

Greenpeace New Zealand Submission on Water Conservation Order: Te Waikoropū and Associated Waterbodies

Greenpeace New Zealand, Inc. ('Greenpeace') was founded in 1974 and has over 45,000 financial supporters. Globally, Greenpeace International is an independent campaigning organisation that acts to protect and conserve the environment and to promote peace. It comprises 26 independent national/regional offices representing over 55 countries across Europe, the Americas, Africa, Asia and the Pacific, as well as a co-ordinating body, Stichting Greenpeace Council. The organisation has a global membership of 4 million supporters while around 63 million people globally follow Greenpeace on social media.

Greenpeace NZ supports the application for the Water Conservation Order for Te Waikoropū springs and associated water bodies including; the confined and unconfined Arthur Marble Aquifer; Te Waikoropū Springs; the Takaka River and its tributaries, including the Waingaro, Anatoki and Waikoropū Rivers; and hydraulically connected groundwater including the Takaka Limestone Aquifer and Takaka Unconfined Gravel Aquifer and tributaries.

Greenpeace NZ seeks that the Special Tribunal to the Minister for the Environment grant the order in full as requested by applicants, Ngāti Tama Ki Te Waipounamu Trust and Andrew Yuill.

We also seek that the WCO process be expedited due to the imminent threat posed to the springs by the current lack of regulations and the inability of the WCO to be applied retrospectively.


Summary of points

- The springs are an outstanding and globally unique natural treasure of immense ecological, cultural, spiritual and recreational importance.
- The springs are currently under threat from a lack of stringent regulations to restrict extraction and pollution of the springs and associated water bodies.
- There is an imminent risk that water will be consented for irrigation which will lead to intensification of dairying and subsequent pollution of the springs.
- Further extraction and pollution could lead to the loss of unique and outstanding clarity at the springs as well as the extinction of unique and endemic stygofauna.
- The springs should be protected for their inherent value. However there is also good evidence to suggest that this WCO will support the local economic wellbeing of the community through protecting its tourism industry.
- Further extraction and pollution of the Spring's poses a serious international reputational risk to all of Aotearoa New Zealand which could have economic consequences for NZ's tourism and export industries.
- A robust WCO, prohibiting further extraction and pollution, as is currently requested by the applicants, is both an urgent and necessary measure to protect the springs.
- Greenpeace believes that the Government has been given a clear mandate from the NZ public to take decisive action like this to protect and restore NZ's freshwater.

Outstanding characteristics

Te Waikoropū is a highly sensitive and vulnerable freshwater ecosystem with many outstanding characteristics.

The springs are of immense cultural, ecological and spiritual importance to New Zealanders. They are globally unique and internationally significant.



The springs are Wahi Tapu (sacred place) for local iwi. They have extremely unique and high water clarity. They are visited by tens of thousands of domestic and international tourists every year.

According to NIWA scientists there is:

“A rich aquatic flora of diatoms, blue-green, green, golden and red algae, mosses, liverworts and flowering plants occurs within the Springs. This flora is also remarkable because it includes unusual plant associations: fully submerged beds of mosses and liverworts, many occurring elsewhere only in terrestrial habitats, and two mosses with unusual growth forms.

Fifty-four benthic invertebrates inhabit the springs basin, and another 80 occur in the associated streams (total recorded biodiversity is 134 species), placing these springs amongst the more biologically diverse in New Zealand. The basin’s biodiversity is remarkable for the extremely high densities of a common snail, the presence of two species apparently endemic to the system, supporting the northern-most population of two caddisflies and the only South Island population of a freshwater amphipod.” (Fenwick et al. 2016)

NIWA scientists also predict that there are endemic species residing in the aquifer system stating that:

“The biodiversity of Te Waikoropupū Springs’ aquifers is unknown because only one collection from within the aquifer was available. Given the aquifers’ hydrogeological diversity, and the biodiversity associated with other Takaka Valley groundwater, and the high biodiversity of karst and alluvial aquifers in New Zealand and internationally, a diverse fauna is expected within the aquifers. Many species endemic to this aquifer system and/or Takaka Valley are expected.” (Fenwick et al. 2016)

The springs and their outstanding and unique characteristics are currently threatened by plans for further extraction and pollution. These activities are inadequately regulated against (discussed below) making this WCO, as is currently requested by the applicants, both urgent and absolutely necessary to protect the springs.

