LAND USE COMMISSION STATE OF HAWAI'I

CONTINUED HEARING

A09-782 TROPIC LAND LLC (O'ahu)

TRANSCRIPT OF PROCEEDINGS

The above-entitled matters came on for a Public Hearing at Conference Room 405, 4th Floor, Leiopapa A Kamehameha, 235 S. Beretania Street, Honolulu, Hawai'i, commencing at 9:20 a.m. on Thursday, January 7, 2011 pursuant to Notice.

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

1	APPEARANCES
2	COMMISSIONERS: KYLE CHOCK
3	THOMAS CONTRADES
4	VLADIMIR DEVENS (Chairman) RONALD HELLER
5	CHARLES JENCKS LISA M. JUDGE
6	DUANE KANUHA NORMAND LEZY
7	NICHOLAS TEVES, JR.
8	EXECUTIVE OFFICER: ORLANDO DAVIDSON ACTING CHIEF CLERK: RILEY HAKODA
9	STAFF PLANNERS:BERT SARUWATARI DEPUTY ATTORNEY GENERAL: DIANE ERICKSON, ESQ.
10	AUDIO TECHNICIAN: WALTER MENCHING
11	
12	Docket No. A09-782 TROPIC LAND LLC
13	
14	For the Petitioner: WILLIAM YUEN, ESQ.
15	ARICK YANAGIHARA, Mgr.
16	For the County: DAWN TAKEUCHI-APUNA, ESQ. Department of Planning Deputy Corp. Counsel
17	and Permitting MICHAEL WATKINS
18	
19	For the State: BRYAN YEE, ESQ. Deputy Attorney General
20	RUBY EDWARDS
21	Office of Planning
22	For the Intervenors MARTHA TOWNSEND, ESQ.
23	Concerned Elders of Waianae: ALICE GREENWOOD
24	
25	

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CHAIRMAN DEVENS: Good morning to everyone. We're back on the record. This is a continued petition hearing in the Tropic Land matter, docket A09-782. If we could have the parties introduce themselves for the record.

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MR. YUEN: Good morning, Mr. Chairman, and Commissioners. William Yuen on behalf of Tropic Land, LLC. With me is Arick Yanagihara, project manager.

MS. TAKEUCHI-APUNA: Good morning. Deputy
Corporation Counsel Dawn Takeuchi-Apuna on behalf o
the Department of Planning and Permitting. Here with
me today is Mike Watkins.

MR. YEE: Good morning. Deputy Attorney

General Bryan Yee on behalf of the Office of Planning.

With me is Ruby Edwards from the Office of Planning.

MS. TOWNSEND: Aloha. Martha Townsend on behalf of Intervenors Concerned Elders of Waianae. With me is Alice Greenwood.

CHAIRMAN DEVENS: Good morning, to you all.

I understand, Mr. Yuen, that the witness that you had planned to call today had an emergency.

MR. YUEN: He had a medical emergency. I'd like to ask to be able to call him, I believe February 2 was the date indicated we would be next convening. So I'd like to call him on that date if we

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    can.
                                Sure, we'll do that.
 2.
             CHAIRMAN DEVENS:
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             MR. YUEN: I've informed the other parties.
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             CHAIRMAN DEVENS: Very well. Ms. Townsend,
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    you had was it three witnesses today?
 6
                            Yes, sir.
             MS. TOWNSEND:
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             CHAIRMAN DEVENS: Who are the three just so
8
    we're clear?
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             MS. TOWNSEND: Professor Jonathan Deenik,
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    Gary Maunakea-Forth and Lori Nordlum.
11
             CHAIRMAN DEVENS: Are you going to have any
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    more cultural witnesses in this matter?
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             MS. TOWNSEND: The only person remaining is
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    Kehaulani Souza. And she's not available until
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    February 2nd. We may or may not call her.
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             CHAIRMAN DEVENS: Just so you're aware
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    there's been a lot of cultural testimony in this case.
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    I think you've made the point that you wanted to make.
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    I think at this point it may become cumulative.
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    you may want to think about it if you really need to
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    call her. If you do it's your prerogative. It's your
22
    right to call her.
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             MS. TOWNSEND: Sorry to interrupt.
                                                  I was
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    going to say it would only be in response to what was
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raised by Petitioner, if necessary.

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1	CHAIRMAN DEVENS: Okay. Fair enough. So
2	your first witness is going to be?
3	MS. TOWNSEND: Professor Jonathan Deenik.
4	CHAIRMAN DEVENS: Dr. Deenik, if we can swear
5	you in.
6	JONATHAN DEENIK, Ph.D.
7	THE WITNESS: Yes.
8	CHAIRMAN DEVENS: Can you state your name and
9	address, please.
10	THE WITNESS: My name is Jonathan Deenik.
11	And my address is 84-192 Makao Street in Makaha.
12	CHAIRMAN DEVENS: Ms. Townsend.
13	MS. TOWNSEND: Thank you. I'd like to
14	qualify Professor Jonathan Deenik as an expert in soil
15	fertility. Are there any objections?
16	CHAIRMAN DEVENS: Parties have any objections
17	to the expertise of this witness?
18	MR. YUEN: Soil fertility, is it?
19	MS. TOWNSEND: Yes, soil scientist.
20	MR. YUEN: No objection.
21	MS. TAKEUCHI-APUNA: No objection.
22	MR. YEE: No objection.
23	CHAIRMAN DEVENS: So qualified.
24	MS. TOWNSEND: Thank you very much.
25	DIRECT EXAMINATION

BY MS. TOWNSEND:

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Q Thank you very much, Professor Deenik, for coming to testify. The Commission has read all your written testimony so we don't need to go through all of it. I would like to just focus in on one major point.

Can I draw the Commission's attention to Intervenor's Exhibit 3-I. That's the soil study conducted by Professor Deenik. Professor Deenik, in that study there are two tables. The first one refers to prime and other important farmlands.

And the second refers to dwellings and small commercial buildings.

Can you briefly summarize for the Commission the conclusions that you drew in this study regarding what is the most suitable use of this property.

A Okay. So this table here just gives us the map unit, the name assigned to each soil. I would like to point that LPE, LUA, LUB, LVB are all the same soil.

That's a vertisol in the higher level of classification. So those soils are classified as highly fertile, rich in nutrients. They're around the world some of the best ag lands in the world.

The PSA and PVC are molosoils which are

typified as another grassland soils so you can think of the Midwest, of the steps of Central Asia, very fertile, also highly productive. And you can see that the LUA/B and PS are prime land if irrigated. So water is a limiting factor in this area.

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LPE, which covers quite a large fraction of the area, is also a vertisol. So it has the properties of LUA and LUB Lualualei, but it is characterized by lots of stones.

So in terms of production the stones may interfere with lettuce, small crops. But tree crops, other crops are perfectly suited for this land.

In terms of dwellings these lands received the lowest classification primarily because the primary feature of these soils is shrink/swell.

Vert-i-sol. The name comes from invert, vertisol.

These soils invert themselves. That's because when they dry they crack. As they shrink they crack.

And as they crack and shrink particles, soil particles from the surface layer fall into the cracks. And then when they wet up again during the rainy season they swell. This causes an inversion.

So these soils are inverting themselves. So their primary physical property is instability. So I think... I'll stop there.

Q Thank you. Just to unpack your statement a little bit. When you talk about dwellings you're also groping in that commercial buildings, all kinds of construction?

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A Any kinds of structure, both roads, buildings. You have to take special precautions when you build any kind of road or structure on these soils.

Q And when you talked about the stoney nature of LPE soil, you talked about it's possible to grow things that also grow well with stones. And I've heard you explain in the past a removal of stones is a common practice in preparing land for farming.

A Yeah. People -- I work with farmers in Waimea, which is one of the most productive agriculture areas in the whole state, and initially those solis, if you read the classification, they're cobbley, cobbley endosols.

So a lot of farmers up there have spent quite a bit of time removing stones and rocks. But we know this is some of the best land in the whole state.

Kula, for example, you're well aware of Kula.

These soils are also characterized by lots of rocks.

Those rocks come from the pyroclastic activity of

Haleakala, Mauna Kea. So you talk to some of the old

time farmers there and they do say, "We spend a lot of time removing rocks."

- Q Okay. And just to be clear so the Commission understands, at least most recently -- how long have you been working with Lualualei vertisols?
- A Well, I've been a resident of Makaha since
 the mid '90s. I used to work on a farm in Makaha.

 And as since being appointed as a state soil fertility
 specialist at the University of Hawai'i at Manoa I've
 been working with farmers throughout Lualualei,
 Wai'anae Valley.
 - Q Thank you very much.
 - A Since 2003 in my professional.
- 14 Q Thank you very much for your testimony.
- 15 CHAIRMAN DEVENS: Cross-examination,
- 16 Mr. Yuen?

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17 CROSS-EXAMINATION

- 18 BY MR. YUEN:
- 19 Q Thank you. Dr. Deenik, have you inspected 20 the property that's the subject of this petition?
- A I have not gone on it because I just drove by
 it. Yes, I'm aware of the location and I've seen the
 property but I've not walked on the land.
- Q Basically is your analysis based on -- strike that.

What's your analysis and your testimony based on? Is it soil studies or...?

A Well, these tables -- my analysis was based first upon the Natural Resource Conservation Service or the Soil Survey 1973. That's where these tables came from.

Q Right.

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A And then interpreting these classifications is also based on my understanding and knowledge of the location.

Q But did you take into account terrain of the property, for instance?

A Sure. So a good portion of that property is a very steep land.

Q Did you take into account the presence of Ulehawa Stream on the property?

A There is -- I'm aware that during heavy rainfall times there will be water movement through parts of that land, yes.

Q Would that likelihood of water movement decrease the desirability of farming those portions of the property?

A Um, well, in any kind of farming activity a very important part of a Best Management Plan is to always consider water movement. So constructing berms

or using plants as barriers, but primarily reducing any kind of erosion would be of top concern on any farm.

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- Q Did you consider other factors like wind and pests in your analysis?
- A No, in this no. I just focused solely on soils.
 - Q Did you consider the availability of water, whether there is sufficient water available to this property for agricultural purposes?
 - A Yes. I don't know about the actual infrastructure for water. Water, of course, in all of Wai'anae Valley is of primary concern. It's probably the most important limiting factor for agriculture.
- 15 I'm aware there was a truck farm on this property some
 16 years ago. I don't know the details.

I'm assuming that without water you would be limited as to what kind of agricultural activity you undertook, but it would also, I'm sure, limit other activities on the land.

- Q I'd like to direct your attention to a bucket of soil from the property that I've marked as Exhibit 67. I'd like to have you take a look at it and pull out one of the rocks if you will.
 - A Sure, yeah. (Witness holding up a rock)

Q Is this kind of rock typical of the stones you would find in Lualualei extremely stoney clay?

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A Yeah, I wouldn't -- this doesn't surprise me at all.

Q And does the presence of rocks like that make farming difficult?

A Well, again, you know, matching crop type to the land would be a very important concern. I'd like to point, out, though, that, you know, probably by mass or by volume the amount of cultivable soil is in at least equal parts or more. (Witness holding up handful of soil)

Like I said earlier cultivating micro-greens that require a nice, smooth rock-free bed would probably not be the first crop a farmer would plant on this lands. But fruit trees, tree crops, egg plant, tomato would thrive given management, good management.

Q Management and removal of the rocks?

A Sure. This is of the LPE, the LPE soil type. This is one of its defining characteristics. That's why it's not classified as a Lualualei A or B, yes.

MR. YUEN: Thank you. No further questions CHAIRMAN DEVENS: City, questions for this witness?

MS. TAKEUCHI-APUNA: No.

