Submitted by Jim and Barbara Hitchcock

Dairy farmers on Oturoa road since 1995

Supreme winners of 2012 Bay of Plenty Ballance Farm Environment Awards and are now chair for BOP Ballance Farm Environment awards and Trustee of the New Zealand Farm Environment Trust.

Our property's brief farm history.

1930-1940s land was government owned and logged by Mamaku State Mill.

Early 1940 remaining bush was burnt and grass was sown.

The farm was developed by the government of the day and balloted as 2 dairy farms to returned World War 2 veterans.

Dairying didn't work as the property was subject to bush sickness. What we now know to be caused by cobalt deficiency, and the 2 balloted farms were combined to make a dry stock property.

In 1993 the farm was converted to dairy again and we purchased it in 1995.

We have always farmed our farm conservatively and practice all grass farming. We have not and do not import feed onto the farm. We have never purchased palm kernel extract, maize silage or any other stock food.

Our farm philosophy is to do what New Zealand does well, grow grass cheaply and produce milk efficiently, whilst making it an enjoyable workplace for those on the farm.

What have we done to help the lake?

Most of the mitigation that we have achieved was done to ease the burden on the groundwater environment, the farm staff environment and the animal environment. We were doing a lot of this before rules around farming in the catchment reached our ears.

We had stopped grazing our 25ha bush block enabling it to regenerate.

Our cows are grazed off farm and usually out of catchment in the winter, we have reduced our total cows milked and consequently the stocking rate,

Built standoff pads for wet weather events,

Ceased winter cropping,

Installed a lined effluent pond with 90 days storage (twice the recommended size)

Installed pumping and irrigation systems to our road underpass

Doubled our required effluent irrigation area and purchased a low application rate effluent irrigator.

All the above has come at an expense; but by doing these mitigation options, we have not only made the farm easier for the people working on our farm but the major spin off effect is, that we have also reduced the nutrient loss to both groundwater and across land, from our property.

To date we have not lost production but we have been prevented from increasing it(increased stock numbers and bought in feed) by the nutrient benchmark rules.

Further required reductions of N and P leeching will result in less profit and a consequential drop in farm value.

We want a clean lake.

The plan proposed and the consequent required actions, to help clean the lake is in my mind flawed, uses narrow thinking that has poor outcomes and other options should be considered.

I will read a sentence written by a group of scientists White, Rutherford and others in 1989.

"The water quality of Lake Rotorua has deteriorated since the 1960s because of excessive phytoplankton growths caused by increased inputs of phosphorous and nitrogen from the Rotorua city sewerage treatment plant".

Jump forward to where we are today.

The sewerage sediment in the bottom of the lake and now contributor to the lake N and P loading is acknowledged, but we are told there is nothing we can do with regards this, and that the only sector we can target for these nutrient reductions is the pastoral sector,

To then turn around and say that forestry is a low N looser, properties under 5ha are exempt and blocks under 40ha will have a delayed entry has put a huge financial burden on approximately 70 properties out of a catchment population of somewhere around 60,000 people who are the ultimate beneficiaries of a clean lake. It should be the entire community that works towards a clean lake. Every time a sector of our community is excluded or exempted from the lake cleanup process you put more burdens on the remaining small group.

To allow the city to increase its nutrient loss into the lake from population growth and tourism increases; and by bringing more sewerage from out of catchment areas it is like a smack in the face to those that are to be compelled to pay the price of a clean lake.

This plan will result in the lake clean up financial burden being place on one generation of farmers unlucky enough to have lived and farmed in the catchment during the nutrient benchmark period, and who we are told that the water and nutrients from their properties haven't arrived at the lake yet.

This is a community intergenerational problem and the time frame is too aggressive and a small sector of the community is being asked to take on the financial burden.

## At a personal level

We have gone through the last 10 years of heart ache and anxiety with regards our farms future and witnessed the erosion of our personal equity.

Farms in the catchment have become unsalable. Our bank says they value the farm with a Rotorua District view and then reduce the valuation by 20% because it is in the Lake Rotorua catchment.

They are also saying; that should these proposed rules come in to play they would estimate a further 20% reduction in farm values.

Any businessman with basic economic sense knows that he needs sound financial equity, and that income should exceed equity.

This plan has already, and will continue to, decrease our equity further; has effectively capped our production and consequently our income, but sadly fails to peg our expenditure. On the contrary it will add more cost with compliance consents and monitoring reports, and infrastructure to achieve our nutrient management allocation.

Expenditure will continue to rise, Income will decrease and sooner or later the farm becomes uneconomic.

About 8 years ago I attended a Rotorua rural professionals meeting and a senior regional council staff member, who was and is a driver of the proposed plan was a guest speaker. In question time he was asked about future farmer viability should the proposed plan be adopted? His response was that "some farmers will go broke"; he paused and then said "so be it". I did and still have trouble with the callous way he made this comment.

It should be pointed out that our farm supports not only my wife and I, but 3 other families, all of whom are contributing members to the social and economic well being of our community and the wider Rotorua area.

