



Transcripts – Lake Rotorua Short Films

Jamie Paterson: Dairy Farmer

Text: *Water quality in Lake Rotorua has been declining due to increased levels of nutrients entering the lake. Nutrients include nitrogen and phosphorus, by-products of farming and other activities. Motu Economic Research has developed a prototype nutrient trading system for Lake Rotorua. This is one option for reducing nutrient levels in the lake.*

Jamie: I'm Jamie Paterson. I live here at Stewart Road with my wife and family. I'm a farmer's son, I love the involvement with stock, and every day's different. My whole life revolves around this farm.

We're actually not quite overlooking the lake because we don't have lake views, but we're very much in the lake catchment. When we came here thirteen years ago this was a bare block of dry stock farm. So we picked up the challenge, we converted it, made a home and then, lo-and-behold, in the 2001 the Land and Water Plan arrived, and within that plan there was Rule 11.

Text: *The Regional Council for Rotorua imposed a freeze on nutrient levels for each farm in 2005, called 'Rule 11'.*

Jamie: Farmers in particular will know that, in the long term, viability is a huge issue if you are capped with the potential of Rule 11. And whether nutrient trading takes us down the same road, I'm not convinced it won't.

Text: *Nutrient trading creates a market where landowners can trade nutrient allowances. The whole lake catchment must operate within a cap which ensures a sustainable nutrient level.*

Jamie: Nutrient trading is an interesting concept. The allocation of your benchmark will be critical when it comes to trading: whether everyone is treated the same, whether you're grandparented (in other words, go back to historical data and give an allocation), or where the level is set.

Accountability is going to be another thing. How are we going to police this and who is going to police it. There would have to be some extreme levels which would be allowed to be tolerated in a nutrient trading system for really extreme environmental things that happen, whether it [be] drought, flood. You can't think of all these things and write them down, because you never know what's around the corner.

Water quality is a huge issue, we need to solve the problem somehow. If a nutrient trading scheme were to [be] implemented, there are mitigating options. And how proactive we are, well that's down to farmers on a personal basis – how they dispose of effluent and how they actually run their farm. The other options are retirement options for riparian areas, and most of that's been done in these areas. We could change our farming system, but

obviously that would be much less profitable than what dairying would be. The next level to that would be some form of grazing. Deer wouldn't be an option because the farm's not fenced for it. And sheep, well the farm's not fenced for it, and I don't have a wool shed so I hardly think at my age that I'm going to build wool sheds. Trees, to me, would not be an option. I don't have twenty years left to plant trees, to harvest and start a rotation then. A change in land use is all very well, but if I change, a few jobs down the line are going to disappear, the exports from the country will reduce. There's 26 farms in the catchment. If you multiply that up, then it becomes reasonably significant.

Nutrient trading, it should benefit, but at what cost in the long term. It's a complex issue. If I reduce my nutrient export by 10%, it comes down to a smaller unit – less cows – or buying shares [permits or allowances]. That will depend on the cost of the shares. And if it's non-viable then what will I do? Well I would sell my shares up and go. Or I look at the other option and become a share trader, not a dairy farmer. And to me, I probably don't want to go in that form of, dare I say, farming, if you could call it farming.

The lake quality is a huge issue. It didn't happen overnight and it won't be cured overnight. But it is nice to go down to Hamurana and have a barbecue in the middle of summer and enjoy the ambience of the lake, and we do that. So we are concerned about the nutrients that are in the lake. But whether I can afford to pay all that's needing done is another question.

Te Arawa: Maori landowners

Text: *Water quality in Lake Rotorua has been declining due to increased levels of nutrients entering the lake. Nutrients include nitrogen and phosphorus, by-products of farming and other activities. Motu Economic Research has developed a prototype nutrient trading system for Lake Rotorua. This is one option for reducing nutrient levels in the lake. 24% of the land that would be affected by a trading system is Māori owned.*

Tina: I'm Tina Ngatai. I'm a descendent of the owners of the marae behind us, Papaouru, and I'm the regional manager for the Māori Trustee for what's called the Waiariki region, which includes the whole of the Rotorua area. My office administers around sixty blocks affected by the lake water quality issue.

People feel very spiritually bound to their land. It's ancestral, it's been handed down. Culturally they see it as part of their connection to where they're from. The flipside of that is that we also want to get some benefits to assist our people.

Roku: I'm Roku Mihinui, I'm the CEO of the Te Arawa Lakes Trust. The connections between Te Arawa, the lakes, and the general environment were lessons that were handed down through the generations. So the lakes themselves aren't just a body of water that we use for recreational purposes and for providing food, although they were at the time. They are a connection with our people from the past.

The Te Arawa Lakes Trust is about maintaining that mana or that tino rangatiratanga or that authority relationship that Te Arawa have with the lake, to ensure that any land usage that will impact on the quality of the water is addressed. Because the Te Arawa Lakes Trust if you like had quite an ethical or even moral responsibility in terms of the lakes water quality, they were

bound to come in conflict with people who were more focussed on the ability to sustain their livelihood economically.

When I look at some of the bigger land corporations and land blocks that have had the resources to develop to their fullest extent, Ngati Whakaue is one of the examples I think of immediately. Once this issue of lakes water quality was brought to everyone's attention, they were the first to step forward and say "we recognise the issue that we have here, and we're prepared to put our money where our mouth is and make the changes to the land use".

