

**Statement by Elie Losleben at the Hearing on Te Aupouri Aquifer, 1 September 2020
Te Ahu Centre, Kaitaia, Te Taitokeraux**

Tēnā kotou, tēnā koutou, tēnā koutou katoa. Kia ora distinguished experts, residents and to the people of the land, Te Aupouri, Ngai Takoto, Ngati Kahu, Ngati Kuri, and Te Rarawa. Ladies and gentlemen, members of the government, and honourable guests.

My name is Elie Losleben, I was born in Montana, on Salish land, in the United States, and my parents are descended from European settlers and farmers on Lakota, Chippewa and Sioux land. My mother and father worked for Catholic Relief Services and the US State Department, and I was raised in India, Kenya and Egypt.

I received my Masters in Public Health from Johns Hopkins University and I have worked on public health projects, including climate mitigation, at the United Nations Children's Fund, the United Kingdom's Department for International Development, and the Bill & Melinda Gates Foundation.

I moved to Liberia, West Africa in 2009 after the civil war there and started numerous community tourism and environmental projects that landed my small non-profit a front-page feature in the Travel Section of The New York Times. Living in Senegal, West Africa, my company worked on community and environmental health, and the Ebola outbreak. In 2014, I became Faculty at Singularity University in Silicon Valley, where I helped to prepare over 2,000 government and corporate leaders to think more exponentially about the future.

I am a permanent resident in Aotearoa New Zealand, in Houhora, and my waka is the Edmund Hillary Fellowship, where investors and social entrepreneurs like myself are creating new ventures, experimenting with new ownership models, and growing regenerative farming projects across the country.

I co-lead my own technology company, and I am privileged to work from my home office on regenerative native forest and horticultural gardens. I have a shallow-water bore and in the drought last summer, one-quarter of the 33 kauri trees on the property died, despite our best efforts.

One of the applicants for this consent is within five kilometers of my lifestyle block, and on many still days, I can smell the spray. Like most residents in the rural Far North, I collect rainwater for my household and garden from the roof. I don't know when these companies spray, but I worry about the spray drift sticking to my roof and contaminating my whānau's drinking water supply with chemicals. I would have no way of knowing what those are or what was in them, and any illness would be difficult to pinpoint on an environmental cause.

But the fact is, we know that our current avocado orchard neighbours don't care much about the environment. I know that, because they're my neighbours. They have transformed local

farmland and pasture, before spotted with manuka flats and harakeke along the waterways, into lines of monoculture, already in some places as far as the eye can see.

I am going to talk about the environmental health impacts these orchards are having now, and the environmental health impacts that, in my expertise, we can expect these avocado orchards to have in the future, looking at water, land, and air.

When I moved to Aotearoa four years ago, I was drawn to the gardening culture and immediately tried my hand at a little plot outside my kitchen. This winter, I was able to plant enough in my home garden to provide for my family's nutritional needs for fresh fruit and veggies all through winter and now spring. Home gardening is a vital source of nutrition for families in the Far North, and food sovereignty is more important than ever, especially with the economic vulnerabilities we are experiencing with COVID.

Food costs can be cut significantly for households with family gardens, but as we know from the so-called 40-year-drought up here last summer. Household water supply is a major environmental health issue for families. The Aupouri Aquifer catchment area, depend on rainwater tanks, many of which ran dry this summer, or shallow-water bores. My neighbours are some of the most low-income families in New Zealand, if we look at health, economic and social indicators. Many are Māori and a very high number are children and young people. The average annual income for a household in my area is about \$18,000, a year. If a household's shallow-water bore goes dry, they have to pay to drill another one, and that costs about \$15,000. Think about the burden these avocado orchards -- the ones we have, and the ones the applicants say are to come -- are putting, the disproportionate burden being put on our low-income families.

