

The story of protecting Lake Taupō is about people working together to safeguard the clean waters of a treasured lake.

Through commitment from Ngāti Tūwharetoa, other farmers, landowners and the community at large, alongside central and local government, a project to protect the lake was successfully undertaken.

He mahi tahi kia tiaki pai ai ngā wai Māori o te tupuna roto te putake o te horopaki haumaru i te roto o Taupō

Ko te whakatinanatanga o te oati i oatitia e Ngāti Tūwharetoa, ētahi kaipāmu, kai pupuri whenua me te hapori whānui, ngātahi me ngā kaunihera o te rohe me te Kāwanatanga, i tutuki ai tētahi kaupapa whakaora i te roto.

PROTECTING LAKE TAUPŌ

A story of partnership, challenge, innovation and success in protecting a New Zealand icon

Introduction

New Zealand's largest lake, Lake Taupō, is recognised for its deep, clear blue waters, stunning scenery and recreational values. Each year, thousands of visitors from around the world visit Lake Taupō to share in one of New Zealand's natural wonders. Lake Taupō, Taupō Moana, is a tāonga of Ngāti Tūwharetoa. Through ancestral connections Taupō Moana is the heart of Ngāti Tūwharetoa; in person, mind and spirit.

Project rationale

Lake Taupō has always been regarded as special. In the late 1950s concern was raised about contamination of streams and lakes in the central North Island from urban and rural settlement. In Lake Taupō's case this prompted a Lake Shore Reserves Scheme to protect the lake and its near shore areas. This was first mooted in 1957 and later developed by local and central government in 1968. Although it was not fully completed, over 18,000 ha of reserves have been set aside. Much of the remaining near shore land is owned by Ngāti Tūwharetoa and is still undeveloped to meet the intent of the scheme. The reserves provide a buffer to protect water quality and preserve the natural character of the environment. At the same time, much of the east Taupō Forest was established on Māori land blocks to help protect the lake. Some of the blocks have large conservation areas in line with principles of kaitiakitanga of protecting Lake Taupō and associated rivers and tributaries, and for protecting wahi tapu.

These initiatives were enhanced by the Lake Taupō Catchment Control scheme, begun in 1973, to protect erodible stream banks and steep land in pastoral areas. The scheme was designed to control erosion and soil nutrient loss, especially phosphorus. It included stock exclusion from water courses and fencing and planting of stream banks and hillsides, as well as retaining wetlands.

During the 1980s the DSIR Lake Taupō Freshwater Laboratory provided evidence of the impact of urban sewage, particularly nitrogen, on foreshore areas near sewage outfalls or from septic tanks. This prompted the Taupō District Council to begin progressive upgrades of sewerage treatment systems by developing 'state of the art' sequential batch reactor treatment plants and, in one case, discharging the treated wastewater to land outside the Lake Taupō catchment. Today, many of the larger urban settlements (e.g. Turangi, Kinloch, Acacia Bay, Waitahanui) use these treatment systems, which remove up to 90 per cent of all sewage nitrogen.

In 2000, based on a more intensive water quality monitoring regime, Waikato Regional Council concluded that increasing nutrient discharges, primarily from farming, were threatening Lake Taupō's near pristine water quality. Development and intensification of rural and urban land was increasing the amount of nitrogen entering the lake through groundwater and rivers, promoting the growth of algae and phytoplankton. This was a significant moment. The connections between land use and water quality and quantity were not generally understood by the wider public. The conclusions reached went to the core of New Zealand's agricultural industry and began a national debate which continues today.

The monitoring, supported by an extensive range of scientific investigations on land use and lake health, showed that:

- The source loads of nitrogen from the land had increased from an estimated 650 tonnes per year pre land development to 1150 tonnes per year in the early 2000s attributable to development of land for farming (94 per cent of manageable load) and urban sources (6 per cent of manageable load).
- Nitrogen loads were increasing in streams draining to the lake, especially those
 draining from pasture areas. Over the period 1972 to 2003 nitrogen loads from
 streams in pasture catchments increased by a factor of four to ten compared
 with loads in streams from forested catchments, which remained relatively
 constant over the same period.
- Lake water clarity was slowly declining over the same period. Chlorophyll a concentrations – a measure of phytoplankton suspended in the water column – increased by a factor of two between 1984 and 2003.
- The frequency of algal blooms (some harmful) increased compared with historic observations.
- The profusion of near shore lake weeds increased, as did sewage slimes from diffuse run off from urban effluent disposal sites.

These factors (among several others) led Waikato Regional Council to act to protect the waters in Lake Taupō. In 2000, Waikato Regional Council called its first public meeting to raise concerns about water quality. Thus began the Protecting Lake Taupō Project, a ground-breaking partnership between the regional council, Ngāti Tūwharetoa, Taupō District Council and central government, which ultimately reduced the amount of nitrogen leaching into the lake by 20 per cent.

Project objectives

Protecting Lake Taupō was always going to be challenging. While few would argue against protecting the near pristine waters of the lake, there were widely varying views about how to protect it. The project had to consider the livelihood of stakeholders (including Ngāti Tūwharetoa who are the largest landowner) alongside social, economic and cultural issues. Perhaps the most difficult questions – what would be the cost to protect the lake and who would pay?

Between 2000 and 2004 partners and all stakeholders worked through the many unresolved issues. This was challenging because it had not been done before. Eventually, a clear policy framework was developed with four clear and measurable objectives:

- Maintaining Lake Taupō's current water quality so that by 2080, the effect of nutrient discharges in the catchment were mitigated and the water quality of the lake was restored to 2001 levels.
- Managing the effect on Lake Taupō water quality from land use activities by managing land use activities, particularly farming, that caused nitrogen leaching.
- Avoiding the near shore effects of wastewater to ensure there were no harmful concentrations of domestic wastewater nitrogen or pathogens in shallow, nearshore waters.
- Minimising the economic costs and mitigating social and cultural effects of the land use changes required to protect the lake.

These four simple, yet challenging objectives formed the heart of this project.



Project approach

The Protecting Lake Taupō Project was extremely complex, involving many people, community groups and four major partners. While Waikato Regional Council instigated and led the project, the approach relied absolutely on extensive community engagement and collaboration between the project partners, lead community groups and landowners. The project also required support from Government Ministers, treasury officials, agricultural leaders, iwi leaders, elected local government politicians and many others. Community buy-in from the Taupō and regional community was critical. Securing that support was not always easy.

Science and information

Science underpinned the Protecting Lake Taupō Project. That science involved many of New Zealand's national research organisations. The project was one of the first to apply broad scale science to support policy. Social and economic research also contributed to the project because, to be successful, it had to be strongly guided by fundamental community values and by economics that clarified the impact on the livelihoods and the wellbeing of those living in the catchment. The project, through partnership with Tūwharetoa, was infused with cultural values that embodied the concept of kaitiakitanga. For landowners, the project had to acknowledge farming was not 'just a business'. For many farmers, including those near the lake, changing farming practices meant changing lifestyles. For some, that meant challenging what it meant to 'be a farmer'.

Consultation

Waikato Regional Council developed an extensive community engagement programme which lasted from 2000-2004. The programme involved landowners, iwi authorities and community interest groups and supported the development of policy to protect the lake and aid community understanding. The first public meeting to raise concerns about water quality in Lake Taupō was held in 2000. It was a confronting meeting. While scientific evidence about declining water quality was compelling, there was little public understanding about what was causing the water degradation.

