

Te wai me te whenua¹

A case for bottled water

by John Bevan-Smith

“Let’s get real about water”

In 2016, bottled water exports from Aotearoa New Zealand had a water footprint of 35.40 million litres or 0.000235 per cent of dairying’s export water footprint of 15.04 trillion litres.² Bottled water is also said to have the lowest carbon and water footprint of any packaged food and beverage.³ Yet in the lead-up to this year’s General Election party political leaders are advocating that the boutique water bottling industry should be charged a levy or royalty to help repair the damage to this country freshwater systems caused significantly by agriculture in general and industrialized dairying in particular. Such is the cynicism of these mostly opposition politicians that they, like Donald Trump, have been relying not on research and reasoned debate but on the irrationalisation of a public debate about bottled water in making their play for power. Among other things, they have characterised water as a scare resource when it is abundant, promoted the notion that it no longer rains when it floods, associated bottled water with campylobacter, compared it to gold, and even propose trumping the miracle at Cana by turning bottled water into a mineral. In their trawling of this debate for votes, they have also failed to examine the aporia on which it is built: that something owned by no one is poured into something owned by someone, be that something a cow, a grape, an orange, a bottle, or a slab of concrete. They have also failed to inquire into the unique character of water or to ask how the Crown can charge a royalty for its use when no provision exists in New Zealand law for the ownership of water until *after* it is bottled or otherwise contained.⁴ Finally, they appear not to have considered that the water debate bespeaks the fundamental biopolitical fracture that exists throughout the Western world, that the concept of “people”, such as “New Zealanders”, exists only imaginatively as “a dialectical oscillation between two opposite poles”—The People, which promotes itself as a sovereign collectivity, and the “people” who are excluded from that collectivity of which they are a part by dint of their sovereigns selves—but which, nevertheless, enables us to read the moment we are in and to better understand the law that underwrites it.⁵

“The snake oil salesman’s handbook”

On 9 July 2017, James Shaw, Co-leader of the Green Party, announced at the party’s Nelson campaign launch that they would be placing a levy on sales of all bottled water:

Water bottlers and exporters are currently making millions of dollars from a resource that they get for free. Meanwhile, there are communities out there that put up with contaminated drinking water and the ongoing destruction of our rivers and lakes. To fix this, the Green Party is announcing today that we will put an immediate charge of 10 cents a litre on water that is taken by bottling and exporting companies.⁶

In making this announcement, a masterclass in trickery fit for any budding politician or snake oil salesman, Shaw misleadingly conflated the commercial bottling of water, which purifies the water it extracts, with the 2016 outbreak of campylobacteriosis in Havelock North that caused 5500 residents to become ill, 45 of whom were hospitalised and three of whom died.⁷ Despite a Government inquiry finding that sheep faeces were the likely source of the campylobacter bacterium entering the town's aquifer due to run-off and reticulation, the Greens determined that water bottlers should pay to clean up the problem nationwide.⁸

Shaw's speech was supported by a same-day post on the Greens' website:

"Forty-five thousand New Zealanders – the equivalent population of Nelson – have to put up with faecal contamination in their drinking water at least once a year, and some communities have to boil their water every single day to make sure it's clean enough to drink", said Green Party Leader James Shaw.

At the same time, water bottling companies are taking the purest, cleanest water out from under our feet. They bottle it and sell it and pay practically nothing for the resource. New Zealanders are more and more aware of what an injustice this is.

"New Zealanders shouldn't have to worry about whether the water coming from their taps is safe to drink, or whether there's enough of it, or that water bottlers are getting the cleanest water.

"We will put an immediate 10c/litre levy on sales or exports of bottled still and sparkling water, to ensure that companies who profit from sales of our cleanest water are paying for that privilege.

"We'll protect drinking water sources from the activities that pollute them with pathogens, sediment, run-off, and nitrates. . . .

