Vested Interests in Big Agriculture Agriculture a freshwater scientist's personal experience A s I started researching as an undergraduate, at

Abstract

Almost three decades of studying freshwaters in New Zealand has revealed to me that our lowland freshwater ecosystems are in dire straits and that there is no hint of improvement, or even a slowing of degradation. The leading cause of their demise is landuse change, specifically the rampant and extreme intensification of farming. The response of government, both central and local, has been an abject failure to limit this intensification and its resultant harm. Key to these regulatory failures by authorities charged with protecting freshwaters has been the influence at all levels of powerful agricultural industry lobby groups.

Keywords freshwater, science, agriculture lobby, vested interests, personal experience

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s I started researching freshwater as an undergraduate, and through my postgraduate master's and PhD research, it became increasingly clear that the biggest harmful impacts on freshwater ecosystems and drinking water in New Zealand were from intensive agriculture. The narrative is simple: the more intensive the agriculture/horticulture, the more nutrients, pathogens, herbicides, pesticides and hormones escape into the environment. The first port of call for most of these contaminants is freshwater, though there is also loss into the atmosphere of greenhouse gases such as nitrous oxide and methane

Intensive agriculture is not the only issue for freshwater in New Zealand, but the scale of harm from agriculture is orders of magnitude higher than from any other land use, including urban, horticultural and industrial use. On a much smaller and local scale, intensive horticulture and municipal and industrial out-of-pipe pollution is most definitely a problem. But

to quantify the proportions: around 40% of the total length of waterways in New Zealand is in pastoral catchments and a similar amount in the conservation estate, versus a few percent in horticulture and urban catchments. For most large rivers, only a minor proportion of the nutrient load comes out of pipes from humans and industry; the majority is diffuse: that is, the leaching through and across the land from intensive agriculture and horticulture to waterways.

The more research I did – for teaching, for my own studies on New Zealand's freshwaters and via my overseas experience working in southern Ireland, Eastern Europe and French Polynesia – the more I realised just how extreme our freshwater crisis is by global standards: effectively we export freshwater in the form of food, and have dirty water as a waste product. And I was increasingly aware that our freshwater quality was worsening at an accelerating pace. International comparisons (Bradshaw, Giam and Sodhi, 2010) show that we are among the worst in the world for lowland river and lake quality, and for greenhouse gas emissions. The science is clear. Hundreds of reports from Crown research institutes - and even from the OECD have detailed the freshwater declines in New Zealand and its causes. Yet it becomes clearer every day that, despite our comprehensive Resource Management Act (RMA), water quality continues to decline.

Given the legislation and the strong evidence of public demand for improved freshwater outcomes, the obvious question is, why is water quality worsening? The most glaring reason is that there has been almost no intervention by the regulators – the regional councils – to rein in the biggest cause, agricultural intensification. So why did central and local government not limit the biggest driver of a problem they were supposedly committed to solving?

In the first two decades after the passing of the RMA the absence of any national freshwater policy meant that the 16 regional authorities charged with environmental regulation were easy targets for the well-resourced big players in industry, especially agriculture. The regional authorities could be picked off individually as they worked through developing their regional plans. At each hearing a team of high-paid lawyers

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and consultants was deployed by industry. Council staff were no match for these wellfunded experts, often deferring to them at every point and many times becoming captured by them. The resources and time budgets of the environmental NGOs, and the mostly unpaid local environmental care group members appearing in their own time, were stretched beyond their limits. These out-gunned individuals and NGOs dropped out along the way as their budgets were drained and their people burnt out. The Department of Conservation appeared at hearings in the early years, but less and less over time. By the time the fifth National government came to power in 2008, the department had virtually ceased to advocate for the environment – a statutory role, no less – and was absent from the table at planning and major resource consent hearings.

Local government

Early in my academic career I had my first experience of the capture of local government by vested interests. I became aware of the pollution of the Oroua River, a tributary of the Manawatū River, near Awahuri where I was then living. My local swimming hole on the Oroua River on State Highway 3 happened to be a regional council monitoring site and I discovered that it was listed as one of the most

polluted in the region. The pathogens and nutrients causing the river health problems came partly from intensive farming in the catchment, but especially from the discharge of the municipal waste water from the nearby township of Feilding, plus waste water from a large meat works and a large vegetable washing plant.