A comprehensive community process was begun, with meetings with stakeholders that continued for the next four years. Many issues were discussed and debated, often vigorously. In 2004, there was general agreement that responsibility to protect Lake Taupō was a 'collective responsibility' and would require a programme of support to manage the changes needed.

Governance

From a governance perspective, the Protecting Lake Taupō Project was never going to be easy. The project was challenging, particularly for the farming community, which came under intense scrutiny and under pressure to change farming practices. The project partners were keenly aware of the economic contribution agriculture makes to the region but also of the cultural and social impact of instigating such wide-scale change. The project required purposeful leadership and an unparalleled commitment from staff and the community. Many participants believed they were working on a legacy project.

District, regional and central government politicians were challenged by the issues raised. Following an agreement about 'what to do' to protect the lake, the next thorny question to answer was 'how to pay'.

Sector interests, including dairying, forestry and tourism, also challenged the decision-makers. This was a regional project with significant national interest.

Funds to facilitate land use change

A public fund of \$80 million was secured by the project partners to help change current land use to lower nitrogen leaching land uses (including forestry) and to recognise the national and regional benefits of a clean lake for all New Zealanders. Government contributed 35 per cent. Through specific rates the regional and district councils provided the remainder, thereby requiring all ratepayers help to protect Lake Taupō. While many people were willing to pay towards protecting Lake Taupō's water, many were not. They made their feelings well known to the decision-makers.

Lake Taupō Protection Trust

The Lake Taupō Protection Trust – a charitable trust – was formed to administer the \$80 million fund and to permanently reduce nitrogen discharges from pastoral land by 20 per cent. The Trustees are independent appointees. The fund is used by the trust to permanently remove 20 per cent of the manageable nitrogen from Lake Taupō by helping convert farmland to forest; by agreeing alternative farming practices to lower nitrogen leaching; and by covenanting these land use changes. This process was completed in 2015: four years ahead of schedule.

Monitoring and evaluation

Many think the project is complete. The policies are confirmed; the consents required for farming in the lake catchment have been authorised; and the Lake Taupō Protection Trust has reduced rural nitrogen discharges by 20 per cent (170 tonnes a year), including planting 7000 ha of new forest in the catchment.

But the project continues, via ongoing monitoring to ensure compliance with the allocated nitrogen discharges from urban and rural properties. The lake is also monitored and scientifically evaluated so it will remain in a near pristine state and for water quality to be the same in 2080 as it is now.

Specific numerical targets for water quality parameters (total nitrogen, total phosphorus, chlorophyll and water clarity) have been set. These targets are the scientific measures against which future water quality will be assessed. Continued monitoring of the performance of the policies to protect the lake is also necessary. A plan for this monitoring has been developed and is being implemented.

Project outcomes

The Protecting Lake Taupō Project has been a story of partnership, challenge, innovation and ultimately success. The project overcame many significant hurdles, generated national and international precedents for environmental management and, by almost any measure, has been successful.

Nationally, it has helped drive a fundamental change in attitude around the relationship between land use and water quality and in doing so has motivated innovation in national farming systems. It has protected a national tāonga while providing certainty – including certainty of income for farmers and other stakeholders. It has set national and international precedents around complex environmental issues including a nitrogen cap and the use of economic instruments such as combined trading systems for nitrogen and carbon. The Protecting Lake Taupō Project has cemented Ngāti Tūwharetoa's role as kaitiaki of Taupō Moana.

But the Protecting Lake Taupō Project story is more than a story of partnership, science, policy development, community involvement and innovation to ensure lake water quality is maintained. In addition, several other outcomes derive from this project:

- Lake Taupō will continue to hold a special place in the hearts of New Zealanders
 as they appreciate Lake Taupō for its aesthetic value, and for its economic, social,
 environmental and cultural contribution to the nation.
- Ngāti Tūwharetoa will continue to nurture the lake and exercise kaitiakitanga over the lake and further develop innovative farm systems that provide a fair economic return.
- The Protecting Lake Taupō Project will continue to be recognised for what can be achieved when agencies work together and are courageous and innovative.
- The 'Lake Taupō way' will continue to be an exemplar, globally, of an outstanding initiative to protect and nurture the natural environment; and that the precedents set by this project continue to be adopted in New Zealand and internationally.
- The learnings from Taupō will continue to influence New Zealand environmental management by application to other New Zealand lakes such as Lake Rotorua and Te Waihora.
- New Zealand farmers will be encouraged to adopt innovative and sustainable farm practices, as this project serves as a real-life example of what can be achieved when agencies work together on common goals that recognise economic realities.
- Innovations such as the 'Taupō Beef: Grown Right Here' farming brand are recognised for contributing to New Zealand's global competitiveness and clean, green reputation.

Ultimately, the project is an exemplar for others to follow based on courage, a sense of purpose and a vision of a preferred future that protects one of New Zealand's natural icons.

This booklet describes the stories of people who have been instrumental in delivering the Protecting Lake Taupō Project – to date one of NZ's largest environmental projects. Their stories reflect the unique partnerships, policies, processes and the determination and innovation of a wide range of people including iwi, scientists, politicians, local farmers and the New Zealand public.

Often our children are deluged with environmental concerns and underperformance leading to a feeling of helplessness to make change. Through this story and the lessons learned, they can see that individuals can make a difference, and perhaps in the future they could be that individual. That may be the greatest achievement and legacy of all those who participated in safeguarding Lake Taupō.

Timeline for the Protecting Lake Taupō Project

A catchment and lake protection project of this scale, duration and precedent-setting nature has many critical elements that must combine to create a compelling case for action, be publicly acceptable and have enduring political (and community) support to be completed. Critical elements for the Protecting Lake Taupō Project are identified below.

1998

Waikato Regional Council and the Tūwharetoa Māori Trust Board agree a Memorandum of Agreement. The enduring relationship between Waikato Regional Council and the Tūwharetoa Māori Trust Board lasted through the Protecting Lake Taupō Project and culminated in the Tūwharetoa Māori Trust Board being a member on the governance structure that oversees the Lake Taupō Protection Trust.

2000

Waikato Regional Council formally starts the Protecting Lake Taupō Project. The beginning of the project signalled the nexus of: sufficient evidence that Lake Taupō water quality was declining; an understanding of the causes and effects and the processes linking them; the sound relationships between the critical partners; and finally, the political will to take action and confront the water quality impacts on the 'backbone of New Zealand' – the agricultural sector.

2000 - 2003

Waikato Regional Council leads a comprehensive science programme to facilitate community engagement, to support policy development, and support any Environment Court appeals and decisions that might ensue. The four-year science and community extension programme was informed by many of New Zealand's science agencies, universities, specialist consultants and government departments.

2000 - 2004

Four year community engagement with landowners, iwi authorities and community interest groups undertaken to support development of policy to protect the lake.

Local farmers developed an incorporated society, Taupō Lake Care, representing most of the private landowners and Tūwharetoa economic authorities directly affected by the potential new policies.

2008 - 2015

The Lake Taupō Protection Trust began purchasing nitrogen from the catchment.

