not 20 years ago.

3 Q So relating to this specifically, do you
4 have anything else to add with your experience with
5 Kahoma, say with the concretizing of the channel?

6 A Well, my experience with hardened channels
7 in general is that they can cause loss of sediment
8 from the land, land loss, erosion, delivery of
9 sediment to the ocean.

10 I did look at the Environmental Impact
11 Statement for the Kahoma Flood Control Channel. And
12 there was in the Land Use Commission decision to
13 change from Ag to Urban, in order to build that
14 channel the Fish and Wildlife Service requested that
15 the former channel remain a green space and be planted
16 with trees and shrubs for wildlife habitat.

17 And in that same document they brought up
18 an amendment after the Final EIS. And one of the
19 issues in the amendment was that the local community
20 was saying: We really want this to be open space or
21 green space and not be developed.

22 So that goes as far back as the '70s that
23 that's been the premise of what should be happening
24 with this land.

25 Q Okay. Is there anything else you'd like to

1 add to that regarding this Project?

2 A I think that's it.

3 Q Okay. Have you reviewed the FEIS for the
4 Kahoma Flood Control structure? If so did you note
5 any information important to this decision?

6 A I think I just answered that one.

7 MS. BOLOMET: Well, I have concluded my
8 questions.

9 PRESIDING OFFICER HELLER: Thank you.
10 Petitioner.

11 MR. GEIGER: Ready to go unless the court
12 reporter would like a break. We've been at it about
13 60 minutes.

14 THE REPORTER: Short one.

15 PRESIDING OFFICER HELLER: Okay.

16 (Recess was held. 1:40)

17 PRESIDING OFFICER HELLER: (1:50) (gavel)
18 Okay. Back on the record. Petitioner, go ahead with
19 cross-examination.

20 MR. GEIGER: Thank you, Mr. Chair.

21 CROSS-EXAMINATION

22 BY MR. GEIGER:

23 Q Good afternoon, Ms. Knox.

24 A Good afternoon.

25 Q I just want to make sure I understand a

1 little bit about what you did and your qualifications.
2 And I'll get into some questions. So first of all, as
3 I understand it you provided written direct testimony.

4 And so that we're on the same page, the
5 testimony I received started out "Affidavit of Robin
6 S. Knox" and was about five pages long. Is that the
7 written direct testimony you were referencing?

8 A Yes, sir.

9 Q It wasn't signed, but regardless whether it
10 was signed or not, you adopted that as your written
11 direct testimony in this case.

12 A Yes, sir.

13 Q Now, I believe you testified you didn't
14 have a degree in civil engineering. Am I correct that
15 you are not a licensed civil engineer?

16 A That is correct. I would like to provide
17 some further explanation.

18 Q You'll get an opportunity in a minute. But
19 if I could go ahead and finish my questions here. I
20 assume also you're not a -- you have no degree in land
21 use planning.

22 A That is correct.

23 Q And I assume you do not have a law degree.

24 A That is correct.

25 Q You made some comments about the likely or

1 what you believe to be the outcome of certain
2 litigation. That's based upon your own lay person's
3 view. That is not based upon a legal opinion, is that
4 correct?

5 A That is based upon 30 years of regulatory
6 experience with the Clean Water Act. It is an expert
7 opinion.

8 Q It's an expert opinion on the likely
9 outcome of litigation?

10 A It is an expert opinion on the likely
11 outcome of the regulatory processes that have been set
12 into place under the Clean Water Act.

13 Q Okay. Let me, then, focus a little bit on
14 that. What were you given so far as this specific
15 Petition Area to review?

16 A I think the only thing I was directly given
17 was the Petitioner's, I guess it's called Petition the
18 information that had.... I'm not sure. I looked at
19 the EIS's. I looked at information that Routh
20 e-mailed to me. I looked at transcripts. And I
21 looked at Rory's -- there was a presentation that Rory
22 did.

23 Q Okay. Well, specifically you said the
24 "Petition". Were you given all of the exhibits that
25 were attached to the Petition?

1 A No. I don't believe I've seen all the
2 exhibits attached.

3 Q Were you given the Final Environmental
4 Assessment in full?

5 A I reviewed what was available on the
6 state's Office of Environmental Quality website.

7 Q Did you know that the Final Environmental
8 Assessment was attached as an Exhibit 7 to the
9 Petition?

10 A Yes. I actually looked in a book that
11 Routh had and saw that it was Exhibit 7.

12 Q Okay. And you noted that there were
13 certain departments that would make comments to the
14 Final EA, correct -- or to the draft EA?

15 A Correct, yes.

16 Q And did you note that the Department of
17 Health made comments, the state of Hawai'i Department
18 of Health?

19 A Yes, I did.

20 Q And did you note that they effectively did
21 not make any of the comments that you're making today
22 concerning "not another pound"?

23 A Yes. And I would like to clarify that as
24 well.

25 Q You can. In a minute I'll give you an

1 opportunity to do that. But you would agree with me
2 that the state of Hawai'i Department of Health did not
3 make that comment to the Final EA for this Project.

4 A I would agree that they did not say it in
5 those words. But I also think that coded within the
6 regulatory lingo in their letter is your warning.

7 Q Let me ask you that because you spent a lot
8 of time telling the Commission about the Lahaina
9 Wastewater reclamation facility. And in your
10 testimony, which you've adopted, you referred to a
11 report that the county's consultants provided,
12 correct?

13 A Mm-hmm.

14 Q There were three reports provided by the
15 county's consultants, weren't there?

16 A Mm-hmm.

17 Q And the report you referenced was the very
18 first report, correct?

19 A I think in the original testimony I've
20 since did more detailed review the second and third
21 reports.

22 Q Okay. But you haven't told us that you
23 changed your testimony. So now I'm hearing you say
24 you've done something else.

25 A I didn't change my testimony. I simply

1 reviewed additional reports which confirmed what I
2 said in the beginning.

3 Q You recognize that in the third of the
4 final report of the consultants they said that their
5 information in the first report that you rely upon was
6 inaccurate, correct?

7 A They said that some information was
8 inaccurate, but they still concluded that the average
9 dry weather flow is 4.5 million gallons per day and
10 that the current flow is 5 million gallons per day.

11 Q Well, I think that that's not totally
12 correct. But didn't they recognize, ma'am, that they
13 were concerned because, as you said, the capacity
14 seemed to be less than what they were actually
15 treating each day?

16 A They said, "The reliable plant capacity for
17 liquids treatment is currently approximately
18 4.5 million gallons a day on an average dry weather
19 basis. The estimated dry weather capacity is below
20 the average observed flow."

21 Which means that the flow is greater than
22 the reliable plant capacity. That last part was my
23 words.

24 Q I understand that's your words. And in
25 fact isn't it correct that they were concerned that it

1 appeared that the plant was able to treat more than
2 the capacity so they re-evaluated the data?

3 A Well, what they --

4 Q Isn't that correct, ma'am? Isn't that
5 correct?

6 A I don't think it is correct. Can you say
7 that again?

8 Q Sure. Isn't it correct that they were
9 concerned that the results that they had from the
10 first go 'round showed that the plant shouldn't have
11 sufficient capacity? But they were treating the
12 wastewater and not having any violations. So they
13 felt something must have been wrong, correct?

14 A They felt that their models wouldn't
15 balance on the solids balance. And the only way that
16 they were able to justify that there is adequate
17 capacity is to allow the use of a basin that should be
18 remaining empty as redundant capacity.

19 That's part of good engineering practices.
20 That's part of what would be required if they were
21 under a Clean Water Act permit. So the only way they
22 can claim to have adequate capacity is to not follow
23 standard practice of redundant equipment, and to put
24 into -- they said the only way -- I think I've got it
25 right here. "If it is to be assumed--"

1 "It's probable that the plant has not had
2 any problems meeting permit requirements." First of
3 all, I already told you there are no limits in the
4 permit. It just triggers an action. So of course
5 they had no trouble meeting the requirements. It's an
6 extremely lenient permit.

7 And, secondly, because the third clarifier
8 has been available during peak months. They're taking
9 a unit that should be out of service in case of
10 emergency for redundancy and using it for their
11 day-to-day compliance. That's -- that's not a mistake
12 or a... that's a practice that the county does that is
13 not a good engineering practice.

14 Q Whether it's a good engineering practice,
15 bad engineering practice -- the capacity with -- using
16 the third facility provides for a capacity in excess
17 of what they're treating, correct?

18 A If you assume that the redundancy capacity
19 for secondary clarifiers is not applied, the plant has
20 approximately .5 million gallons per day excess
21 capacity. That's a big 'if'. And that's what --
22 their engineers are not saying that that's the
23 capacity. Their engineers are saying that that
24 capacity is only there if you do not follow the
25 practice of having redundant treatment units, which is

1 the practice.

2 Q That's how you read it. I understand that,
3 ma'am. But it does say, and they came to the
4 conclusion, that the plant was able to meet the
5 capacity or the treatment because they made a mistake
6 in the first report which you included in your written
7 testimony?

8 A No, sir. I do not agree that they made a
9 mistake or that they admitted to a mistake. That is
10 inaccurate.

11 Q Okay. Isn't it correct that in this final
12 phase report that we're talking about the consultant
13 said that there were two things that Lahaina -- that
14 the Maui County could do which would allow them to
15 have additional capacity that would be at no cost or
16 at minimal cost?

17 A There were, I think, about five
18 alternatives. Two of them were process improvements
19 to the existing plant.

20 Q At no cost or minimal cost, correct?

21 A Yeah, they were fairly inexpensive compared
22 to expanding the plant, upgrading the level of
23 treatment.

24 Q In fact one of them would increase the
25 capacities by a million gallons a day.

1 A Without looking back at the report I can't
2 testify to that.

3 Q Page 10 if you want to look.

4 A I don't have the complete report with me.

5 Q And the other one would increase it another
6 8/10 of a million gallons a day. And those would be
7 at no cost or minimal cost. Do you understand that?

8 A I understand that there were several
9 alternatives and costs presented that are based on
10 assuming that you can get 12 million gallons per day
11 in your permit and 751 pounds per day of total
12 nitrogen in your permit.

13 Those were the assumptions behind this
14 costing, assumptions and conclusions in that
15 engineering report. And I do not believe those are
16 valid assumptions.

17 Q I understand you don't agree with that.
18 But that is what the county's consultants provided,
19 correct?

20 A That is true.

21 Q Now, how many gallons of wastewater are
22 going to be added by this Project?

23 A I don't recall the number from reading the
24 reports. But normally there's 200 gallons per day per
25 person as an industry standard assumption, four people

1 per households, 68 houses. It's more than zero.

2 Q I understand. I will tell you that
3 according to the county standards it would be about
4 30,000 gallons a day. Does that sound reasonable to
5 you?

6 A Without doing the math I don't want to
7 answer the question.

8 Q Okay. That's not something you'd look at.

9 A But I would say it's probably relatively
10 small compared to other projects. It's a small
11 Project.

12 Q But that's not something you looked at in
13 preparing for your testimony before the Commission.

14 A I did look at it. I didn't recall the
15 number because from my perspective as an expert on
16 water quality, when you're already exceeding water
17 quality standards and a total maximum daily load has
18 been mandated, that means the load needs to go down
19 not up.

20 So you'd have to find a way to make the
21 total pollution go down. And any new project adds
22 more unless you also improve the treatment in order to
23 get more efficient to bring the pounds down.

24 Q Well, first of all, you're not here
25 speaking on behalf of the Environmental Protection

1 Agency, correct?

2 A I'm not speaking on their behalf, no.

3 Q And you're not here speaking on behalf of
4 Department of Health of the state of Hawai'i, correct?

5 A That is correct.

6 Q And you're not here speaking on behalf of
7 county of Maui Department of Environmental Management
8 and Wastewater whatever their current name is?

9 A That is correct. Division of Environmental
10 Management.

11 Q So what you're here on is you're here
12 speaking on your views of this particular Project,
13 correct?

14 A I'm here speaking as an expert in water
15 quality about the situation that currently exists with
16 the Lahaina Wastewater Reclamation Facility and the
17 claim of the Petitioner that there is adequate
18 treatment available. I don't believe that that's
19 true. And that's what I'm here testifying.

20 Q I understand that's your belief. You
21 understand that the county of Maui has come to a
22 different belief.

23 A I don't know that I understand the county
24 of Maui's beliefs.

25 Q Let me ask you a question about the

1 recommendations because I heard you make two
2 recommendations to the Commission. You said: If you
3 approve the change you oughta make sure there were two
4 things done. One was to make certain that the
5 developer had to pay its fair share costs, correct?

6 A Correct.

7 Q Okay. And you used a number of 80 million
8 to a hundred million, but that's not the developer's
9 fair-share cost. That would be the entire cost of
10 doing the upgrade, correct?

11 A That was the entire cost that was estimated
12 by the county's engineers based on the assumptions of
13 a 12 mgd permitted flow and a 751 pounds per day total
14 nitrogen.

15 Q Understood. It's a huge number but the
16 developer's fair-share would not be that entire
17 80 million, correct?

18 A I'm not familiar with the formulas for
19 doing that. But I would assume that a fair share
20 would not be the whole amount.

21 Q Were you familiar with or did anybody
22 provide you with the resolution that the county
23 council entered when they approved the Project?

24 A No.

25 Q Okay. I will tell you that one of the

1 provisions that the county council included was that
2 if there was a capacity for wastewater treatment that
3 the developer would have to pay its fair-share. I
4 assume you agree that that's a good condition to
5 include.

6 A If the land were to be switched to urban,
7 which would require that there actually be capacity,
8 not that there be speculative capacity -- I'm sorry I
9 didn't --

10 Q Well, or not that there would be
11 speculative known capacity. The point is that you
12 would agree that would be a good condition to include
13 that the developer should pay its fair-share if there
14 is a capacity?

15 A Whether there's capacity or not the
16 developer should pay their fair-share.

17 Q I think the other recommendation you had
18 would be that you should do a low impact design. Did
19 you understand the developer, to the extent possible,
20 is going to incorporate low impact design in this
21 Project?

22 A My understanding was that the developer was
23 going to comply with county drainage standards which
24 are not up to the standards of low impact development.

25 Q Or higher. But that's okay. Your

1 understanding is only based upon what you've been told
2 my Ms. Bolomet on that, correct?

3 A More of what I've read.

4 Q Okay. Now, let me ask you a little bit
5 about that. The county standards. Are you familiar
6 that the county made an ordinance in January changing
7 some of their water quality standards for stormwater
8 runoff?

9 A Yes, sir. I am.

10 Q And have you reviewed the proposed rules on
11 that?

12 A I have to some extent, not to the in-depth
13 extent I would like to.

14 Q And have you provided any public comment on
15 those proposed rules?

16 A Yes, I have.

17 Q And you know that's in the process and
18 probably will be adopted within the next 40 days, 45
19 days?

20 A I'm not familiar with the timeframe.

21 Q And you would agree that the developer
22 should comply with those rules?

23 A At a minimum. My comment in the public
24 notice was that those were 1993 recommendations from
25 EPA and that we should go with their latest

1 recommendations which were low impact development and
2 green infrastructure.

3 Q But be that as it may, you and I aren't the
4 county council. We didn't adopt the rules. We have
5 to play by the rules they have, correct?

6 A Well, at a minimum.

7 Q Yes. So you would agree that that would be
8 something that would be acceptable that the developer
9 should comply with those rules?

10 A I think it's acceptable that the developer
11 comply, but it may not be enough to comply with water
12 quality standards. So you may need to go beyond what
13 the county requires.

14 Q But, again, that would be standards that
15 are enforced, if you will, by the Department of
16 Health, correct?

17 A I think that...

18 Q Clean Water Act is enforced by the
19 Department of Health in the state of Hawai'i.

20 A It's enforced by both EPA and the
21 Department of Health. If the DOH does not enforce
22 then -- if they've delegated -- if EPA has delegated
23 the authority to DOH and DOH doesn't do it then EPA --

24 Q May do it.

25 A -- step in.

1 Q But right now they've delegated it as far
2 as we know.

3 A Certain things.

4 Q Yes.

5 A Not everything.

6 Q But this they've delegated, correct?

7 A What specifically?

8 Q Enforcement on the stormwater discharge,
9 correct? If you don't know that's fine.

10 A Yeah. I don't think that's specific enough
11 to answer.

12 Q Okay. I had a question about your
13 comments. Have you done any research to find out what
14 the rainfall is at the Lahaina area on average?