After discovering the shocking water quality data, I investigated the resource consent monitoring data for the out-ofpipe discharges into the river. I was amazed to find that for a decade the resource consent requirements were very rarely met. I took this failing up at a meeting with the regional council chief executive and his compliance manager, and I was told that council policy was not to take legal or punitive action on breaches of consent conditions. They informed me that to save ratepayers money on expensive and timeconsuming legal action the council preferred to 'work with' the big dischargers to try and reduce their impacts on the river. The meat works and vegetable processing plant had at different times threatened to pack up their operations and move away if too much pressure was put on them over their resource consents. Council officers felt it was their role to ensure that this didn't happen, as many jobs would be lost. They also pointed out that the Manawatū District Council owned and operated the municipal waste water treatment plant, so if they were penalised they would be penalising their own ratepayers.

Around 2009, the Manawatu-Wanganui Regional Council (later renamed Horizons Regional Council) embarked on some relatively ambitious legislation that included the potential to limit farming intensity in some catchments as part of its proposed 'One-plan'. The agriculture industry, including Federated Farmers, vehemently attacked the proposed plan. As usual, at the hearings for the proposed One-plan the agricultural industry appeared with teams of paid consultant experts and lawyers. As a submitter, this situation was one I became used to: giving evidence in a hearing and seeing a team of extremely well-heeled, expensive lawyers and consultants with stacks of files and evidence on one side representing a small number of people with a considerable financial stake in proceedings, a handful of

overworked and harassed-looking council officers in the middle, and a few mostly unpaid individuals doing their best to represent a very large number of current and future users of the environment on the other side.

The decline of water quality in the Manawatū River was increasingly in the news and this culminated in a front-page story in the *Dominion Post*, calling the river 'among [the] worst in the West' (Morgan and Burns, 2009). The headline was based on research done by Roger Young from the respected Cawthron Institute, using an internationally applied comprehensive measure of freshwater ecosystem metabolism to reveal that rates of gross primary productivity and ecosystem respiration in the Manawatū River were among the most extreme ever reported internationally (Young, 2009).

The response from agricultural interests to the report was aggressive. Young was attacked by the agricultural industry to the point where lawyers acting for the Horizons Regional Council were forced to seek an order from the hearing's commissioners to protect him from harassment (RNZ, 2010). Of course, such experiences kill several birds with a single stone, serving also *pour encourager les autres*, dissuading other scientists from sticking their heads above the parapet.

At the next regional council election following the plan change hearings, a pair of local leaders of the Federated Farmers organisation stood as candidates. Their campaigns were unusually loud and well advertised, as they were supported by Federated Farmers. Both men were elected and almost immediately the emphasis on freshwater impacts moved away from agricultural impacts and instead highlighted urban issues. I was at a meeting at Horizons a few days after the new councillors had started, and the council freshwater science manager, clearly upset, stood up and made a statement to a room full of people that sadly now politics would override science at this council.

In 2006 Fonterra applied to the Manawatū–Wanganui Regional Council to renew its consent to discharge waste water from its Longburn processing plant into the Manawatū River. I gave evidence at this consent hearing, which was my first

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experience as an expert witness. I pointed out that it was difficult if not impossible to quantify the impact of the Fonterra factory discharge, because the river was already so polluted by the time it reached Longburn that the macroinvertebrate community index (MCI) scale had bottomed out. During the subsequent cross-examination, one of the lawyers representing Fonterra passed a note to one of the commissioners, who then asked me if I was philosophically opposed to this discharge. I thought about it and said that yes, I was philosophically opposed to the discharge of any contaminants into rivers. I subsequently found out through a friend of one of the commissioners that this meant my evidence was ignored. If in a murder case the expert pathologist was asked the same question are you philosophically opposed to murder? - and they said yes, would their expert evidence be ignored?