This plan and the years leading up to today has created a divide in the community. Pastoral farmers have become the scapegoats for all the lake problems and you have a dairy versus dry stock versus lifestyle versus urban culture. Everyone within the pastoral sector is suspicious of each other and how they are allocated their nutrient targets. You should not have to be afraid to tell people that you are a dairy farmer at the local Mitre10 store.

To have farmed for 40 plus years; half of them at Rotorua and to now feel that we don't want to be farmers anymore is not the way I could have ever imagined we would end our days on the land.

Overseer......you might be over this word by the end of the submissions

Overseer is a tool that we have used on our farm as guide to how much fertiliser we require annually to keep the farm soil nutrients at status quo.

Over recent years it has been used by a myriad of people to measure our farm nutrient loss to ground water. One minute you think you are going along fine and with a click of a switch and a version change you are kicked to touch and you realise that the game just got harder again.

These moving goal posts that give different results and different targets are confusing, frustrating and expensive to me. I don't believe results coming from Overseer to be accurate and my belief in the process is, that it cannot be trusted.

We have been asked by BOPRC to form a farm plan and submit it to them with regards how we are to achieve the required nutrient loss targets. We have 3 lease blocks that we farm in conjunction to our freehold title. None of the three leasors are willing to allow me to submit a plan that affects their land which complicates things.

Overseer is not calibrated to our rainfall and I am told it will take 4 years for field trial work to give accurate data that will enable more accurate overseer results.

Ground water attenuation is also lacking sound science and needs further work.

I liken the data that comes from Overseer to the weather forecast. Both use expensive programs that use huge data input to give a predicted outcome.

I ask you how often is the weather prediction correct.

## One Example.

We were advised that by building standoff pads, capturing the resulting effluent and piping it to our effluent ponds to be irrigated when soil moisture levels were right; we would lower our N loss per hectare by 2Kg Nitrogen. The next year Overseer had a further question; "Are these pads lined?" The answer was, no; and our N leaching went back up by 2KgN/Ha.

We get different N leaching results from different people operating the programme and major shifts from version changes. We were tracking along quite nicely towards the suggested 2032 N loss target for our property with the changes we were making on our farm, but version 6.2 of Overseer threw away our hope of achieving the target and remaining a viable business.

When we sold our lifestyle block in 2014 we had to get it benchmarked to fulfil the purchaser's requirements. I called BOPRC, met with them, and supplied all the required data and answers. The operator of the programme phoned to say that we were growing too much grass (the same as a dairy farm). To get overseer to work and grow less grass; the 60 well grown Friesian heifers were changed to small Friesian/Jersey heifers.

Our farm has been modelled in March of this year with Farmax Dairy Pro and Overseer 6.2.1 to gauge its profitability and future look to achieve the mooted N loss targets.

BOPRC paid for the modelling work and own the report and have received a copy.

The target for reduced nitrogen loss was achievable if we kept already actioned mitigation steps, but also reduced our stocking rate further, wintered 75% of our cows off farm, reduced N fertiliser inputs, ceased turnip summer cropping and relied on changing a 18ha area of the farm from ryegrass to chicory. Chicory is a deep rooting plant and it is argued that it will trap a larger proportion of N leaving a ryegrass/clover root zone. Overseer doesn't recognise this chicory mitigation so the results would not be accepted by a regulatory body. The financial analysis of these suggested changes was that we would lose another \$30,000 per year.

Another scenario that was modelled; that put the impact of the effect of this plan into plain language was –

If I want to remain farming with the same farm practices that I am currently doing; what area of pine trees do I need to plant to achieve the BOPRC N loss target set for 2032.

The answer was that of the 198 effective hectares I would need to plant 67ha (33%) in pines and milk 312 cows. My comments are that the trees don't have a financial return until they are harvested in 25 years time. I have infrastructure in housing and machinery that would not be required with this option. By planting forestry I devalue each and every hectare of land by between \$25-\$30,000/ha and wipe up to \$2m off the property value and lose \$120,000 per year. Hardly a bankable option.

Our options to stay a viable and profitable farm within the catchment are limited and both these options demonstrated that the required N loss were achievable but with negative cash flows that would result in borrowing capital to remain farming.

We were advised that we can buy N under a proposed N trading scheme. How dumb is this? I believe that all that N trading will do is transfer N from one property to another. N trading does not remove N and will not help the lake at all. I believe that if this N removal mechanism be employed, then the only option should be purchase by regional council and complete removal from the system.

If you asked most farmers in the catchment what their benchmark and target N figures are; they would not know. And more importantly for a picture of what their property will look like, be managed and the resulting financial implications leading up to 2032; you would get a very small minority that could answer this.

Dairy farms that refused to supply BOPRC regional council benchmarking figures have been given a benchmark of 99.7N/ha and a target of 68.5N/ha. On our property we would be 1.6T N better off if we had not cooperated and been given a target of 60Kg/ha.