15 A I have not looked at Lahaina precipitation
16 data. I've looked in general at Maui precipitation
17 data.

18 Q Were you aware that there is a
19 precipitation data available for Lahaina from 1916 to
20 the present?

21 A Not specifically but I would expect to find
22 it based on what I know about Maui.

23 Q So you really can't tell the Commission
24 anything so far as what the likely size of a storm
25 might be or what the likely rainfall might be in the

1 Lahaina area.

2 A I can tell the Commission that it is likely
3 that the intensity of storms will be greater than it's
4 been in the past. That's based on reports from the
5 state climatologist about Hawai'i.

6 And I've confirmed on Haleakala that it is
7 true from the hundred years record of rainfall data on
8 that side. So I haven't done that analysis for West
9 Maui.

10 I would expect because it's a statewide,
11 global and islandwide trend that we would probably see
12 the same thing.

13 Q Well, you recognize, don't you, that Maui
14 has a number of sub-climates. And so what happens on
15 one side of the island doesn't necessarily follow
16 through on the other side of the island, correct?

17 A That's correct.

18 Q Okay. So what experience you have
19 concerning Haleakala may not follow through, for
20 example, Lahaina.

21 A It may or may not.

22 Q Correct. So as far as what it would be
23 it's speculation. You haven't done the work to find
24 out or to tell the Commission what it would be in
25 Lahaina, correct?

1 A My comment is that we *should* know what
2 those numbers are in this discussion. And nobody that
3 I can see has done or presented that to the
4 Commission.

5 Q You don't know that because you haven't
6 been here to hear all the testimony. You haven't
7 reviewed all of the reports or the testimony of all
8 the experts, correct?

9 A I have not reviewed everything, that's
10 correct.

11 Q Let me ask you a question. Are you
12 familiar with the USGS gauging system that exists for
13 the streams throughout the state of Hawai'i actually?

14 A Yes.

15 Q Did you do any work or try to find out any
16 information about the Kahoma Stream, whether a gauge
17 exists or whatever the flows might be?

18 A Time did not allow me to do research on
19 that.

20 Q Okay. Did you do any research or try to
21 find out any information about the design capacity of
22 the Kahoma Stream flood control channel?

23 A I did see -- I did see some numbers on the
24 Corps of Engineers' website. I did not convert those
25 to gallons to see what they said. I looked at it but

1 I haven't converted it to a meaningful number that we
2 can discuss at this point.

3 Q You looked at it for the Kahoma Stream?

4 A I looked at the Corps of Engineers'
5 website.

6 Q Oh, I'm sorry.

7 A It had a description of the Kahoma Flood
8 Control Project. In there they did have a cubic yard
9 capacity for the debris basin?

10 Q Correct.

11 A And the length of concrete of the structure
12 itself.

13 Q They also had the design capacity in cubic
14 feet per second for the channel.

15 A 15,000.

16 Q 15,000 cubic feet per second, yeah. And
17 you're familiar with the gauging stations that USGS
18 runs. They do a cubic feet per second measurement
19 also, don't they?

20 A Some of them. It depends on the type of
21 station. They could be measuring levels and
22 calculating.

23 Q Correct. Would you be surprised if I told
24 that the USGS had records on Kahoma Stream gauging
25 from 1963 to the present?

1 A No, I would not be surprised.

2 Q And those records had cubic feet per second
3 flows. Would it surprise you to know that the maximum
4 recorded discharge was 2490 cubic feet per second?

5 A Can you say that again?

6 Q 2,490 -- 2500 for ease of reference.

7 A Okay. Would it surprise me?

8 Q Mm-hmm.

9 A I would think that it's low but I wouldn't
10 say it would surprise me.

11 Q The records are the records. That's what
12 we have. So that as I do my math, and I'm not a math
13 person like you are, but it's about 1/6th of the
14 design of the Kahoma Stream flood control channel,
15 isn't it?

16 A Well, what they're reporting is a facsimile
17 of how often they measure. And it's also a report of
18 the last hundred years worth of data. And what we're
19 talking about is that the hundred year flood is a
20 statistic and that the rainfall and precipitation
21 patterns are changing.

22 So you cannot rely on the statistics of the
23 last hundred years of data to tell you what's going to
24 happen in the future.

25 Q I think you misunderstood my question. I

1 was only talking about the stream flow. The stream
2 flow, the recorded stream flow from 1963 to the
3 present, the maximum has been 2500 cubic feet per
4 second. That number is approximately 1/6th of the
5 design, isn't that correct?

6 A The number 2500 is approximately 1/6th of
7 the 15,000. Is that your question?

8 Q Yeah.

9 A Can I use a calculator?

10 Q Sure.

11 A I'm sorry. I don't do math in my head.
12 We've already established that. I will just say it's
13 a fraction. Can we do that? Do you really need the
14 math?

15 Q No. I think the Commissioners can figure it
16 out themselves.

17 A Okay. It's in fraction.

18 Q So this information that you received from
19 neighbors that there had been overflows, that doesn't
20 seem to square with the recorded data that we have,
21 does it?

22 A I will say that my experience is that real
23 world observation always trumps data because there are
24 facsimiles in data and other things to consider when
25 you're looking at these questions.

1 I did not say, I don't think, that the
2 residents had seen overflows. What I said was that
3 the residents had reported that when it rains
4 currently that there is flow in the old streambed not
5 in the channel itself.

6 I have also seen photos provided by the
7 Intervenor that had showed debris perched on the top
8 of the structure, which would indicate that water
9 levels in that structure had gotten high enough to
10 place the debris on top of the structure.

11 So that means that at some point when this
12 thing actually operates, which is not theory and data
13 and all of that, it's the actual operations, that the
14 water levels are filling up that debris basin.

15 So why could that be happening even though
16 it's designed to be six times more than any recorded
17 stream flow? Possibly it could be acting as a dam.
18 If debris jams up and then the water level, the
19 elevation can get higher in that structure.

20 So those kinds of real world operational
21 issues need to be taken into account in this
22 situation.

23 Q Just so we're all on the same page. You're
24 referring to the weir feature of the debris basin,
25 correct?

1 A I would not call it a weir.

2 Q Corps of Engineers calls it a weir. If you
3 looked at the website you would have seen it's a weir.
4 That's the feature you're referring to, correct?

5 A The feature that I'm referring to I've seen
6 referred to as a debris basin.

7 Q Within the debris basin you said that there
8 was some debris perched on top of the structure,
9 correct?

10 A Correct. I saw a picture.

11 Q And that structure is at the bottom of the
12 debris basin. It's a, if you will, almost a square
13 with little openings in between?

14 A No, that's not what I'm talking about.
15 What I saw was a picture of the concrete walls of the
16 channel that are vertical. And inside there, what I'm
17 calling a debris basin, inside that channel, there are
18 structures that have, like, bars that you can see are
19 to prevent big logs and things from going down in
20 maybe the square box that you're talking about.

21 And the picture I saw had large debris,
22 large logs and things on top of the vertical channel
23 wall.

24 Q This is what you're talking about, right?

25 A Yes. I think I saw a picture from a

1 different perspective.

2 Q You'll note at the top of the weir feature,
3 I'll call it a weir feature, is lower than the top of
4 the debris basin, correct?

5 A Say again.

6 Q Sure. The weir feature, the top of the
7 weir feature is lower than the top of the debris
8 basin, correct?

9 A You're saying the top of this inside --

10 Q Yes.

11 A -- box is lower than the debris basin.

12 Q Is lower than the top of the concrete on
13 the outside of the debris basin.

14 A From the perspective of this photo it
15 appears so. Let me just say that's not the same photo
16 that I saw earlier.

17 Q When you looked at the Corps of Engineers
18 website and found out about the Kahoma Channel, you
19 didn't notice that the elevation difference was
20 approximately 8 feet between the top of the debris
21 basin and the top of the weir?

22 A I did not review design information in
23 that.

24 Q You testified about the county of Maui
25 since 1999 has been under a consent decree with regard

1 to the Lahaina Wastewater Reclamation.

2 A That's actually for the entire county's
3 collection systems.

4 Q Okay. And are you familiar with all of the
5 replacement that has been done of the main lines in
6 the sewer treatment or the wastewater facility in the
7 Lahaina area?

8 A I do not know all of the details of
9 county's program. I'm familiar in general with sewer
10 collection system rehabilitation and how it's done and
11 that considerable strides have been made under the
12 consent decree to correct this situation.

13 Q That's one of the things they had to do
14 because they were having a lot of leaks in the lines
15 that were running to the sewer treatment plant or the
16 wastewater treatment facility. They had to replace
17 those lines, correct?

18 A I don't know if they were replaced. Many
19 times they line the front line with products like In
20 Situ Form and things like that. So I'm not sure if it
21 was replaced or lined. But I know there has been
22 rehabilitation projects.

23 Q But you weren't living in Maui at that a
24 time, correct?

25 A That's correct.

1 Q Do you have any facts upon which you can
2 tell the Commission that the wastewater line that runs
3 from Keawe Street to the Lahaina Wastewater
4 Reclamation facility has not been repaired or
5 replaced?

6 A I have no information about that particular
7 line.

8 MR. GEIGER: Just one second. (pause)
9 Nothing further.

10 PRESIDING OFFICER HELLER: County?

11 CROSS-EXAMINATION

12 BY MR. GIROUX:

13 Q Thank you, Chair. Dr. Knox, as far as the
14 consent decree, have you read that decree?

15 A No.

16 Q So you have no information as far as what's
17 inside of that document?

18 A My information about that document was
19 taken from a county's quarterly report made pursuant
20 to that consent decree.

21 Q As far as your experience with the EPA, how
22 many consent decrees have you been involved with or
23 had the joy of working with?

24 A At least three or four.

25 Q Okay. And you're aware of the process of

1 the EPA coming forward and basically taking
2 jurisdiction of municipalities, sewer projects.

3 A I'm aware that they can do things along
4 those lines.

5 Q And the consent decree is one of those
6 ways.

7 A I don't -- I don't know if I quite
8 understand what you mean by "take control of". I
9 think the consent decree is one way the EPA can affect
10 the changes that they want to see.

11 Q So they gain added oversight because of a
12 consent decree.

13 A Right. Because the party has consented to
14 do some action.

15 Q And just because a party consents to be
16 cooperative with the federal government doesn't mean
17 that they're in actual violation at the time?

18 A That's correct.

19 Q Okay. So as far as this consent decree,
20 one of the things you do know about it is that there
21 is a reliable capacity of \$5 million a day for this
22 type of facility in Lahaina.

23 A I do not know that. I didn't see the
24 capacity of the plant as being, at least in my review
25 of the information, as being the focus of the consent

1 decree.

2 Q So as far as this 5 million gallons a day,
3 where does that come from?

4 A The 5 million gallons per day is a number
5 from the CH-2 M.Hill final report that if you assume
6 that you're not required to have any redundant basins,
7 that using the 1985 Lahaina plant and one basin from
8 the older plant that you can achieve 5 mgd or even 5.5
9 mgd capacity.

10 Q Okay. So if this plant went over that and
11 went to the 6 mgd, they wouldn't be in violation of
12 any type of consent decree.

13 A I can't really answer that because I've not
14 read all the consent decrees to which the county is
15 subject.

16 Q Can we safely say you're not an expert as
17 far as the consent decree in this area?

18 A I would say as far as the specifics of the
19 county's consent decree I'm not an expert at this
20 point only because I haven't done a detailed review of
21 it.

22 Q Okay. So any opinion that we are in
23 violation of that consent decree would not be a
24 professional opinion.

25 A I don't think I've rendered an opinion that

1 you're in violation of the consent decree.

2 Q Okay. I'm just checking because I've heard
3 a lot of talk about us, the county, being in violation
4 of certain things. And what I want to do is just go
5 down the line and clarify this.

6 A I think I said there were alleged
7 violations.

8 Q Okay. So "alleged" means that there have
9 not been any Notice of Violations to the county.

10 A I do not know because I have not looked for
11 Notices of Violation.

12 Q So as part of your preparation for this
13 case you did not look to see if the EPA has filed any
14 Notices of Violation against the county.

15 A That is correct.

16 Q So can I safely say that you're not an
17 expert in this area of whether or not the county is in
18 violation of the Clean Water Act?

19 A No, you cannot say that. I think I'm very
20 much an expert in questions of whether or not the
21 county's in violation. I think what you can say is
22 that I have not reviewed the information that would
23 allow me to make that determination.

24 Q The EPA is the enforcement arm of the Clean
25 Water Act, is it not?

1 A It's their primary responsibility. They
2 can delegate it to the states.

3 Q Okay. So the state also has either
4 redundant or parallel enforcement authority of the
5 Clean Water Act.

6 A Correct. It varies from state to state.
7 And there can be both. For instance, on the UIC
8 permits there's actually redundant from the state and
9 federal levels. Whereas the NPDES there is not.

10 Q To your knowledge the county has not been
11 in receipt or been served with a Notice of Violation
12 from the Department of Health.

13 A Not to my knowledge. But, again, that's
14 not something I've investigated.

15 Q We were talking about a UIC, an underground
16 injection control permit.

17 A Correct.

18 Q And that is a permit that stems out of the
19 Safe Drinking Water Act.

20 A Correct.

21 Q And as far as you know that is also
22 governed by federal and state enforcement authority?

23 A Correct.

24 Q The county has not received any Notices of
25 Violation from either the federal or the state?

1 A That is not a question that I've
2 investigated.

3 Q So you did not look into any type of
4 violation that has already been given or investigated
5 pursuant to these types of permits, is that correct?

6 A I did not research or review any records
7 from Department of Health or EPA regarding Notices of
8 Violation to county of Maui.

9 Q I want to go into the NPDS. Am I saying
10 that right?

11 A NPDES.

12 Q NPDES. And that's the National Pollutant
13 Discharge Elimination....

14 A System.

15 Q System. Okay. This is something that is
16 required to be in compliance with the Clean Water Act?

17 A It's required for -- the way the law's set
18 up, discharges of pollutants from point sources to
19 waters of the U.S. is not allowed without an NPDES
20 permit.

21 Q And the enforcement arm of that again is
22 the EPA and/or the Department of Health?

23 A It is the EPA and they can delegate
24 authority to the Department of Health. Then they can
25 also step in and override authority of the Department

1 of Health if they feel it's not being executed
2 properly.

3 Q To your knowledge the EPA nor the
4 Department of Health has issued a letter or a notice
5 of warning to county telling them that they need to
6 get an NPDES permit?

7 A They have not issued a warning or Notice of
8 Violation. They have issued a 308 Order for
9 Information which in its body says: We have reason to
10 believe that you may be discharging pollutants from a
11 point source to waters of the U.S. without the
12 required Clean Water Act permit.

13 And they have requested that the county
14 provide information adequate for DOH and EPA to make a
15 decision on that.

16 Q So as far as you know there is a process by
17 which they're information gathering at this point.

18 A Correct.

19 Q And to your knowledge that determination
20 has been basically labeled "inconclusive" at this
21 point?

22 A I would say it's been labeled "incomplete"
23 not "inconclusive". I don't know if you can conclude
24 before you complete. It's still working its way
25 through.

1 Q So it's in the middle of a process, but
2 there has been no conclusion.

3 A Correct.

4 Q I just want to skip over to the process
5 that the state fulfills its 305B and 303D
6 requirements.

7 A Hmm-hmm.

8 Q Basically the test that's performed is
9 basically a regional test, is it not?

10 A Each -- you'll recall I named three place
11 names.

12 Q Yes.

13 A What the state does is they have an ongoing
14 water quality assessment monitoring program. They are
15 not adequately funded to monitor everywhere all the
16 time. So they do kind of rotating regimes. They've
17 set up what they call 'management units'. And so they
18 have a certain geographic area.

19 And they have a certain number of tests
20 that they can do within that geographic area for
21 purposes of assaying whether or not -- to put it
22 simply, whether or not the waters are fishable and
23 swimmable. So that's the process.

24 Q So it's not definitive. Those tests are
25 not definitive as to a point source?

1 A Those tests are not meant to be a monitor
2 of a particular point source. They are the monitoring
3 of the cumulative point and non-point sources
4 including natural or background, groundwater, the
5 whole shebang, the entire mass of pollution coming off
6 the land into the ocean.

7 Q One of your concerns was that these tests
8 were showing high levels of nitrogen. Is that your
9 opinion? Or is that your knowledge?

10 A I would not say that they were showing high
11 levels. I would say that they were showing levels
12 that exceed the water quality criteria concentration.

13 Q Okay. As far as your understanding of the
14 demographics and geography of the Lahaina area, is
15 that there are major hotels there?

16 A Yeah, I don't know them all. There are
17 quite a few.

18 Q Okay. Would you say there's more than five
19 major hotels there?

20 A I recently looked at a proposal where the
21 Coral Reef Alliance is going to hold discussions with
22 23 hotel representatives on the west side. So perhaps
23 there's as many as 23.