July 2015

The Lake Taupō Protection Trust announced it had reached agreements with landowners to reduce nitrogen leaching into Lake Taupō by 20 per cent amounting to 173 tonnes of nitrogen.

August 2015

Lake Taupō Catchment
Monitoring plan developed
to ensure monitoring the
effectiveness of policies to protect
the lake were scheduled, funded
and implemented. The plan
was developed with input from
landowners and the project
partners.

May 2016

Waikato Regional Council completed the process of authorising farms in the Lake Taupō catchment requiring a consent to farm. All 116 farms over 20 ha now operate under a confirmed nitrogen discharge allowance authorised by a 25-year consent with monitoring to ensure compliance.

2001 - 2004

Ngāti Tūwharetoa and Waikato Regional Council lead a threeyear Community Visioning project for the Lake Taupō Catchment. The resultant '2020 Taupō-nui-a-Tia Action Plan' sets out the actions to achieve the community's long term vision for Lake Taupō.

2003 - 2005

Waikato Regional Council developed policies to protect the lake. The policies have four objectives: maintain current water quality of Lake Taupō; avoid near shore effects from urban wastewater discharges; minimise social and economic costs; and avoid further adverse effects from land use change to reduce nitrogen discharges to the lake.

2003 - 2005

Waikato Regional Council developed the concept of a public fund (ultimately \$80 million) and garnered public and political support for the fund to more fairly distribute the burden of change required on farm and recognise the value to local, regional and national communities of a clean, iconic lake.

2005 - 2007

Waikato Regional Council created the Lake Taupō Protection Trust, an independent council controlled organisation to manage and administer the purchase or permanently reduce 173 tonnes of nitrogen discharges from rural land use.

2006 - 2013

The implementation of the lake protection policies began in 2006 when some farmers requested benchmarking of their farms to establish a 'nitrogen discharge allowance' for their properties. Benchmarking of 116 farms was completed by 2012.

2017 and beyond

Implementation of the Lake Taupō Catchment Monitoring Plan. This includes, among other matters, continued monitoring of compliance with policies, monitoring and scientific evaluation of lake health, monitoring of policy effectiveness, and monitoring of compliance with Lake Taupō Protection Trust contracts and covenants for on farm nitrogen reduction.





Clayton StentChair of Lake Taupō Protection Trust
Former Mayor Taupō District Council

Clayton Stent

Sometimes in a lifetime you come across a project that has the potential to change lives – and the Protecting Lake Taupō Project has for me been just that. Born out of a need – the restoration and preservation of a significant national and internationally recognised body of water, Taupō-nui-a-Tia – Lake Taupō, New Zealand – this project was unique in the way its success depended not just on scientific action and significant financial investment, but most importantly people needing to work together in order to succeed.

The Protecting Lake Taupō Project has been recognised internationally for its innovative structure including an independent Trust able to act commercially and outside political influence; the world's first nitrogen trading regime; collaboration between multi parties including iwi, landowners, communities and political agencies collectively focused on a single outcome – the future health of our lake, our tāonga. There were people who were going to win and lose as a result of the project – everyone knew that – but at the end of the day it has been a shining example of how collaboration can and does work when people agree on a common outcome.

I acknowledge the work of my fellow trustees, particularly founding chair John Kneebone, and our two talented and committed staff members Graeme Fleming and Marion Peck, whose combined skills designed solutions to previously untested issues, developed confidence and strong relationships with stakeholders and ensured focus remained on the long term outcome.

All those involved with this project require a thank you for what has been a unique, innovative and lesson creating project whose success should serve to benefit many generations to come. I think that is something pretty special.





Topia Rameka *CEO Ngāti Tūwharetoa*

Topia Rameka

Ko Tongariro te Maunga Ko Taupō te Moana Ko Tūwharetoa te Iwi Ko te Heuheu te Tangata

Lake Taupō, Taupō Moana, is a highly treasured tāonga of Ngāti Tūwharetoa.

The relationship Tūwharetoa has with the lake extends back to the time of the arrival of eponymous ancestors Ngatoroirangi and Tia who first set foot onto these lands.

This relationship is real, deep and it is entwined with our history, our stories, our songs. These waters have nourished many generations of Ngāti Tūwharetoa.

This relationship continues to manifest itself in modern ways with Ngāti Tūwharetoa playing a leading role in the environmental and cultural stewardship of Lake Taupō with exemplars such as the establishment of a large forestry estate which was specifically established to protect and mitigate against increased eutrophication as a result of intensive farming operations post-World War II. This also led to the establishment of lake shore reserve schemes and our involvement, in the Protecting Lake Taupō Project.

Ngāti Tūwharetoa trusts and incorporations have significant forestry, agriculture and natural state land holdings and when combined with Lake Taupō, Ngāti Tūwharetoa, cumulatively, are the largest landowners in the Lake Taupō Catchment. So, with this major stakeholding, it is clear to see how Ngāti Tūwharetoa have a major interest in ensuring the protection of Lake Taupō and the wellbeing of our lands for future generations.

Our contribution to the Protecting Lake Taupō Project, whilst significant, was but another page of our long history of protecting our tāonga tuku iho.



Hon Dr Nick Smith *Minister for the Environment*

Hon. Dr Nick Smith

One of the key issues that ministers across developed countries all around the world are struggling with, is the whole issue of managing diffuse pollutants.

There is huge interest in what has happened with the Lake Taupō project due to the fact there is community collaboration. The fact that we have used a market instrument in a purchasing arrangement for the purchasing of those nutrients. The fact that we are using land use controls to deal with it, and the fact that for one of the largest water bodies of New Zealand, Lake Taupō, which even by international standards is a very large water body, we have been able to successfully provide a mechanism for reducing those nutrients into the lake by 173 tonnes a year.

That is inspiring other countries.

These problems have historically been seen as unsolvable and Lake Taupō and New Zealand has got a case example that can be used for other significant water bodies across the world.



Jenni Vernon

Waikato Regional Council Chairperson
(Environment Waikato)

(1995 - 2007)

Jenni Vernon

Lake Taupō is an international, national, regional and local tāonga. So in 2002, when faced with the science telling us the lake was in danger because of declining water quality, the question had to be asked – what can we do to halt the degradation and protect the lake for future generations to enjoy?

Our challenge was immense, given the degree of denial about the role of farming, and in particular dairy farming, regarding water degradation. At the same time there was a huge avalanche of dairy conversions everywhere throughout New Zealand which was more intent on production and productivity than the environment. Sadly our scientific institutions had reduced their 'public good' research so we were heading for a perfect storm!

The Lake Taupō catchment was being eyed up for potential dairy conversions given the economic return was considerably higher compared to that of dry stock farming and the location to a freshwater supply was perfect for irrigation and being able to increase stock numbers per hectare.

Our ultimate goal was to hold the line regarding dairy conversions in the catchment and look to restrict any further expansion in stock numbers on other properties, including lifestyle blocks. The science indicated that there needed to be a reduction of nitrogen of about 150 tonnes leaching into the lake. To achieve these results it was going to require resource consents for all landowners greater than two hectares – a first for farming in the Waikato region.