The proposed allocation of who gets what with regards Nitrogen in the dairy sector has been skewed by one farmer, who owned about 30% of the total benchmarked dairy land in the catchment. This operator was a high N loser and now we have a situation that that land has received high end allocations for N. This is not really a reward for those at the lower end of the benchmark N loss data and that were farming more conservatively. Was everyone honest with their benchmark data? Should we have been savvier with regards how we answered benchmarking questions?

Overseer does not like cropping, the climate does not suit horticulture, and our debt is too high to consider dry stock or to borrow any more money for infrastructure to remain dairying. Wintering off cows is available short term but it will be hard to source in the near future. We have looked into housing cows and carting feed to them but the financials do not stack up.

Pine trees are the best kept secret in the catchment and it needs to be acknowledged that there is a high N and P loss for the 7 years after harvest. Professor Hamilton from Waikato University has said that the planting of more pine trees in the catchment will only worsen the lake nutrient load and given this information, I conclude that the deforestation of native bush to pine trees plantations is another cause of the legacy and ongoing lake nutrient load.

What, I am trying to say is that if the new catchment rules are adopted

Our options for land use change are limited given our eroded equity and ability to borrow more money to change to a farm system that is both profitable and meets the rule requirements.

We will most likely still continue down the path of nutrient monitoring but we need a monitoring tool that is accurate.

I mentioned at the beginning that other options to reduce the lake nutrient levels should be considered.

One option I would like considered to reduce the lake catchment N and P load.

Let's just talk N for simplicity

A few years back Transpower proposed erecting power lines on larger than normal pylons across private land between South Waikato and Auckland. All hell broke loose and nothing was being resolved until Transpower purchased the effected properties at market value, erected the pylons and then resold the properties with the incoming purchaser buying the property with the knowledge that there were pylons and associated easements. In many cases the farms ownership remained the same but the farmers were compensated for the loss in property value.

If Regional Council were to buy my farm (200ha effective and 30ha bush) I might want \$7m (currently benchmarked at 19T N and needing to drop to 12T N by 2032).

Regional Council could then sell the farm as a dry stock farm with the proposed average N leaching figure of 25.6N/ha and a total N loss of 5T.

The dry stock farm would be worth about \$4m (a loss of about \$3m), but Regional council has removed 14T N for \$3m

The total catchment target N reduction is 96T

Take 7 farms like this (removing 14T) and you will remove 7x14=98T at a cost of \$21m

You can apply the same logic and maths to a scenario of selling the houses and a bit of land off to make small lifestyle blocks and converting the remaining land to pines. My figures suggest that this would require the purchase of 5 similar sized farms and a cost of \$21m.

Applying the same logic to the dry stock sector target and achieving the 44T reduction for that sector would bring the total cost for dairy and dry stock to somewhere between \$35-40m.

I read that Regional Council has \$45m to help farmers through the process. None of this money actually ends up in the farmers' bank, but instead goes to advisors to build farm plans, compliance monitoring and even commissioners.

By adopting the thinking that I have just outlined, the remaining farms remain viable, bankable operations with achievable benchmarked nutrient losses, and remain an integral part of our local community. Sure monitoring of nutrient losses would need to still remain but the cost of compliance and equity loss would be addressed and community well being enhanced.

How much has been spent to date to get us to this point today?

How much more will be spent?

Could we not have spent the moneys expended in this process over the last 10 years and the foreseeable future in adopting a plan similar to this proposal.

I have given you one option. It may or may not be achievable.

What else would I like to see come out of this process.

We were given a lake water target for 2032. This target has been reached and we are told that it is Alum dosing and the balancing of the N:P ratio of the lake water that has achieved this.

Science has and will continue to evolve. Inventions and new science will come along. We will discover that what we think is right today is wrong and what we think is applicable to the ake is actually not.

Please don't sit in this room and decide my future, Rotorua's future. Visit those affected and get a feel for the work already done and the implications and consequences of this plan.

I ask that you get it right. Save the lake but don't kill the individuals that live and contribute to our community.

Farmers are not trained for this submission process and many will have chosen not to submit to this plan out of a feeling of inadequacy, fear and a lack of professional presentation skills. Others have been worn down by the whole process to date and have elected to put their heads in the sand, do nothing and hope the problem will go away. Others have tried to sell their properties, and received no interest or unrealistic purchase offers. Perhaps the blinkers and rules that constrain this process need to be removed and you visit some real people, that are doing the real "stuff" out in the paddock and will ultimately be the ones most affected by any new farming rules.

I have been told that Federated Farmers of New Zealand, DairyNZ, Rotorua Primary Producers Collective and Beef and Lamb NZ are making submissions to this plan. They will no doubt, like me, have different plan options. I support these options and ask that you consider them.

All options need considering that will keep farming viable, profitable and contributing to our Rotorua community. I could write a 100 page book on the process to date, the heart ache, blood sweat and tears of the community and the future implications but I have kept it to this

Thank you for your time

Jim Hitchcock

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Rotorua