24 Q In this test area?

25 A I can't say how many are in a particular

1 water quality management unit. There is quite a
2 concentration in the water quality management unit
3 that they are calling Ka'anapali or Kahekili Beach
4 Park, that area.

5 Q So in preparation for this case you did not
6 go and look to see how many hotels were in the 305B
7 test area?

8 A I would say that anyone would be extremely
9 challenged to do that because the state has not
10 actually mapped the geographic extent of their
11 management units. So we don't really know where they
12 start and end.

13 And they often change over time. So that's
14 kind of one of the technical issues that the state's
15 been grappling with.

16 Q Okay.

17 A So it would be almost impossible for anyone
18 to do that.

19 Q And as far as you know -- you're a
20 scientist, right?

21 A Yes.

22 Q That hotels use a lot of fertilizer to keep
23 their grounds and their golf courses nice and green,
24 right?

25 A I don't know if they use a lot. I would

1 assume that they probably use something.

2 Q Okay. One of the main components of
3 fertilizer is nitrogen, correct?

4 A Of certain types of fertilizers, and
5 there's different forms of nitrogen.

6 Q As a scientist you have not basically gone
7 out to these hotels to find out what kind of
8 fertilizer they're using.

9 A Not yet.

10 Q Okay. And you have not determined whether
11 or not this nitrogen is making its way into the
12 nearshore waters from these hotel properties?

13 A I don't think there's been a specific study
14 on that. What we do know is that there's nitrogen in
15 the water and that part of it's coming from the
16 treatment plant.

17 Q And it is your understanding that there is
18 other point sources of nitrogen that are making its
19 way into these impaired waters?

20 A I'm not sure if there's other point
21 sources. There are other non-point sources.

22 Q And can you explain the difference to this
23 body?

24 A Sure. A point source is a discrete
25 conveyance like a well or pipe or a drainage swale. I

1 always use for my clients the example: If you can get
2 a water sample it's probably a point source. A
3 non-point source is diffused overland flow, runoff,
4 that can be channeled into drainage structures and
5 other things and then discharged.

6 It's kind of a moving target in the
7 regulatory program what has or has not been regulated
8 as a point source. So sometimes that's a point of
9 confusion. Most stormwater was not regulated as a
10 point source when it first, when the programs first
11 started.

12 But over time they've gradually started
13 bringing in stormwater from construction activity,
14 stormwater from industrial activity, things like that.

15 So if the stormwater that's non-point
16 source gets into a channel, pipe or other drainage
17 structure, it can become a point source and then be
18 subject to regulation if EPA chooses to regulate.

19 Q And as far as you know all of these sources
20 could be carrying nitrogen possibly?

21 A I can think of at least three potential
22 sources of nitrogen to ocean waters on the west side
23 being groundwater, point sources and stormwater.

24 Q I don't want to beat this into the ground.
25 But, again, you're not a civil engineer, correct?

1 A I am not a degreed or licensed civil
2 engineer. I have education and experience in
3 environmental engineering which is a branch of civil
4 engineering that is not licensed in the state.

5 Q But as far as in your preparation for this
6 case you did not investigate the potential of
7 wastewater that would be added to the Lahaina system
8 from this Project.

9 A I'm not sure I understand the question.

10 Q You didn't do any type of study or
11 calculation to find out how much added wastewater
12 would be added to the Lahaina system from this
13 Project?

14 A No, I did not.

15 Q You do know that it does have that
16 capacity, the reliable capacity of 5 million gallons.

17 A I believe that that's the number that was
18 in the final engineering report as the average dry
19 weather reliable capacity.

20 MR. GEIGER: I have no further questions.

21 PRESIDING OFFICER HELLER: OP?

22 CROSS-EXAMINATION

23 BY MR. YEE:

24 Q Ms. Knox, my first question. I just want
25 to be clear about the issue of physical capacity of

1 the Lahaina Wastewater Reclamation facility versus the
2 clean water and environmental concerns and
3 limitations.

4 With respect to physical capacity do you
5 understand that there's a limitation based upon the
6 physical capacity of the plant?

7 A Yes, I do.

8 Q What do you think is the current physical
9 capacity of the plant to process wastewater?

10 A Five mgd.

11 Q So you believe, not with respect to whether
12 or not it can comply with environmental laws, but
13 simply the engineering capacity of the plant you're
14 saying it cannot process more than 5 mgd.

15 A I am saying that when I looked at the
16 engineering report there were both hydraulic and
17 process capacity constraints. The hydraulic
18 constraint was the 5 mgd. They had process
19 constraints as low as 1 mgd, especially when you look
20 at disinfection.

21 And there is a relation between the size of
22 the plant and the effectiveness of the treatment that
23 should be understood. You can push more water through
24 but you're going to have lower quality effluent and
25 put more pounds out.

1 Q And I have separate questions about the
2 environment. I need to focus for a moment on the
3 physical capacity.

4 A My understanding is there're physical
5 hydraulic capacity and process capacity for removing
6 contaminants.

7 Q So you're saying the physical capacity of
8 the plant is 5 mgd?

9 A That is my understanding of the hydraulic
10 capacity. The average dry weather flow that's in
11 table 1 of the CH2 M. Hill 2006 report.

12 Q You reviewed the FEIS, correct?

13 A I reviewed some parts of it.

14 Q Were you familiar with the opinion or the
15 statement in there that there's the capacity of 6.0
16 mgd for secondary treatment?

17 A I'm not familiar with that.

18 Q Okay. Since you're not familiar you
19 wouldn't be able to address why there would be a
20 discrepancy.

21 A I think I know why they are different
22 numbers. Even within the final report I can find
23 inconsistencies in the capacities that are listed. And
24 I think it just depends on where you are in the
25 calculations and the assumptions being made with that

1 particular number. So it really needs to be very
2 cautiously looked at.

3 Q Okay. Fair enough. So then because there
4 are maybe different assumptions, and you're looking at
5 different issues or purposes of the numbers, you're
6 saying these numbers could change?

7 A Right. And you also have to be careful for
8 permitted numbers which are totally different than the
9 engineering reality based on those.

10 Q Okay. So then with respect to the
11 environmental concerns including the Clean Water Act,
12 the NPDES, the nitrogen levels, and any other
13 environmental concerns that you were talking about, I
14 take it these are concerns with the current operation
15 of the wastewater reclamation facility?

16 A They would be concerns with or without the
17 Project.

18 Q So then these would be concerns that would
19 have to be addressed regardless of what the LUC does
20 or doesn't do with this case?

21 A Well, I hope they have to be addressed.

22 Q You're familiar, generally, with the size
23 of the wastewater demand from this Project in relation
24 to the total wastewater production for the Lahaina
25 Wastewater Reclamation facility?

1 A Yes.

2 Q Fair to say that this Project has a very
3 small fraction of that total amount.

4 A This Project is one of many small fractions
5 that make up the cumulative total that impacts the
6 ocean water quality.

7 Q Would it be fair to say that, however the
8 county deals with these environmental concerns, the
9 urbanization of this particular Project is unlikely to
10 make an impact to the county's decision?

11 A I would say it would be unlikely to be a
12 significant factor in the county's decision. I think
13 everything has an impact and every pound of pollutants
14 has an impact. It's a question of relative
15 significance.

16 Q But whatever the county eventually does or
17 may be required to do, it is likely -- or it is
18 unlikely that the urbanization of this Project would
19 have a significant impact on that decision.

20 A I think that this Project's impact on the
21 county's decision-making regarding wastewater
22 treatment is related to its role as part of the
23 cumulative waste load that the county has to handle.

24 Q Okay. With respect to -- you have in your
25 written testimony a reference to treatment redundancy.

1 Is that a requirement of the Clean Water Act?

2 A It falls under the heading of Proper
3 Operation and Maintenance. That's the actual
4 requirement. And it's interpreted as needing to have
5 backup equipment including backup power supply. And I
6 have represented many clients who failed to have that
7 redundant equipment, and who were fined under the
8 Clean Water Act and have received penalties for not
9 having redundancy.

10 Q And is that necessary for a particular
11 permit?

12 A It's included in the permit language on
13 NPDES permits.

14 Q So if you need an NPDES permit then you
15 need to have these redundant capacities. Is that your
16 position?

17 A That's from a regulatory perspective. Also
18 from an engineering practice perspective it's also
19 considered a good engineering practice to have
20 redundant equipment, especially for things that affect
21 human health and the environment the way raw
22 wastewater would if it were released.

23 Q So if an NPDES permit is not needed then
24 you're looking at a question of good management, good
25 engineering practice.

1 A Correct.

2 Q That's primarily at that point then it
3 would be a county decision as the persons who are
4 operating the wastewater treatment facility.

5 A I would say it would be their
6 responsibility. I think that the citizenry have a
7 weigh in on the decision itself.

8 Q Fair enough. Your reference to "not one
9 more pound" is I take it an interpretation of a
10 document, is that correct?

11 A Yes, sir. Thank you for allowing me to
12 expand on that. I said that in that way for ease of
13 understanding.

14 Q Okay.

15 A What actually has to happen is the TMDL
16 study, which will establish the actual number of
17 pounds. But the overall implication is if we're not
18 meeting standards, that the pounds are too many right
19 now and they need to go down. So that's the basis of
20 my "not one more pound" statement.

21 Q Currently there's not a TMDL standard,
22 correct?

23 A There is a TMDL required but it has not
24 been done yet. It's mandated but not even scheduled
25 yet by Department of Health.

1 Q Fair to say it's not -- doesn't look as if
2 there's going to be a TMDL standard in the next two
3 years?

4 A To me it looks as if the priority for that
5 TMDL is going to increase. Two years is a fairly
6 short timeframe for a TMDL because it requires studies
7 that require several rounds of annual data to really
8 calibrate the models and get them to a level where
9 everyone feels comfortable.

10 Q Who's doing the TMDL study?

11 A It's usually done by a contractor.

12 Q I'm sorry. What I meant is who's going to
13 contract for the study.

14 A I would imagine that it would go through
15 Department of Health. But it is possible it could be
16 done through EPA or even other federal agencies.

17 Q Does it seem like a fair interpretation of
18 the DOH statement to say "not one more pound" if DOH
19 is the entity responsible to do the TMDL study and
20 they have not yet done so?

21 A I think it's a valid statement because DOH
22 has reported to Congress that a TMDL is required
23 because the waters are not meeting standards. The
24 implication of that is that the pounds are too many
25 and they need to be reduced.

1 So if you're trying to reduce you cannot
2 add unless you're doing something else somewhere else
3 to take way from.

4 Q Then with respect to your statement or
5 recommendation that if this Project is urbanized that
6 there should be a payment of money for wastewater
7 treatment costs or improvement costs or at least a
8 fair share of that.

9 My question, then, is from an environmental
10 perspective would it be fair to say that it doesn't
11 matter who pays for the environmental mitigation as
12 long as the environmental mitigation is done?

13 A From a strictly -- the receptors out in the
14 environment they will not know the difference of who
15 paid. But environmental decision-making also involves
16 societal decision-making and societal values. So from
17 that standpoint I think the public weighs in again on
18 the decision.

19 Q That's terrific because you sort of
20 anticipated my next question which was: This
21 recommendation is really a societal value judgment,
22 correct?

23 A Right. And that's why the federal
24 government recognizes that values differ from state to
25 state. And that's why it is states that set the water

1 quality standards. The federal standards apply only
2 when states fail to set their own standards.

3 Q So with respect to the payment of costs as
4 to who should bear the cost of that, whether that cost
5 should be borne by the developer, by the affordable
6 housing residents or by the taxpayers in general
7 because of some countervailing interest in affordable
8 housing, that's a value judgment -- that's simply a
9 value judgment that needs to be made.

10 A It's a societal decision.

11 MR. YEE: Okay. That's all. Thank you.

12 PRESIDING OFFICER HELLER: Ms. Lincoln?

13 CROSS-EXAMINATION

14 BY MS. LINCOLN:

15 Q Just a couple questions. Are you aware
16 that the Kahoma Flood Channel services the West Maui
17 Mountains as far as water discharging out of the
18 mountains there?

19 A I have not looked at the entire drainage
20 area. I know that Kahoma Stream is one of two major
21 streams that conveys water through the Lahaina area.

22 Q Okay. Are you aware that the West Maui
23 Mountains, right above Lahaina, is known as one of the
24 wettest spots in the world?

25 A Yes, I am.

1 Q So the water coming up from that stream is
2 not necessarily in relationship to what's happening
3 weather-wise on the West Maui lower lands. It's up in
4 the mountains there. So you're getting that water.
5 And then when we have a storm we have additional
6 water.

7 A The effect of the microclimates that were
8 referred to earlier, is that especially on the leeward
9 side you have greater rainfall at the higher
10 elevations and much lower rainfall at the lower
11 elevations.

12 And this whole discussion about stream
13 flow, it really depends on where the gauge was. And
14 the same thing for rainfall data. It really depends
15 on where in the watershed the gauge is, what it's
16 representing.

17 So, you know, you could find both high and
18 low values within that watershed.

19 Q When this picture was taken of course
20 there's always been water way higher than that. I
21 don't go out there. It's dangerous when it's much
22 higher than that.

23 But the Army Corps of Engineers has made
24 sure that the county has maintained and kept that
25 debris clear. So any of the debris that you're

1 seeing.

2 So I'm just trying to clarify. So when the
3 water comes over -- and I've seen trees on top of the
4 higher portion of the cement there -- that have gotten
5 lodged on top of that and that's with the debris
6 basin, you're saying that even kept clear this
7 retention wall can pose a hazard because it is a
8 manmade structure. And if it could fail or bigger
9 rocks or debris came through it could cause worse
10 flooding.

11 Is that what you were saying in your
12 testimony?

13 A What I could envision is that if you see
14 the water is having to pass -- (demonstrating off mic)
15 these things are to block debris, right? So the water
16 is having to pass through here.

17 If this was blocked for some reason and the
18 water could not pass through and the cool elevation
19 got higher, then it could back up even though you have
20 this outlet that it's supposed to go through. That's
21 what it looks like to me.

22 Q Okay. So the fact that that is happening
23 now, I don't have it in the picture, but if that were
24 happening now then you're saying it could definitely
25 cause a risk in a higher storm if we get a wetter

1 winter or something like that.

2 We've had a drought for the last few years.
3 But you're saying it could pose a flooding risk even
4 though there's a flood channel there?

5 A It is my experience that drainage and flood
6 control structures, if they are blocked by debris,
7 often cause the pool elevation behind the structure to
8 rise and can cause flooding over the structure or back
9 in the other direction.

10 Q So I'm just curious because they were
11 asking questions about who's responsible for, like,
12 the EPA's and all that. I don't know any of that
13 stuff.

14 So my question for you is, like, when the
15 county was dumping the illegal fill at the bottom of
16 the property, I was the one who called and made a
17 complaint. They basically said that nothing that goes
18 on there. Now they're getting an after-the-fact
19 permit.

20 Who actually monitors the county as far as
21 flood issues, sewage issues? Who's, like, their big
22 brother watching over to make sure they're doing
23 everything?

24 They're saying they are doing what they're
25 supposed to do. But obviously my experience directly

1 with them was that they didn't do what they were
2 supposed to do. And if I hadn't made an issue of it
3 here, no one at the county was listening when I called
4 to explain it.

5 So can you explain to me how -- who
6 monitors the county in relationship to flood and
7 sewage issue?

8 A I do not know. Hawai'i is the only place
9 that I am familiar with the concept of
10 permit-after-the-fact from Corps of Engineers.
11 Everywhere else I've worked people get their permits
12 before they do the work.

13 Q You're saying that there's not enough
14 sewage capacity for this Project. But the townhouses
15 directly below this are just in the final completion
16 stages. And the Weinberg property, which is 24 acres,
17 below this property is already zoned for urban,
18 multi-family development there.

19 So there's not even enough capacity
20 necessarily -- is that what you're saying -- even for
21 that, the one that's already rezoned or already zoned
22 for urban use?

23 A According to the county of Maui Engineering
24 Report the plant with the sewage that it has today is
25 over its average dry weather capacity.

1 If you consider that there would not be any
2 redundancy of units, and you take credit for that
3 extra capacity, I don't know what the total of all the
4 projects that are already in the pipeline, so to
5 speak, like the two you referred to, I don't know what
6 the total of all those projects are added up and
7 whether or not they would exceed the capacity that may
8 or may not exist without redundant capacity.

9 Q Okay. So in your opinion just as being an
10 expert, leaving this last of the open space in Lahaina
11 next to a flood channel is good for natural
12 absorption, my understanding, like, to protect our
13 reef but also for the safety of the community. Is
14 that a correct assumption?