The next issue to confront was how to fund further research to underpin the need for change and to assist in retiring nitrogen from the lake. It was the same old story – everyone supported the idea of protecting Lake Taupō but nobody wanted to pay! Environment Waikato (as it was called then) began the long road of negotiating with central government, the regional community and the local community on making a contribution for the long term vision of protecting the lake. This process was

greatly assisted by the then Minister for the Environment, the Hon. Marion Hobbs, who convinced her parliamentary colleagues that central government needed to increase their share. Amazingly, this project completed its task earlier than anticipated and 173 tonnes of nitrogen was 'retired' from the lake.

An amazing result for future generations!

The biggest partner through this whole journey was the local iwi Ngāti Tūwharetoa, who owned and farmed 50 per cent of the catchment. Their overarching responsibility was to protect their tāonga but their economic development authorities were going to pay a high price for that protection and be restricted in their economic return to their people. In fact, parts of the catchment had to be retired from any development in perpetuity. This is a huge contribution that many New Zealanders would not be aware of nor possibly be prepared to make.

I feel hugely privileged to have been part of this history making solution which certainly marked the beginning of a bigger story regarding water quality in New Zealand and the role of farming.





John Hura

Tūwharetoa farming and land manager
Former trustee of the Lake Taupō Protection
Trust

John Hura

The Protecting Lake Taupō Project was extremely important for Ngāti Tūwharetoa and particularly for our Ngāti Tūwharetoa economic authorities. There was total support for the objective but the mechanism to achieve it was the subject of much debate and to some extent is still debated today.

As someone who is heavily involved with some of our farm lands within the Lake Taupō Catchment, being Chairman of one of our Māori incorporations and on the committee of management for another, it was extremely important that we played our part in the Protecting Lake Taupō Project. Most of our owners were in support of the project and their support was paramount for our participation within the project. Some saw the lake as needing to be protected no matter what. Consequently, the project forced us to look hard at our farming businesses, to look at the historical financial performance and to question whether there was a better way of doing things to deliver benefits back to our people while ensuring some land use flexibility for future generations. Intergenerational equity was a key discussion point for us. After much analysis and discussion, we came to the conclusions that we couldn't keep doing what we had been doing and that we needed to change. The Protecting Lake Taupō Project provided this opportunity whereby we could capitalise on the commercial opportunities the project presented while contributing towards the environmental protection objectives the project was seeking. This was a very nice marriage indeed.

The project presented our farms with a unique commercial opportunity. With regards to Māori land ownership, it goes without saying that we cannot sell our land and nor do we want to. Entering into commercial agreements with the Lake Taupō Protection Trust allowed us to sell nitrogen to the Trust, which is essentially a sale of a capital asset associated with our land, while still retaining our land. That was a key concept that we were able to communicate to our landowners. It was something that had never been done before. To be able to realise some of the capital value of the land without actually selling the land was extremely important. This sale enabled us to diversify our land use through establishing a small forest on the land and to invest elsewhere. I have no doubt those of our economic authorities that did this are better off today than if they had not done it and let's hope the lake is better off for this as well.



Graeme Fleming Inaugural CEO

Lake Taupō Protection Trust

Graeme Fleming

The Lake Taupō Protection Trust was formed with the clear goal of securing the reduction of 20 per cent of the overall manageable nitrogen load entering the lake. This task relied on the integration with the more complex and at times completely untried parts of the project including the science, regulatory systems, computer prediction models and the nitrogen trading scheme. However, the success of the Trust in my view was highly influenced by having a clear mandate to achieving its singular goal. This allowed the Trust to be innovative in its business approach and to be more neutral on the application of the rules which at times were controversial with landowners. The Trust, while reporting to a joint governance group, had been formed as a separate entity with the ability to complete nitrogen purchases without cumbersome reference back to governance agencies. I could shake a landowner's hand on an agreement and have the legal paperwork in place the next day. Such practice unknown in normal government structures, but a priority for our Trustees who saw ease of business an essential business approach. Given that we were competing in a competitive nitrogen trading system, such speed and transaction confidence became vital.

At times issues were raised about the use of public funds to complete the nitrogen purchases. It is to be remembered that the purchase of nitrogen always required land change in perpetuity and that had income, but more importantly capital value effects for landowners. In reality the funding was often insufficient and only with agreements involving other financial benefits, the most important of which was carbon trading agreements, could business deals be made attractive.

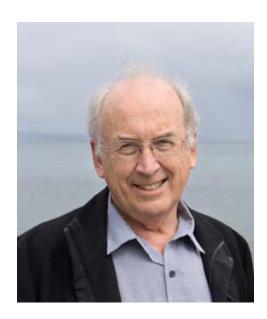
The Trust target was achieved four years early on budget – and despite initial misgivings, landowners have generally accepted and benefited from the Trust operations.

What lessons can be learned?

Firstly, all environmental projects are intensely political and this was no different. Accept that and therefore engender some degree of political clout to use when things get difficult.

Make political, bureaucratic and business alliances based on mutual benefit. Work for, hire and mix with great people who believe in the project and have a history of success. Lastly, be process orientated but always have the agreed big picture to go back to. Also, sometimes a bit of luck is also vital.





Tony PetchWaikato Regional Council executive
and project leader

Tony Petch

A catchment and lake protection project of this scale and duration has many elements that must combine to create a compelling case for action, be publicly acceptable, and have enduring political and community support. For me, keeping the project moving was most important and relied on robust relationships between all parties.

Although the case for action was compelling, each element was challenging as we were often in uncharted territory for many of the project's innovations. There certainly wasn't a proven model to follow! Today, there are very few precedents internationally of what we achieved at Lake Taupō. Rarely do policies to protect a lake actually cap the total allowable (nitrogen) discharge to water (including a 20 per cent reduction from baseline) and manage (by regulation) all point and manageable non-point source discharges in a catchment. Even rarer are policies to minimise social and economic impact that combine a trading regime for point and non-point discharges to ensure the most efficient use of the limited rights to discharge nitrogen, with a public fund to recognise the local, regional and national community benefits of clean water, and to help minimise the economic hardship of a cap that would make many farms unprofitable.

Initially, there was suspended disbelief that something was happening in Lake Taupō. The science at the time was quite compelling, based on information from the 1990s to the present. Sporadic observations of water quality in the 30s, the 50s and the work of the DSIR Lake Taupō Laboratory also enabled us to detect changes in water quality. But the important concern was whether there was enough public belief that water quality was deteriorating and whether it was worth intervening. We undertook extensive public engagement and consultation with the community, especially the rural community, to understand their views and concerns. These were often testy meeting but we were dealing with things that deeply affected the community and often at a personal level. Three important aspects relating to lake water quality

were identified: clean water, good trout fishing, and a weed free lake. These, and other community views on the lake environment, gave us a mandate for going ahead with the Protecting Lake Taupō Project.

Community involvement and partnership were recurring themes in the project. While the project was about protecting Lake Taupō water quality, it was really about community change: how we used our land for rural and urban activities and what could be done to ensure very high standards of environmental performance in the lake catchment. The project partners spent a lot of time with the community understanding their thoughts, their doubts and their aspirations.

This project spanned 15 years and involved many people. A few are still involved, others have moved on. For me, Lake Taupō is special! It has been a privilege to work on this project and with the many people involved. Few natural heritage projects of this scale occur. I believe all involved can say they helped save a lake – as a legacy for all New Zealanders.