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             CHAIRMAN DEVENS: OP?
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             MR. YEE: No questions.
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             CHAIRMAN DEVENS: Any redirect?
             MS. TOWNSEND: No, I think we're fine.
 4
                                                      Thank
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    you.
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             CHAIRMAN DEVENS: Commissioners have any
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    questions for the witness? Commissioner Teves.
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             COMMISSIONER TEVES:
                                   Thank you, Professor.
                                                          Τ
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    want to talk about you working with the farmers.
10
    my concern is why this piece of land has not been
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    farmed for such a long time except for that truck
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    farmer.
             They want to farm every place else but why
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    not this property?
             THE WITNESS: Well, I don't know the
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15
    conditions under which the previous truck farmer left.
16
    I mean there could be a lease issue.
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             COMMISSIONER TEVES: Yeah. Besides that
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    truck farmer, why no one else has taken a chance at
    farming that land there.
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             THE WITNESS: Well, farming is a difficult
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    endeavor to begin with. It's risky inherently.
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    There's at least 20 acres on this property
23
    classified -- as long as there's water it would be
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    classified prime ag land. At least 20 acres would be
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classified excellent farmland.

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That question is a very important one. And it speaks to a much larger issue with our society. When, why are there less and less farmers? So I'm not sure it's the property itself that's limiting the number of farmers and people farming but other sociopolitical concerns.

COMMISSIONER TEVES: Other factors besides the land.

THE WITNESS: Yeah.

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COMMISSIONER TEVES: Thank you.

CHAIRMAN DEVENS: Doctor, I had one question comes to mind. Is the soil composition on the Petition Area the same up and down that roadway with the neighboring properties? Because there are structures there.

We had a site inspection and there's various structures up and down the roadways. So I'm just wondering if the composition's the same or is it different?

THE WITNESS: Well, the soil varies along throughout Lualualei. The LPE designation that you see here tends to be found along the edges of the valley all the way around, all the way from the south side where this property is located.

CHAIRMAN DEVENS: "Edges" meaning what?

What's that?

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THE WITNESS: The edges meaning where the land starts to slope up towards the pali or towards the mountains. So along the margins of the flatland. So Pahe'e Ridge on the other side of the valley, which is directly north, has the same land classification.

Ka Wiwi Ridge in Waianae Kai has the same. And you find this soil type all the way down in South Honolulu, East Honolulu too, Niu Valley. It's probably due to the erosion from the pali and these rocks coming down and collecting in this toe slope.

CHAIRMAN DEVENS: So you're not saying it's impossible to put a structure up. You're just saying it may be more difficult and that the inherent characteristics of the soil have to be taken into account.

THE WITNESS: Right. I mean our engineers are capable of doing all kinds of things. But in this soil type they have to take special precaution. And you recall back in the '70s or '80s the problems with buildings sliding in Manoa Valley and East Honolulu, these are the soil types where that occurred.

CHAIRMAN DEVENS: Thank you for your expertise. Any other questions for this witness?

None. Thank you very much. Next witness.

1	MS. TOWNSEND: Petitioner (sic) calls Gary
2	Maunakea-Forth.
3	CHAIRMAN DEVENS: Mr. Maunakea, if we could
4	swear you in.
5	GARY MAUNAKEA-FORTH
6	being first duly sworn to tell the truth, was examined
7	and testified as follows:
8	THE WITNESS: I do.
9	CHAIRMAN DEVENS: If you can state your name
10	and address for the record.
11	THE WITNESS: My name is Gary Maunakea-Forth.
12	I live at 89-134 Haleakala Avenue in Nanakuli.
13	CHAIRMAN DEVENS: Thank you.
14	MS. TOWNSEND: I'd like to qualify this
15	witness as an expert in farming because of his
16	professional experience as a farmer.
17	CHAIRMAN DEVENS: Parties have any objections
18	to that qualification?
19	MR. YUEN: No objection.
20	MS. TAKEUCHI-APUNA: No objection.
21	MR. YEE: No objection.
22	CHAIRMAN DEVENS: So qualified.
23	MS. TOWNSEND: Thank you.
24	DIRECT EXAMINATION
25	BY MS. TOWNSEND:

Q Thank you, Mr. Maunakea-Forth, for taking the time to come testify. Just briefly, by way of background can you quickly describe your experience farming in Lualualei Valley?

A Just in Lualualei Valley?

2.1

Q Yeah. Or -- I'm trying to respect the Commission's time, so briefly outline your farm experience.

A Okay. Okay. Just for the record I was born and raised in Alteraroa, New Zealand. So by way of translation the folks down at the other end there might need me to go slow.

But I come from a farming community, born into a farming community in New Zealand. I've been in Hawai'i for --

Q Slow down. (audience laughter)

A There's things to plant. I gotta get outta here quick. I've been in Hawai'i for 22 years. I've been in farming in Lualualei Valley for around 10 years with Ma'o Organic Farms.

Q What position do you have with Ma'o Organic Farms?

A With Ma'o Organic Farms I was co-founder and currently I'm managing director of farm operations.

Q Can you briefly outline what Ma'o Farms

grows?

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A Grows? Well, firstly Ma'o Organic Farms is a social enterprise, a nonprofit organization that's part for-profit/part nonprofit. So we grow young people to be farmers, to be leaders in our community through a series of educational programs starting in intermediate school going through high school.

And I brought some young farmers today who are keen to get in here and meet you folks. They are in associate of arts degree programs or university programs at UH Manoa.

On the farming side we grow a diversity of things. We are certified organic. We were certified organic in 2003 on the first 5 acres we leased. In 2008 we purchased 11 acres, 11.5 acres, which was the neighboring property. A month ago, a month and-a-half ago we closed on another 7 acres. So this cluster of three properties is all on Pu'uwai Road in Lualualei Valley.

Being an organic farm, certified organic farm in the current rise of demand for locally grown products and locally grown organic products, we try to grow as big a diversity of things we possibly can. So we try and capture the market on a variety of different products.

The two or three products we grow are baby greens, salad greens, mixed greens. We have a branded a product called Sassy which is a mix of baby lettuces, baby arugulas, baby mustard greens. And we also grow kale. Things that you'd normally expect to grow in a colder climate like kale and Swiss chard we grow as well.

2.1

Q Thank you. Can you describe for the Commission the efforts that you've gone through as an organization to prepare the land for farming?

A Yes. So in 2000 -- well, Ma'o started in 1999 with a lot of research. In 2000 we started to look at pieces of land all along the Wai'anae Coast and Wai'anae Valleys. We had a lot of difficulty finding land to lease, not because of the price, just because we just couldn't find it. There was not a lot of opportunities to lease. We didn't have the money to purchase the piece of land.

Quite by a fortuitous set of circumstances we found a local church that had 10 acres. They were trying to do a development of their own on this property. And at that time the Neighborhood Board had advised them that if they were to farm half of that land their application for building would look a lot better.

So quite by chance we came along and were looking for 5 acres at that time. So they leased it to us on a 25-year lease. The development never came about because by funding. So the land is still -- their land is still fairly vacant.

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When we started on the first 5 acres it's two, two and-a-half acres sections kitty corner to each other. To look at a map of Lualualei Valley we are on the edge of Pu'uwai Stream which is a dormant stream.

Pu'uwai Spring, which is in the mountains above our farm, was tapped by the U.S. Navy for the U.S.— for the naval reserves. So they put about a 12-inch pipe into the spring and tapped that water source. So the river is now dry. It's not dry at this moment because of the rain. Has standing water in it.

So to prepare this land we not only had rocks because it's in the Lualualei series but also because it's a dry road behind it. So geologically there's rocks everywhere. So one of these young farmers, Dan Himani, who's now 26, spent the first two or three years farming, pulling rocks out of soil physically using a loader, loading them up, so buckets like that we have probably done hundreds of thousands of buckets

like, all rocks.

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So we removed them. Some of the big rocks you use for landscaping. So if you drive to the farm you'll see them. We look at these things as an opportunity, not as a deficit.

The smaller rocks we could walk you through a giant mound of them. So there's a lot of soil preparation. Also in an organic setting there are preliminary things we needed to do for the organic certification. In our management plan we needed to show how we were going to add fertility to the soil over and above what was already present in the soil.

And the biggest fertility issue for farming is nitrogen. So we needed to find a source of nitrogen. So we used chicken manure, steer manure and now bonemeal, blood-meal. The 11 acres we purchased in 2008 was a former chicken farm. We inherited about a hundred, 150-tons of chicken manure, aged chicken manure so it's gold to us. (Laughter).

So the process of preparing this land would be that you'd run a ripper on a tractor through, continually through the soil. It helps to pull the rocks out. You remove those rocks by hand. Today we would probably rent a piece of equipment.

There's various pieces of equipment you can

use to help pull rocks out. But we were a bit younger at that point and we were keen on pulling the rocks out.

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The other thing about organic farming as an overlay to Lualualei vertisol soils is the idea that you are wanting to increase the organic matter in your soil so you have long-term fertility and you increase the biological activity.

The three parts of soil that people usually deal with are the geological facet, the chemical facet and the biological facet. So in an industrial ag system the biological component of soils is generally very, very low and weak because of continually farming the same crop or continually using the same fertilizers.

So what we've tried to do is use mulches, manures, covering cropping, using legume cover crops to increase the organic matter content in the soils. So generally soil's, Dr. Deenik can tell you, 2, 3 percent organic matter.

If you're able to increase that by just a tenth of a percent or one percent over a long, long period of time you're incredibly -- you're increasing the soil fertility incredibly.

You're increasing the mineralization, you're

increasing the ability for soil to deal with large water situations like we have right now, be able to absorb large water situations, and then to provide you with long-term fertility so you would be less reliant on fertilizers over the longer period.

- Q Thank you. So you're familiar with the property that's proposed for the industrial park.
 - A Yeah.

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- Q In your opinion would this area be -- could this area be used for farming?
- A Sure. If we were to look at a piece of property to lease it or to buy it and we hadn't walked the property, kicked the tires, dug a hole, and done some soil tests, the first few things we would look at would be: Has someone farmed it before? That would be critical.

And if somebody hasn't farmed there for the last three years it's an ideal situation to be organically certified. Generally if a farm has been used in a chemical situation, you'd have to fallow the fields for three years or just use the fields and transition them to an organic situation.

Folks that are doing this right now Marilyn Opai is doing this with land right now. So we would look at if someone's farmed the land before and what

they would be on. We would look at things like security. Obviously there's a lot of theft in agriculture right now. So, can we get someone to live on the property? Is there a caretaker? Is there fences? What are the neighbors like?

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I've looked at tons of properties in

Lualualei Valley to lease and buy, the last 10 years.

One I looked at Pa'akea Road. One of the neighbors

was notorious for breeding dogs for fighting. So I

didn't want to think about even renting that property

because this guy had six, 16-foot high corrugated

fence down one side. So that was a bit worrying.

So if one's farmed there before, security.

You know we would do some research just like, you
know, we'd call a soil scientist, call the University
of Hawai'i ask them what has been farmed before there.

Those kinds of three things that would just jump out
straight away. We would try to get on the property,
do some soil tests in various places, run a tractor
through the soil and just see how rocky it is.

In the late '60s in Lualualei Valley there was a Japanese farmer on Kuwale Road who actually owned a piece of equipment that he used to lease himself out to farmers to pull rocks out. So basically a piece -- you can think about a front end

loader with grates in it.

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Instead of picking up soil the rocks drop through and the big rocks stay in it. So he had a couple of pieces equipment that he leased out to people.

So on the three properties that we had, the church property we lease that's five acres, that was never -- most of that was never farmed before. So that was a very intensive rock pulling.

On the 11 acres we purchased that was owned by the Takahashi Chicken Farms. So they had subleased some of their lands to be some of the farmers around our community.

So some of the rocks had been pulled. So when we -- rather than the ripper through we looked at wow this is much better then the five acres.