15 A My expert opinion is that in the Lahaina
16 area there is a significant amount of impervious
17 surface and that it would benefit water quality to
18 have as much area as possible remain pervious to
19 allowing rainfall to infiltrate back into the aquifer.

20 My observations regarding safety are not
21 out of an expertise regarding structural controls or
22 design of flood control structure.

23 They're out of an expertise of someone who
24 is considered in the field of engineering science and
25 engineering management to have the capacity to

1 understand engineering and models and what they do or
2 do not actually mean.

3 So I'm not an expert on design of the
4 structure, but I'm an expert on interpreting how it
5 works in the larger system, and also understanding
6 outputs of these models and kind of being willing to
7 challenge the engineers a lot and say, "Okay. That's
8 your black box. But does it make sense to you in the
9 real world and taking it into management beyond just
10 the engineering?"

11 MS. LINCOLN: Thank you.

12 PRESIDING OFFICER HELLER: Ms. Bolomet.
13 I'll allow a brief redirect. Just for planning
14 purposes what do you anticipate in terms of witnesses?

15 MS. BOLOMET: Michael Lee and that's it.

16 PRESIDING OFFICER HELLER: And that's it.
17 Okay. Does anybody have any problem with going til
18 5:00 o'clock this afternoon? Okay. Go ahead with
19 your redirect. We'll tentatively plan on going til 5
20 today to get as far as possible.

21 THE REPORTER: With a break inside there.
22 (laughter)

23 PRESIDING OFFICER HELLER: Do you want a
24 break now?

25 THE REPORTER: After we finish this

1 witness, please.

2 REDIRECT EXAMINATION

3 BY MS. BOLOMET:

4 Q Could you give us more information about
5 your education and if there's any kind of engineering
6 involved in that engineering credentials?

7 A Sure. This is kind of what I was alluding
8 to earlier when I spent a lot of time describing to
9 you my qualifications. An environmental scientist or
10 an environmental engineer is a very interdisciplinary
11 field. I've kind of been on the cutting edge of the
12 emergence of several fields of engineering.

13 So when I first started doing water quality
14 monitoring the first thing you should understand is
15 that a water quality model is built on an hydraulic
16 model.

17 So the first thing you do is the hydrology
18 and the flow and the quantity of the water. And you
19 layer the water quality on top of that. So that
20 aspect of engineering I do have training and
21 experience in.

22 When I first started doing this work as an
23 employee of the Louisiana Department of Environmental
24 Quality, my mentors advised me to apply for
25 engineering registration, which I did. The

1 Engineering Board said that the work that I was doing
2 was not engineering. It was considered what was
3 called at that time "soft engineering" because I
4 wasn't actually building a structure.

5 Ten years later I went back and applied for
6 my same job back there. And I was told that I needed
7 to be a registered engineer to do that job. Because
8 now it's considered engineering work even though it
9 wasn't when I first was one of the first people ever
10 to start doing it.

11 Since -- what changed is that the Louisiana
12 Board of Engineering started registering a specialty
13 discipline called Environmental Engineering. That has
14 not yet reached Hawai'i yet. There's no registration
15 for Environmental Engineering.

16 So an engineer may be qualified as an
17 engineer but that doesn't necessarily mean they're
18 qualified to comment on environmental matters unless
19 they're also trained as an environmental professional.

20 So that -- I'm very interdisciplinary. I
21 get challenged all the time, "Are you an attorney?
22 Are you a chemist? Are you a biologist? Are you an
23 engineer?"

24 I'm a little bit of all these things. My
25 experience includes being the manager of an

1 engineering project for the Louisiana Department of
2 Natural Resources, which was a coastal restoration
3 project.

4 It was more than a \$2 million preliminary
5 engineering design report done with all the federal
6 agencies, Corps of Engineers and all of that.

7 Every engineering firm I ever worked for
8 made me the boss of my practice area within very short
9 order of me coming onboard with their organizations.

10 So I will just say that I have a strong
11 bent towards engineering. I'm not degreed. My
12 bachelor's degree is in Agriculture. I have taken
13 approximately 17 credit hours of graduate level civil
14 engineering and the area of environmental engineering.

15 As a watershed planner I routinely work
16 with NRCS to do runoff calculations on stormwater
17 flows from watersheds, delineating watershed basins,
18 finding flow paths, measuring flows, doing dye
19 injection studies. A lot of things that people
20 consider engineering I do.

21 So it's been classified as engineering
22 management, engineering science, all these kind of,
23 you know, ways to try to straddle it, but I do a
24 little science and a little engineering.

25 Q Are you currently taking any classes?

1 A I'm currently enrolled in Vermont Law
2 School in the Master's of Environmental Law and Policy
3 Program.

4 Q How would you apply that to the work that
5 you're doing now or in the future?

6 A I think what I've learned already in my
7 first class will make me a much better witness the
8 next time around because I will be more exacting in
9 how I provide my exhibits to the fine folks here at
10 the table.

11 Q I mentioned, because this is what I
12 understood, was that there was -- that the county was
13 in violation. But you said that there's alleged
14 violations.

15 So does the Department of Health -- you
16 mentioned something about the Department of Health
17 going to Congress. Could you elaborate on that?

18 A There's two parts of the Clean Water Act
19 programs. One part is the management of water
20 quality. So that's the part under which the
21 Department of Health has reported that the waters are
22 impaired and not meeting the standards which are
23 rules, regulations of the state that need to be
24 complied with.

25 The other part the DOH is in charge of now

1 acting on and controlling that pollution now it's been
2 identified as a problem. So there's different
3 branches within both EPA and DOH involved in the
4 assessment versus the action of control.

5 Q Now, has there been any recent rulings that
6 we need to be aware of whether it be court rulings
7 that pertain to water management?

8 MR. YEE: I'm going to object as it goes
9 beyond the scope of the cross-examination, at least as
10 phrased. It's so general and broad, it invites just
11 basically a whole new area of discussion.

12 PRESIDING OFFICER HELLER: Right.
13 Ms. Bolomet, the purpose of redirect is to go back to
14 topics that were raised in cross-examination to the
15 extent it's necessary to clarify her testimony.

16 MS. BOLOMET: Okay.

17 PRESIDING OFFICER HELLER: It's not
18 appropriate to raise new subjects.

19 MS. BOLOMET: Okay. I thought I was
20 clarifying something.

21 Q So when there's standards set by the county
22 or the state, if the county or the state doesn't meet
23 the federal standards, does the federal standards
24 supercede the county and the state standards?

25 A Well, I think the term "standard" is a

1 little generic for this discussion 'cause we've talked
2 about all different -- like we've talked design
3 standards for stormwater drainage which are different
4 than water quality standards. So is the question
5 who's responsible? Is that the question?

6 Q I want to know if the EPA would say the
7 county of Maui sets a standard for wastewater at this
8 level but the federal level is up here. Does the
9 federal level supercede the county's level?

10 A You always have to meet the federal levels.
11 The county and the state can be more stringent than
12 federal requirements, but they can't be less stringent
13 than federal requirements.

14 Q And currently is the county more or less
15 stringent than federal requirements?

16 A I don't think the county directly -- the
17 way the program works is that there's carrots and
18 sticks. So the permit system's enforcement are the
19 sticks. Then they have carrot programs.

20 So like my understanding is that if the
21 county of Maui had not adopted the 1993 EPA
22 guidance -- it's not a stick, it's a carrot -- that if
23 you didn't accept that the state would have lost
24 Coastal Zone Management monies. Because the Coastal
25 Zone Management program is required to be in

1 compliance with the Clean Water Act provisions of
2 controlling point and non-point source pollution.

3 So the way that's implemented is that
4 counties are strongly urged and encouraged to adopt
5 standards. And if the standards aren't adopted then
6 monies can be revoked.

7 Q Regarding nitrogen fertilizer that's
8 applied to the hotel grounds, would you agree that
9 whether there's, there's, say, 2,000 people staying in
10 a hotel on a 5-acre property or one house on a 5-acre
11 property and both use chemical fertilizers, it just
12 doesn't matter whether it's a hotel property or an
13 individual home?

14 A It really matters what the form, amount,
15 time and frequency of the application. Those are all
16 factors that matter. So it's really the amount of
17 pollution and what form it's in and the duration and
18 frequency of releases that determine impact, not who
19 it is putting it out.

20 Q Okay. And would you agree that when
21 employees are applying commercial fertilizer or
22 fertilizers they have to be trained to do the
23 application?

24 A They should be. That is the kind of
25 management practice that gets implemented in pollution

1 prevention programs, watershed management programs and
2 so forth is to train people. This actually came up
3 for this area in West Maui.

4 There's a Waiahuli-Honokowai Watershed Plan
5 that just came out this week for review. I have only
6 skimmed through it. But I did see the engineer made a
7 very strong statement. This is SGRI. It's an
8 engineering firm from Honolulu.

9 They were saying that water reuse, which a
10 lot of people think is our way out of this dilemma we
11 have in West Maui with wastewater disposal, they were
12 saying you cannot just think that that's your panacea
13 and that water reuse can just be done without any
14 control; that you have to very carefully control the
15 application rate.

16 And you have to know how much nitrogen or
17 other nutrients are in the wastewater and how much
18 your soils have or need and how much your plants are
19 uptaking and you have do not overwater.

20 So there's all kinds of constraints even if
21 you reuse the water. If you reuse it inappropriately
22 and it runs off and the pollutants get into the ocean,
23 then it's only a marginal improvement over what we
24 currently have.

25 So that was brought out in the watershed

1 plan for this area. That even if we had the hundred
2 million dollars for water reuse, infrastructure and
3 treatment and we were reusing all the water for
4 irrigation, that you would still have to be very
5 careful and you would have to manage it. And you
6 would have to train people. And you would have to
7 have nutrient management plans.

8 Q Would you agree that homeowners don't have
9 to go through the same type of training that someone
10 who would apply a commercial fertilizer, say, like in
11 a hotel through ocean absorption?

12 A I'm not familiar with any requirements for
13 homeowners or, for that matter, commercial applicators
14 for fertilizers to have training. I know there's
15 requirements for herbicides.

16 Again, in the not-mandated or stick but in
17 the carrot world the Clean Water Act that's actually
18 what we do in watershed planning is we educate
19 everybody, homeowners, county of Maui, hotels about
20 their part.

21 Everybody is part of the problem. That's
22 the overall message here. There's no part that's too
23 small to pay attention to. All of it adds up. All of
24 it counts.

25 So, you know, in a watershed plan, which is

1 an activity that's starting in West Maui, I actually
2 met with someone to talk about doing a grant for a
3 training, teaching a training course for homeowners on
4 what they can do specifically as well as working --
5 we're looking at a grant to work -- we actually have
6 already received a grant to work with the hotels to do
7 water balances and material balances on their use to
8 address this exact question.

9 And I'd also like to say that overall if
10 you look at the big picture of these watersheds that
11 the area that's in urban and hotel development is
12 relatively small surface area compared to the entire
13 area of the watershed.

14 And that because these watersheds were used
15 extensively for agriculture that added nutrient
16 amendments there are reports. Stalazi did a report
17 that showed that there are significant amounts of
18 nitrogen in the groundwater already as a legacy from
19 the fertilization from the ag companies. So, you
20 know, I don't think anyone's done the math yet or the
21 studies.

22 But when you look at just the surface area
23 and the amounts applied in those different uses, I
24 think that the amount from the past legacy may be much
25 larger than the amount from the hotels.

1 But that math hasn't been done. That study
2 hasn't been done yet. That's looking at indicators
3 like watershed size and amount of materials typically
4 applied in those industries.

5 Q Would you agree that having numerous houses
6 with numerous people on five acres applying different
7 chemicals to their gardens to have pretty gardens,
8 would most likely supercede what would be put on, say,
9 a hotel resort?

10 A I don't -- I don't think I can answer to
11 that. I think it depends on the practices and the
12 materials used by either group. Anything can be
13 beneficial or not depending on how you manage it.
14 That's kind of the crux of the issue.

15 Q The point that I'm trying to get to is
16 would it be more beneficial to the environment to
17 leave it open space where water can run, permeate
18 through the soil? Or to leave it as houses where
19 there's people washing their cars and doing gardens?

20 A Well, without --

21 MR. YEE: I'm sorry. I'm going to object
22 on the basis it was asked and answered, stated at
23 least two or three times.

24 PRESIDING OFFICER HELLER: I think this has
25 been covered before. I'll sustain the objection.

1 Q (By Mr. Bolomet): Okay. Is there anything
2 else that you'd like to elaborate on that you didn't
3 have a chance to do?

4 MR. GEIGER: I would object to that because
5 that's well beyond the redirect. It should be related
6 to some sort of cross as opposed to open, "Tell us
7 whatever you want to tell us."

8 MS. BOLOMET: There were a couple of times
9 that she was trying to answer a question that
10 Mr. Geiger had posed to her. And he said he would
11 give her a chance to answer it. And I didn't see that
12 that chance happened. She was cut off.

13 So that's what I'm referring to are the
14 questions that he had posed to her and she didn't have
15 a chance to finish.

16 PRESIDING OFFICER HELLER: If you have a
17 specific question that you want to ask you may ask it.
18 "Just tell us anything you want to tell us" is not a
19 question.

20 MS. BOLOMET: Okay.

21 Q Do you want to look at the Petitioner's --
22 the Petition that's referring -- that was on Page 10
23 that Mr. Geiger was speaking about. I have the book
24 here. Would you like to comment more on that?

25 A I would like to look at it and see if I

1 have a comment.

2 MR. GEIGER: Chair, to short circuit this I
3 wasn't referring to the Petition. It was actually the
4 final phase report page 10. And she was just
5 referencing something on the page 10. Didn't have
6 page 10 apparently.

7 Q (By Ms. Bolomet): In the Petition?

8 A In the engineering report.

9 Q Oh, it's in here.

10 A It was the engineering report that we were
11 talking about.

12 Q So it's not in here. I thought you said it
13 was in the Petition. Well, I'm complete.

14 PRESIDING OFFICER HELLER: Do any of the
15 other parties have any *essential* recross? (laughter)

16 MR. GIROUX: Not from the County.

17 MR. YEE: No, thank you.

18 MR. GEIGER: I'm sorry, Chair.

19 RECROSS-EXAMINATION

20 BY MR. GEIGER:

21 Q But just for clarification. I think you're
22 referring to the -- I'll call it the Final Phase
23 Report. You called it the CH2, M. Hill report.
24 Actually, for the record we should probably get the
25 full name which is Schematic Design Report Lahaina

1 Wastewater Reclamation Facility September 20, 2006.

2 You referred to table 1 as being the
3 capacity. I think you meant to say that that is the
4 actual, the average range of flows from 2001 to 2005
5 was 5 million gallons average dry weather?

6 A You're correct. That is the average flows
7 that they used. And that was the -- I wouldn't call
8 it a correction of an error but a refinement of their
9 model. They did revisit and get a better data set for
10 that period of time.

11 So actually the capacity average dry
12 weather with no redundancy is 4.5. The actual is 5.
13 And the capacity if you think you don't need
14 redundancy is 5.5.

15 Q Right. And actually that's on the first
16 page where they also talk about it in the executive
17 summary where the plant's capable of treating
18 approximately 5.5 million gallons per day although
19 limits on the redundancy are identified there,
20 correct?

21 A Yes. Essentially that's correct.

22 MR. GEIGER: That was it, Chair.

23 PRESIDING OFFICER HELLER: Any of the other
24 parties any *essential* recross? Commissioners, any
25 questions?

1 COMMISSIONER INOUE: I do have just one.
2 I'm trying to understand. I'm reading section HAR
3 section 15-15-17 that you have in your testimony. I
4 don't see any of the four criterias written there.
5 I'm trying to figure out if you are referencing
6 something else.

7 THE WITNESS: I would not rule out the
8 possibility that I might have made a typo. I could
9 check on that.

10 MR. YEE: May I? You may be referring to
11 205-17 Hawai'i Revised Statutes rather than the
12 Administrative Rules.

13 THE WITNESS: So it should be HRS instead
14 of HAR.

15 MR. YEE: And it's 205-17 not 15-15-17.

16 COMMISSIONER INOUE: Or were you referring
17 to HAR 15-15-77 which has a bunch of stuff?

18 THE WITNESS: I was looking at a document
19 that told me what the criteria were that you were to
20 consider in making a boundary amendment from
21 agricultural to urban, whichever of those cited
22 documents that was. And it had more than these four
23 criteria. These were just the four that I felt I
24 could comment on.

25 COMMISSIONER INOUE: Thank you. I have

1 one more quick question. I'm getting kinda fuzzy, but
2 you're the one that's talking about Functional Plan.