Mike Barton

Farmer, landowner

Former trustee of the Lake Taupō Protection

Trust

Mike Barton

I think it would be fair to say that most farmers felt the nitrogen market would allow the most efficient form of farming under a nitrogen cap to prevail. Nitrogen would be moved around farming systems so that it found, using market language, the most efficient and most profitable use for that nitrogen.

We were comfortable with that, as opposed to a more regulatory approach which said you couldn't do this or you couldn't do that – we wanted the market to determine those things.

So, on balance, I think the market has been excellent and as far as I know it is still the only non-point source nitrogen trading market in the world.

The market was a critical facilitator in the Lake Taupō Protection Trust achieving its 20 per cent nitrogen reduction target.

Equally it has allowed farmers to do things they wouldn't have been able to do otherwise, and I would have to say it was crucial to the success of the Protecting Lake Taupō Project.

Speaking with my trustee hat on I would have to say the project has been an outstanding success. However, I feel it is a sad indictment on the low level of science funding into ways of minimising farming's environmental impact that as a Trust we had no option for reducing the nitrogen load into the lake other than destocking and/or converting farmland to forestry.

We need to seriously fund research into other ways of reducing farming's impact on water quality, as replicating the Taupō experience across other catchments within New Zealand will be too expensive economically, socially and politically.





Paula Southgate

Waikato Regional Council Chairperson
(2013-2016)

Paula Southgate

Protecting Lake Taupō's water quality has been a top priority for Waikato Regional Council and myself. The lake is a stunning natural beauty that New Zealanders and tourists alike highly value. It also supports a wider economy: the water that flows from it is used for hydro energy, growing food and supporting towns and cities.

But this project has also been about leaving behind a legacy for future generations while providing certainty, including certainty of income, for farmers and other stakeholders.

While the journey started just before I joined the regional council in 2001, it's been a big part of my 15 year career with the council. However, I also want to acknowledge the huge contribution made by my former chairs – Neil Clarke, Jenni Vernon and Peter Buckley – and other regional council colleagues. I thank them for their vision.

The journey from the first public meeting to conception of the council's leading edge variation to the Waikato Regional Plan (known as Variation 5) through to successful implementation was long and complex. It was also tough, requiring compromise all round. But it was ultimately successful.

At this project's heart was a partnership between central government, Tūwharetoa Māori Trust Board, Taupō District Council and Waikato Regional Council, supported by an extensive community engagement programme.

The project successfully generated total buy-in from central government, engaged numerous sector interests and established policies to protect the lake and retain a vibrant rural community, while incorporating Ngāti Tūwharetoa's role as kaitiaki of the lake. It has worked with rural landowners and provided tools and support for on farm change.

All farms within the Taupō catchment now have resource consents to operate within the cap placed on them. That we have collectively achieved our nitrogen reduction goal ahead of time and within budget is a tribute to all involved. But I really want to make special mention of the Lake Taupo Protection Trust who were ultimately responsible for changing local land use to get the nitrogen leaching load down.

The council also acknowledges the crucial role of landowners who got in behind what the policy requires of them, and the contributions of the region's ratepayers to the cost of maintaining the lake's water quality.

Another key contribution to the project has been the regional council's technical expertise; from its science to the measures contained in Variation 5 such as caps on nitrogen emissions from farms and limits on wastewater discharges. The council also developed a world-leading scheme allowing the trading of rights to emit nitrogen.

It's fair to say a lot of hard yards have been done to leave a legacy of a clean lake for all to enjoy. And while there's still more to do, I think we can take heart in knowing we have protected a tāongā – not just for the local community but for the country.

It's been a journey of collaboration, courage and innovation and I'm extremely proud to have been part of it.



Jerry Rickman
Trustee, Lake Taupō Protection Trust

Jerry Rickman

It seemed to take forever to get the various Protecting Lake Taupō Project documents agreed to and signed to empower the trust to get on with its task.

The trustees, having been appointed, were eager to start the job.

There was no clear roadmap or text as to how the job could be completed.

But we (the Trust) had a bucket of money, which could only be spent once, a talented but small staff, a group of trustees and a catchment that, albeit initially reluctantly, all worked together to achieve the nitrogen reduction target, ahead of time and under budget.

So why did this happen?

Putting aside the science – as only time will tell whether or not the 20 per cent nitrogen reduction target achieves the required long term goal of water quality in the lake – in my view there were several critical reasons.

First, the structure that created an independent Trust that reported to a joint committee was clever. The trustees were largely free from political interference as they went about their work.

Second and most importantly, the appointment of Trust staff Graeme Fleming and Marion Peck as the team to do the work was the master stroke. They won over an at times hostile catchment and built lasting and trusting relationships. They recommended innovative ways of achieving the objective. They were completely transparent with their journey. And the relationships they formed with iwi were critical to their work. In fact, without iwi's wholehearted support we would have really struggled to get there.

The funders played their part. In fact all parties delivered on their promises.

Although the initial task is accomplished, the enduring challenge is to continue to work with all stakeholders and monitor the obligations made by various parties.

We owe that to the taxpayers of New Zealand and to the ratepayers of the catchment.



Peter Buckley
Waikato Regional Council Chairperson
(2007-2013)

Peter Buckley

During Waikato Regional Council's Regional Plan Variation 5 (RPV5) process, farmers in the Taupō catchment established the Taupō Lake Care group. This care group, together with Waikato Federated Farmers – of which I was Vice President at the time – kept a watching brief over the RPV5 process, which in time set new policy and rules to reduce the amount of nitrogen entering the lake. In effect, it established a nitrogen cap.

In 2007 the Lake Taupō Protection Trust was set up to accomplish the mandated 20 per cent reduction in nitrogen losses to the lake. That same year I was elected to Waikato Regional Council. Subsequently I was appointed Chair of the Protecting Lake Taupō Project Joint Committee, which the Trust reports to.

Less than 10 years later, and four years ahead of time, the Trust announced it had reached agreements with landowners which over time will reduce nitrogen leaching into the lake by the agreed 20 per cent target.

A number of tools and strategies helped them achieve this:

- Buying farms and reducing the nitrogen cap before onselling them with a reduced nitrogen discharge cap.
- Carbon trading, giving landowners the flexibility to make land use and management changes to increase, decrease or maintain their production.
- Purchasing nitrogen credits and retiring that nitrogen out of the system.

The Trust also facilitated the introduction of interested farmers (who had afforested pastoral land) to the local energy company. This great initiative resulted in some landowners securing carbon contracts for a fixed term at a fixed price. The annual carbon income, together with a nitrogen reduction payment from the Trust, was a good business proposition and one taken up by several iwi entities and individual farmers.

But for me it's the Trust's autonomy that was the real advantage. As well as giving them the freedom to get on with the job they were established to do, the trustees were able to develop a high level of credence with landowners.

From a governance perspective, I have valued the partnerships around the joint committee. And I can say without doubt that what's been achieved to date could not have happened had it been driven by the regional council alone. But for the success to continue, and to give the funding partners, Ngāti Tūwharetoa and the public security that water quality in Lake Taupō will be maintained for future generations, we need to make sure this project stays 'front of mind'. Waikato Regional Council's monitoring processes will play a big part in that.