The seven acres we purchased was owned by a Japanese lemon grass and basil farm. And they produced those crops to refine them for essential oils. That was until the '80s. It was a Japanese corporation. I think it was one of their pet projects. It stopped and the land sat idle for 20 years.

It was purchased by a guy who was a mechanic. It had a nice warehouse so he wanted the warehouse and

he didn't want the 7 acres. So over the course of a couple years we talked him into buying it.

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Q Thank you. You've heard some of the Commission's questions in regard to farming in the Lualualei Valley. I was wondering if you had any comments to share with the Commission about the challenges of encouraging young farmers in perpetuating the farming traditions in this area.

A Jeez, well, first and foremost I mean I come from a country that farms. My town farms. It's like it's something that you would naturally do. I sometimes try to compare it to surfing. If I was to ask the neighborhoods for a surf board on my street invariably most of them would have a surfboard. It's just part of their culture.

If you go to my hometown in New Zealand 9 out of 10 people are somehow connected to farming. When you grow up as a kid, one of the jobs, careers that you consider is going to be agriculture, if you grow up in a rural area.

In Hawai'i that's very different. The plantation era was kind of defined by escaping from agriculture, you know. Kids of plantation workers were sent to university to become accountants, mechanics, engineers, whatever, to get away from

growing sugar and then pineapple.

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where we feed ourselves is very difficult. Hence, we have the situation where we import, some people say anywhere between 75 and 85 percent of our food. So that's why we haven't. We haven't grown our own food since — Hawaiians grew their own food since Western contact. We haven't grown our own food to any large degree. So that's the context we're in.

So how does this pan out in a region like Wai'anae which still considers itself rural? Well, we have school gardens as one way to introduce kids to gardening. But soil is a way to teach science and math and whatnot, environmental studies.

When we go to the intermediate school and the high school, even though we've been there 5 -- I think 10 years in the intermediate school and 5 years in the high school, the teachers, the principals generally look at the garden as something they would simply send their special education kids to, very sadly.

That's something they would send the kids that are alternative learning center kids, not where they would send their gifted and talented students.

So they think of agriculture as something that, you know the backward kids go to, the kids that

are troubled. That, first and foremost, is a real problem. So we don't have the best kids wanting to be farmers.

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There are isolated incidents where this is not the case though. If you look at -- there's a restaurant just around the corner downtown that we sell a lot of stuff to, Ed Kenney's the owner. He was a Punahou graduate. He just did a dinner for the Punahou funders. And he used all farmers that had a connection to Punahou. So Paul and Charlie Reppun who grow taro, Mark Hamamoto who has Mahalo Farms in Waialua. We have four kids. Our fourth youngest daughter got into Punahou. So he used some of our stuff.

So the context is changing and it's changed in the last 5, 10 years in Hawai'i because we have this giant demand for local products, not just local organic products but local products from individual people, from restaurants, from -- Whole Foods has changed the way groceries look at local foods in Hawai'i.

And the response has been -- has started to be phenomenal. So you have folks like Hamakua Mushrooms, Hamakua Springs, Twin Bridges doing asparagus. All these farms that there are really

employing very innovative crops, innovative farm management. They're accessing capital in interesting ways, getting grants, building industry grants, working with USDA. And they're really trying to think of agriculture way out of the box. That's really where Hawai'i has to go.

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So in the context of how do you get young people to farm, all of these things are going on that are very complex. I mean to not degrade Jonathan's employer, the University of Hawai'i College of Tropical Agriculture hasn't done a good job at this. They're still people who grow industrial crops.

First there was sugar, then there was pineapple, genetic modified corn seed. And now it's biofuels. So we are going to be producing people that can do the research and maybe can run a few farms out of University of Hawai'i. But we are not going to produce farmers.

So our response to this is well, firstly, in our training of farmers we really don't bring kids to the table and say, "You're going to be a farmer." We say, "We're doing this training so you can become a leader in your community, so that you can become an educator, a business owner, whatever. Whatever you want to be you should envision for that. But you

should work your guts out to get to that place."
Yeah?

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So when we work with intermediate school kids, high school kids, we work them on the farm, we work them in the school gardens. We pay them stipends. And we hope to show them there is a possible pathway for that. How that has panned out for us, we now have two young people who I brought here are 26, and 21 both Native Hawaiian, both born and raised in Wai'anae, one's a Native Hawaiian woman, who are full-time farmers.

So now our farm is profitable enough where we can pay them what we consider to be a really good wage, a starting wage for a person that graduates our programs that comes into the full time farming position. And we also pay college tuition.

So to the benefit package includes full-time college tuition. The starting wage for a full-time farmer is 16.50 an hour. The average wage right now is 13.25. We're able to do that because the farm is very successful in both growing and diversity of crops. But also because we're direct marketing through farmers markets, through community-supported agricultural programs.

Q Can you explain for the Commission how much

Ma'o Farms is making and what you see the demand for locally grown produce?

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A This year -- so we've just got 23 acres. We really only farm if -- you net out the amount of land we farm by square footage we probably only farm 3, 3 and-a-half acres. Last 2010 we grossed \$499,000. So close to half a million dollars. With the 23 acres we are projecting 2012 to hit a million dollars in farm sales.

What was the second part of your question? Sorry.

Q The demand for locally grown produce?

A Well, the demand. God, the measurement it's a moving target. It keeps going up. So it's incredible. The advent of farmers markets from Hawai'i Farm Bureau, farmers markets to -- there's private farmers markets now too, has increased radically.

The advent of -- from the early days with guys like Dean Okimoto would sell to Roy's. And he tells the story of how Roy's completely changed his father's farm through to Alan Wong, and now Ed Kenney.

And now it seems like if you want to be a successful restaurateur in Hawai'i you would connect with farms and connect with farmers, sell their

products feature their products. Convince -- what we have restaurateurs now in a situation where they try to convince us to grow other things they can't get.

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So our market research for new crops -- so we run probably 45, 50 new crops is based on these relationships with farmers. Now -- so the advent of Whole Foods who now has two stores in Hawai'i, has changed the grocery business in Hawai'i as well.

So you now have guys like Foodland have really now altered their marketing and planning business plan and have produced stores like the store they have in `Aina Haina. Then the Costcos, you have Whole Farms, Hamakua Mushrooms to name two. I think Twin Bridge sells some of their stuff sometimes to Costco. You can get local product to a large degree in a lot of these really conventional places.

Our marketing plans call for more farmers markets, more community supported agriculture.

Community support of agriculture is a consumer commits to buying box of vegetables from us. We sell a box of vegetables at \$32 a week. They commit to buying 8 weeks from us. And they don't know what's going to be in their box.

It's a random assortment, a diversity of products. So last year was the first year we really

committed to the CSA model.

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Of half a million dollars of sales I think about 185, \$190,000 was CSA. So we're building upon that to direct market to local customers. We have every man and his dog asking us for food.

In a couple days the new executive chef from Disneyland, the Aulani Resort, will be coming out. So we have chefs visiting all the time. We're not able to provide for them. We have stuck pretty religiously with about 16 customers. And those 16 customers have grown exponentially every year.

I think in the worst part of the economic crisis most of our Waikiki customers like Nobu Restaurant, grew 20 percent. They purchased more product from us within the economic crisis. So they've had decent success and they're still operating.

- Q Just to unpack your testimony a little bit, you see a rise in the demand for locally grown produce.
- A Yes.
- Q And the supply currently of locally grown produce cannot meet the demand.
- A No, not at all. The supply is a complex issue. It's not just land. It's not just water.

It's not just farmers. It's a convergence of all these things. So if we look at this and say let's grab the silver bullet, put in the gardening, fix the situation, it's not going to work.

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So the Legislature right now and the new administration is trying to figure out how they both meet this economic opportunity and also preserve farmland and also, you know, augment the tourism industry.

Because this local food phenomena is definitely related to the tourism industry in that the quality of food we sell to the 6 or 7 million people that come here is really important now. Few years ago it wasn't. Used to joke that the best meal you used to get in Hawai'i was on the plane coming over here.

And now a lot of that's changed. You talk to guys like Alan Wong or Roy. I'd say most of the tourists that come here from Japan, especially, spend seven days here, one of those dinners is going to be at one of those restaurants. And they will plan ahead and that will be a big event for them.

Q Let's turn our focus now to the property that's proposed for the industrial park. Can you articulate for the Commission what your concerns are if an industrial park is allowed to be built there?

A We look at Lualualei Valley as a real possibility for the future of agriculture in the state and on O'ahu. There's a few things about Lualualei Valley that are real -- that's huge opportunities.

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Firstly, is Lualualei vertisol series soils is good. When we looked for farmland we looked at lots of places. When we tried to get Lualualei soil it was difficult. We tried to lease land in different places. When we finally secured the first lease it was the ideal situation for us.

Because we had done a research of our soil, soil scientists, we'd read -- there's a few things that are probably Jonathan's advisory staff, Professor Gordon has written about Lualualei veritsol series.

And we've done some research. This is where we'd like to be.

The second thing is I'm not born, raised here but the group of people that started Ma'o, including my wife, were born and raised in Wai'anae -- born and raised in Nanakuli.

So the idea of doing something in a rural area that supported youth, that created jobs, built an industry was very, very important. There's a whole lot of other contributing factors that make this valley potential.

You know we joke with -- we have lots of visitors. We joke with guys like the Campbell Estate folks who used to own a lot of Kunia land. And they were one of the big landowners we talked to about trying to find some land at one point about Lualualei Valley being the Tuscany of O'ahu because it has some of those attributes.

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I mean you drive through now there's poor development, there's trash, there's all kinds of other things, but it has a lot of potential. The other thing it's one hour away from a huge market.

The issue with farming on the neighbor islands it's still one where you're paying 50, 60 cents a pound to get stuff to O'ahu. We have to get stuck in traffic like you folks. So the market creates the market. The community too.

Wai'anae now, after the last census, is going to have close to 50,000 people. I believe close to 40 percent of those are under the age of 25. We have a huge pool of kids, many that are unemployed looking for work. So we have a labor force.

If you've read the things that are happening about guys like Aloun Farms, and the problems that other people have with finding labor in Hawai'i, we have none of those problems. We have never -- we have

to beat people off with a stick for jobs.

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We have folks from -- I just checked my e-mail last night and there's a woman who graduated from UC Santa Cruz, which has a great agricultural program. She's looking to volunteer on the farm. To volunteer. Not get paid. And we're still thinking whether we want to have her on the farm or not.

We will interview her just as we interview anyone for a job because we -- our focus is on young, local kids and building their capacity.

Q If the industrial park were allowed to be built in this area, in your experience what would be the consequences of that for the neighboring areas?

A Well, I'm worried at the precedence, yeah?

This is an agricultural valley. We want to keep it in agriculture. And we have all kinds of opportunities that I think are gonna arrive in the next few years.

One of them is Lualualei Naval Base. And that's over 7,000 acres of prime ag land.

Prior to the gubernatorial race we talked to all the candidates; asked them, "What are your views on this base?" This base was going to be closed in 2001, 2002. And through changes in the military this base is not of prime importance now. The layed off a lot of people in the late '90s. So it's kind of a

ghost town on the base now.

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We drive around this base down Ma'ili Road across Pa'akea Road, down Hakimo Road all the time daily, twice daily. And so the precedent in this sort of suggests that this farmland, this area is not important for agriculture.

The concern I have with folks that are evaluating this area and saying that it's not good farmland are, you know, very provocative to me, very -- it's insulting because we can pull a lot of vegetables and fruits and everything out of this valley. And we can do it in a way that creates jobs.

So I'm real worried about the precedent. If this one gets passed, where's the next one, the next one? I would like this valley -- I'm not really concerned with what the state tells me is prime agricultural land. I know how to farm. I know how to sell products and how to build a business plan. I think I can do it in pretty much a lot of places in this valley.