3 THE WITNESS: I think that came up earlier.
4 Is it Agricultural Functional Plan?

5 MR. GEIGER: It was with regard to
6 questions of Ms. Lincoln.

7 COMMISSIONER INOUE: Okay.

8 PRESIDING OFFICER HELLER: Commissioners,
9 anything else? I just had one question. If I
10 understood correctly you basically said that as far as
11 the possibility of runoff pollution from fertilizers
12 and so forth, that you couldn't really say whether
13 residential use or hotel use would have a bigger
14 impact because it all depends on how it's managed. Is
15 that a fair summary?

16 THE WITNESS: That's correct. And lacking
17 any data on how it's actually being done, yeah, I
18 don't feel that I can comment on it.

19 PRESIDING OFFICER HELLER: Would the same
20 basic sentiment apply to the question of residential
21 use versus agricultural use? That is you need to know
22 all the details before you could say which is better
23 or which is worse from an environmental viewpoint?

24 THE WITNESS: That would be correct. And I
25 would say that both would require nutrient management

1 to be environmentally sound.

2 PRESIDING OFFICER HELLER: Thank you.
3 Ms. Bolomet, that concludes this witness. Mr. Lee
4 will be your next witness?

5 MR. BOLOMET: Yes.

6 PRESIDING OFFICER HELLER: So let's take
7 our break now and then start with him when we come
8 back. Thank you.

9 (Recess was held 3:20-3:40)

10 PRESIDING OFFICER HELLER: Back on the
11 record. Ms. Bolomet, you're calling Mr. Lee.

12 MICHAEL LEE
13 being first duly sworn to tell the truth, was examined
14 and testified as follows:

15 THE WITNESS: I do.

16 PRESIDING OFFICER HELLER: Please go ahead.

17 THE WITNESS: My name for the record is
18 Michael Kumukauoha Lee. I reside at 91-1200 Keaunui
19 Drive, unit 614, 'Ewa Beach, Hawai'i 96706.

20 DIRECT EXAMINATION

21 BY MS. BOLOMET:

22 Q In order for me to call you something other
23 than "cousin" --

24 A Yes.

25 Q -- can you please tell us all your

1 different titles?

2 A In my Hawaiian cultural practice I am a
3 papa kilo hoku which is a star priest, astrologer,
4 astronomy, taught when I was very young by my
5 grandfather and several teachers.

6 Within that I know 3,000 Hawaiian stars by
7 name and story, 261 Hawaiian star constellations by
8 name and story. And in the kumu lipo 6,000 kaunas
9 that were passed to me from my grandfather, from my
10 aunties over a period from when I was four years old
11 when we lived in Lahaina.

12 We resided in Hana, Maui. My father was
13 the resident assistant manager for the Hotel Hana Maui
14 back in 1955. So conceived in Hana, and then we moved
15 in 1962 from Hana to his next post was at Ka'anapali
16 as an assistant manager to one of the hotels next to
17 the airport where it was my first introduction to
18 Lahaina as a little boy.

19 My maternal Hawaiian grandfather was the
20 one who taught me. And then later on we moved to
21 O'ahu. But I subsequently have come back here
22 constantly to do my cultural practice.

23 As papa kilo hoku I do teach for the last
24 two years out by the he'iau, the star hei'au at
25 Makila, also at Haleakala. We did the transit of

1 Venus with a group of people.

2 I'm also recognized in the Ho'opili case as
3 a kahuna lapa'au o ke kai in First Circuit Court for
4 Judge Eden Hifo on the Papipi Road case and also in
5 the Kaloi Gulch case for DLNR recognized me as the
6 native Hawaiian cultural practitioner in lapa'au o ke
7 kai. That is a Hawaiian medicinal practitioner of
8 limu medicine of which there's about 130 Hawaiian
9 medicinal limus, invertebrates that we mix.

10 We also use corals. There are seven
11 different kinds of corals. We use ana sponge. I'm
12 also recognized in the case for Kona Blue against Food
13 and Water Watch in Kahea as the native Hawaiian
14 cultural practitioner on the Kohala Coast with the
15 Blue Hawai'i cage incident of destroying some coral
16 there.

17 I resided, worked at Mauna Lani as the
18 overall, became terrace manager in 1989. I lived in
19 Kona and I would practice my cultural practice
20 throughout the entire island while I was there.

21 I would like to be called "kumu" not
22 "kahu". And I also taught at Damien High School,
23 Damien Memorial High School from 1992 to 2002. I did
24 teach a course on Pacific cultures dealing with
25 Hawaiian history. Then I went up to Kamehameha as a

1 substitute teacher.

2 Q So can you tell us what "kumu" means.

3 A A kumu means teacher. It's a sign of
4 respect. As I said my training basically started when
5 I was four years old with my maternal grandfather,
6 went up to 1983. Then he passed. Then my aunt, Aunty
7 Alice Holukai, who was one of Queen Liliuokalani's
8 children, Aunty Alice was born in 1900. She resided
9 with the queen when she was nine in 1909. And she
10 stayed with the queen for several years. The queen
11 died I believe in 1918. She was one of my teachers.

12 Aunty Alice Holukai was born in 1896,
13 resided with Queen Liliuokalani in 1906 when she was
14 10 years old up to the age of 15. And she taught me
15 in 1977 at the same time my grandfather was still
16 alive. And her teaching went on to her death around
17 1987.

18 And Aunty Alice picked it up in 1986 to
19 1922 (sic) that my uncle -- she died in 1992 at the
20 age of 92 -- then it picked up with my Uncle Walter
21 Kamana'a from 1998. He was a noted practitioner of
22 seaweed medicine. And he was taught by his kahuna
23 grandmother of Ni'ihau. So he picked it up 'til 2002
24 when he passed.

25 Q Okay. So you submitted a testimony, a

1 written testimony?

2 A Yes. I did, yes.

3 Q Is there anything in there that you'd like
4 to change?

5 A Yes. There are several amendments, one
6 directly with Mike Lee's rebuttal to Rory Frampton's
7 rebuttal testimony dated August 9th, 2012. The first
8 thing is Paragraph 1 of Page 1.

9 MR. GEIGER: Chair, if I could. We would
10 object to any rebuttal testimonies from the Intervenor
11 after August 1. As the Commission may recall when we
12 were here the first time in this room back in July,
13 the Intervenor was given until August 1 to provide all
14 written testimonies and all exhibits. And anything
15 after that was to be barred, not allowed as part of
16 the record.

17 This August 9 testimony and, in fact, I
18 think something was filed today, again would be in
19 violation of those orders. I think that the Chair was
20 very clear. So we would object to the Commission
21 either considering those or those things being part of
22 the record as they violate this Commission's rulings
23 in this case.

24 PRESIDING OFFICER HELLER: Let me just be
25 clear on what's being offered here. This is in

1 response to supplemental testimony offered by
2 Mr. Frampton?

3 THE WITNESS: Yes.

4 MR. GEIGER: As the Chair will recall, the
5 Chair who was ruling at the time allowed the
6 Intervenor to submit 'til August 1 and then gave the
7 Petitioner until August 9 or August 10. I don't
8 remember which.

9 MS. BOLOMET: August 1st.

10 MR. GEIGER: No. It was August 1st for the
11 Intervenor. It was August 10th for us to do a
12 rebuttal to that. But there wasn't supposed to be any
13 further testimony or rebuttal after our rebuttal.
14 This came in as a rebuttal to our rebuttal. And
15 there's another one that came in today as a further
16 rebuttal to our rebuttal.

17 So we would object, move that these not be
18 part of the record because they violate the orders and
19 rulings that the Commission made back on July 19th
20 when we started this.

21 PRESIDING OFFICER HELLER: I do recall the
22 objection and then the opportunity to submit a
23 rebuttal. I'm going to not allow the question right
24 now.

25 If, when we get to the rebuttal case

1 tomorrow the door gets reopened, I'm not necessarily
2 precluding that, but for now the objection is
3 sustained in so far as you're asking for a statement
4 in response to the rebuttal testimony submitted by
5 Mr. Frampton.

6 MS. BOLOMET: I'm not understanding
7 completely what you're saying.

8 PRESIDING OFFICER HELLER: In other words,
9 if what he's offering is a response to that
10 supplemental testimony from Mr. Frampton that was
11 submitted on August 9th or 10th, whichever it was,
12 that was specifically to give them a chance to respond
13 to a late submission from the Intervenor. And because
14 it was to give them a chance to respond, we're not
15 allowing sort of new rebuttal to that.

16 MR. BOLOMET: Oh. This rebuttal was based
17 on -- it was inaccurate what he was rebutting. So we
18 wanted to make it clear what we were talking about.
19 And in here we found some inaccuracies that we just
20 want to correct that we submitted.

21 PRESIDING OFFICER HELLER: I understand
22 what you're offering. What I'm ruling for now is if
23 the purpose is to respond to that supplemental
24 testimony from Mr. Frampton, I'm not going to allow
25 that right now.

1 If through questions and answers you want
2 to cover those topics that's a different story. But
3 no specific question as to what was wrong with that
4 supplemental testimony.

5 MS. BOLOMET: So I shouldn't do that is
6 what you're saying.

7 PRESIDING OFFICER HELLER: Right.

8 MS. BOLOMET: Okay.

9 PRESIDING OFFICER HELLER: I'm not
10 precluding you from going into the subject areas. I'm
11 just saying presenting it as a specific rebuttal to
12 the supplemental testimony is not the way to do it.

13 MS. BOLOMET: Okay.

14 THE WITNESS: I still have an amendment to
15 what we turned in in a timely manner for my testimony
16 for Docket No. A12-795. My testimony that was put in
17 I have several corrections to make. Page 1 --

18 MR. GEIGER: Just so -- I'm sorry -- just
19 so I'm clear for the record is this the August 1st
20 testimony?

21 THE WITNESS: This is the testimony I
22 provided for myself that was put into evidence with
23 all of my exhibits and everything.

24 MR. GEIGER: What date is that, sir?

25 THE WITNESS: This was the...

1 MR. BOLOMET: August 1.

2 THE WITNESS: August 1.

3 MR. GEIGER: Okay.

4 THE WITNESS: And this is not the Rory
5 Frampton thing.

6 MR. GEIGER: For the record I just want to
7 make sure which one you're talking about because you
8 also had some prior testimony in June or July. I just
9 wanted to make sure we were clear on which one you're
10 talking about.

11 THE WITNESS: Okay. So this is for the
12 August 1, amended testimony for August 1. Okay.
13 Page 1 line 2. It says "The Petition to the rezoning
14 area identifies as" it should be TMK then 2
15 parentheses or dash, whatever.

16 Then on Page 6 paragraph 2 it mentions on
17 TMK map 2-4-5-10: 005, 006. It says Exhibit 17D. It
18 should refer to "please refer to public testimony of
19 Clare Apana Exhibit 2A, B, C, D and E." Then as it
20 goes down one, two, three, four, five, six, seven
21 lines it says "Article XII section 7 and Water Code"
22 with parentheses Exhibit 8. It should be Exhibit A
23 not B as in baker, but A.

24 Continuing down to the third paragraph,
25 one, two, three, the fourth line it says "the growth

1 of algae limu see exhibit" it says "13G" that should
2 be amended to 17, one seven.

3 Then we go down to the fourth paragraph,
4 second line after "property" period it says,
5 "Exhibit 13 get from video." We took that out
6 completely so that needs to be taken out completely.

7 Then we go to Page 7, the following page,
8 the Deluge of Pele. It's the second -- it's the last
9 paragraph to the bottom, the fourth paragraph one,
10 two, three, four, five, the sixth, seventh and eighth
11 line where it says Exhibit 17A. That whole section
12 "see photographs that's greater" and Exhibit 13E
13 should be stricken with "where the burial of Pele's
14 son, Aloha Ali'i period. Those three lines should be
15 stricken. Page 7 last paragraph. And that's
16 basically the corrections that I want to make to that.

17 Q (By Ms. Bolomet): Okay. You've been onto
18 the Kahoma property.

19 A That is correct.

20 Q Proposed property. How many times do you
21 estimate you've been on the property?

22 A I would estimate maybe about eight times.

23 Q Could you please tell us about your
24 observations when you went onto the property?

25 A Very hilly. The property itself has rock

1 features, especially towards the ancient streambed
2 side. This property has some dead trees that were
3 there for a long time. And also the growth of the, of
4 Keawe trees with a spattering of some Hawaiian herbs
5 there. And a big dead mango tree that was set on
6 fire.

7 In the settings of rocks that I believe is
8 a combination push pile plus a Hawaiian archaeological
9 feature.

10 Q Okay. As a cultural practitioner when you
11 walk onto this property what do you look for?

12 A Anomalies based on the shape of the land
13 topography, what is happening that I can see.

14 Can I summarize my testimony so that you
15 can understand or is it just questions and I don't get
16 a summary of what my testimony is?

17 Q Please summarize.

18 A Because this would put some of this
19 together. I'm asking the Chair.

20 PRESIDING OFFICER HELLER: Well, if the
21 most effective way to answer the question is to
22 summarize a part of your testimony, that's okay. We
23 have the testimony already.

24 A It's a very short summary. But it's to
25 understand in a Hawaiian cultural practitioner's lens,

1 which is different from the other disciplines, is that
2 we see the land as an entire complex from the mountain
3 to the sea. We see two things: Things above the
4 ground and something's happening below the ground.

5 We look at the complex as not bifurcated.
6 You don't chop it up into pieces. In the kumulipo
7 Chant 1 it talks about the 13 limus. And in each of
8 the 13 limus it discusses why the mountain plants are
9 so important in guarding the ocean plants vis-a-vis
10 the limus that we use, the 13 limus.

11 How can mountain plants guard what's in the
12 ocean? Well, the streams that run down from the
13 mountains take the material of these plants in the
14 stream, and they give a ho'okupu or offering to those
15 fishes in the fishery that would normally eat the
16 limu. Here's these fruits and vegetables coming down
17 from the mountain. And they have to make a choice
18 which one they want to dine on. They actually want
19 the stuff in the mountain and want to forego those 13
20 limus.

21 So in each line it says there's certain,
22 certain fern in the mountain protects this certain,
23 certain fern or seaweed in the ocean. What it's
24 talking about is that this particular fern or this
25 particular vine is giving up in this season of this

1 line.

2 Each line in the chant is like August,
3 September, October, November. It's actually telling
4 you this part of the kaunas. It's telling you that
5 during this season this vine gives up this piece of
6 fruit or this piece of spore comes down. Fishes at
7 the ocean prefer that spore instead of that limu.
8 Then the sand hulis and covers limu. The limu
9 thrives.

10 So what this sets up is the management
11 practice we have called konohiki system. How to
12 increase the opportunity of abundance without
13 collapsing the basic food source.

14 How do you do it? You don't over produce
15 it. You don't kill it. How do you do that? You look
16 at what we call kupuna o maka. We see in nature a
17 blueprint that works. So what we do as kahunas of the
18 ancient time in kahiko we target it, like, for the
19 lokoia that there are several down here at Mala. Ala
20 mihi, the biggest one, 5 acres fed all of Kamehameha's
21 armies.

22 What we did is we noticed that when there
23 were springs in the ocean, which we call karsts --
24 Americans call karsts -- when we saw that we saw an
25 explosion of life of invertebrates, shrimp, fish,

1 fisheries. So the Hawaiian practitioner said, "Look,
2 if you go down the road and you see it's barren and
3 desolate, what is not there that's here and what's
4 here is the spring.'

5 That mixture, freshwater, the waiwai, the
6 wealth of the king going down the stream and mixing
7 into and sometimes honowai, that freshwater coming up,
8 that Jacuzzi mixing, we notice an explosion of life.
9 So all our fishponds are based on putting it around
10 springs. That's why a culture thrives.

11 So what does this have to do with Kahoma
12 Project and Article XII section 7? Well, in the
13 process of the islands building up in the story of
14 life, a lei of calcium carbonate grew during the
15 millions of years what we know of ice ages. When the
16 ice built up on the north and south pole the water
17 level went down. At one time 25,000 years ago Lana'i,
18 Kaua'i, Kaho'olawe, Moloka'i were all connected as one
19 huge island.

20 Over thousands of years it stayed down for
21 a while and then the ice melted and it gradually came
22 up. Well, this process repeated itself over millennia
23 making this calcium carbonate lei around all islands
24 from deep in the ocean going up. And this continued.
25 Calcium carbonate when it comes to acidic water the

1 acidic water bores a hole.

2 We on the Big Island, Tutu Pele, she
3 creates the lava flow. And we see it flowing down in
4 the pahoehoe lava. And then as it continues it makes
5 a lava tube. That lava tube, when it ceases, the lava
6 flow becomes a cave, a pahoehoe lava cave.

7 What that becomes is the plumbing system of
8 the island as water flows from the high source by
9 gravity to a lower source it tracts underground in
10 these ancient caves.