Tony FentonScience and policy communicator, facilitator

Tony Fenton

Being on the 'bureaucratic' side of the process, primarily for the first stage of the process up until Variation 5 was proposed, it is fair to say I started with a particular 'view of the world' and what was required from the process.

That view is now somewhat different following my experiences in this process – based now on a wider understanding of the people, the place and the history.

This project was, and still is, a process of balancing different values, expectations and rights on the road to sustainability. Searching for this balance is a difficult and time consuming process.

I remember when Justine Young organised a cake to celebrate our 30th meeting with Taupō Lake Care Group who represented farmers in the catchment. At the time it didn't seem like we were yet close to reaching agreement on solutions, but we were working constructively together and seeking common outcomes. This level of engagement reflected the large commitment Taupō Lake Care members made to the process as they weren't being paid to sit around and talk like me.

"Seek first to understand and then to be understood."

- Steven Covev

I was quoted once in the Waikato Times saying, "As long as they are all equally pissed off, then we would have got it right." Not everyone liked this saying, especially the executive and councillors, but once you start a process like this there are not many happy campers left in the room. Also, once a decision to 'cap' and allocate nitrogen is made then principles of fairness and equity are really tested across those affected. Finding options that avoid penalising those who have been environmentally proactive or rewarding those who are not is challenging. 'Equitable annoyance' was always a lofty goal and the funding to support the changes made it much more achievable. But I'm sure there are some who don't think it was achieved.

People sometimes ask me what made the Protecting Lake Taupō Project successful? To me it was a 'perfect storm' where numerous factors aligned just the right way.

- Good science enough monitoring results to understand issues and direct further research.
- Supportive, stable regional council during project development and a commitment to being more engaging with stakeholders/community.
- Supportive partners Ngāti Tūwharetoa, Taupō District Council and central government which enabled development of a funding package to support rules.
- Good implementation structures established –
 particularly the focused role of the Lake Taupō
 Protection Trust at arm's length from the bureaucracy
 of local and central government.
- Great people in key roles who brought focus and leadership.

I think it would be difficult to repeat the Protecting Lake Taupō Project in today's setting. All said, after nearly 30 years of working in environmental management, this is the one project where I feel that an enduring result for sustainable management has been achieved.

The remaining challenge for the project lies with the regional council to ensure the implementation of the policy and monitoring is undertaken effectively to maintain the progress made to date and reward. The hard work of all those involved and the cost of the project to the community and landowners.



David J Trewavas JP *Mayor, Taupō District Council*

David Trewavas

It has been a privilege to be involved with the Protecting Lake Taupō Project over the past three years in my role as mayor of the Taupō District.

Lake Taupō is tāonga – a treasure – not only for the people who live in our district, but for all New Zealanders. It is one of the jewels in our country's crown and is appreciated by those who live here and by those who visit our district from around the world.

We are all aware of how innovative and internationally revered our goal to reduce nitrogen levels in the lake has been. The fact that our goal has been achieved is testament to the collaboration between the partners involved – Ngāti Tūwharetoa, Waikato Regional Council, Taupō District Council and the Crown. It is also important to acknowledge that these achievements would not have been possible without the tireless work of the community representatives on the Lake Taupō Protection Trust.

I am proud that Taupō District Council has been able to prioritise changes to our wastewater infrastructure to help do our part to achieve the project's goal. We have continued to make major investments in our wastewater infrastructure and particularly the Turangi Wastewater Treatment Plant. This has enabled us to achieve the required nitrogen reductions.

We must also acknowledge the backing the project has received from farmers who could see the far-reaching benefits, even with the sacrifices to their livelihood they were required to make. I believe allowing farmers time and providing the public funding to help transition their land management, has helped farmers to be on board with playing their part to help achieve our collective goal.

Ratepayers have also proudly supported the work the Trust and its partners has done, and I know how proud locals are of this lake and what has been achieved. I believe there is a real awareness in the community outside of the farming sector about the importance of permanently reducing the amount of nitrogen in Lake Taupō.

It is a privilege to be a part of work that will protect Lake Taupō into the future, and I look forward to seeing the benefit this project will provide for generations to come.





Laurie Burdett

Councillor, Waikato Regional Council (2001-2013)

Laurie Burdett

This is a project that involved a passionate community, iwi kaitiakitanga, engaged politicians and key passionate people in the right places at the right time. Though it has taken 20 years from construction to action, the identified targets for nutrient removal have been organised ahead of time, and the effectiveness of the nitrogen reduction will continue to be monitored.

In the early 1990s the community noticed a deterioration in the lake water quality. Around the same time Taupō District Council developed four community strategic plan groups to inform their planning processes. Two of these later amalgamated to become the Lakes and Waterways Action Group. This group is still supported by the council.

Doug Gartner, a council manager, led a process that cumulated in a public meeting from which the Lake Accord was developed. This identified 13 factors about the lake that the community valued highly. Commercial opportunities were added later.

A combined funding application to the government from Tūwharetoa and council backed Lakes and Waterways Action Group to address the values identified in the accord was successful. This funding enabled the establishment of the Taupō-Nui-A-Tia 2020 Action Plan. The lake water quality project is the output of some of the values covered by the plan.

In 2001 I was elected to the Waikato Regional Council. That was the start of 12 challenging years working on and implementing a plan change to protect the water clarity of Taupō Moana. Variation 5.

The calculation and allocation of a nitrogen discharge per property was a subject of intense debate. Initially meetings were held separately with each sector group and then together so the stakeholders could listen to each other and reach agreement. Doug Arcus demonstrated his considerable mediation skills as chair of the combined stakeholder group's meetings. At one stage the government requested that we delay the process so the groups could reach a compromise. Frankly, this was not successful and if anything the groups became more entrenched in their respective positions.

The small block owners did not have formal representation in the stakeholder group. I feel this was a mistake as the permitted activity level for nitrogen discharge was only eight kilograms per hectare. The payment for a resource consent and annual fee was not economic for many, and the project has probably benefited by the extra reduction caused by the need for small block owners to reduce their discharge. There was an opportunity to achieve change through the formal submission process, however this did not occur. There are roughly 100 farms in the Taupō catchment and 1000 small blocks. The farms had their benchmarking paid for by the Lake Taupō Protection Trust and, after lobbying on my part, small block owners were also included.

I feel this project owes its success to the alignment of the community, Tūwharetoa and government – local, central and regional – towards the protection of the water quality of Lake Taupō. This was supported by skilled and dedicated scientists and managers.

It was a privilege to be involved.





Maria Nepia
Tūwharetoa Trust Board Member

Maria Nepia

The work of the Lake Taupō Protection Trust will last for generations, an example of Tūwharetoa's ongoing commitment to the sustainable use of our resources.

As we mark this occasion and reflect on what has been achieved, I want to acknowledge those Tūwharetoa leaders, some of whom are no longer with us, who drove this project. It was their commitment to ensuring Taupō Moana would be left in the best health possible while ensuring that Tūwharetoa land ownership and right to use the whenua was protected. This set a strong foundation for collaboration and direction for the Lake Taupō Protection Trust and the Joint Committee to build on.

Tino pai ā koutou mahi.