The examples I have given reveal the politicisation of environmental regulation at local government level in New Zealand. This is referred to, in a recent comprehensive report evaluating the environmental outcomes of the RMA, as 'agency capture': the capture of regional councils by vested interests, revealed, for example, by a 'lack of enthusiasm for setting strong limits for freshwater due to a preponderance of agricultural interests in the council' (Brown, Peart and Wright, 2016, p.20). The Environmental Defence Society noted in

its report assessing the environmental outcomes of the RMA that: 'Agency capture of (particularly local) government by vested interests has reduced the power of the RMA to appropriately manage effects on the environment' (ibid., p.6). It is not just in New Zealand: international studies have highlighted regulatory capture as a form of corruption in government water agencies (Moggridge, Carmody and O'Donnell, 2020).

Central government

The influence of vested interests on central government has been discussed in general (Edwards, 2020), but in relation to the environment a recent speech by Simon Upton, the current parliamentary commissioner for the environment and a former minister of the Crown in a National government, summed it up well when commenting on the recent Randerson report, a review of the RMA (Ministry for the Environment, 2020). Upton remarked:

In taking up the debate the Review Panel has initiated, Parliamentarians need to fashion law that is fit for purpose not just in times of benign governance sympathetic to environmental goals, but in times of conflict and upheaval when leaders are tempted – either by vested interests or unwelcome facts – to let the environment go for short-term gain. (Upton, 2020, p.20)

A recent example of powerful influence on central government that I was directly involved in stands out for me. The Ministry for the Environment set up three advisory groups for its Essential Freshwater programme. I was a member of the Freshwater Science and Technical Advisory Group, and the two other groups were the Kāhui Wai Māori group and the Freshwater Leaders Group. We were tasked with advising the minister for the environment on changes to the National Policy Statement for Freshwater Management to halt the decline of water quality in New Zealand. The issue had become a very big political football. I knew people on each of the other groups, and about midway through the two-year process a group of us discovered via a leaked email that there was a secret

'primary sector group' that the ministry was working with behind the backs of the three publicly acknowledged groups. The email, accidently leaked, claimed that freshwater policy was being written by this group representing the agricultural industry. The email was marked 'confidential and not to be shared' and it was doing the rounds of anyone involved in agriculture, and seemed to have originated within Federated Farmers.

Some graphs were included in this email purporting to show that a measure called 'nitrogen surplus' could be used as a measure of pollution. This measure does not relate to harm done environmentally. I immediately recognised the graph, as I had seen it on the website of DairyNZ, a lobby group for Fonterra. The graph showed a very strong relationship between nitrogen loss at the root zone in dairy pasture and a 'nitrogen surplus'. This data seemed to me to be selected for fitting the line rather than reflecting reality. So, I gathered data for all the Landcorp dairy farms on the same measures and I plotted them in the same way that DairyNZ had, and I found that there was no relationship at all. It was clear that DairyNZ had selected some farms to fit their claims so they could push for a measure that suited their pecuniary interests.

Subsequent questioning by me of the Ministry for the Environment senior staff revealed that there had indeed been a dozen secret meetings with the industry group. Ministry officials then invited us to a meeting in the environment minister's office, where the chief executive of the ministry gave us an apology and mea culpa. I had gone into this process holding nothing back, believing we were working with the Ministry for the Environment for a good outcome for all New Zealanders. The discovery that industry lobbyists were being given secret backdoor access to the decision process shook me badly. Looking back, it seems clear that ministry staff at the highest levels had been captured by vested interests.

In 2009, after more and yet more publicity about declining water quality in New Zealand, the newly elected fifth National government set up the Land and Water Forum. I was invited to join. I attended the first few meetings, but soon

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gave up as I realised that the balance of participants was heavily stacked in favour of environmental exploiters. There was an overwhelming dominance of what the forum called 'stakeholders', by which they clearly meant those with vested interests in commercial use of water. The public of New Zealand, who to my mind are the most important and numerous 'freshwater stakeholders', were represented by a handful of poorly resourced NGO representatives, individuals and Fish & Game New Zealand. As an example of the imbalance, every power company was represented, and every industry in any way involved in exploiting water and the agricultural industry was represented, by large and very well-resourced teams (Land and Water Forum, n.d.). Every individual in the room representing industry extractors was well paid and had ready access to lawyers, administrative support and carefully curated research. On the other side, the NGOs, iwi and environmental defenders were overworked, had little if any support, and had limited access to research.