11 These ancient caves have to be identified
12 as a Hawaiian cultural resource. Why is it a Hawaiian
13 cultural resource? Because these caves have shelves
14 that we put -- why would Hawaiians want to dig through
15 lava and burn up all their calories and get nowhere
16 when you can find where the caves are and just put
17 your dead there on shelves?

18 Now, these caves transport acidic water to
19 the ocean. Then it hits that donut of the calcium
20 carbonate lei around the island. That acidic water
21 eats through that ancient coral reef. Now, they don't
22 call it a cave anymore. The scientific term like on
23 the Sterns map in my Exhibit 17 they call it a karst,
24 k-a-r-s-t.

25 This karst can go all the way out to over

1 16 miles into the ocean bringing springs out in the
2 sea. Why is this important to you and your
3 deliberation? It's because under Article 12 section 7
4 our fishery is an Hawaiian cultural resource. It's
5 also a public trust resource protected under our
6 constitution. This is a complete complex from the
7 mountain to the sea.

8 Primary source material, kumu lipo. Other
9 chants talk about Kualii'i in 1600 gathering limu at
10 Kanahili, line 500. Then he goes to the Big Island.
11 He jumps off his canoe by Hilo and he gathers the limu
12 there. That was our icebox for medicine and food
13 source. These are all protected practices under
14 Article XII section 7.

15 What ties into this property specifically
16 is what's going on beneath it and to the side of it.
17 Now, as was brought up by the testimony of Robin Knox
18 and Attorney Geiger, was that in 1963 we noticed that
19 Kahoma Stream only had, like, 2500 feet, you know,
20 water going through that. Very low, as Mr. Geiger
21 brought out.

22 Why is that? From a Hawaiian cultural
23 practitioner perspective it's because as it's flowing
24 it's being sucked down into the earth because it's not
25 concretized. You see all of our water channels from

1 the mountain to the sea were never concretized. So
2 we've replenished the aquifer.

3 We, in the cases through all of our -- from
4 Big Island to here -- we Hawaiians, we channeled the
5 water so it looks like he'iau terraces that are up
6 there. Yes, we had lo'i terraces. But the reason why
7 we had those terraces is we saw in nature if you
8 didn't slow the water during heavy rains what would
9 happen is it would tear and rip.

10 If it tears and rips it's gonna take soil,
11 plants and vegetation through the river to the ocean
12 and pilau our gathering places. And usually around
13 springs and rivers you're going to have most of the
14 profuse life of opihi, and invertebrates and shrimps.

15 When I was a little boy out here in
16 Lahaina, I used to find 'opae lolo and 'opae huna 50
17 years ago. You can't find them anymore. What's
18 changed, the amount of water has been taken away in
19 damming up all these streams.

20 You know, the o'opu go to the ocean in
21 October to spawn. When you concretize something like
22 this you don't allow the natural fishes that are
23 freshwater to go into the ocean. So when I step on a
24 property and I try to do my assessment, I see what's
25 there and what's not there based on my teaching from

1 my family.

2 One of the important things that I found
3 when we came on the 20th of August to this property, I
4 noticed just from the road that there was these burned
5 features all the way to this mango tree up here. I
6 said, "What's going on here? This is really strange."

7 I found all of this charcoal burn mark.
8 Then I find this old mango tree completely burned
9 5 inches down toppled over into dry bush. It doesn't
10 make any sense as a cultural practitioner. How can a
11 tree that was on fire fall on dead bushes?

12 We went to the neighbors and we asked them.
13 And they said three weeks ago on August 3rd -- the
14 night of the full moon, which is a cool night. As a
15 practitioner that's the night of Tutu Pele -- in
16 August that tree caught on fire. It broke -- burned,
17 broke and fell down into dry bushes and the dry bushes
18 never burned.

19 That anomaly is very weird. Okay. You
20 don't have to be a cultural practitioner. We know
21 based on the residents that we talked to, three years
22 ago on the 4th of July fire crackers set the whole
23 place ablaze. We know that for the record.

24 But that was -- that was three years ago.
25 And since then the burnt features were all covered up

1 by growth over several seasons of rain and then dry.
2 This was the only feature that we took pictures of all
3 this burnt, burnt wood. It wasn't just burned all
4 over.

5 You'd figure if you light a match it will
6 burn inwards. But it looked like -- it looked like
7 someone went with a flame thrower purposely burning
8 certain sections almost like the Pele Clan walking
9 through touching down. And where they touched they
10 burned. And where they didn't it didn't catch on
11 fire.

12 This was from a Hawaiian cultural
13 practitioner's point of view who happens to be the
14 seventeenth great grandson of Tutu Pele who put this
15 genealogy in evidence.

16 So from my cultural practitioner background
17 this fire went right to this rock, this libation
18 stone. Kamehameha used the same libation stone. It's
19 called alua. "Lua" people think in terms of bathroom.
20 You go to the lua. But what is a lua? "Lua" is an
21 abbreviated Hawaiian term for "two." Akahi, alua,
22 akolo. So we make it easier. We go, kahi, lua, ha,
23 ono. We don't even go "a" anymore. We just shorten
24 it. So lua can be two. Lua is also the pit. So
25 there's a pit in the pohaku that we use for our awa

1 ceremony.

2 Kamehameha used to use the same thing.

3 He'd have the children chew his awa, put it in there
4 and mix it right there. Why is this important?

5 Because Opelu Ha'ali'i is the son of Tutu Pele Kamakua
6 which we know right across is the lēna where Tutu Pele
7 comes. Why? Because her son is buried there.

8 Because her son was born here. It's a memorial stone.

9 Now, there is -- and I believe the
10 archaeologist and Rory, we met. And I believe they
11 are all true in what say that's a push pile. Yeah, I
12 agree it was a push pile. But it was a push pile over
13 an existing structure.

14 Now, there's disagreement on one of the,
15 one of the maps that we have that were presented in
16 evidence where that railroad is. That came up about
17 where the railroad is. And the railroad has never
18 been up to the mountainside where the existing
19 railroad is, and we have it on the map behind me.
20 I'll move that so you can see.

21 This particular map shows in red. It says
22 "railroad" over here. It's a little demarcation that
23 says these redlines that we have highlighted for you
24 is where the railroad is. Okay? And now this is the
25 Kahoma Stream. And this is the property of Routh

1 Bolomet in green over here. And this is the mountain
2 side. And this is the ocean side. And this is the
3 railroad that crosses here.

4 The controversy is the numbering of the
5 poles don't seem to match up. So there's gotta be a
6 mistake because there was no historical record from
7 the 1884 map that was presented in evidence that ever
8 showed a railroad was built in 1884, in 1910, 1930,
9 1940, 1950. There was never a railroad that came up
10 here. Never.

11 So there's no evidence to back it up in
12 rules of evidence of finding of standing that there is
13 no railroad up here. The only railroad complex is
14 here. Anybody wants to dispute it they can bring a
15 map to prove this wrong.

16 So the feature that was put down in the
17 Archaeological Assessment, which I did read, which
18 basically said there was no feature, has a problem
19 when you're looking at it through, number one, as you
20 drove through it, lotta bushes.

21 How are you gonna see everything unless you
22 weed whack a lot of these features? Because if you
23 have push piles that go over existing features that,
24 by the way, for 160 years were never maintained after
25 the Mahele, you had floods coming down over 160 years

1 bringing debris, breaking down the walls.

2 Nobody's repairing it. Remember Ka'ahumanu
3 took away the kapu system. So it was forbidden for
4 Hawaiians, unless you do it under the dark of night,
5 to practice. So rebuilding your he'iaus was
6 forbidden. Okay.

7 So you have erosion. You have debris
8 coming down. And then the sugarcane company does come
9 and they do what they always do, put a push pile. So
10 both do exist. The native Hawaiian feature and the
11 push pile exist. But how you gonna see that feature
12 under a push pile with weeds that are 3 feet high
13 unless you weed whack them?

14 So what we bring to it is a different
15 perspective. It's a distinction of what we see. When
16 I go to the ocean basically I know what kind of
17 limu -- and this was from -- this is relevant because
18 this comes from Makila which was named, this is the
19 limu kala that we use.

20 This is the part of the libation stone from
21 the Project Area that Rory saw us do a cultural
22 practice the last time we were here on Saturday. And
23 we availed ourselves to questions about it.

24 Now, remember the tax map keys clearly
25 showed in some properties that Hawaiians were buried

1 there. Hawaiians don't have money to make a coffin.
2 Coffins were very expensive. You wrapped them up in
3 tapa and you buried them. So the tapa is going to
4 degrade. The flesh is going to degrade over 160
5 years. So if you're gonna dig for bodies, you're not
6 gonna find coffins.

7 If you don't have screens you won't find
8 the bones that, you know, if you just get a backhoe
9 and just dig 'em up en masse. You have to screen it
10 archaeologically. There're no standards in Hawai'i
11 for archaeological screening for sites. That's up to
12 the developer. That's up to SHPD. But if you're
13 gonna do an accurate job to assess you have to get in
14 the weeds for this.

15 So from my advantage point, and what I put
16 into evidence here from the Sterns water map -- the
17 thing about the Sterns water map is it is one of the
18 best maps that were done.

19 And even though Michael Dega kinda of
20 poo-pooed it as being old, worn out, outdated that's
21 not true. That is not true. This clearly shows in
22 Mala where the ancient karst wells were here and where
23 the springs were in the mountain.

24 So we know that water travels from a high
25 source to a low source. You could not have so many

1 keawe trees alive in this Project Area even though the
2 streams have been cut off. They're tapping into water
3 that's underground. Now remember what I said.

4 The fact that in this map they're trying to
5 say that the karst doesn't go that high. But remember
6 what I said.

7 The pahoehoe lava tubes, and the sources of
8 water running through the lava channels underground,
9 deep underground -- not just 8 feet but maybe 90 feet
10 down -- are connecting to the karst system as it goes
11 to a lower part.

12 So it switches from pahoehoe lava tubes to
13 karsts. Now, when you get to the ocean side, the
14 karsts pop up. And that's why you have Moku'ula
15 Springs where you had Kamehameha's complex there. And
16 that's how you had the fishponds.

17 If you go to the Sterns water map in
18 Moloka'i and look at the 70 fishponds there, you're
19 gonna find three springs in each fishpond. That is
20 the pulmonary system of the fishpond. The fishpond is
21 a he'iau because you have god stones there, Ku and
22 Hina stones. It's a religious cultural practice.

23 We exercise a religious practice at Mala
24 with the Hina stone. I know where the Hina stone is.
25 We utilize the Hina stone for divination.

1 So it's connectivity to the property, to
2 the mountain, to the sea based on primary source
3 materials, Kumu lipo and our chants are clearly
4 delineated in a distinction of our exercising our
5 rights under Article XII section 7. So when we look
6 at a property, when I look at the ocean I can tell you
7 what kind of seaweed grows in that ocean by looking at
8 the plants on the shore because they share a
9 commonality that we find in Kumu lipo that goes back
10 2300 years.

11 So in our practices we have learned to look
12 at certain things that pass by other people. That's
13 my summary.

14 Q I'd like to go over some of the Hawaiian
15 words that you used so you can define in case some
16 people may not understand the words.

17 A Okay.

18 Q So can you give a definition or a
19 translation in English of what limu is.

20 A Limu is algae, seaweed to most people. And
21 in Hawai'i we have about 200 different kinds of what
22 we call endemic seaweed.

23 Q Okay. And what does the kaona mean?

24 A Okay. Kaona -- ona is, you know, ona is
25 like what you smell. So there's a resident smell

1 somewhere. It's a deeper meaning. So the Kumu lipo
2 will tell you words. But there's a deeper meaning
3 behind those words that is not evident to the person
4 reading it when they see it. So we're told what those
5 words mean on a deeper level.

6 Q So someone that has not had actual training
7 from a kahuna may not know those meanings even when
8 they can read Hawaiian.

9 A That is correct. Even in the makahiki
10 ceremony what is left out of that is the positioning
11 of the stars and what stars. I know all the
12 positioning of the stars to actually re-enact it the
13 proper way and to call the spirit of Lono to come and
14 impregnate into the statute. It's called the kuanoho.
15 where some people in Christian religion call it a
16 demon.

17 Some people in our Hawaiian religion will
18 call it a guardian angel. I know the specific ceremony
19 and words, what to do to prep the statute to call in
20 the spirit of Lono to now impregnate, or some people
21 would say possess this statute and it would be present
22 there.

23 Q What does the word "huli" mean?

24 A Huli means-- there are several meanings.
25 Huli is taro that we use that as one of the sources

1 for taro. Huli means to turn. So, you know, Hawaiian
2 words like kala, the sun, there are many -- some have
3 maybe 15 different words -- meanings for one word.

4 Q What does kahuna o maka?

5 A Kahuna o maka. Ka *the*, huna *hidden*.

6 People look at kahunas as priests or what has been
7 currently talked about is "specialist". The hidden
8 specialist ka-hu-na.

9 Maka is your eye or your face. It's called
10 observation. So kahuna o maka means the study or
11 practice of what you see and what you observe.

12 Q So you explained what an ahupua'a was from
13 the mountain to the sea. Can you explain the actual
14 translation of ahupua'a?

15 A Well, the huna part of ahupua'a, ahu is an
16 altar. Pua is the pig. Now, most people don't know
17 that Kamapua is a star constellation. It's out right
18 now. And it's a big pig. And it has eight legs.
19 That pig is at the level of the mountain tops. So we
20 see its mouth open. So the mountain becomes the ahu
21 or the altar. And the pua'a is this star
22 constellation that is placed on -- the sacrifice is
23 placed on the mountain.

24 So the ravines down the mountain almost act
25 as the legs of the pig. They delineate the entire

1 marking from the mountain the sea. As we said our
2 complex goes from the heavens to the mountain to the
3 mid-range, to the land and then out to sea. It's an
4 entire complex.

5 Most Hawaiians don't know these stars so
6 they don't know how to put it together. It's
7 incomplete knowledge. A lot of it was due to the
8 Organic Act of 1900.

9 Q "Pilau". What does pilau mean?

10 A Pilau means dirty or filthy. It's a
11 derogatory comment.

12 Q So when you're saying that all the debris
13 from the concretized channel goes down. Can you
14 explain that to me and why you used that word?

15 A What I'm talking about, it was mentioned
16 the siltation and debris that comes down. As I said
17 there's seven different corals that we use for coral
18 medicines. The ana sponge we use the invertebrates or
19 kaytans I use in the ma wai wai ceremony for newborn
20 babies to open up their pathway in life.

21 So these different rites and ceremonies
22 that were taught to me, and the fire ceremony during
23 the makahiki to increase the abundance of fish in the
24 sea.

25 When you concretize something you see fresh

1 water becomes a pollutant when it's in high
2 concentration like 15,000 cubic feet per second over
3 the duration of two hours straight. That's poison to
4 the ocean.

5 You try to take a freshwater fish or living
6 coral or an opae, or an opihi and drop it in
7 freshwater, a freshwater tank for one hour, that
8 creature will die.

9 In its habitat it hasn't developed a way to
10 deal with freshwater in that large quantity for a long
11 duration. It's used to the tidal forces breaking it
12 up, becoming brackish water.

13 You have different levels. And they live
14 in that biosphere. So when you channelize -- and in
15 1963 it was only 25,000 square cubic feet per second
16 as opposed to 15,000 that does major damage to the
17 fishery which is an Hawaiian cultural resource and a
18 public trust resource.

19 Then when all those creatures die off
20 whatever mud or siltation that comes in will cover,
21 like in Kaneohe Bay, and cause great devastation.
22 That's "pilau".

23 Q In the karsts you said that the dead were
24 put on shelves.

25 A Yes.

1 Q So could you explain where the burials are
2 versus where the water runs, the distance between the
3 two?

4 A Okay. That's a fair question because you
5 figure this cave has water running through it. Where
6 are you going to put bodies with water? Is it like a
7 channel, an aqueduct? Well, in the karst system
8 because you had multiple rainfalls that would either
9 bring a lot of water or not, what'd get is a widening
10 effect for several years and then a narrowing effect
11 you have drought, then a widening effect, and a
12 narrowing effect and a widening effect. Now you have
13 shelves. So you can put it on shelves.

14 Pahoehoe lava tubes that comes from the
15 mountains can have shelves on it too as the lava turns
16 and comes down. So both do have shelves in them.

17 Q Can you give us kinda like a visual
18 explanation as to why it's shallower, seeing a karst
19 is shallower at the ocean versus in the mountain?

20 A Okay. If you were to take my arm as the
21 mountain here, and you would take my fingers as the
22 ocean side, you notice it's thicker up here because
23 lotta lava built up through the cinder cone in the
24 volcano.