Paul White

Chairman and founding member of Lakes and Waterways Action Group Trust

Paul White

Back in the mid-1990s, members of the Taupō community began to meet to discuss common concerns about Lake Taupō water quality. This group, which became Lakes and Waterways Action Group (LWAG), was the progenitor of the Protecting Lake Taupō Project.

Today, we can look back though the complexity of the project process, through the hard work of many volunteers and through the efforts of government employees (local, regional and national) to something quite amazing that has been achieved from these early beginnings.

From the start, LWAG was not a regular environmental lobby group. A major aim of LWAG is to unite the people behind protection of Lake Taupō and our membership includes townies and farmers. For us, there has been no marching in the streets and no spectacular protests; just the dogged determination to see the lake protected through the many twists and turns of the project. Foremost, LWAG has been a community forum around the project and wider issues. Our meetings, at monthly intervals since the mid-1990s, provide a unique sectorbased perspective on project implementation. Many LWAG meetings have been focussed on farming under the project. "Carrots for farmers" was the theme of a series of meetings about 10 years ago; these aimed to address opportunities for farmers under the project. For example, the project provides a marketing opportunity to promote agricultural products within a clean-green reality; it is no coincidence that the "Taupō Beef" project was first canvassed at one of these meetings. Revenue associated with tourism e.g. bike trials, is another opportunity for rural landowners.

LWAG's advocacy for the project has been through many submissions to government over the years, commonly through the long term and annual plans of Taupō District Council (TDC) and Waikato Regional Council (WRC). This has required significant effort from LWAG members, particularly through the key early 'pre-policy' phases of the project. Through its key phases, and today, the project has enjoyed broad political support and LWAG has worked to ensure that this support continues. Both major parties at the national level have backed the project (and related expenditure) as have the leaders of TDC, WRC and their communities.

In my opinion, it is a milestone of land and water management in New Zealand. Has it been worth all the voluntary effort? Absolutely – we can be very proud of our achievements. Has the project finished? Absolutely not. The catchment population will continue to grow, so control of nitrogen discharge in wastewater by TDC will be ongoing, and economic pressures will remain for agricultural intensification. Therefore, the need remains for a group like LWAG and here are three challenges for the future: maintain the consensus around lake protection; understand the technologies (i.e. science and engineering) associated with monitoring and protection of the lake and catchment; and lastly, keep a keen engagement with policy development, at all levels of government, related to water quality and land use. Do these, and Lake Taupō's future as a protected water body is assured.





Hon Professor Peter Skelton
CNZM; D. Nat.Res (Hon) LLB; FEIANZ

Peter Skelton

In late 2005 I was approached by Ngāti Tūwharetoa seeking my agreement to be appointed by the Waikato Regional Council as the Independent Chair of a hearing panel to hear submissions on proposed Variation 5 to the then proposed Waikato Regional Plan.

I had retired as a Judge of the Environment Court in 2000 and was teaching planning and environmental law at Lincoln University.

At the beginning of 2006 I was duly appointed as Chair of the hearing panel. My colleagues on that panel were three sitting councillors, Andra Neeley, David Peart and Arthur Hinds. All three had been involved in formulating Variation 5.

We began our public hearings on 1 May 2007 in Taupō and these continued on and off for much of the rest of that year both in Taupō and in Hamilton. During that time we also deliberated on various sections of our report as hearings on those sections were concluded.

The panel signed off on its report and recommendations on Variation 5 to the Waikato Regional Council on 23 February 2007 and at its next meeting after that the council received and adopted those recommendations as its decision on the variation. There were some appeals to the Environment Court, but in large measure, as that hearing progressed, these appeals were either resolved or withdrawn and in substance the Variation recommended by the Hearing Panel ultimately became part of the Operative Regional Plan and has continued to be implemented ever since.

Variation 5 was an exceedingly far sighted and robust policy initiative promoted by the Waikato Regional Council with the support of the Taupō District Council and central government to protect the waters of New Zealand's largest iconic lake for the benefit of future generations of New Zealanders and indeed the world.

I was privileged to have been a part of that, albeit in a quasi-judicial capacity.

On the hearings themselves I have three comments to make. The first is that they were comprehensive and exhaustive of the issues raised by the many submitters, some of whom supported the variation and others of whom opposed it. I was aware from earlier information that there had been several years of public consultation before the formal variation was notified, but what struck me was that despite all that, there was still a lot of opposition to it.

Secondly, I became full of admiration for my fellow hearing panel members. Despite early inclinations to favour the variation they had worked so hard to develop, they put all that aside and applied themselves conscientiously to the task of impartial judicial adjudication.

Thirdly, as the hearings progressed the opposition to the variation softened as people had their say, explained their points of view, and were then prepared to listen to others.

Finally, the highly skilled staff at Waikato Regional Council – the scientists, policy analysts, planners, and administrators – were immensely helpful to the panel and this contributed to what I believe to have been a very successful outcome of historic importance to New Zealand.



Anne McleodWaikato Regional Council,
Taupō/Upper Waikato Section Manager

Anne McLeod

Some places are so awe-inspiring that people are collectively driven to preserve and protect them, and Lake Taupō is simply one of those places. More than once in recent history Lake Taupō has been under threat. And more than once Ngāti Tūwharetoa, public authorities and private individuals have acted together to recognise the threat and find a solution to maintaining the unique water quality.

I want to both acknowledge the excellent work of the Protecting Lake Taupō Project Joint Committee and the Lake Taupō Protection Trust, as well as the work of past public bodies and landowners, and the efforts they have made to protect Lake Taupō. This includes the Lake Shore Reserves Scheme, Lake Taupō Catchment Control Scheme and Taupō District Council's management of wastewater within the catchment.

First mooted in 1957, the Lake Shore Reserves Scheme was progressed by local and central government in 1968 and although never fully implemented it resulted in 18,601 hectares of reserve land being set aside. The scheme was essentially to provide a buffer to protect water quality and preserve the natural character of the environment. This work was complemented in 1973 by the Lake Taupō Catchment Control Scheme – another multi-agency initiative. Managed by Waikato Valley Authority, the scheme was designed to control erosion and soil nutrient loss. It included measures to exclude stock from water courses and fencing, planting of stream banks and hillsides, as well as retaining wetlands for water retention during periods of high rainfall.

In the mid-1980s the urban community funded a 'state of the art' sequencing batch reactor treatment plant for Taupō town discharging wastewater to land outside of the Lake Taupō catchment. This was followed by other scheme upgrades with the most significant being

the Turangi Wastewater Treatment Plant in 2004.
Once completed the Turangi plant made a substantive contribution to the reduction of nitrogen entering the lake from urban sources.

The ground breaking work of the Lake Taupō Protection Trust and the variation Waikato Regional Council made to its rules that govern land use in the catchment stands on the knees of the contributions the local, regional and national communities continue to make to ensure that Lake Taupō is forever protected. While there will be future challenges to water quality, retaining the good work and the understanding of why the different initiatives have been necessary is essential.

My personal involvement in this work was first as the former Deputy Chief Executive of Taupō District and assisting the council of the day to play their part in the Protecting Lake Taupō Project. Latterly it has been as the Taupō/Upper Waikato Section Manager for Waikato Regional Council and continuing to work closely with our other partners on the project.