Corporate-owned monocultures like the applicants are not building up the land using proven regenerative methods, like water harvesting or designing with contours for water catchment. Instead of reducing their environmental impact, the applicants for these orchards have knocked down every bit of hedgerow and native windbreak, and from what I can see, are following the blueprint for the same-old, status quo, extractive monoculture model. We should ask more from our corporate neighbors and put the burden on them to prove that their methods conserve and build the environment using regenerative, low-cost inputs that are healthy for us and for the environment.

Now is not the time to be mortgaging our future on an extractive model of agriculture that externalizes its environmental impact and pushes risk and costs out to the community. Three-quarters of the Māori population in the Far North are children and youth, the same demographic that is most vulnerable to adverse environmental impacts.

In the future, with the climate crisis and accompanying biodiversity loss not just in New Zealand but worldwide, we know that our environmental systems are going to become more stressed, not less. The Resource Management Act allow for domestic water use for household needs,

including horticulture, and the reasonable needs of animals, as long as it has no adverse effects on the environment.

I can tell you from personal experience that rainwater just isn't enough to grow a family garden, and is definitely inadequate to grow enough to sell at the BP or the weekly market. If families don't have bores, our garden is severely limited and would dry up during the heat of late summer. Household bores are what keeps us able to farm and create a sustainable lifestyle.

We know that now and in the future, we need to make protective, long-term decisions that take into account not just our future, but the future of seven generations to come. It is our responsibility as guardians, in this gathering, to protect the future of our whakapapa to come, so that they have clean and healthy land, pure and abundant water, and clean spray-free air to breathe and grow.

We do not need projects that risk our natural taonga, like the precious and world-famous Kaimaumu Wetlands, and the Far North's unique and priceless biodiversity. Short-term gain using outdated business models that put risk onto people and communities is not the answer here. Especially after COVID, we need to look after our own.

The truth is, we all know that this kind of farming is a relic of the past. According to the United Nations in 2013, small-scale organic farming is better for community health and the environment. Conventional farms have to squeeze profit from every avenue available, to satisfy their overseas shareholders in a global financial market.

The orchards use industrial chemicals that impact the land and waterways of our homes and gardens. This pollution, while difficult to pinpoint and name, will alter the microbiome of our soil content and reduce the nutritional value of our food. My home garden, like many others, is organic and I work hard to keep it that way. Why should monoculture runoff affect the waterways and the quality of our soil?

It is clear that these orchards intend to extract value from our area and do business-as-usual, like the extractive palm oil industries I remember from my time Liberia. These companies have not, in good faith, made an effort to be good neighbors. For example, according to a report from the Ministry of Education, if the area's schools -- which all have shallow water bores -- run dry, the avocado orchards keep on producing and continue to draw water. They reduce their water use while the schools' bores can continue to drop until they run dry. If this happens, the Ministry is requesting the companies provide the schools with drinking water, permanently removing water sovereignty for our schools off the table, and placing us in a dependent relationship with a multinational company for our basic needs. Doesn't it seem like we've got it backwards?

Running water in schools for our children is more important than an avocado, and these ventures are putting schools' water supplies at risk. If and when there is a problem, NZ schools

will be dependent on a private company for their running water. That is what I mean when I talk about these applications mortgaging our future.

In the area where I live, are some of the most low-income and disenfranchised people in Aotearoa, NZ. Kaitia's young people have made headlines in the national mental health crisis, with community members describing a feeling of hopelessness about the future. Monoculture and extractive models based on profit and cutting costs do not build a healthy, thriving community. I have seen how, in other places in NZ, it's hard to get people to pay attention to the Far North. The media misrepresents a lot of what's up here. When I've told my friends across NZ what's at risk here, they are also outraged. People here deserve better. We deserve better.

One of the topics I teach about at Singularity University is future forecasting and a dystopian future, where Water Wars divide countries and regions against each other. It does not need to be this way, but that decision rests with you now. It's time to approach these challenges with new thinking, to disrupt our old models and envision how to balance planet, people and profit.

What kind of future will you allow us to create? What will we preserve and protect for ourselves, in the next year, in the next decade, and for the next generations, long into the future?

Thank you and kia ora.