Threat and impacts

The major threat posed to the springs currently is the desire by local farmers to extract more water for irrigation. There is a waiting list of farmers that currently have voluntarily put the consent applications on hold while the Tasman District Council (**TDC**) establishes water allocation limits, which do not currently exist in the regional plan.

If these consents are lodged and granted and there is no WCO in place the water extracted will be used to intensify dairy and the pollution that will cause could ruin the springs forever.

Irrigation in New Zealand has already facilitated large scale conversions to and intensification of dairying. Dairy is the now single largest user of Irrigation in NZ (Irrigation NZ 2015)

It is accepted within the community that allowing more water to be extracted for irrigation will mirror this nationwide trend. The Takaka Freshwater Land Advisory Group (**FLAG**), set up by TDC to recommend extraction and pollution limits in the region, states that there is an:

“agreed assumption that further water availability in the Takaka catchments will result (at least in the short to medium term) in dairy land use intensification through enabling an extension of the milk producing period over the summer months and this creates an increased nitrate leaching risk.” (FLAG 2016)

NIWA scientists have recommended that nitrate pollution does not go above 0.4 mg NO₃-N/L in order to protect the springs’ high conservation values. (Fenwick 2015)

More recently DairyNZ, the national dairy industry group that receives levies based on the volume of milk produced in NZ, commissioned a panel of scientists to look again at a safe upper limit. This panel has made an interim recommendation which would see that limit increased to 0.5 mg/l. (FLAG, 2016)

Recent nitrate concentrations in the springs have been reported as “typically <0.4 mg/L-N” - median 0.36 mg/L; (Stevens 2010:31) More recent community monitoring has shown the nitrate levels to be at the safe upper limit of 0.4 mg/l.

This is extremely concerning as nitrate has a lag time from when it leaches from land to when it moves through the aquifer and shows up in springs. This is termed by scientists as the load to come.

This could mean that there are already nitrate levels that are higher than the safe upper limit which are locked in for the springs from historical and present land-use.

The stygofauna and other natural processes which keep the springs clear are not well understood. Allowing more nitrate and other pollutants into the aquifer and associated water bodies could have catastrophic and irreversible impacts for the health and clarity of the springs.

In this scenario the precautionary principle should be applied yet we have not yet seen that principle applied in regard to the springs which has led consents to be given out that have already adversely impacted them.

For completeness we note that increasing nitrate pollution from the increasing intensity and scale of dairying is not a local phenomena but a nationwide issue.

The evidence that intensive dairying sends huge amounts of pollution, particularly nitrate pollution, into NZ’s waterways is vast, stark and incontrovertible.

The PCE noted in its 2013 report, that: (PCE, 2013:6): (emphasis added):

“Unfortunately, [our] investigation has shown the clear link between expanding dairy farming and increasing stress on water quality. **Even with best practice mitigation, the large-scale conversion of more land to dairy farming will generally result in more degraded fresh water.**”

The MfE 2015 State of the Environment Report records an increase in nitrogen pollution (and notes its cause) stating that 60 percent of freshwater sites it monitors exhibited a statistically significant increase in nitrogen levels.

The report states that (MfE, 2015:54/55) :

“Between 1990 and 2012, the estimated amount of nitrogen that leached into soil from agriculture increased 29 percent. This increase was mainly due to increases in dairy cattle numbers (and therefore urine which contains nitrogen) and nitrogen fertiliser use.”

For completeness, we also note that diffuse nitrogen pollution is only one of the aspects of the freshwater pollution caused by conversion to and the intensification of dairying, sediment, phosphorus and pathogen pollution are the other associated pollutants.

The current lack of regulations protecting the springs from extraction for irrigation and subsequent dairy intensification make this application for a WCO both urgent and absolutely necessary.