Prior to us purchasing the eleven acres when we were just leasing five acres, we looked all around the state for land because we couldn't find it in our own valley. I talked to David Cole, Maui Land & Pine. He showed me thousands of acres on Maui.

I talked to Keala Lloyd at Campbell Estate.

He showed me hundreds of acres up Kunia Road. I

talked to Neal Hannes who's now on the board of Ma'o

who's head of land management for Kamehameha Schools.

He showed me land in Haleiwa and Punalu'u.

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I could not find land in our valley. And I wanted land in our valley because I knew the soil was good. That's where -- our home.

Q What were the obstacles to finding land in the valley?

A Well, you couldn't open the newspaper or get on Craig's List and see if a lease classified boards. This land's for lease, this land's for lease, this land's for lease. The way you find land to lease for a start if it's cost effective is through bruddah bruddah kine. Yeah? Just who you know and keeping your ears open and asking lots and lots of people.

To purchase land there's not a lot of land in Lualualei Valley that's to purchase. You can go on the real estate pages and look. There's as close to this land I think there's a pig farm on the corner of Hakimo and Pa'akea Road now for sale for around 890 --900,000.

But for farmers to purchase, when we bought the eleven acres we worked with the Takahashi family

for about 12 months. When we -- our heads talked to Pat Takahashi who was the father who was selling the land. So for 6 months to gain his trust and tell him how we would like to purchase it -- because we didn't have a million dollars sitting in our bank. We had to go out and try and raise that.

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So I asked him to be patient and what we were going to do with that. And the first meeting we had with his realtor, the realtor said to him, "You realize this is 11 acres and it's Ag-1. You can chop this in two and put a house on each one and sell it for a lot more."

And he told me, "Well, I want to keep this in farming." He was -- without his support we wouldn't be able to buy it. So from a landowner you need a lot of support, a lot of support.

Q Thanks. I'm just going over my notes. I noticed is there anything you'd like to say about the new program you developed at West O'ahu -- UH West O'ahu in regards to trying to raise young farmers?

A Oh, okay. It's just indicative of the demand. When we started the farm we started it on the basis of having job training programs. So young people would come in for 10 months and they would train. We would turn them out into something related

to farming because there were not a lot of jobs in 2001, 2002 in farming. So we heard they became landscapers, who knows.

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Our goal was to create a relationship with Leeward Community College whereby we start an associate degree program in community food systems. So we've started that. We've graduated probably 30, 40 kids out of it. And we currently have 24 young people enrolled in community college. So they do an associate of arts degree program, they do specialization of community food systems.

So they study, they have an introduction to organic ag class. And I'll add that the University of Hawai'i at Manoa prior to this did have an introduction to organic ag class in Tropical Ag. They have not yet built an organic ag program.

They're trying to, a class, in community food systems, community food security one of the issues in Hawai'i, one of the issue if the boats stop coming.

And then the directed reading so we can overlap things like community health with agriculture so young people do that.

They graduate. We try to put them into 4-year university situations. Charise (phonetic) in the yellow T-shirt has just started her first semester

at UH in Hawaiian Studies. And she's full time at the farm and full time in school. So you can imagine her time is pretty well occupied.

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So now with the buildout of UH West O'ahu,
Gene Awakuni approached us about nine months ago to
create an agricultural program at UH West O'ahu. At
that point we said to him, "We do not want to create
something like Tropical Ag. We want to create
something that's really unique, innovative, something
like the programs you see at UC Santa Cruz or Earth
University in Costa Rica, or Prescott University in
Arizona, something that really does graduate farmers,
does graduate farmers who want to do organic
agriculture, look at real niche crops, be able to
manage farms, be able to work on a farm."

And so that conversation has led to us now developing a program with various partners involved at the university. This will include a farm on the West O'ahu campus.

So we're currently in discussions of building that program. We have had funders like Kellogg Foundation come out to have a look at that, the possibility of that. So it just really to me illustrates there's demand for people who want to be farmers. When I hear from people that young people

don't want to be farmers, you know, I can roll you
through the farm and show a bunch of people that do
want to be farmers. Not only want to be farmers,
they're prepared to work in farming for a period of
time to get into a better place. Which is what rural
areas did, I think, across America and New Zealand.
It's like a kid after school went to work on the

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chicken farm.

My upbringing in high school was I worked on a chicken farm, worked on a dairy farm, worked making hay. My uncle had a blueberry farm, all these farming situations. And when I got out of college I wanted to play rugby. I ended up working for a bank in Foreign Exchange. I wasn't in farming.

But you come back all the way around sometimes. So this clearly shows to me there's demand. There's no demand to work on a sugar plantation. There's no demand to work on a pineapple plantation. I'm not even seeing demand to work in biofuels yet. But there's demand to work on these kinds of farms for sure.

- Q Thank you very much. Is there anything that I may have missed that you want to say?
 - A I think I'm talked out. (Laughter)
 - Q Thank you very much. I'm done.

1 CHAIRMAN DEVENS: Mr. Yuen, your 2 cross-examination. 3 MR. YUEN: I wanted to set up my slide 4 projector. Perhaps we could take a recess while I do 5 that. CHAIRMAN DEVENS: We'll take a 5-minute 6 7 break. 8 (Recess was held.) 9 CHAIRMAN DEVENS: Back on the record. 10 Mr. Yuen, your cross-examination. 11 CROSS-EXAMINATION 12 BY MR. YUEN: 13 Mr. Maunakea-Forth, I'd first like to 14 congratulate you for the success of Ma'o Farms. I 15 think everybody on the island has heard about the good 16 job that you've done. 17 I wanted to first direct your attention to an article that appeared in Hawai'i Business Magazine 18 19 that I've marked as Exhibit No. 6 on Ma'o Farms that 20 appeared in November. You were quoted in the article 2.1 so may I assume that you've --22 CHAIRMAN DEVENS: Can you give him a copy of 23 the exhibit so he can follow along. 2.4 MR. YUEN: Okay. Sorry. 25 THE WITNESS: This is a photo of me.

Q (Mr. Yuen): I assume that you cooperated in preparing the article.

A Yeah. Depends what I said though. (Audience laughter)

- Q I'm not gonna ask you any direct quotes from the article. But the article basically explains how you operate. I wanted to just make sure I understand correctly. Are you a nonprofit, tax exempt corporation?
- 10 A Yes, 501-(c)(3).

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- Q So basically part of the success that you've had in growing Ma'o Farms has been the result of grants that you've received, is that correct?
 - A Through multiple funding sources, yes.
- Q And if you were doing this kind of operation on a for-profit basis would you characterize your operation as being profitable or running at a loss?
- A I would be taking more hot money home I think. The honest money is that I think we would be more profitable because we spend a great deal of our time educating young people. So we have a whole set of kuleana, a whole set of responsibilities over and above just farming. So teaching.
- Q But in order to get started, when you first started the operation and you first bought a piece of

property, did you rely on grant funding for your operations?

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A Oh, absolutely. To start any business in Hawai'i, whether it's nonprofit or for-profit you're going to need money to start up. You're going to need equipment, all kinds of stuff. So we accessed those funds through grants, yeah. And at various times we have done that as well.

So to purchase the eleven acres we accessed both the state legacy lands program, which is a conservation program which funded us to the amount, I think, they funded three quarters of the land purchase which was 736,000 I believe and change. And we matched that — we had a matching grant of \$750,000 from the Pierre Omidyar Family Foundation who are currently doing lots of for-profit and non-profit capitalization of projects in Hawai'i.

- Q You've said that you presently have 24 people in your training program now, is that correct?
- A Twenty-four in specifically the associative arts degree program.
- Q Okay. Are all of your -- let me rephrase that. Do you have, in addition to people in your educational program who you pay stipends to work on the property, do you have a lot of salaried employees

1 at the farm?

- 2 A Yes.
- 3 Q How many of your graduates are presently in 4 farming?
 - A Are presently in farming?
 - Q Yes.

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- A Farming directly, commercial farms?
- 8 Q Working in agriculture.
 - A Working in agriculture some people have defined golf course as agriculture in Hawai'i. To take it to extreme. But to do the things that we are doing right now we have rehired two full-time people ourselves. Most of our graduates are working in associated fields, not in agriculture.

So, for example, there's a young woman who graduated from our program two years ago. She works on Maui for a group that does school gardens. So it's like an educational program.

Another young man who graduated from the UH with a history degree after graduating with an associates degree is doing a sustainability guide, a guide to sustainability that allows businesses doing LEED Certified projects or various things for consumers to get discounts.

If your question is are a lot of the

graduates going into farming or other fields? No.

The honest truth of that is that firstly if they were going to work for other people there needs to be jobs.

And there's just not that many jobs.

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In this article I mentioned the situation with Aloun Farms. And that shows the highest, biggest problem here. Is that if you're going to run a farm like that where those guys haven't -- they haven't had their day in court yet so let's just assume they're innocent -- but if you're going to have those situations occurring you're going to have a hard time attracting young local people to jobs in the field because the perception is it's exploitive.

So the majority of young people, young, especially young males who you would presume would work in, like, heavy industry or in agriculture, tough guy kind of professions, generally go to Campbell Industrial Park or Kala'eloa to get jobs there in warehousing or in those kinds of fields. So it just doesn't exist yet, those jobs.

The second part of that is, is that if you want these young people to start businesses of their own there are hurdles to that. Obviously I've illustrated some of them on the record. The problems of getting land is a huge problem in itself. And then

the problems of capitalizing, saving up enough money to buy the equipment you need for that.

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So if you go back to your question prior, the reason we access grants is both my wife and I have graduate degrees. And we ourselves were thinking about this in terms like if we want to go into farming, which is 1996 or '97 when we were surmising for ourselves whether we would go into farming or not. We didn't have the money to do that. My wife is working in nonprofit for a long time. And her goal was to do this kind of project.

Got a bit off the track there. Did I help you out with that question?

Q I wanted to just turn to your property and the Tropic Land property, what I've marked to the Commission as Exhibit 80 and the slide on the wall. Is this map an accurate reflection of the location of the Ma'o Farms' property?

A Yeah. Can I just leave the microphone for a second and I'll point out --

Q You can take the mic with you.

A Rock star. Okay. So this land is owned by the community of Christ Church. So, they -- this whole portion here, we leased initially this two and-a-halfish acres, and that mauka two and-a-half

acres.

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Let me just carry on this further by saying this is the eleven acres next door that we purchased. So adjoins it. The seven acres that we recently purchased is right here. This contour line here is Pu'uwai Stream.

So the difference between this land and this land when we farmed it, the amount of rocks in this land here, ah, twice as many rocks probably, rough estimate.

As we go from the front of the eleven acres to the back, the number of rocks increases mainly because the geological feature. And Pahe'e Ridge is right about -- here's Pahe'e Road. It starts right here. So the elevation increases from around about here. We have a deep -- there's another contour here. We have a deep gully right about here.

Q What is the soil type of your farm, the predominant soil type?

A Predominantly all the soil is Lualualei vertisol. But as you get into different areas the soil has been geologically conditioned differently. So the characteristic of Lualualei vertisol is very black adobe clay soil.

So that's here -- I'm sorry. That would be

here, and all these areas here. But as you get closer to the river it changes, the color changes browner and the rocks get smaller.

- Q Now, as you get further makau, the LPE soil that's the more stoney soil, is it not, above --
 - A This way?
 - Q The other direction.
- A This way?

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- 9 Q No, no, no. That up, yes, up. Is that the 10 LPE soil, is that a more stoney soil?
- A Well, for us the best soils we have are towards this direction.
 - Q Taking a look at the next slide, the proposed industrial park location, is that a different soil type from the soil type for Ma'o Farms?
- 16 A Well, some of it looks the same.
 - Q Turning to the Land Study Bureau classification and the Agricultural Lands of Importance Study by the state of Hawai'i, what are the productivity ratings of the predominant portion of
- 21 Ma'o Farms?
- 22 A You're asking me the state productivity 23 ratings?
- Q Yes. Or do you know or do you care?
- 25 A I've not farmed the Tropic Land side. I can

1 | tell you what our productivity levels are.