"Before the Havelock North outbreak last year, most New Zealanders would have assumed the water coming from their own taps was clean and safe, but we know that's not the case. The Green Party has the solutions to ensure we all have safe water to drink," said Mr Shaw.⁹

Shaw, however, is not alone among politicians exploiting this populist sentiment. "New Zealand First leader Winston Peters has already called for water exporters to pay a royalty to the Crown with 25 per cent of that royalty returned to the region where the water was taken", the royalty, according to Denis O'Rourke, to be 10 cents a litre.¹⁰ This proposal is not straightforward, however, given that New Zealand First's amendment to the Crown Mineral Act, tabled on 23 March 2017, requires the turning of water into a mineral "for the purposes of the Act", a task for which there is only one candidate but as yet no announcement as to which of the many minerals contained in mineral water exported water is to become.¹¹

United Future's Peter Dunne had this to say: "It seems somewhat incongruous that a virtually unregulated and certainly untaxed water export industry is being allowed to develop", despite the industry being both regulated and taxed.¹² "At the very least, there needs to be a coherent royalties regime put in place, akin perhaps to that for oil and gas, to ensure that our water resources are not being just given away."¹³

Geoff Simmons, the Opportunities Party's Deputy Leader, described water erroneously as "a scarce public resource", while also excluding farmers from those "[c]ommercial water users" who "should pay . . . just like they pay for any other business input."¹⁴

Labour leader Jacinda Ardern, likewise targeted the water bottling industry by proposing it pay a premium royalty when she announced her party's water policy, but included farmers under qualified conditions: "Not all farmers will be captured by the policy because the royalty will vary according to water quality, scarcity, and what it is being used for. The highest charge will be for bottled water taken from pristine aquifers and exported."¹⁵ However, as Ardern would or should have known from having farming in her family, farmers also draw from pristine aquifers, export their water in products that carry enormous carbon and water footprint costs and have inflicted widespread damage on the freshwater system, and therefore should be paying a far higher not a far lower price than water bottlers under freshwater governance principles.¹⁶ But under Labour that is not how it would work. Taking a leaf out of the snake oil salesman's handbook, Ardern made water analogous with gold, a finite metal in scarce supply, then used her fake equivalence to justify water bottlers being charged on a per litre basis while irrigation water "used for farm and horticultural irrigation", is to be charged on per cubic metre (1000 litres) basis, meaning, as Labour's David Parker explains, that irrigation water will be "roughly a 1000th of" the "1 or 2 cents per litre" water bottlers will pay.¹⁷ This is not only discriminatory but also contrary to the OECD's advice that "the first line of defence in securing water quality" is to apply pollution charges to all water consent holders.¹⁸ Not only that, stock water is to be exempted, thereby privileging thirsty bovines over the human beings who consume them. For sake of the farming vote, Labour, like the Green Party, is playing the playground bully demanding the little guy clean up the big guys mess, when the little guy may yet turn out to be the greenest of all water consent users. Labour and Ardern's parallel water universe, still in the making, is both alarming and a wonder to behold: having sold water bottlers down the river, Labour has since announced that water bottling companies that "get their water through a city or district council water system would be exempt", which means that at least 70 per cent of all water bottled in New Zealand will now pay no royalties under Labour's water policy.¹⁹

In their exploitation of public sentiment, the politicians above have failed to acknowledge that water bottlers provide both a service and a wholesome choice for consumers in that they purify and make widely available in unchlorinated form the renewable freshwater they extract, from which they also generate export receipts with minimal environmental impact, qualities that would be lauded in any other industry.

“Water footprint comparison”

Aotearoa New Zealand has an abundant and renewable freshwater resource. According to the Minister for the Environment, Nick Smith, “500 trillion litres of new water comes into New Zealand’s system” of lakes, rivers and aquifers each year, of which “only 2 per cent” is consented to be taken “for human purposes”, 6 trillion of which is for irrigation, 2 trillion for industry, and 2 trillion for town water supply.²⁰ The actual take, however, is much smaller with only about 65 per cent of all consented allocations being used.²¹ Nevertheless, at 737 m³ or 737,000 litres per person, the freshwater abstraction for agricultural purposes in 2014 was the highest in the OECD, exceeding the next highest, the USA and Mexico, by 171 m³ or 171,000 litres per person.²² By contrast, New Zealand’s bottled water exports of 14.46 million litres in 2014 represents just 3.2 litres per person, while the 26.8 million litres New Zealand exported in 2016 equates to 0.00027 per cent of its consented extractions of 10 trillion litres.²³

To better understand why this country has such a high freshwater extraction rate per inhabitant, let us consider the water footprint of its most prominent dairy products.