Solutions to water quality that satisfy all aspects of wellbeing are difficult to achieve without some having to sacrifice more than others. Everyone has made a contribution toward protecting Lake Taupō and local landowners, in particular, have put aside some of their aspirations for future generations to benefit from a clean lake. The legacy of their efforts is a strong foundation for the future.



Arthur HindsFarmer and former Waikato Regional Councillor

Arthur Hinds

As a new regional councillor, Variation 5 was just two words and it wasn't until I was appointed to the hearing panel that I realised what a massive and ground-breaking undertaking it was. I found the large amount of reading that went with it fascinating, and looking back now realise what a privilege it was to be involved with it.

What stands out now, as well as the process, is the people involved. The chair of the hearing panel was an inspirational person to work alongside, not only for his knowledge but also for the manner in which he conducted the hearings. Also, regional council scientists involved with the Lake Taupō Project, very knowledgeable about the Taupō catchment and very helpful with advice when needed.

With regard to the process itself, Variation 5 was unique in that we were endeavouring to be proactive and step in early to halt the inevitable decline in the water quality of New Zealand's largest lake. This created its own set of challenges as the issues were worked through. I now look at Lake Taupō differently when I visit the area, still fascinated by some of the evidence we were presented with, from the natural process of the churning of the lake water to the crucial inflow of the water diverted from the headwaters of the Whanganui.

It was daunting to be advised that the water quality of the lake would continue to decline for the next 30 to 40 years because of the nutrients already in the system and seeping through to the ground water. I still applaud regional council staff members who highlighted the issue and were then part of the solution.

As a farmer myself, I found the submissions and hearings process very challenging at times when faced with fellow farmers who were realising the grim reality that their livelihoods were being threatened, and I wondered how I would have reacted if it was my livelihood that was being threatened. I commend those who worked through the whole process with us.

Ngāti Tūwharetoa were heavily involved in the submission process and my lasting memory is of the dignified and upfront manner in which their speakers conducted themselves. They encapsulated it well when the panel was told: "You are commending us for not developing our land and you are now telling us that we are not allowed to develop it." Another Tūwharetoa speaker sticks in my mind as he appealed to us to "ignore what I am wearing, what is important is what comes from here" as he tapped his chest.

One particular submitter, a Tihoi farmer, stood tall throughout the whole process. He always acted very responsibly challenging what was being proposed and quickly gained our respect for his approach.

I have maintained an ongoing interest in Lake Taupō and the Lake Taupō Protection Trust and I commend those involved for their commitment and focus on our behalf since the Trust was set up. In particular the inaugural Trust chairman for his inspirational leadership and Trust staff, two of the crucial executives responsible for the ongoing success story of Lake Taupō's protection.





Colin T HortonFormer trustee of the Lake Taupō Protection
Trust

Colin Horton

Having been a trustee from the start of the proposed Variation 5 of the then Environment Waikato regional council's initiative on farming within a nutrient cap, I have been fortunate to now look back in reflection having achieved the targets set four years earlier than predicted and under budget set by the parties involved.

For most farmers involved in the Lake Taupō Project, Variation 5 was something that they initially thought was another bureaucratic project that was unlikely to be finally passed. The concept of nutrient caps and nitrogen discharges from their land was difficult for farmers to accept. Traditionally it was their right to do as they saw fit on their piece of land without interference. Now, however, they were being faced with increased environmental discharge allowance maximums and a compliance regime that was a first in New Zealand. However, once the Variation had passed through the Environment Court rulings and had become policy of the regional council, they were faced with farming under compliance restriction which was completely new.

This was to prove a real awakening as to their responsibilities on how they farmed their land and what they could and could not do on their land. It also meant that keeping records became paramount to meeting their new reporting functions to the regional body. The idea of being regulated in their farm practices and stocking policies was not something any had considered, and it had now become a reality.

In working with farmers the Trust had to be cognisant that many farmers were still in denial or angry that farming practices would be controlled. Initially, therefore, the Trust focused on developing relationships with the farming community and developing business opportunities to present to them. Some decided to opt out and sold land to the Trust, whilst others had to learn new skills in order to cope with the reporting regulations for compliance consent. It was not easy. Some farmers saw this as a challenge and embarked on learning these skills and assessing business opportunities.

I am pleased to say that many of the business opportunities presented by the Trust to farmers were accepted as both an economic and environmental solution.

Overall, the pursuit of lowering nitrogen discharges into Lake Taupō will be the winner for the generations of people to come. Whether there will be farming in the catchment, as we now know into the future, will be dependant on advances being made in technology that will allow a sustainable economic farming unit to be run.



Sue Yerex *Trustee, Lake Taupō Protection Trust*

Sue Yerex

If I was ever to get a tattoo... it would be the shape of Taupō Moana, our precious beautiful lake! 'X's would mark Te Hapua (Truebridge family farm-past 20 years) and Turangi (my father's birth place when Pop ran the fish hatchery) and various favourite Yerex fishing spots!

Fast forward and my farming and parenting career in mid-1999 was impacted by the sudden public assertions that 'Farmers were polluting Lake Taupō!'.

That started my personal journey, first as a farmer on the Taupō Lake Care (TLC) landowner farmer group consultation team and subsequently as a Trustee of the Lake Taupō Protection Trust. It opened my ex-banker eyes to a whole new world of complex problem solving involving people, land use, science, water quality and prolonged periods of high stress!

TLC was formed in early 2000 to unite and lead both the Māori and private landowner community.

Strong leadership from TLC and Waikato Regional Council resulted in a consultation process in the early 2000s, described by the regional council's Tony Petch as a "four year-long difficult conversation". Monthly meetings between TLC's four person team and senior regional council policy staff, with invaluable facilitation from practical scientists, thrashed around theoretical and pragmatic options which ultimately laid the foundation for the cap and trade policy and the need for a 'fund' to deal with the groundwater Nitrogen load yet to reach the lake.

I believe key features that led to overall success for the Protecting Lake Taupō Project to date are just as relevant for other parts of New Zealand tackling water quality issues.

- Getting the 'right people in the room' with sound integrity, strong communication skills, including those with skin in the game.
- Brave, forward thinking, passionate leadership from all stakeholders is needed with as much role consistency as possible, but cater for succession.

- Agree on a uniting vision of a clean lake/waterway.
- Establish the science around the link between what people value (the lake) and what they are doing is the motivation for engagement and action.
- Encouraging open and honest debate within and between sectors of key stakeholders by building relationships and trust, which takes time!
- Continually gaining agreement on principles with ALL stakeholders and keeping to simple, consistent, nonemotive messages, helps keep moving the process forward.
- The detail of policy is incredibly important, looking ahead to what you may have to monitor.

Some very special people contributed to this project's success. Particular mention goes to the Lake Taupō Protection Trust staff and Trustees, who were fair and transparent in their dealings, thought outside the square, had a broad range of skills including the highest personal integrity, courage and determination. I am very privileged to have worked amongst them.

We tackled a job never before done, the results we are unlikely to see in our lifetime, on budget and ahead of schedule and now this project needs continued focus.

Upholding the nitrogen cap and Trust contracts in perpetuity is paramount in celebrating our community and nation's efforts to protect our tāonga – Lake Taupō.

'Te Wai, te Iwi'

the water, the people.

To watch the video, which accompanies this booklet, visit protectinglaketaupo.nz