- Q I'm pointing to what has been marked as Exhibit No. 79 I believe.
- A Oh, I see what you're saying. So you're saying we're partially on A, B and E, correct.
 - Q Correct.
- 7 A Yeah.

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- Q Well, no you're on A and B, are you not?
- 9 A Well, we just bought this seven acres which 10 are 50 percent on E.
- 11 Q Oh, okay. But the portion that you're
 12 presently farming is predominantly A and B, is that
 13 correct?
- 14 A No. That's wrong. We farm 2.5 acres here, 15 that's A.
- 16 Q Okay.
- A We farm 2.5 acres here, which is, mainly
 looks like it's B and then a portion of A. And this
 whole piece of land which we purchased is B. Then the
 new purchases looks like it's 50 percent A and
 50 percent B.
- Q And is the bulk of what you presently farm and consider prime agricultural land?
 - A Under whose definition?
- 25 Under the State's definition.

- A Is that this here?
- Q Yes.

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- A I can't tell. I'm guessing it's gonna be prime, yeah? If it's not I'm going to go down straight after this I'll tell you. (Audience laughter).
- Q Okay. Next, with respect to the Tropic Land property are you aware of what the classifications are?
- A You know, the classifications you can talk to Jonathan about, Dr. Deenik. But in my world I talk about what I can grow, yeah, not necessarily am I gonna run around the community leasing or buying land that has a certain classification? Not necessarily.

If it's Lualualei vertisol, which a lot of the soil in our valley is, predominantly, you can double check with Dr. Deenik, what I'm going to look for is because we are a certified organic farm are some other factors as well. And I've already put them on the record.

The other things I'm going to look for is the part of our model that's successful we feel is that we grow a diversity of things. We're not stuck in this rut of just sugar, just pineapple, just bio-crops.

We can move and be flexible around a whole

bunch of different products. And we're not happy sticking to that one product. If we were to rely solely on the salad mix we grow we would risk -- we would risk going out of business. Simple as that.

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So when I would look at a piece of property I would look at what I can grow as diversely as we possibly can.

So elevation, for example, to me provides opportunity, provides opportunity to grow things like avocado trees, which on fact land in Lualualei Valley has a heck of a hard time growing because avocados need good soil drainage, same as papayas.

So on an organic farm and sort of a truck farming or road cropping or mixed use what we do we would rely on creating microclimates. So trees as both a wind break and as to provide cash to business are really important. And you can drive around this entire valley and you can see that no farms have planted windbreaks for trees.

Why did they not do that? Maybe they didn't own the land. Maybe they didn't know at the time it was important. Maybe the University of Hawai'i Tropical Ag didn't tell them to do that. Because when we started, the University of Tropical Ag told us, "Just grow green onions, just grow parsley."

I said, "What about carrots? I kind of like carrots." And they said, "No, you can't grow carrots." So we now sell carrots to Roy's.

(Laughter)

So what the point I'm trying to make is that I would look at this land not going through all these specific subsoil classifications, but kind of dig a hole, put something in it and get some money off of whatever would grow and at the same time can provide a fair job for someone like these guys in the community.

MR. YUEN: Thank you very much. No further questions.

CHAIRMAN DEVENS: Any questions, City?
MS. TAKEUCHI-APUNA: No questions.

CHAIRMAN DEVENS: Office of Planning?

CROSS-EXAMINATION

17 BY MR. YEE:

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Q Thanks for your testimony. I noticed in your written testimony you indicated that the soil location and topography of the Petition Area would lend itself to, I think what you said is, "the successful planting of diversity of orchard trees." Do you remember that?

A Yes.

Q Do you have an estimate of the amount of time it would take from the first purchase of the land to

the first sale of an orchard crop? How long would that take?

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A From our experience we've -- it's the initial thing you do. The first thing you generally do is while you're preparing soil for the salad greens and things like that you're planting trees. 'Cause obviously trees take a little bit longer to grow.

So we've purchased most of our trees, which are grafted trees from Planet Hawai'i, which is in Kurtistown, Hilo and they're probably the largest purveyor of commercial fruit trees.

In the citruses that we grow we've pulled citrus off and sold it after two and a half, two and a half to 3 years. Mango's 4 or 5 years. I've killed more avocados than I can possibly think, unfortunately, which is why I look at elevation and think wow, what an opportunity.

But obviously you're talking also about a lot -- a different yield, dollar yield, pound yield from an acre of orchard trees than you are from more intensely planted salad greens or even cabbages and stuff.

Q So it would take a range but some of the earliest crops will come in after three years after planting, as soon as three years?

A As soon as three years. I mean if you -this is what we did. The first thing what we did was
we tried to put stuff in the ground and get money the
next month out of it. That's the way farming
generally works around the world.

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So arugula we can put in the ground, pull it out of the ground and sell it to Alan Wong in 20 days, 21 days. So it ranges upwards.

As Dr. Deenik pointed out it's also a water issue. Orcharding provides the opportunity to use a lot less water. So drip irrigation systems, even catchment water systems. We just had 10.7 inches of rain in 16 days. We didn't have the ability to catch that.

But if you look at Lualualei Valley the geological times there are two huge catchment areas m one on the base that the Native Hawaiians used to grow sweet potato and taro. And there's not enough archeological studies done for that. You could be specifically for orchard trees after three years I would say.

Q And Ma'o Farms got much of their beginning capital for the purchase of the land from grants. But if you were to organize your own private farm, or if one of your agricultural workers wanted to start their

own farm, most of them would have to go to a bank, right, or some type of financial institution for a loan?

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A They'd have to rob that bank probably.

(Laughter). And I'm serious. Because banks aren't financing farms. I don't know where that rumor started. We just -- the seven acres we purchased we had \$150,000 given from a trust for public lands supporter. And the other part we financed ourselves through Hawai'i National Bank and the State Department of Ag. And it was nine months work to get that money.

I don't know. I think the best way for a young person to become a farmer, given the technical abilities, some cash saved up, would be to have land already.

And Dean Okimoto has been -- is the poster child of that. His father had land. He came back with a college degree. So he had some technical abilities, maybe not necessarily farming technical abilities but certainly some business acumen. And he may have begged, borrowed or stole some money and he found someone to support him.

So in many cases in diversified agriculture in the last 20 years as it's developed, the situation has been that farmers don't sell their products to the

end user. They sell it to the distributor. So they generally don't get the best dollar they can get.

And Dean Okimoto showed that you can make a lot of money off three acres by direct marketing straight to the restaurant which is what folks like us are trying to emulate.

Q Well, the model the state is looking for is not to be dependent upon nonprofit farms obviously. So I want to focus the questions on those who aren't going to be able to get the kinds of benefits that a nonprofit might be able to get.

And I guess my question deals with the link between the lease term that's necessary and the financial payback or the financing term that's going to be available to private entities.

So with that in mind, I guess my question is:

How long would the -- let me backtrack. Most people,

most farmers would need to get their property through

a lease rather than purchase because they just can't

afford to purchase the property right away. Is that a

fair statement?

- A That's correct. But there's obviously --
- Q Exceptions.

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A -- exceptions to that. In our valley,
Lualualei Valley, some of the more, more active,

successful farmers right now are those that are
growing basil, basil for export. And they're
generally able to do that on short-term leases. And
so they're very intensively with minimal
infrastructure development. So the cost is obviously
lower to start up and get a return.

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Q But with respect to the agricultural industry that would be the exception rather than the rule to have a short-term high intensity crop with minimal capital investment.

A The short-term leases are probably not the exception. They're probably pretty common.

Longer-term leases, so to break up what you just said -- for someone, I mean obviously the goal is to get as much money out of the land as quickly under the situations you're describing.

The cost, you know, obviously trying to keep your costs as low as you possibly can. So lease, paying interest or principal doesn't really matter.

You're trying to get the lowest cost you can. I can't necessarily say what's indicative of the state of Hawai'i in general. You can get those numbers off the state.

What I do know is that it's evolving and changing, and that folks that are farming are now --

who are farming innovatively now -- remember we're still coming out of this era where a lot of farms who are struggling haven't shifted their operations, evolved their business plan, changed their marketing plan, developed partners that are restaurateurs, or whatever, whatever, whatever, access, business and industry grants, free money.

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So I look at what we do as a nonprofit just as an innovation in as agriculture here in Hawai'i not as like all this -- you started the statement by saying: You don't want the state to feed the community with nonprofit farms.

I feel it's one model that could work because it's worked for us because we have -- we've had a guy who's invested money, given us our \$750,000 grant. He's one of the richest people in the world. If you're farming in Hawai'i and trying to raise capital you might be thinking to yourself, "Well, if those guys did it this way, maybe we could do it this way as well." Now they're inherent problems with that.

I don't own the farm. My kids aren't going to inherit the farm. But there's a lot of other kids that are going to inherit the farm. So I'll let you respond. (Laughter).

Q I will respond. I was waiting to get back to

the question, but that's okay. Let me just ask -- let me ask it this way. The Office of Planning has recommended that in exchange for the reclassification of this property that a permanent agricultural easement be placed on an equivalent amount of prime agricultural land.

Is that useful or is that in any way helpful to the agricultural industry to have a long-term or actually permanent agricultural easement on property?

A Wow. It's not helpful to me.

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Q Well, I'm not asking to help Ma'o Farms. I'm asking about the agricultural industry as a whole. So if you can't answer that because you can only answer about Ma'o Farms that's fine.

A If you were to give that right and said no, that's of no hope to more than me, than to the agricultural community of Lualualei Valley. So creating that kind of deal situation sort of in a way it pulls me away from the table to discuss that. You do that, you create that arrangement and it may affect — it may impact our ability as Lualualei Valley to become this industry, this rich farming community.

Q So your concern is that geographic area of Lualualei Valley, is that right?

1 A Yes.

So you know...

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Q You don't have particular concerns. That's your concern. And the rest of the state has their own, other people to worry about.

A If I answered yes to that, some of my farmer friends in Kula and everyone would hang me.

(Laughter). But I'm concerned about agriculture in this state. I think organic agriculture can be a multimillion dollar industry on O'ahu alone, you know. We're selling our seed crops providing, 180, \$190 million worth of income out of \$550 million the state is growing. I think that's small change compared to what we can do farming food for ourselves.

Q So if you're concerned about Lualualei Valley let me ask you a question about Lualualei Valley in particular. There is a piece of property across from Tropic lands upon which -- that's owned by the Petitioner -- upon which a permanent agricultural easement can be placed because they have sufficient lands, sufficient prime lands. It's equivalent to the Petition Area. I'll just make that representation to you.

Would that help Lualualei Valley or the agricultural industry to have a permanent agricultural

1 | easement on that piece of property?

A You're staying with them still developing the light industrial park?

Q Yes.

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- A It wouldn't help me.
- Q Because?

A Well, I look at it, the analogy would be if I was farming where I'm farming in the format before and the same light industry was across the street from me, same situation I would fight that hammer and tong. Because it's changing the face of my rural community.

It's evolving away from where I think we can be both environmentally, socially, culturally, you're hearing all those things, but I think economically too.

Q So for you it's an all or nothing. It's either don't change the classification, keep it in ag. Or if you change the classification there's nothing to be done about it. There's no mitigation effort that could be made.

- A Well, we could farm the land, all the land.
- Q Well, that is if they change the reclassification. So assuming for the moment that the land use --
- A No, I mean of the land, the Tropic Land, not

the land across the street. We could farm both of those pieces of land.