In a 2016 article for the New Zealand Journal of Ecology looking back on the Land and Water Forum, Anne Brower highlighted these power imbalances and noted 'that the outlook for environmental quality in New Zealand under collaborative environmental

governance is bleak, but perhaps not dismal' (Brower, 2016). Brower also said that:

No matter how well intentioned the government officials, well trained the scientists, and altruistic the collaborative constituents, the logic of collective action predicts that the vested resource development interest will usually emerge as the winner who took the most. (ibid.)

The chief executive of Fish & Game at the time, Bryce Johnson, described the Land and Water Forum process in their magazine, stating that the 'the process is great for vested interests seeking private commercial use of some public natural resource such as water. But it is a losing game for anyone wanting to retain that resource in its existing natural state for use as fish and wildlife habitat' (Johnson, 2016).

Vested interests in the media

The influence of vested interests in the media is seen in many ways, from the subtle power of advertising money to more blatant funding of public relations campaigns. In 2018 DairyNZ launched a campaign it called 'The vision is clear', describing it as a 'movement ... to encourage and inspire every New Zealander to think about their personal impact on our country's water quality'. As if the predominant polluting problem was with every New Zealander. This campaign is one product of an agreement with Auckland-based New Zealand Media and Entertainment company (NZME.), publisher of the New Zealand Herald and owner of several radio stations, which hosts content produced by DairyNZ on its platforms. The campaign's main presence has been a series of articles and advertisements published in the New Zealand Herald which are all optimistic, suggest that the freshwater problems are urban and down to the actions of individuals, and make little mention of dairy's overwhelming dominance in the freshwater harm. A stark, preposterous example of shifting the blame was published in the print version of the *Herald* – a prominent 'the vision is clear' advertisement claiming that one way to improve water quality was for urban home

owners to regularly sweep their paths and driveways.

This industry-funded public relations campaign is one of many concerted attempts to divert public awareness away from the harm intensive agriculture is doing. These campaigns have been described as 'cooling discourses' by Sarah Monod de Froideville. She defines cooling discourses as communications that are 'employed to settle concerns about harmful activity that are gathering momentum through acknowledging the harm and appearing to address the activity in some manner'. They are, she notes, 'temporary stupefying discourses that facilitate a state of ignorance, or agnosis so that harmful activity can continue or resume unopposed' (Monod de Froideville, 2020). Whether or not these campaigns are successful is hard to judge, but multiple polls have revealed that freshwater is New Zealanders' number one environmental concern and freshwater management has been an important election issue (Fish & Game New Zealand, 2019).

The malign and antisocial hand of vested interests is also felt in universities.

For example, at Massey where I previously worked, the agriculture industry had a strong presence, with offices on the campus and students wearing branded clothing. Many student research projects and the research done by academics were directly funded by industry, and industry put on or supported student social events.

For much of the time I was a freshwater scientist and senior lecturer at Massey University, Steve Maharey was vice chancellor. After he left the university, he told me that the head of a large and powerful agricultural lobby group very regularly called him directly by telephone to complain about me and what he called my 'advocacy', demanding that I be dismissed. Maharey said to me he told this lobbyist that his academics have a role under the Education Act as critic and conscience of society, and that unless he had a specific complaint of some false or inaccurate science, he would not be sacking me. No such evidence was ever supplied.

Conclusion

In conclusion, it is clear that a big reason for the failure of environmental protection

in New Zealand has been and continues to be the usurpation of the ideals of environmental legislation by relatively small numbers of well-resourced and well-paid people, funded by industries harming the environment with the explicit aim of enabling this harm to continue so private gain can be continued. The failure at all levels of government to protect our freshwater environment stems from political expediency and a failure to acknowledge, analyse and address the influence of vested interests. Part of the problem is that government, both local and central, frequently operates in a simplistic economic growth paradigm, and this inevitably clashes with the uncompromising and non-linear reality of biophysical limits to growth (Borsellino and Torre, 1974; Meadows, Randers and Meadows, n.d.; Schmelzer, 2015). These are real and inescapable limits, and they cannot be fiscally ameliorated (Meadows, Randers and Meadows, n.d.; Browning, 2012).

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