Local economic impacts

The springs should first and foremost be protected for their inherent value and their outstanding ecological and cultural value.

However, there is also good evidence to suggest that a robust WCO will also support the local economic wellbeing of the community. The springs attract tens of thousands of visitors every year, the latest estimated number of visitors is 90,000 and there is a thriving tourism industry in place that supports these tourists.

The outstanding values of the springs that a WCO would protect will in turn ensure that the tourism economy and those working in it are sustained.

Without the WCO the springs may lose their outstanding clarity and therefore their attraction for tourist visitors. The lack of a robust WCO therefore may lead to a decline in the economic wellbeing of the local and regional community.

Te Waikoropupū is a unique and sensitive ecosystem. High input high intensity dairying simply cannot occur in this area without adversely affecting the springs but it will proliferate if access to water is made available for irrigation

High-input, high-intensity dairying is not the only land-use nor is it the only way to farm nor is it the only industry that can provide for local economic well-being.

Irrigation is a costly input that can drive up productivity, but does not necessarily drive up profitability. In fact a study by AgResearch proved that the low-input dairying model is less financially risky and more profitable when milk prices are low, more environmentally sustainable, and means that cows produce more milk. (AgResearch, 2009)

There are many dairy farmers in NZ successfully farming fewer cows using a low input, less environmentally damaging model. There are also many less harmful land-uses that can be adopted that do not have the same pollution issues as intensive dairying.

Greenpeace believes a robust WCO would not affect the local farming community's ability to continue farming profitably.

National economic impacts

Further extraction and pollution of the springs would not only impact the local economy but it also poses a reputational and subsequent economic risk to all of Aotearoa, New Zealand.

Already Aotearoa's freshwater crisis has attracted international attention. The Guardian, Al Jazeera, the Economist and the BBC are just a few examples of international media outlets that have covered the ongoing and escalating pollution and mismanagement of New Zealand's once pristine waterways.

Without a robust WCO, these internationally unique springs could be ruined forever. An event which would not go unnoticed on the international stage by our overseas visitors and consumers.

Tourism is New Zealand's largest export industry in terms of foreign exchange earnings. It directly employs 7.5 per cent of the New Zealand workforce (188,136 people were directly employed)

In 2016, Tourism generated a direct contribution to GDP of \$12.9 billion, or 5.6 percent of GDP and the indirect value added of industries supporting tourism generated an additional \$9.8 billion or 4.3 percent of GDP. (MBIE 2018)

The national freshwater crisis, and the lack of adequate protection for tourism hotspots like Te Waikoropupū is a serious threat to this important industry.

A study commissioned by MfE in 2001 found that international consumers would purchase 54% less dairy products from NZ if our environment was perceived to be degraded. (MFE, 2001)

A subsequent study by the NZ Business Council for sustainable Development found that even a 5% drop in our clean, green reputation, which would result in a drop in demand for primary products and international tourism, would cost the economy more than 22,000 jobs. (PureAdvantage, 2012)

Greenpeace believes, based on this evidence, that our clean green reputation and 100% pure brand will be further tarnished by inaction to protect these springs. This inaction would follow failure by subsequent governments to reign in the intensive dairy industry and adequately protect our freshwater.

Greenpeace further believes that based on available evidence this loss of our international reputation will have serious economic consequences for NZ.

Therefore, the WCO, rather than impacting our economy as some opponents may claim, will in fact protect it.

For completeness, we note that Greenpeace believes that our well-being is determined by much more than our economy or how much our country earns. Our physical, cultural and social health is inextricably linked to our environment and the health or ill health of that environment impacts directly on our own health and well-being.

Conclusion

Greenpeace believes that all of New Zealand's rivers and aquifers urgently need more regulatory protection from extraction and pollution than they currently have.

We also believe the Government have been given a clear mandate from the New Zealand public that they must urgently do more to restore and protect NZ's freshwater.

Awarding this WCO in full as requested by the applicants is of utmost importance and we believe this Government, as stated, has the public mandate to do it.

ENDS

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