- Q So if the LUC changes the classification of the Petition Area, there's no mitigation. Is that your testimony that there's no mitigation to alleviate the impact upon the agricultural industry within Lualualei Valley?
- A If they decided to not rezone it and to farm it themselves that would be the mitigative piece.
- 10 Q Wouldn't that be the same as not 11 reclassifying the land?
- 12 A Yeah.

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- Q Okay. Wasn't that -- the hypothetical was if the Land Use Commission reclassifies the land and they build the light industrial park there, is there any mitigation to the impact upon agriculture in Lualualei Valley?
- 18 A I can't speculate. We're going around in 19 circles.
- 20 Q That's the question I was asking. I have 21 nothing further, thank you.
- 22 CHAIRMAN DEVENS: Any redirect?
- MS. TOWNSEND: I have just a few questions.
- 24 REDIRECT EXAMINATION
- 25 BY MS. TOWNSEND:

1 Just to clarify in your previous --CHAIRMAN DEVENS: You're going to redirect on 2 3 what came up in the cross. 4 MS. TOWNSEND: The previous testimony from 5 Mr. Yuen's cross-examination. 6 CHAIRMAN DEVENS: Okay. 7 (Ms. Townsend): Just to clarify, the Q 8 question and answer that you had previously with the 9 developers, is it your testimony that there are young 10 people interested in farming if farming jobs are 11 available? 12 Α Yes. 13 And is it your testimony that if supported 14 by -- is it your testimony that if the state supported perpetuating local farming that there would be more 15 16 jobs for those interested in farming jobs? 17 Absolutely. 18 MS. TOWNSEND: Thank you very much. No19 further questions. 20 CHAIRMAN DEVENS: Commissioners, any 2.1 questions? None, thank you very much -- I'm sorry. 22 Commissioner Teves. 23 COMMISSIONER TEVES: Thank vou. 2.4 Mr. Maunakea-Forth, thank you for your testimony.

have a question about your article here. You say you

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    have 32 interns. How many acres, again, are being
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    farmed at Ma'o Farms?
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             THE WITNESS: Well, we've just purchased the
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    new land, 7 acres behind us, so we have roughly
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    32 acres.
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             COMMISSIONER TEVES:
                                  That's in farming,
 7
    that's producing right now.
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             THE WITNESS: No, no. That's not producing.
 9
             COMMISSIONER TEVES: What's producing right
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    now?
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             THE WITNESS:
                           That's why I said the net land
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    that we're farming right now probably only 3 acres.
13
             COMMISSIONER TEVES:
                                  So you have 32.
14
             THE WITNESS: Yeah.
15
             COMMISSIONER TEVES: Is that normal for a
16
    farm to have 32? What's a normal farm to have 3 acres
17
    how many employees would that be, would you have?
             THE WITNESS: Well, it really depends on how
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19
    intensive the crops are going to be, that kind.
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             COMMISSIONER TEVES: The things you grow.
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             THE WITNESS: Well, these young people work
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    part-time remember. Actually they work on stipend for
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    18 hours a week. So I would say we would have a
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    similar labor force. It depends. You know, we work
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    with young people that generally never had a job.
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You can imagine we have to tell them when to come to work and remind them each day that it's 7:00 that they start and it's 12:00 that you finish and you don't go to the bathroom seven times a day. So you can imagine what we're doing to trainwise.

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With experienced farmers, people who are from, say, some farming backgrounds even as laborers, you would probably use less people for sure. So your costs might be a little bit lower.

COMMISSIONER TEVES: The other farmers around you what's their labor cost, the farmhand? What do they pay, your competitors?

THE WITNESS: We have seen Lualualei Valley's struggling. The gentleman across the street,

Mr. Hioki, he's been farming since 1951 or '52 on that parcel. So he farms by himself, bok choy. He's in his '80s now, though. At the peak of his business he had, I believe, six farm laborers working for him.

That's when him and his wife working. So it varies from farm to farm.

The neighbors on the northern side, I'm familiar with the New Zealand term called lifestyle farming which is where one of the partners, the husband or wife, works on the farm and the other partner to bring in more money workers on another job.

And that's quite common in our valley as well. So bringing in a bit of cash -- I do mean cash -- from selling something, and someone else, the other partner in the marriage working somewhere else.

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I would say the best example would be the green onion farmers on Hakimo Road and the basil farmers that are doing it in various locations. They have dozens of people working for them because it's a harvest-intensive system. The same system we use.

COMMISSIONER TEVES: What kind of wages do they pay?

THE WITNESS: I don't know. I think

Jonathan, Dr. Deenik, has worked with Owen Kaneshiro
who works on Pa'akea Road. And he's probably one of
the most innovative conventional farmers maybe on
O'ahu at about 40 acres. He farms most of the manoa
lettuce, chinese cabbages, daikon, you see in the
market, and he pays fairly competitive wages. He's a
very sharp guy who owns some of that land.

The farmers that are doing basil are mainly, it's a Taiwanese guy named Johnson Wang who's -- I'm not sure what he's paying.

COMMISSIONER TEVES: If they're paying pretty good wages, like you said, why did Aloun Farms have to bring in these illegal immigrants to farm the land?

I'm curious. It turns out they don't want the jobs
and the jobs are paying well --

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THE WITNESS: You're taking this -- I don't think they're paid well. I think the average wage right now, you can check state figures, is something like 13.20, 13.40, 13.50, something around there. I think the reason, a lot of the reason people don't work in agriculture is because we're not acculturated to do that.

If you work in a rural community where the rural community is dying, there are not that many after-school jobs. In 1998 I worked for the city to set up an employment resource center. And kids at that resource center predominantly had been sent to McDonald's and Burger King for their first job in a rural community.

In the rural community I grew up in the first job was you get a job at 12 working for your uncle working, picking, pulling potatoes.

So I think as farms become larger and more industrial I think the connection they have with the their staff and the labor pool there's a gap that grows. And they have problems attracting labor and doing it in such a way that when you come into a labor position you can't find, you can't realize your career

1 aspirations.

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I think the construction industry has been able -- it is able to show that a person with aspirations and the willingness to work can aspire from being a laborer to a journeyman. So that's what agriculture needs to do.

COMMISSIONER TEVES: So it's not so matter of fact that the children are leaving the farms because there isn't farm jobs. They're going to better-paying jobs elsewhere like maybe at Ko Olina, the new Disneyland Hotel?

THE WITNESS: It could be.

COMMISSIONER TEVES: Or working in Waikiki where you get much more decent wages.

THE WITNESS: Yeah. I can give you an example from that I know.

COMMISSIONER TEVES: But my other question is this. The children in Wai'anae, the young people who need jobs, do you think there are other jobs that should be provided besides agriculture? Like a young person wanted to start a manufacturing business, shouldn't there be some land set aside for that type of diversification of employment?

Or do you believe that Wai'anae should be strictly farmers and that's it?

THE WITNESS: Well, I live in Nanakuli. And Campbell Industrial Park's 10 minutes away.

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COMMISSIONER TEVES: Yeah. But what if they don't want to go to Honolulu? There should be something there. They can also farm on that side too, right?

THE WITNESS: Well, let me give you a tangible example. When Manny -- he's still here is he -- he started with us in 2002 I believe. And a guy same age as him started as well. Manny, I don't know if he wanted to be a farmer, that's a dead point, but he's a farmer now making a pretty good salary co-managing a farm.

Another guy who lived right up the street left to work at Campbell Industrial Park, is still being paid \$15 an hour at Campbell Industrial Park and Manny's doing probably 40 or 50 percent more. And he's traveled to New Zealand twice, to Italy once.

So I don't know if it matters where that industrial park is, whether it's in Campbell or right next door. I don't think -- the glass is half full as far as I'm concerned with organic agriculture. That in this valley it can provide incredible opportunities.

Would I say that if this Project can guarantee

that they can provide this many jobs, you know, I've not read their business plan, not read their business model, don't know the history of these guys, don't know whether they can pull off a project.

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When I was in a sustainable communities hearing they stood up and said that they were also going to do an agricultural incubator. Now, I've studied agricultural incubators and been to agricultural incubators. And they have no history of ever doing that. And there are no partnerships created. There's no partnership I see with University of Hawai'i with any academic relationships as well.

So if your question is that I would support any type of development if it provides jobs? No.

COMMISSIONER TEVES: Because earlier we heard testimony from residents of the valley who wanted an industrial park because they were not farmers. And they wanted something close to home. And they wanted to provide jobs for people out there.

THE WITNESS: Well, how close to home?

Campbell Industrial Park is 10 minutes away.

COMMISSIONER TEVES: I don't know. But that's where they wanted to live and that's where they wanted to work.

THE WITNESS: There's many people in our

community that, that would put housing on the entire valley if the naval base closed tomorrow. Is that the right thing to do? Well, we would come to one of these hearings and figure that out. But really the broader context issue is do we really want to continue this issue of food and security? And if we don't want to, how important is Lualualei Valley in this puzzle?

COMMISSIONER TEVES: Thank you. That's all the questions I have.

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10 CHAIRMAN DEVENS: Commissioner Chock, did you 11 have a question?

COMMISSIONER CHOCK: Couple of questions. I was hoping you could maybe drill down with a little more detail in terms of how your community-supported agriculture CSA programs works from farm to plate. How does that work?

THE WITNESS: It's fairly simple. We produce food on a weekly basis. We provide a boxed subscription to our membership base. It's all e-commerce or web-based. So a person who knows about the farm goes onto our website. They pay for a subscription.

And they start a weekly delivery. It's a phenomena that's been going on for 20, 30 years across the United States. But it's radically grown the last

few years. I visited a farm in Washington State that does 3,000 CSAs per week. And they're grossing \$160,000 a week.

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We do anywhere between about 110, 150 in the first year. Our goal this year is to do 250. The subscriber commits — this is the biggest commitment they have to make — to the risk of investing in us. So they're paying for — they're really committing for 8 weeks at \$32 a week for us to put vegetables and fruit in a box that they know we grow, that firstly at that value \$32. And two, they know how to eat, cook and eat. So there's a lot of faith that they have in us.

The reciprocal relationship we have with them is when we have a bumper crop of something they know that we're going to, I guess, for want of a better term reward them by filling their box.

So, for example, mango season when the farmers markets can't even provide enough mangos for people, they know that they're going to be the first people to get mangos. So we have sort of marketed our boxes as a way to get fruits and vegetables from us.

That would be the same way Ed Kenney from town would get our fruit and vegetables or the same way

Alan Wong would get, the first in line for the best.

Is that sort of drilled down enough for you?

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COMMISSIONER CHOCK: Yeah. What kind of impact have you seen beyond just your business model in terms of the impact that program has had on community on other...

THE WITNESS: That's a great question. I mean the idea is you are creating a community of people that become -- the Italians have a term for this called -- they don't call a consumer -- a farmer doesn't call a consumer a "consumer." They call him a "co-producer".

So we are sharing a relationship where we not only -- a commercial relationship -- but we're sharing a situation where the culture of agricultural food is grown. These guys, from a people involved in food so they know how to cook where the people who want to cook.

We received, like, an email just before

Christmas from a woman -- we try to put a lot of

indigenous crops in our boxes. So we put in taro,

taro root, tapioca, bananas. We put in luau, taro

leaf in the box quite often at the end of, I think

October. And that's not used by a lot of people.

The woman sent an e-mail saying thanks very much. Her 4 year-old is now eating luau, little haole

girl and asking for it. So the relationship becomes one where the culture of agriculture permits the kids that are involved. When we drop off the boxes families pick up the boxes. People share recipes. We have people to the farm.

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So we have -- each day we have dozens of people call the farm asking to visit from school groups to boys and girls clubs to tourists asking to visit. So the CSA is one way they can guarantee villages the farm. So, yeah, culturally, socially it's really important for us to grow these relationships.