25 So it's the pahoehoe, the ancient pahoehoe

1 lava tubes are underneath. It's under more mass and
2 material. As you get to the fingerlings of the ocean
3 you notice the finger becomes, can be just 13 feet
4 under. Or it could cave in and that's what we call,
5 when it caves in, they call it a sinkhole.

6 So it will be shallower, the karst will be
7 shallower at the sea. And then at minus tide, 3 feet
8 below tide, you're gonna see the springs coming out
9 through this -- through this aqueduct.

10 Q Okay. So the archaeologist said they found
11 a lot of basalt rock.

12 A Right.

13 Q Versus limestone.

14 A Right.

15 Q Can you explain why if there's a karst
16 running underneath this property why is there all this
17 basalt rock?

18 A First, I'm not an expert as an agronomist
19 or geologist. I'm not here for that. But based on my
20 cultural practice we know that the islands started
21 from volcanic rock that came up.

22 We know by our chants that we put our
23 bodies in volcanic pahoehoe lava tubes. They are
24 deep. Some of them are 25 miles long on the Big
25 Island.

1 I was told as a boy in Hana there's one
2 that runs from Hana to where Nu'u is on the south side
3 going all the way to Japan.

4 I was also told as a little boy for the
5 Mawekelakona line on O'ahu in the mountains of
6 Wai'anae there are caves that go right under the ocean
7 to Kaua'i and attach there.

8 So for all of these connections in our moku
9 au hau which is the stories that were given, the ike,
10 the knowledge that was passed on from generation to
11 generation in oral culture through our chants, that
12 these things existed.

13 And one on O'ahu is called papukaina or
14 pohuaina. And it's a network all under downtown where
15 Iolani Palace is. It's under where 'Ewa Beach is. It
16 travels through Waipahu all the way out to the North
17 Shore.

18 It goes -- Aunty Alice told me this. That
19 where that bay is behind Koko Head where all the
20 tourists go, she went in the cave that goes 14 miles
21 under the Ko'olau Mountain Range, underneath, deep
22 underneath and comes out at Kaneohe. And it was Mary
23 Kawena Pukui that took her through that. So these
24 were passed on to us.

25 Q Could you -- are you familiar with the

1 story about the people that came from Kaua'i to --

2 A Yes.

3 Q -- the Ko'olaus through the lava tubes?

4 A There are people that actually live in
5 those caves and have survived in those caves between
6 Kaua'i and actually even in recent times married for
7 the surface dwellers and those who dwell below.

8 Q In Lahaina there are stories of Hina and
9 Maui and a pueo and Lahaina -- or actually
10 Lahainaluna. So that's right above this property.

11 A Right.

12 Q Could you elaborate on that story?

13 A The stories are that Hina, the wife of
14 Maui, also in other tales the mother of Maui, their
15 son -- and it should not shock you that in Hawaiian
16 cultural practice we have something called ni'aupi'o
17 where mother and son would be husband and wife, father
18 and daughter, brother and sister. That's a Hawaiian
19 cultural practice. The missionaries were appalled.
20 But the facts are the facts. So their son was the
21 pueo.

22 Q So do you think it's a coincidence that you
23 hear people that live in the neighborhood next to this
24 Project site seeing pueo?

25 A No. Based, again, you don't have to

1 believe this from coming from a different culture
2 because it's a different lens. So I understand that.
3 But, you know, in my family lens this is a fact.

4 In October Hawaiian Airlines inflight
5 magazine is going to have a picture of me as a papa
6 kila hoku in a 3,000 word essay written by Anthony
7 Alto, president of the Sierra Club.

8 They took several shots in April of this
9 year. We chanted, asked me to chant. And they booked
10 for me to take that picture and said, "We need a
11 rainbow." There was a rainbow there four months this
12 was booked ahead and there was the rainbow. I
13 chanted. As you can see I have white hair. I'm 55
14 years old. I have no white hair just about. I don't
15 even look 55 as I'm chanting. We have pictures up for
16 the transit of Venus where I did show them how to look
17 at the rock in the, what we call the water mirror.

18 And I'm all white. My hair is totally
19 white. I look 75 years old. I cannot explain what
20 happens when I do my cultural practice. But the
21 pictures do not lie.

22 Q In your limu that you have on the table,
23 what do you use that for?

24 A This is used for cleansing. Routh Bolomet
25 has some real issues that are medically documented

1 with poisons in the environment. And those case
2 studies have been proven. But her issue with the
3 degassing of this carpet, I got this at Makila,
4 harvested it. Every time we come to this room I've
5 harvested the limu for her to eat. It cleanses you.

6 We use -- this limu is one of the most
7 important limus that we have. It's the only limu in
8 our tradition that can forgive sin no matter what your
9 sin is. It can take your sin into itself. And it
10 will be sweet. When it takes your sin it will be
11 become very bitter. Then we do a chant and we go to
12 the ocean and throw it into the ocean to take it out
13 and have it departiculated in the ocean.

14 So for your body it's a cleanser. It will
15 pull out poisons from your body.

16 Q Okay. On that map on the wall on the left
17 it's got two streams. Can you show us all the
18 different places that you collect limu from and do
19 your cultural practice?

20 A (off mic) Here is the site. And then here
21 is....

22 Q Can you get the microphone, please.

23 A Okay. Here's the Kahoma Stream here. And
24 here's the Makila Stream here. I harvest limu from
25 both sides. And there're different types of limus.

1 You'll find limu awa here and you won't find limu awa
2 here but you'll find limu kohu by Mala.

3 I've done this for several years now. I've
4 taught classes here that are on You-Tube. I've done
5 several classes for the star he'iau here. Basically
6 out here is cultural practice that we've done in this
7 Project area site.

8 So this -- the differentiation between
9 limus between this Project site and this Project site
10 both having springs, are uniquely different. So we
11 have some limus, like I say, I will not find limu awa
12 growing here. And we use that for medicine. But I
13 will find limu kohu and palahalalahau which is a kind of
14 a green lettuce limu used for lungs.

15 And then I'll find a lot of invertebrates
16 here. But both of these are mentioned in the Project
17 Area sites that were TMK'd.

18 Q Could you tell us what map that is that
19 you're reading from?

20 A Okay. This is the Town of Lahaina Maui
21 drawn in 1884.

22 Q Okay. The Kahoma Stream.

23 A Yes.

24 Q Are you familiar with any of the history
25 about, is that, like, a major stream for Lahaina?

1 A Yes. Because this is the bread basket of
2 Lahaina where you have loko alamihi here. This fed
3 Kamehameha's army for it to it and the terraces that
4 were here with the bread basket that moved not just in
5 the mountains but clearly it was down here in the mid
6 range region.

7 The necessity for flooding that took place
8 is also the enrichment at the ocean when it's not in
9 high concentrations. But for this to be the bread
10 basket you had to have a lot of freshwater for this
11 loko i'a to grow. For all these lo'i terraces, all
12 these features lo'i terraces and the great wall that
13 is mentioned in your AIS and your boundary notes.

14 This great wall was part of the demarcation
15 of all these lo'i terraces that were following the
16 stream, the water source.

17 In our konohiki is: How do you take water
18 and use it a thousand times before you give it back to
19 the ocean?

20 Q Okay. And in there how many, how many pink
21 LCAs are highlighted around Kahoma?

22 A Okay. Kahoma there are -- Kahoma 1, 2, 3,
23 4 here. And then here 1, 2, 3, 4, 5, 6, 7. This is
24 Makila.

25 Q Yeah. And why are those highlighted?

1 A In the Archaeological Assessment this was
2 part of the area that they're talking about for this
3 Project here.

4 Q Okay. How far are you estimating that --

5 A This is about 7 to 7 and-a-half miles from
6 the Project Area where the TMK's have the Project Area
7 right in this area, the Kahoma Stream area.

8 Q Okay. Then there's -- so there's a lot of
9 LCA's that weren't represented in the AIS, is that
10 correct?

11 A Yeah. In the Project Area there's several
12 1, 2, 3, 4, 5, 6, 7 in the 1884 map.

13 Q Okay. Would you say that there were
14 probably features described in the survey notes or
15 boundary notes?

16 A Yes, I would. The TMK's, the boundary
17 survey notes would have all these archaeological
18 features because they have to use them to show the
19 demarcation of where the property lines existed.

20 Q And on the other maps -- I'm sorry, you're
21 going to have to move your pictures -- can you read
22 what map that is?

23 A Okay. This is the Lahaina middle section
24 Mali TH. And it says the survey of 1916. And it says
25 DM Surrat -- Monsarrat.

1 Q Okay. On that map it tends to show
2 features around the way the TMKs are shaped. Can you
3 elaborate on that?

4 A These were wall structures. So this dot,
5 circle, dash, dot, dash, dot is the walls. They were
6 for your boundary notes to say where your property
7 was, where the big stone was.

8 So when they pick up who's living next to
9 you by what wall, what tree were all used as boundary
10 notes. So these walls are all necessary not only as
11 part of the cascading terraces for lo'is but for
12 boundaries so that they could get it correct in the
13 Mahele.

14 Q Now, why do you think the lots are so oddly
15 shaped rather than just nice little rectangles like we
16 do today?

17 A Because when they broke it up from section
18 to section these were lots given by the king by the
19 konohiki. And they're arranged by the lo'i that came
20 down. And they used the walls for that.

21 So it's not -- it was not a perfectly
22 formulated cookie cutter approach. It was done by the
23 terracing that took place and who was responsible as
24 the overseer and underseer of that particular portion.

25 Q Now, would the shapes be dictated by the

1 topography that would have been there?

2 A Yes.

3 Q Is that why they would put walls?

4 A Yes, because they were graduated terraces.

5 Q Okay. And is it normal to have lo'i next
6 to streams?

7 A Yes. Because that is your major conduit.
8 It's like the artery to the veins.

9 Q Was Kahoma considered one of the major
10 streams?

11 A One of the two major streams that you had
12 that were the resource of the king called waiwai.
13 That's why we have the makahiki was to ensure the fall
14 of the waiwai, the freshwater rain from the mountain
15 to the sea.

16 It was illegal, kanawai, by penalty of
17 death to block a stream. Because what you would do is
18 you would starve or destroy another person's
19 livelihood. So it was under penalty of death if you
20 blocked a stream under kanawai law.

21 Q So when the farmers, the plantation farmers
22 started diverting water and there was very little
23 water going down, is that why the taro patches,
24 everything was abandoned?

25 MR. GEIGER: Before you answer, I'm going

1 to object. I think we're very, very far afield of
2 whatever his direct testimony was in writing, number
3 one.

4 Number two, this would not be relevant to
5 anything.

6 Number three, she hasn't laid a foundation
7 that this witness knows anything about what plantation
8 owners may or may not have done as far as diversion.
9 And particularly with regard to Pioneer Mill which is
10 the one that's involved in this case at best.

11 PRESIDING OFFICER HELLER: I'm going to
12 sustain the objection in so far as it relates to the
13 history of the plantations. He has not been
14 established as an expert on the history of plantation
15 agriculture. If you're going to go into that topic I
16 think that's pretty far afield from what he's been
17 offered for.

18 MS. BOLOMET: Okay. But at one point in
19 history all of that was abandoned. And the point I'm
20 trying to get across is: Why was it abandoned if it
21 was considered a perennial stream in the past? So can
22 I ask him that?

23 MR. GEIGER: I would object. It's
24 irrelevant. It has to have some relation to this
25 particular property and there doesn't seem to be any

1 tie-in, nor is there any foundation laid for this
2 witness.

3 PRESIDING OFFICER HELLER: I don't see the
4 connection to Hawaiian cultural practices.

5 MS. BOLOMET: Our practice was to be
6 farmers on this particular land. And the boundary
7 notes and the history shows that that's exactly what
8 happened there until this stream was diverted. Not
9 the old stream but the water was cut off. It went
10 from perennial to intermittent.

11 Why all of a sudden was it an intermittent
12 stream after being considered a major stream in
13 Lahaina and a major artery?

14 That's the -- I'm trying to build that
15 foundation by asking these questions.

16 PRESIDING OFFICER HELLER: It might be
17 simpler to just ask the question directly: Does he
18 know why the farming stopped.

19 MS. BOLOMET: Okay.

20 Q Do you know why the farming stopped?

21 A Yes.

22 Q Can you please explain why.

23 A From the Great Mahele the leases for the
24 sugarcane companies purchased deeds from the Hawaiian
25 tenants. In purchasing these deeds they basically

1 took offline many of the lo'is that were in use that
2 ceased to be in use. Then the control then went under
3 the sugarcane companies.

4 Q So there were -- "deeds" means they buy it,
5 they own it forever and ever?

6 A According to the international law that it
7 was set up allodial land titles were forever. The fee
8 simple free hold were for --

9 MR. GEIGER: I'm going to object.

10 PRESIDING OFFICER HELLER: Yes. Before we
11 get too far down this road, Ms. Bolomet, we made it
12 clear at the time you intervened that we're not going
13 into matters of title in this proceeding.

14 MS. BOLOMET: I'm not going there. I'm
15 trying to show how he becomes an expert in being able
16 to talk about this. And he does a lot of research.
17 And he's looking at these documents all the time. By
18 him explaining what they are and the differences
19 you'll be able to see that he's actually an expert and
20 can talk about this, this area.

21 PRESIDING OFFICER HELLER: I don't think
22 we're dealing with a challenge to his expertise right
23 now. I think this is your opportunity to present what
24 you want to present regarding the Hawaiian cultural
25 impact issues.

1 Q (By Ms. Bolomet) All right. As far as
2 the -- you referred to the, I believe it was the
3 Robert Connolly map for the 36 Kahoma complex. That
4 was submitted by Clare Apana --

5 A Yes.

6 Q -- I believe on August 20th. Do you have
7 that information? I think it was Exhibit 1.

8 A It says here Exhibit 1 Clare Apana, map
9 Connolly A15-1975 showing location of Project,
10 Exhibit 1.

11 Q Okay. So in that Connolly study by Bishop
12 Museum --

13 A That's correct.

14 Q -- they identified many what they call a
15 complex. Can you explain what a "complex" is or what
16 made up that complex?

17 A The complex is a feature of lo'i terraces
18 from the mountain to the mid range and goes down right
19 up to the railroad. It says "railroad" at the bottom
20 marks here. Says "Kahoma Stream terrace system
21 complex."

22 The terraces were graduated to stop the
23 speed of water coming down at a high velocity to tear
24 up everything and to channelize through open ditches
25 so that part of the water would be sucked in through

1 percolation and go into the aquifer and the
2 underground -- part of the underground spring system.
3 The rest would be channelized to different lo'i
4 terraces that would branch out like fingers.

5 Q Okay. In there -- well, let me step back a
6 little bit. So on the map, says map 8, the 1916 map,
7 there's many different names of the area which
8 represent ahupua'as, is that correct?

9 A That is correct. And ilis.

10 Q And is it customary that each ahupua'a
11 would actually have an altar?

12 A Yes. Also in religious cultural practice
13 there were many personal family gods that were
14 worshiped. Some were Ku practitioners, Pele
15 practitioners, Lono, Kanaloa, Kane.

16 So depends on who your family came from in
17 their background or their genealogy. Multiple
18 practitioners mentioned also in the submitted
19 Archaeological Assessment reports.

20 Q Was it mentioned in the Cultural Assessment
21 that there -- that it's -- there were private he'iaus?

22 A Yes.

23 Q And a private he'iau basically would not be
24 publicized?

25 A No. It goes back to Huna. There's

1 something called niele. For Hawaiians is that the
2 nosey person would want to find out what your family
3 is, what your family survival strategies are.

4 Part of the survival strategy is if you
5 knew where the underground karst system was you had a
6 survival strategy. In time of war you could go into a
7 cave and hide while everybody else got wiped out.

8 In time of drought you could go into that
9 cave and retrieve water and still pull out water for
10 your plants. While the other people languished you
11 somehow got water.

12 So the idea of keeping strategies of
13 survival hidden was always part of Hawaiian cultural
14 practice because you give up an advantage if you just
15 say, "Oh, by the way, here's my special spring."
16 You're going to find yourself dead.

17 And some ali'i will come in and take over
18 that spring and most likely build a he'iau over it.
19 Because most of our he'iaus are built over springs.
20 And these underground systems of either pahoehoe lava
21 tubes or karsts.

22 Q Okay. So if there's -- every ahupua'a has
23 an ahu or an altar or possibly a he'iau which is -- is
24 it a temple, a he'iau?

25 A There are different forms of he'iau. It

1 doesn't have to be like those big he'iaus that you see
2 on the Big Island. The private he'iaus that you have
3 for private worship for family god worship, can be the
4 size of an ahu or an altar which is the size of this
5 table.