According to the global average figures from Water Footprint Network (WFN), it takes 1020 litres of water to produce 1 litre of milk:

The global average water footprint of milk is 1020 litre/kg [or 255 litres for a 250ml glass of milk]. . . . The precise water footprint of milk in each specific case will depend on the place where and the production system in which the cow is raised, and on the composition and origin of the feed.²⁴

The water footprint of milk and its variation according to region is confirmed by a paper from Hamilton’s Ruakura Research Centre, the authors of which, M A Zonderland-Thomassen and L F Ledgard, relying on WFN’s categorization of the water footprint into green, blue and grey water, conclude that the water footprint is “945 and 1084 L H₂O/kg fat-and-protein-corrected milk (FPCM) for the average Waikato and Canterbury dairy farm systems, respectively.”²⁵ In other words, it takes an average 1015 litres of water for the two regions to produce 1 litre of milk, which is close to the WFN global average of 1020 litres.²⁶ We can therefore say that in 2016 it cost a water footprint of around 2.15 trillion litres to produce New Zealand’s total milk production of 21.2 million metric tons (MMT) or 21.2 billion kg/L (21.2 x 10⁹ x 1015).²⁷

In 2016, New Zealand’s total dairy exports of 3.29 MMT was comprised of whole milk powder (WMP) (41%), skim milk powder (SMP) (13%), butter/anhydrous milkfat (AMF) (17%), cheese (11%), and liquid milk (7%), with Other 11%.²⁸ According to WFN’s global average figures, milk powder has a water footprint of 4750 L/kg, butter 5550 L/kg, and cheese 5060 L/kg.²⁹ Given these figures, we can calculate that New Zealand’s total dairy exports for 2016 had a water footprint of 15.04 trillion litres:

TABLE 1. Water footprint for New Zealand dairy exports for 2016³⁰

Product	MMT	Total kg	WFN Water footprint multiplier	Total water footprint in L
Milk Powder (HMP + SMP)	1.788	1.788 x 10 ⁹	4750	8.49 trillion
Butter/AMF	0.554	554 x 10 ⁶	5550	3.07 trillion
Cheese	0.355	355 x 10 ⁶	5060	1.80 trillion
Liquid Milk	0.243	243 x 10 ⁶	1020	0.25 trillion
Other	0.350	350 x 10 ⁶	4095	1.43 trillion
Total	3.290			15.04 trillion

On the other hand, the bottled water industry in 2016 had an export water footprint of 35.40 million litres based on its bottled water exports of 26.8 million litres, or 0.000235 per cent of dairying's export water footprint of 15.04 trillion litres.³¹

If, as the Dairy Company Association of New Zealand asserts, "New Zealand exports about 95% of its dairy production", then we can say that for 2016 the dairy industry had a total water footprint of 15.84 trillion litres.³²

Such is the inequity of the Greens' and New Zealand First's proposed levy of 10 cents per litre on bottled water that were it applied to the dairy industry, which likewise obtains "our cleanest water" "for free", it would be required to pay \$1.50 trillion (15.04 x 10¹² x \$0.10) for its total water footprint, or \$225.6 billion for the blue and grey water component of that footprint.³³ Or as Andrew Curtis, CEO of Irrigation New Zealand, has it, "if the Greens' proposed 10 cents per litre tax for water bottlers was applied to all the consented takes for irrigation, of about 6.5 billion cubic metres, there would be a \$650 billion-plus tax bill. This is nonsensical when the GDP of New Zealand is about \$250b."³⁴