COMMISSIONER CHOCK: How replicable and scalable is the Ma'o model on a for-profit basis? And what would some of the barriers be for other farms to go in that direction away from a non-profit model to a for-profit model? How scalable is that statewide?

THE WITNESS: Well, it's a complex question because some folks are already trying to do it but their banking is pretty considerable. So the evolution the Maui Land & Pine is now to a farm where they're going to do this model but on a for-profit basis. But their banking is Pierre Omidyar. So it's a little bit different. If things go wrong they've got someone who maybe can bail them out, who has a lot

of monev.

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But they have 20 acres certified organic past Kapalua on the makai said right on the back of the gentleman estate developments. And they have 120 acres in the back of Kapalua that they're evolving into, they've been growing organic pineapple but they're trying to find a way -- organic pineapple has a tendency to drop the acidity in the soil incredibly. So they're trying to find ways to mitigate soil issues with long-term pineapple growing.

They're doing it on a couple of places.

They're looking for land on O'ahu. They're doing it on land with Grove Farm on Kaua'i. So they're ones that are trying the model with banking.

I personally think that someone -- I mean the issue in Hawai'i is that a person that goes to -- graduates from Tropical Agriculture right now would be the least at doing this.

A person graduating with a business degree, with some construction background who knows how to do the plumbing, who's grown some stuff in their backyard, who's really good at talking to customers is really well-versed at doing this. So there's a skill set that's needed. But I believe it's replicable. The bottom line answer to that it's very replicable.

debate in front of the Commission on the topic of food security. And we've heard a lot of different points of view locally from farmers, the Farm Bureau, large landowners. I'm wondering from listening to your presentation today and talking about where you see the industry going in terms of more diversified small farms versus industrial ag, how is the small farmer — how is the small farmer trying to produce product to reduce the delta between the imported crop to make it more palatable for a consumer to vote local based on price?

THE WITNESS: Well, the immediate way that's happening is that the farmers markets are providing value for money for people. There's, I think -- the mix of products is important too. If you go to KCC farmers market you'll find there's not only small farmers there but Aloun Farms has been quite successful there.

Dean Okimoto doesn't just sell from his three acres. He represents a whole bunch of other farmers too. And he sells stuff there. So I think that getting, getting, you know, averaging, averaging your price point up is what people are trying to do. And they're doing that with all kinds of innovative

things, doing marketing.

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I think also that there's some very supportive people within the industry now in terms of the end consumer. Whole Foods is very supportive. They're willing to take off all their imported kale or chard or things we grow, eggplant, if we can provide it on a consistent basis. Finding the suppliers is very difficult. Finding the growers is difficult.

And now Foodland, Foodland Farms in Aina Haina is doing that as well. They have visited our farm numerous times and trying to strong arm us now bascially to get our product in their store but we just don't have enough.

With the redevelopment of the 7-acres and our completion of the eleven acres we will be selling food to them. It's not, obviously not as good a wholesale price, obviously not as good as direct marketing.

Some of your answer too is within the CSA. We can do a CSA box for about 24, \$25 and we're selling it for \$32. So each box we're making 7 or 8 bucks. And we're getting that money upfront.

The other context of this is as a nonprofit, as has been pointed out by quite a few people, we receive the benefit of stock, capital from funders, grants, investors, whatnot.

But now our nonprofit, the nonprofit farm together is -- the budgets are 1.5 million. 1 million in grants that supply purely the education programs. The other third is the farm.

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Now, we have figured that the farm can support -- and this is why Pierre Omidyar funded us -- is we can make enough margin to partially support some of the education programs which is what we are redirecting the money. So that margin would be for a profit, be reinvested back into large corporations or go to Vegas and spend it. (Laughter).

COMMISSIONER CHOCK: Thanks.

CHAIRMAN DEVENS: Commissioner Judge.

COMMISSIONER JUDGE: Thank you. I have just one question. Over the years we've heard a lot about trying to get the Important Agricultural Lands to stay agriculture and get people to farm them.

I think Mr. Yee was talking about agricultural easements as a way to encourage that. From your experience if the state -- what could the state do to help incentivize kids or business people to go into farming?

THE WITNESS: Well, obviously this requires multiple players, multiple partnerships to do this.

So the State's not the character that's going to solve

this. It needs public/private support, university support, all kinds of support.

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You know -- and now that Maui Land & Pine has evolved the Ulupono Foundation, which is the entity that Pierre Omidyar started, is trying to figure this a fulltime scale, they're come to us and asked us the same question. And there's no real silver bullet.

The concern I have on this Project is a cultural concern, not just a economical farming concern. 'Cause I worry that -- and it's same with the Aloun's deal. I'm worried that we're pushing people more and more away from a possible career or lifestyle in agriculture. Because it's going extinct.

So I think the way the state can help to change that is by changing the game a little bit, changing the culture of the game a little bit so that agriculture is attractive, so that agriculture is supported and through to the schools.

They're doing things like school gardening programs where kids learn math, science, environmental studies on a garden where they put a seed in the ground and take food home.

I see some things that could happen immediately that I think there are people who are willing to fund. I see that there's a proliferation

of these really innovative, small proliferation, really small innovative farms that are just kicking Excuse the French, but they are.

Guys like Hamakua Mushrooms, guys like Whole I think if they exist in rural communities, Farms. one of the things that could be done is subsidize their labor force. And go out to schools. And say to the kids in schools that are interested in agriculture, "We will pay you to work after school on the weekends on these farms," like used to happen or happened in rural communities. And provide that funding to those farms with the idea that you're gonna only have the funding for a certain period of time. And that it's to help you grow and to help you culturate these kids in your rural communities to farming. That's one thing.

The other thing is like the building industry. I think the idea of apprenticeships is a lost, is a lost thing in agriculture. The idea you could actually learn how to be a farmer in some sort of like supported system that didn't just teach you farming.

22 It taught you business.

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It taught you -- you know, the best farmers I've run into are the jack-of-all-trades kinda people. They don't need to call a plumber. They do it

themselves. They don't call a mechanic unless it gets bad.

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Some of those apprenticeship programs I think if they were rooted in places like the community college they'd be powerful. I think the community colleges is one key component to this puzzle.

I think West O'ahu because I struggled to think that CITAR will change all of a sudden. They've some great professors, great people really trying to do some stuff in diversified agriculture, organic agriculture, but there's not really any consensus and not really any -- the problem with CITAR is there's no vision, no plan to grow food for us. It's bits and pieces of their plan. So those are two or three things I think the state could be maybe the facilitator on some things.

COMMISSIONER JUDGE: Thank you.

CHAIRMAN DEVENS: Any other questions? None. Thank you for your testimony.

THE WITNESS: Time and patience I quess.

CHAIRMAN DEVENS: You have one more witness?

MS. TOWNSEND: Intervenors call Lori Nordlum.

CHAIRMAN DEVENS: Ms. Townsend, can I ask you

24 | what is this witness going to testify about?

THE WITNESS: Lori Nordlum is a resident of

- Princess Kahanu Estates. That's the subdivision

 immediately makai of the Petition Area. She'll be

 testifying as to her experience with traffic concerns

 and the quality of life issues around urbanization of

 the community.

 CHAIRMAN DEVENS: You listed that the subject

 matter was going to include the rural quality of
 - matter was going to include the rural quality of
 Lualualei Valley. And I think we have heard enough
 testimony on that. It's going to be cumulative at
 this point.
 - MS. TOWNSEND: Okay. I agree. This is going to be more about Hakimo Road. She has some direct witness experience of traffic concerns on Hakimo Road that I think would help to inform this Commission.
 - CHAIRMAN DEVENS: May I swear you in.

16 LORI NORDLUM

- being first duly sworn to tell the truth, was examined and testified as follows:
- 19 THE WITNESS: Yes, I do.
- 20 CHAIRMAN DEVENS: Please state your name and 21 address for the record.
- THE WITNESS: Lori Nordlum. Last name
- 23 N-o-r-d-l-u-m. Address 87-256 Waiolu Street. That's
- $24 \quad W-a-i-o-l-u$.

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25 CHAIRMAN DEVENS: Thank you.

DIRECT EXAMINATION

- 2 BY MS. TOWNSEND:
- 3 Q Thank you, Ms. Nordlum, for coming to
- 4 testify. You're a resident of Princess Kahanu
- 5 Estates?

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- 6 A Yes, I am.
 - Q How long have you lived there?
- 8 A Let's see, since 1995.
- 9 Q For the Commission can you briefly describe
 10 where Princess Kahanu Estates is located?
- 11 A Where it is located?
- 12 O Mm-hmm.
- 13 A It's located between Hakimo Road and I would 14 say Mohihi on Farrington Highway and Ulehawa Street.
- Q And where is that in relation to the Petition
 Area?
 - A Well, the Petition Area is up by Lualualei Ammunition Depot Road.
- 19 Q First, how did you learn about the proposed 20 industrial park?
- A Well, actually I didn't know anything about
 what was going on until I had gotten a visit and a
 call from Lucy Gay from the Concerned Elders of
 Wai'anae. And she stopped by, like, we have done
 before. We are friends, you know. We've known each

other for a while. She said, "Did you know anything about Tropic Land what they're trying to do up in Lualualei?"

And I said, "No. Never heard of it." And,
"Did they come to your" -- because I'm on the board of
directors for the Princess Kahanu Estates and I've
been on the board for 15 years. I'm a charter member.

So we never heard of anything about Tropic Land. But we would love to because if it's going to affect our community we would love to have someone from Tropic Land or somebody come in and talk to the board, inform our community because it's going to be affecting us.

Q And did they?

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- A No, they didn't.
- Q So in terms of the concerns that you have as nearby residents of the proposed industrial park can you articulate some of those, the traffic concerns that you've expressed in the past?
- A Well, as I just said earlier, Princess Kahanu is in an area you would call -- it used to be a quarry before, before Hawaiian Homes purchased it and built 271 homes. In fact, my nephews and nieces used to ride their bikes and stuff there.

But anyway it's kind of like in a little

valley. Hakimo Road is up here. Okay. Then you have, you know, across Pa'akea. Then you have the Tropic here, Lualualei Ammunition Depot Road here.

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Right now if I can explain something that causes concern for our community. Is that right now without Tropic Land and their supposed trucks that's gonna be added to the roads, right now trucks and vehicles come through Princess Kahanu when there's an accident on Farrington Highway invariably.

So it ties up our own community traffic.

It's very hard on the roads. We have a lot of trucks, heavy duty trucks that go through Princess Kahanu because they don't want to make that sharp turn.

- Q Can I draw your attention to Petitioner's Exhibit 6B. Is that Hakimo Road and Farrington Highway?
- MR. YUEN: Excuse me. That's not
 Petitioner's exhibit.
- MS. TOWNSEND: I'm sorry. Intervenor's
 Exhibit 6B. My apologies. Intervenor's Exhibit 6B,
 is that Hakimo Road at Farrington?
- 22 A Yes. I don't recognize the yellow house. 23 I'm sorry.
- Q Can you slide it over a little bit? Slide the screen over so she can see 6A. Is that Hakimo

Road, Intervenor's Exhibit 6A?

- A Yeah, that looks like Hakimo Road.
- Q And this is the tight turn that you're referring to?
 - A Yes, yes.
- Q And so the current situation now can you explain how trucks are making this turn?
 - A Yeah? May I -- may I go up.
 - O Yes.

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A Right now, see how tight it is right here?
When trucks try to make this turn in or out it's very difficult. As you can see right now you have a line of cars right there. If a truck comes and wants to make a turn these cars have to back up. They all have to back up in order for the truck to make that turn.

And, of course, look there are cars parked right on the side of the road. So it's very dangerous, very precarious.

And then you have pedestrians walking on Hakimo Road to catch the bus. So there's no sidewalks so they're walking on the road basically. So you have these huge trucks, cars, pedestrians all in one little crunchy area.