Rick: My name is Richard Vallance, and I was the chief executive of Ngati Whakaue Tribal Lands. Ngati Whakaue owns five farms around the lakes, around Lake Rotorua in particular. It's very valuable land, it's very expensive land, and it's essential for Ngati Whakaue that it's able to use its land for advantage. But clearly it's essential for the community, and for Ngati Whakaue, that it doesn't damage the lakes on the other hand. So there's been a real tension there that we've had to try and solve.

This 1,500Ha block of land is a very interesting case in point of an opportunity to find multiple solutions to a problem and increase their wealth at the same time. And what they've done is they've switched from dairy farming to lamb fattening. It just so happens that the economics of that aren't as bad as everyone thinks. The second thing was to look at alternative crops, and they've put in a truffle farm. Time will tell how good that is, but the hope is that it will be very, very profitable indeed. The other big element is subdivision. The owners have agreed to take some land out of farming altogether and put it into high value real estate.

Tina: The majority of blocks that we look after are reasonably small and in the past have been used mostly for leasing to a third party, so we got rentals from the land. That changed within the last ten years, people began to farm the land themselves.

Text: *The regional council for Rotorua imposed a freeze on nutrients in 2005, called 'Rule 11'.*

Roku: For those Maori landblocks that were only achieving – or getting to the stage where they were able to look at – full utilisation of the land, one of the biggest impacts of recent years has been the introduction of Rule 11. This has been a huge hindrance for them to advance their land usage.

Rick: If you say "Righto, we've got to reduce the carrying capacity of this catchment, of this lake, by 25 percent, the rulebook is a very blunt way of doing it.

Text: *Nutrient trading sets up a market where landowners can trade nutrient allowances.*

Tina: When we first went into the nutrient trading project and I was on the panel, it literally took me several months to see it as something that could benefit Maori. And that's only because Rule 11 has said "no more" and nutrient trading offers an opportunity to actually do more.

Rick: When you come to actually putting the thing into gear and setting off, the first thing will be people being confident in the cap that's set. That is the limit and everyone's got to operate down here inside it. And so arriving at that point is going to be very, very important. The bit that we're allowed to play

with, how do you allocate that across thousands of hectares of land?

Roku: I also struggle with the allowances per type of land usage. If you look specifically at the current Maori land use around the lakes, it's either forestry or it's dry stock. So how would you compare that with a dairy farm that has quite intensive high use on a small area. Is it about the acreage or is it about the effects of the land use, per se?

Rick: Those there at the top end, well they're there because the government encouraged them to put on all the fertiliser, and they did that very well and that's great. Some others, the government didn't give them their land back until about fifteen years ago, give them control of their land. And so to now penalise them for government policy is just as rough.

One of the good things about the market will be that it will increase the incentive for the farming industry to invest in finding solutions. Because if they can save me spending \$100,000 a year on nitrogen units, I'd be delighted.

Tina: There's strategies you can do on the land. You can put on wetlands. A lot of farmers in the old days took away the wetlands, just trying to put more land into pasture, and that meant the land wasn't breaking down the nutrients as much. Putting areas back into wetlands assists you to increase your stocking numbers a little bit.

Rick: We think there are solutions that lie in the animal biology. AgResearch has done a lot of research and we now know that you can alter the amount of nitrogen coming out the back end of animals by changing feed and things like that. The other thing we think where there's a great big area of as yet unresearched and undeveloped technology is in the topsoil. And I think part of the solution for New Zealand pastoral farming around waterways in general is going to turn out to be less fertiliser, more massaging the soil. I think if we can move back towards more organically oriented farming, a higher, greener product, it means that we can farm at a slightly lower level of intensity and make just as much money.

Roku: The other significant project that has been introduced is the floating wetlands. And basically all it is a floatation system that's set up in plastic drums. They contain soils and specific plants. Those root systems extract nutrients from the water, and therefore help purify the water.

Tina: Maori land is governed by Te Turi Whenua Maori Act which places some restrictions on what we can and can't do with our land.

Roku: The difference with Maori landowners, of course, is because of multiple ownership. They need the agreement of the membership to be able to make a lot of those land use changes.

So there's a disjunct between what we can do with our lands to provide the best return. And it's not just about financial return, it's also about the social impacts that return can have for our people.

Tina: Nutrient trading has a lot of potential for Maori but it also has a lot of fish hooks that need to be ironed out and discussed before we accept it fully.

Rick: I think the difficulties are to do with measurement. It's very difficult to trade something you can't measure. If I think that by making these land use

changes that Ngati Whakaue's made from a dairy farm to lamb fattening and to an intensive crop and to some subdivision, if we can't measure that saving I can't sell it.

Tina: One of the risks I think in the trading game is that every land block get awarded their points and then sell them too quickly, onsell them to the dairy farmer down the road. Because that could mean they jeopardise a future use of their own land for future generations.

Roku: I'm mindful that particularly dairy farming and drystock farming are very volatile industries and subject to a lot of factors, the significant one being the climate. So in times of poor production how is nutrient trading going to impact on those particular farm users?

Rick: The weather, market prices, farming technologies – people see those issues as part of the market. The issue will be integrity. Where it'll fall to bits is if bureaucracy suddenly changes the goalposts. What will solve the problem is if all the players work together, and the only way to do that is collaboration and willing participation and confidence and trust. And that last word 'trust' is probably the single most important one of the lot.

Roku: There's a saying that's becoming more and more common: "Ka ora te wai, ka ora te whenua; ka ora te whenua, ka ora te tangata." If the water is healthy, then the whenua – the land – is healthy. If the land – the whenua – is healthy, then the people are healthy.