6 Q Why do you think, besides a memorial, why
7 do you think there was a libation stone put next to
8 the Kahoma? What would the value of that be?

9 A Well, again, you know in our Hawaiian
10 cultural practice the three main things is: Ha, your
11 breath. Because you exhale and inhale. Ha: Life and
12 death. Very important.

13 Then there're two pikos. One here,
14 spiritual piko at the top of your head and one where
15 your belly button is. That we call aka cord. There
16 is a spiritual blueprint in the heavens, the aka. And
17 it says what we use to define what is.

18 And we're connected spiritually from this
19 one to the higher self and this one to your relatives
20 that you came from.

21 So we listen to our ancestors through our
22 aka cord.

23 Q I noticed that there are several ahupua'a
24 that cross the Project site. There's Aki, there's
25 Paeohi, there's Moali'i. I think there might be one

1 more Kahua. Oh, and Kalawea. So there's that many in
2 that site. That means there's at least that many ahus
3 in that site and he'iaus of various sizes?

4 A Because of the water. They're channeling
5 the water.

6 Q Is that the he'iaus -- is it like a
7 water -- I mean a power source or maybe spiritual?

8 A As I said that's the wealth of the king.
9 The waiwai is the wealth of the king. Take away the
10 water you take away his wealth. And he's just got a
11 barren empty land that's not good for producing
12 anything.

13 So without the water -- that's the makahiki
14 festival. It's all about ensuring the rainy season to
15 come. When you had the Maya, they sacrificed people
16 to keep that water flowing. Well, the makahiki is all
17 about Lono, the staff of life replenishing the water
18 from the mountain to the sea as one complex.

19 Q Now, in that area there's many ali'i names
20 that own the ahupua'a. And it's around that he'iau.
21 I noticed Princess Kamamalu's name keeps showing up
22 where all these important he'iaus are. Why is that?

23 A For the Kamehameha family they're all
24 related to Pele and to this opelo ali. That is their
25 ancestor.

1 Q And why would it be given to Victoria
2 Kamamalu versus someone else?

3 A The thing about dealing with he'iaus is
4 that Hawaiians would not take over a he'iau unless
5 they had the mana to do it. Kamehameha conquered all
6 the islands with his high priest that showed he had
7 the standing on the spiritual side to do it.

8 For people to take over a place with
9 he'iau, if things went awry would their family
10 genealogy back them up as far as the spirits of their
11 ancestors that are there? And if it isn't, the
12 consequences would be one bad thing happening to that
13 them after another.

14 The idea is that Kamehameha's kahuna nui
15 after his passing would still be around to protect his
16 progeny.

17 Q Okay. Can you explain what mana is.

18 A Mana is power.

19 Q So in this Project Area you have quite a
20 few ali'i. I understand that Princess Kamamalu's
21 sister was Princess Ruth.

22 A That is correct.

23 Q And she was the guardian of -- I can't
24 remember is it Kanehoewa'a?

25 A Yes.

1 Q And then there was at Ka'ala property and
2 that came from Naumu'u?

3 A Yes. He was the konohiki.

4 Q Was he the -- any relationship to Princess
5 Kamamalu?

6 A Usually they're distant cousins. Usually
7 your konohikis was families. The reapportionment of
8 land tenure under the ancient kahiko system once a new
9 king came, he restructured all the positions under a
10 patronage position basically connected to the family
11 because you only trusted your family.

12 Q So did you find it unusual that plants,
13 fauna expert, the flora and fauna expert of the
14 Petitioner said that he found unique plants there that
15 weren't in other areas?

16 A No. But usually plants are seasonal. Limu
17 is seasonal. As a cultural practitioner we use it
18 year 'round but they're not always around. They go
19 what we call hiamoe. They go to bed. That's part of
20 konohiki. Everything has to rest to be productive.
21 If you overproduce something you collapse it.

22 So konohiki in the time of makahiki was
23 konohiki'ing the people and the king and the priest.
24 The Lono priests were blindfolded, taken away so that
25 they wouldn't see that the rules were suspended for

1 that three months season of makali'i. Those were the
2 times to reset the clock.

3 Q Okay. So as you go down the Kahoma, old
4 Kahoma Stream down to Alamihi and Mala, you said that
5 an Alamihi feed Kamehameha's warriors?

6 A That's correct.

7 Q Were there, like, a hundred or a thousand?
8 How many?

9 A There were thousands, over 14,000 warriors.

10 Q So 14,000 warriors were fed by one fishpond
11 area?

12 A No. There were several fishponds there.
13 There was three older fishponds there but there was
14 that --that fishpond was, like, 5 acres.

15 Q So did they take all the food or was there
16 still leftovers for the people?

17 A No. Because they replenish it. So as
18 they're taking they're also replenishing.

19 Q So when you consider a site culturally
20 significant, do you take in all the different stories
21 of the areas as well as the archaeological finds?

22 A It's called "primary source". Primary
23 sources are chants. The chants of Hawaiians define
24 their culture. An outside culture cannot come in and
25 then dictate, "This is your culture." So to find out

1 what is the real deal that wasn't made up 10 minutes
2 ago, you have to look to the chants and the practices.

3 And when you have, like in the Bailey
4 House, you had several missionary families that took
5 journals. In those journals they made commentary on
6 the Hawaiian cultural practices that went on in
7 Lahaina. And as they made commentary they are
8 observers of what did take place. They may not know
9 the why or the how. But they are giving an assessment
10 from their point of review.

11 Q So based on their life experience they give
12 an assessment from their perspective.

13 A That is correct.

14 Q Which would you say it's as deep as a
15 Hawaiian's perspective?

16 A There's a distinction when you say
17 "Hawaiian" because the cultural practitioners did not
18 share their knowledge with the regular maka'ainana
19 which is the commoner. Your higher classes of kahuna
20 kept the kahuna in secret just for their pupils and
21 students. They did not share a lot of their deeper
22 information with everyone else.

23 The king? No problem. But the regular
24 commoner would not have access to a lot of the why and
25 the how.

1 Q So from your research on who the different
2 awardees were along the river, would you say those
3 people were maka'ainana?

4 A It was a combination. You had sea captains
5 that were given grants. Depends what you did for the
6 king. If you were -- ingratiated yourself with the
7 king and you were a sea captain, you would get a
8 grant. If you were a blood Hawaiian citizen you would
9 get an allodial patent.

10 Q But the people that were the awardees there
11 were a lot of ali'i there. So would you say that was
12 a pretty special place?

13 A Well, it was, it was the capital till 1843
14 when it moved to Honolulu. So it was the source of
15 power as the -- when Kamehameha I had the source of
16 power in Kona and then moved it to Lahaina. When he
17 passed, Kamehameha II had Lahaina as the capital of
18 the kingdom.

19 So all your movers and shakers who had very
20 high responsibilities within the kingdom government,
21 royalty, ministers, missionaries, this was the place
22 to be. It was the New York of the 1830s and '20s.

23 Q So would you say that the ali'i
24 concentration of names over there? 'Cause I notice on
25 maps there's, like, Princess Ruth and she has a

1 massive amount. But over here there's just a lot of
2 little, what appears to be little, in comparison
3 parcels to the different ali'i.

4 So would you say that was one of the
5 concentrated settlements of ali'i?

6 A This was the royal family's seat.
7 Kamehameha III had a home here. His, they say
8 "illegitimate children" where there. Pete Kaeo from
9 Jeannie Lailai. Jeannie Lailai, one of his many wives
10 were there. Several of his other wives were there.

11 High officials within the government
12 surrounded there. Kamehameha IV, Kamehameha V,
13 Mikahela Kekauonohi, one of the queens of Kamehameha
14 II presided there. The royal family goes on and on.
15 They surrounded where the king was like in a hive and
16 a queen bee.

17 Q And so speaking specifically about this
18 projected Project site would you say there were a lot
19 of ali'i there?

20 A Family that were related to ali'i, yes.

21 Q Okay. So as far as you know there was --
22 the kanaka that would do the lo'i farming, they were
23 basically living and working in harmony with nature,
24 would you say that?

25 A In the konohiki system they're known as

1 mahi'ai, the farmers. They would have to, because if
2 you wanted to increase your harvest you would use limu
3 as a natural nitrogen source to rest the patches that
4 you weren't using. The patches would go on and off
5 like a Christmas tree to rest it in one season.

6 And to re-fertilize it they had little
7 fishes that they would dam off the water and those
8 fishes would die and decompose and the nutrients and
9 nitrates would build up in the soil to be used again
10 so you had healthy huli or taro.

11 Q So would you say looking back on the last
12 hundred fifty, sixty years on back, who had the more
13 successful agricultural practices?

14 A We have to look at food sustainability
15 versus the western lense of commerce and trade. So
16 when you're looking at Hawaiian cultural practice we
17 had no choice but to survive by agriculture and
18 fishing.

19 Remember there were tens of thousands of
20 monk seals and harmony with Hawaiian fishermen using
21 the same protein food source base which was the ocean.

22 So to be able to do that we had fishponds.
23 We had terraces, we had the shrimp in the streams. So
24 we utilized everything from the mountain to the sea as
25 one complex. Then we turned it on and off.

1 When the fishponds were off, the terraces
2 were on. When the terraces were off the fishponds
3 were on. One fishpond was going, one fishpond was
4 resting. So it was blinking on and off lights for
5 food sustainability. So we didn't collapse. We
6 didn't just take everything at one time. We rested.
7 We turned on. We turned off. We turned on. We
8 turned off in all these sites. That's why it's spread
9 out so far. That's why the productivity.

10 Part of the destruction of the productivity
11 is when you take down the natural forests where
12 sandalwood was. Your basic system of your water cycle
13 is destroyed and you don't hold the rain anymore.

14 So then as you see whether it's global
15 warming or a deforestation in the mountains, a
16 collapse of your watershed takes place.

17 Q How many people, based on your research,
18 was in the islands, say, during the time of Kamehameha
19 I?

20 A Well, Captain Cook, when he came here in
21 March of 1778, in his journal said there was
22 1.2 million. Now, further historians have said
23 300,000. But that's without Matson and full
24 sustainability for the use of the land for all the
25 food products, protein source products.

1 Q And why do you think Lahaina between Kahoma
2 and Makila were, it was very lush whereas it was
3 desolate --

4 A Captain Vancouver says it was the Venice
5 of the Pacific with all those channelized terraces.
6 He called it the Venice of the Pacific in 1794.

7 Q So there was also a couple of awais I
8 understand that connected the two, two major streams
9 Kau'ula and Kahoma. Was that how the watering
10 happened in between the two?

11 A Again, as you terrace it you're breaking it
12 up. The idea of konohiki is to use a thousand
13 different ways of using that water from the mountain
14 before it got to the sea. So you're breaking it up to
15 water the lands. It's a natural system of gravity.
16 Water flows from a high source to a low source.

17 But at the same time you're having the
18 underground springs enrich the ocean to increase the
19 opportunity of abundance there. What we do not
20 lokoias. We build little he'iaus. And we plant limu
21 in them as a basic food source we stock inside.

22 We also have what we call makaha which are
23 gates that allow shrimps, opaelua, to come in. And
24 it's also a basic food source.

25 We plant hauholo which is the Hau tree.

1 And its leaves biodegrade inside the water for food
2 for the invertebrates or the shrimp. That is the
3 foundation of the food source that we put inside.
4 Then the flowers of the Hau become the medicine.
5 Because when you have a huge population you increase
6 the chance of disease. Then we put a kapu, a
7 barracuda to take out -- not a big six foot -- but a
8 juvenile to take out the sick fish so they don't cause
9 sickness throughout.

10 Then we put cleaner wrasses to clean the
11 fishes that are populated. So that's how we keep it
12 under control without a diseased population.

13 Q In the Mala area, which is downstream and
14 basically connected to this Project area, there was a
15 coconut grove there. Can you tell me your
16 relationship?

17 A That relationship in 1737 my eighth
18 great-grandmother came from Tahiti. Her name was
19 Maria Tomatea of the Tomatea Royal Family that still
20 exists in Papeete. She came with her brother Tarua.
21 And she planted her coconuts there at Mala. She --
22 one of her Hawaiian names were "Mala" because she
23 landed at Mala. She is one of the progenitors of
24 Queen Emma's family.

25 She was also known as Ka'umokunuiakea. And

1 she's found in the Bishop Museum with Queen Emma's
2 genealogy. And she's my eighth great-grandmother
3 buried at Haleauau He'iau at Lihue by the Stryker
4 Brigade on O'ahu, Honouliuli.

5 Q And Alamehi Pond was crown lands. So that
6 meant King Kamehameha III kept that.

7 A Yes.

8 Q Can you tell me how you're related to the
9 area?

10 A In the Maui genealogy --

11 MR. YEE: I'm sorry. At this the point we
12 would like to object on the grounds this background
13 appears to be cumulative, is not being directly
14 related to the Petition Area. So we would ask that
15 the information be directed toward, to the (audience
16 member coughing) issue. Further background
17 information is simply not being helpful at this point.

18 MS. BOLOMET: It's showing the connection
19 between the upper and the lower, how all the ali'i's
20 are connected and how this whole land -- this Project
21 area is not onto itself.

22 It's part of a whole. And I'm trying to
23 establish -- first we established it with the ecology.
24 Now we're establishing it with the people that live
25 there or they have lands there.

1 So I'm trying to make connections on many
2 different levels so you can understand the importance
3 and significance of this particular area culturally
4 for us.

5 PRESIDING OFFICER HELLER: Let me ask you
6 this: What is your time estimate for how long it's
7 going to take you finish with Mr. Lee?

8 MS. BOLOMET: About three questions.

9 PRESIDING OFFICER HELLER: Okay. Well,
10 then let's get through those three questions today.
11 I'll allow this. Bear in mind we're concerned with
12 this particular piece of property and not with
13 Hawaiian history in general.

14 MS. BOLOMET: Okay.

15 Q So can you please explain your connection?

16 A Right now my connection is I'm the fourth
17 great grandson of Kamehameha III through this wife
18 Ali'i Hauli, that it's known in the Kamehameha
19 genealogies of five wives: Kalama, Kukao'o, La'amea,
20 Ali'i Hauli, and Queen Kalama.

21 He had five wives that are known to be.
22 And my grandmother Elisa Meek is his wife who had John
23 Meek, Jr. was Kamehameha III's son known as Kiaka who
24 lived next to him in an LCA in Lahaina.

25 And the royal families are connected

1 through our family Mataio Kekuanao'a who married Kinau
2 who also is there. And all the Kamehamehas are there.
3 They're all part of our family, yours and mine.

4 Q So the Kamehamehas that are connected like
5 Princess Kamamalu all the way down to the ocean, would
6 that explain why there are an important he'iau on this
7 particular property?

8 A Yes. Because it's our family. Tutu Pele
9 is my seventeenth great grandmother and yours. But
10 it's also his, Kamehameha's fifteenth great
11 grandmother.

12 Q So would it surprise you if there were
13 other he'iaus or ahus in this area?

14 A No, it wouldn't.

15 Q But it was kept secret because it was
16 private.

17 A Yes, it is.

18 Q And it was because it was a power source?

19 A Yes, it is.

20 MS. BOLOMET: That's it.

21 PRESIDING OFFICER HELLER: So you've
22 completed your questioning?

23 MS. BOLOMET: I've completed my
24 questioning.

25 PRESIDING OFFICER HELLER: Okay. Then this

1 is a good place to recess for the day. We will
2 reconvene tomorrow morning at 9:00 a.m. Let me remind
3 everybody that our goal is to get completed with the
4 evidentiary portion of this hearing tomorrow.

5 MS. BOLOMET: What time will we be
6 finished -- finishing up the hearing tomorrow?

7 PRESIDING OFFICER HELLER: Your guess is
8 probably better than mine at this point.

9 MS. BOLOMET: Because you usually leave
10 early for flights. Are we gonna be aiming for, like,
11 a 2:15?

12 PRESIDING OFFICER HELLER: I don't know
13 offhand. We can go off the record. We're in recess.
14 This is off the record.

15 (The proceedings were adjourned at 5:00 p.m.)

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17 --oo00oo--
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C E R T I F I C A T E

I, HOLLY HACKETT, CSR, RPR, in and for the
State of Hawai'i, do hereby certify;

That I was acting as court reporter in the
foregoing LUC matter on the 4th day of October 2012;

That the proceedings were taken down in
computerized machine shorthand by me and were
thereafter reduced to print by me;

That the foregoing represents, to the best
of my ability, a true and correct transcript of the
proceedings had in the foregoing matter.

DATED: This _____ day of _____ 2012

HOLLY M. HACKETT, HI CSR #130, RPR
Certified Shorthand Reporter