Q Do you have knowledge of previous pedestrian accidents, car accidents involving pedestrians on

1 Hakimo Road?

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A Well, I've heard of some. I haven't seen them myself because I work in town at the attorney general's office. And I leave home when it's dark. And I get home when it's dark. So I don't get to see the accidents that happen during the day.

Q Thank you. Can we look at Intervenor's Exhibit 7A and B, the next slide. Actually maybe scroll down, let's look at 7A. Ms. Nordlum, is this Princess Kahanu Estates?

A It's the entrance, yes. It's the entrance at Farrington Highway and Princess Kahanu Avenue.

Q Is it your testimony that because this is a wide avenue trucks prefer this?

A Oh, they love it because they don't have to think about making a turn. It's very easy. And it's clean, it's clear, the roads are beautiful.

- Q Does Princess Kahanu Avenue connect to Hakimo Road?
 - A Yes, it does. May I show you?
- 21 Q Yeah. Actually, Candace, if you can scroll 22 the screen up a little bit there's a picture.
- A That's fine. This is Farrington Highway.
 This is Princess Kahanu, a beautiful picture here.
- 25 | This is -- Princess Kahanu Avenue goes down to the

Street. And then they go around the bend and they make a left turn on Waiolu Street which goes up to Hakimo Road. And then they have free flow to Hakimo Road.

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- Q Is there a school located on the corner on Hakimo Road?
- Yes, there is. Princess Kahanu, when it was established, had the first Kamehameha Schools pre-school ever in any Hawaiian Homestead. And by the way, Princess Kahanu Estates is a Hawaiian Homestead. And so Princess Kahanu -- Hoaliku Drake Pre-School, which is what it's called, is located on the top of Hakimo Road and Waiolu. So you have Hakimo Road here, Waiolu here, the pre-school right there adjacent to the road.
 - Q Are there any particular concerns about that intersection at Hakimo and Waiolu?
 - A A lot, a lot of problems. In fact we've had -- we've had our homeowners come to our annual meetings and voice their concern about the traffic. What are these trucks doing here? They don't live here. What are all this traffic? It's not our community. And from what I understand Princess Kahanu streets is a private road. The city has not accepted

the roads yet from what I understand.

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So I know in the beginning with all the traffic the residents were concerned about the ingress and egress of traffic. And they wanted to just block off that road because there were near-accidents and children are out playing.

And the pre-school is right there during the day. And you have our kupuna at home. And they see this going on all day long.

In fact we have one of our kupuna would sit out in the driveway with his chart and his pen, would try to take down the names of these trucks that are going through Princess Kahanu, but they're speeding so fast that he can't get their name or their telephone number. So that's been the concern of our homeowners for a long time.

Q Thank you. Now, I'd like to turn your attention to the Lualualei Naval Access Road. Can you explain for the Commission your concern over the industrial uses of that area, PVT and Pine Ridge?

A Well, I think when we moved into Princess
Kahanu, we believed it was the most -- and we still
do -- it is the most beautiful, safe, quiet Hawaiian
Homestead you'll ever come across.

The Department of Hawaiian Home Lands calls

that the flagship of Hawaiian Homes in the state of Hawai'i. And we are very, very proud of our community. And we take very good care of our communities.

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We have rules and regulations. That's why it's so beautiful, so well taken care of unlike a lot of other Hawaiian Homesteads.

And the concern we have is not only of the beauty or the aesthetics. But the concern we have is of the health and welfare of our people. And we have -- we have kupuna that have been waiting on that list for 30, 40, 50 years. And they finally got their home at Princess Kahanu. And they're so excited. And then they get ill and they die. They last for a year.

And I gotta say about that PVT has caused so much health problems in our community. My brother-in-law lives adjacent to PVT's screen. And for years he and his wife, my sister, have been going to meetings complaining about PVT and the dust and the toxins and everything that go into their house 24/7. And it seems like nothing was being done. One day I got a call from a guy by the name of Carroll Cox. He said, "I understand that you live in the community. I said yes. He knew I was involved in my community.

And he said, "I'd like for you to come with

me." Because I've gotten calls from our neighbors
saying that they're sick, they're getting sick, very
sick. And they were well until they moved to
Nanakuli. And my sister -- my brother-in-law were

CHAIRMAN DEVENS: Counsel, I don't mean to interrupt but we've got to direct testimony towards this petition. If there's been an offer and all it relates.

MS. TOWNSEND: Okay.

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very sick also.

Q Thank you, Ms. Nordlum, for that testimony. Can you relate for the Commission what the community's understanding was in regards to the industrial uses at PVT and Pine Ridge as it relates to the industrial park?

A Well, they thought and they assumed, they were told, they understood that that was going to be it. There was going to be no more landfill things, no more PVT stuff in our community. We were going to have a nice park. That's when my brother and my sister bought that place, that's what's they were told. They bought their place in the '60s.

Q So from your perspective as a member of the community do you feel that proposed industrial park is consistent with that understanding of the community?

Consistent with the understanding that there would be no further industrial uses?

- A I'm sorry. Say that again.
- Q As a member of the community do you feel that the proposed industrial park is consistent with the promise that there would be no further industrialization?
 - A No.

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- Q Thank you. Lastly, as this relates to the transportation question, can you relate for the Commissioners your experience and the importance in your life of the railway that runs along Farrington Highway, the railway?
- A Well, there's nice memories of the railway.

 And I'll try to be very short. I won't elaborate too much on this. But I'm very proud to be a homeowner in Nanakuli. Because I was raised in Nanakuli. I was raised in a Nanakuli Hawaiian Homestead. I moved out there in 1947. We had the railroad tracks and the trains was running.

And my dad worked at Lualualei Ammunition

Depot Road in the naval base. And he used to go to

West Loch and would catch the train to West Loch. So

it was -- the use of it was very -- I don't ever want

them to get rid of the railroad tracks.

Q Thank you. To wrap up. What are your concerns if this industrial park proposal is allowed? What are your concerns for the fate of your community?

A Well, number one, I think it's for the health and wellbeing of our community. Princess Kahanu has always been a beautiful, nice, quite community. From what I understand from Tropic's EIS is that there are plans for 500-plus trucks to be on the road per hour. It's not per week. It's not per month. It's per hour.

And we cannot -- our community cannot handle that amount of trucks. Or right now it's a problem. Right now if there's an accident the entire Waianae Coast shuts down. To add another 500 trucks every hour every day of the week would be disastrous.

Q Thank you very much.

MS. TOWNSEND: No further questions.

CHAIRMAN DEVENS: Mr. Yuen.

CROSS-EXAMINATION

20 BY MR. YUEN:

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Q Ms. Nordlum, you testified that you work in town, and you leave your home when it's dark, and you return at night when it's dark.

A Mm-hmm.

Q So how do you have personal knowledge of

trucks driving through the Princess Kahanu Subdivision during the workday?

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A Well, I work Monday through Friday. I am home on furlough days. I am home on the weekends. I am home on holidays. Plus I also -- I was on the board of directors for 15 years. And we have had reports coming to the board all those years. I have --

Q But have you personally observed -CHAIRMAN DEVENS: Excuse me. Let her finish
the answer. Go ahead and finish your answer.

A I have personally observed. In fact, I have taken down some numbers and we have had our office manager call these companies to have them stop coming through the community and ruining our roads.

Q (Mr. Yuen): The proposed industrial park intends to use Lualualei Naval Road as its primary access. And there's been some suggestions by the Commission and other parties to this case that this be the only access permitted to the industrial park.

If the traffic for this industrial park is kept on Lualualei Naval Road and does not use Hakimo Road, how would that affect your lifestyle?

A It would still affect it. Hakimo Road is connected to Farrington.

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             No, I said if the traffic --
             The Lualualei Ammunition Depot Road is
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    connected to Farrington, everything is connected to
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    Farrington.
                 The trucks will not -- even if they don't
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    come down Hakimo Road they're still using our roads.
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    It's still stopping up all traffic. It's still
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    causing havoc in our community.
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             MR. YUEN: No further questions.
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             MS. TAKEUCHI-APUNA: No questions.
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             CHAIRMAN DEVENS: Mr. Yee, no questions?
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             MR. YEE: No questions.
             CHAIRMAN DEVENS: Do you have any redirect,
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    Ms. Townsend?
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             MS. TOWNSEND: No.
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             CHAIRMAN DEVENS: Any questions from the
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COMMISSIONER TEVES: Thank you. You mentioned all the trucks going up and down Hakimo Road. I haven't been on Hakimo Road in over 20 years. What businesses are up there that requires trucks to go up and down all day?

Commissioners? Commissioner Teves.

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THE WITNESS: I guess they have some landfills that are up there. We don't know. There's so many landfills on that side that are illegal landfills. There are farms and stuff. That's why we

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    have tried to get the names of these --
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             COMMISSIONER TEVES: So it's illegal
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    landfills and farms that causes the traffic problems
    with trucks?
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             THE WITNESS: It's not -- now it's not that
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    there are farms up there. The farms that I'm talking
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    about are the vegetable farms. At least you have pig
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    farms but they have farms and some illegal dumping
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    place up there.
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             COMMISSIONER TEVES: So it's some farms and
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    illegal dumping places put all these trucks on the
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    road.
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             THE WITNESS: I don't know where those trucks
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    are coming -- I don't know who belongs to these
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    trucks.
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             COMMISSIONER TEVES: It doesn't matter.
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    want to know what's the reason why the trucks are
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    going up Hakimo Road.
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             THE WITNESS: Well, we'd like to know too.
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             COMMISSIONER TEVES: Nobody knows that over
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    there?
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             THE WITNESS: Well, I'm sure they do. I'm
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    sure they do. That's what we've tried to -- we've
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    tried to get the community to write down names and
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stuff of these trucks.

1 COMMISSIONER TEVES: Did anybody in the 2 community ever go up the road to see where those 3 trucks are going? Not so much the names. THE WITNESS: I don't know. 4 5 COMMISSIONER TEVES: Okay. Thank you. 6 CHAIRMAN DEVENS: Any other questions? 7 MS. TOWNSEND: I actually have one that might 8 help to answer the Commissioner's question. 9 CHAIRMAN DEVENS: Yes. 10 REDIRECT EXAMINATION 11 BY MS. TOWNSEND: 12 0 Aunty Lori, is there a quarry on Pa'akea 1.3 Road? 14 Α A quarry? 15 Q A quarry. 16 Α It used to be -- the quarry used to be right 17 in Princess Kahanu and there is one, yeah. 18 And is there one still on Pa'akea Road? 0 19 Α Yes. 20 MS. TOWNSEND: Thank you. 2.1 CHAIRMAN DEVENS: Any other questions from 22 the parties? Hearing none, Commissioners? None. 23 Thank you. Thank you very much for taking the time to 24 be here today. Ms. Townsend, is that it as far as 25 witnesses for today?

MS. TOWNSEND: Yes, it is for today. CHAIRMAN DEVENS: So we'll go ahead and recess. I understand we have tentatively set the next hearing on this matter for February 2. Unless the schedule changes that will be the next date. Thank you very much. (The proceedings were adjourned at 11:40 a.m.)

C E R T I F I C A T E1 2 3 I, HOLLY HACKETT, CSR, RPR, in and for the State of Hawai'i, do hereby certify; 4 5 That I was acting as court reporter in the 6 foregoing LUC matter on the 7th day of January 2011; 7 That the proceedings were taken down in computerized machine shorthand by me and were 8 9 thereafter reduced to print by me; 10 That the foregoing represents, to the best 11 of my ability, a true and correct transcript of the 12 proceedings had in the foregoing matter. 13 This_____ day of______2011 14 DATED: 15 16 17 18 19 HOLLY M. HACKETT, CSR #130, RPR Certified Shorthand Reporter 20 2.1 22 23 2.4 25