The absurdity of the 10 cents/L levy can also be demonstrated by applying it to supermarket products. On the basis of WFN's global average water footprint figures, 1 litre of milk would increase by \$102/L (1020 x \$0.10), milk powder by \$475/kg (4750 x \$0.10), cheese by \$506/kg (5060 x \$0.10) and butter by \$5550/kg (5550 x \$0.10). With a global average water footprint of 870 litres, 1 litre of wine would increase by \$87 and a standard 750ml bottle of wine by \$65.³⁵ Beer, with a global average water footprint of 298 litres, would increase by \$29.80 per litre or nearly \$10 per 330ml bottle.³⁶ A kilogram of roasted coffee, which takes 18900 litres of water to produce, would increase by \$1890/kg or \$13 per 125ml cup.³⁷ One kilogram of tea, which requires 8860 litres of water to make, would increase by \$886/kg or \$3 for a 250ml cup, which requires 30 litres of water.³⁸ A litre of orange juice, which has a water footprint of 1020 litres, would increase by \$102/L.³⁹ A litre of Coca-Cola's signature beet-based drink, which takes 70 litres of water to produce, would increase by \$7/L.⁴⁰

In comparison, bottled water uses "on average" 0.32 of a litre of water and 0.24 mega joules of energy to produce 1 litre of bottled water, allowing the International Bottled Water Association to claim that: "Bottled water has the lowest water and energy use ratio of all packaged beverages."⁴¹ The European Federation of Bottled Waters takes that claim further: "bottled water has the

lowest water footprint . . . and the lowest carbon footprint of all foods and of all packaged beverages”.⁴² This carbon footprint claim appears to be supported by the carboNZero certification of Antipodes Water Company’s bottled water that has a total kgCO₂e of 0.65/L across its premium product range.⁴³

“Laissez-faire capitalism”

What, then, has given rise to the public outcry against bottled water in Aotearoa New Zealand, when, as the OECD explains, it is the “[e]xpansion of dairy farming [that] has led to more intensive use of agricultural inputs and water, nitrogen losses and higher GHG emissions”?⁴⁴

It seems that bottled water has become a lightning rod for the fear and anger sweeping the Western biopolitical world in opposition to more than 30 years of laissez-faire capitalism, known by its misnomer as neoliberalism, and its concomitants globalisation and austerity, which together have fuelled the rise of xenophobia and other forms of extremism, produced the Global Financial Crisis, delivered Brexit to the United Kingdom, Trump to the White House, caused widespread marginalisation and dispossession, produced low wage economies with zero-hours contracts, alarming inequality, child poverty and homelessness, and house-price inflation in desirable locations around the globe by way of banking colonisation and indenturement.⁴⁵ As Paul Mason has it: “We are at a stage in global politics where the rising anger can be directed in only two directions: upwards, at the elites themselves, or sideways – towards minorities, rival nations and the institutions we rely on to maintain the rule of law.”⁴⁶

As well, with Trumpism has come an increasing empiricisation of language and irrationalisation of politico-public discourse, made possible, among other things, “because speech does not pass through reference to an object”.⁴⁷ This means that idea-signs of passions cannot come into existence without first having an object or referent, thereby making them metaphorical of their objects and literal of those in whom they have arisen.⁴⁸ Hence, the fear and anger being expressed in the current water debate are metaphorical of the water bottler and literal of the protester and thus a misdesignation. While the underlying passions may be attributable to the imposition of neoliberal economic practices by governments and central banks, which together make possible the flow of capital and goods across international borders to the benefit of trans- and multinational corporations and often to the detriment of those producing the goods, in Aotearoa New Zealand the fear and anger have also taken for their focus the commodification of that transversal element on which all life depends. Such commodification is not so readily discernable when water is consumed by a cow before becoming milk processed into butter or cheese or transformed into whole milk powder. But when it goes straight into a bottle, this life-sustaining element is clearly visible, sitting packaged and financialized on a supermarket shelf, price tag attached. Rationality stands little chance against such emotive symbolism, and it is precisely the passions aroused by such symbolism, when unpacked, that are exploited by politicians like Ardern, Shaw and Trump. As well, just as the fear and anger railing against the greed and inequality produced by the neoliberal order have been transferred to immigrants and others little able to defend

themselves, so in this country the same emotions have been transferred to a relatively small and vulnerable industry.

Bottled water may also have an unsettling affect on settler sensibilities in that it represents a luxury at odds with the imagined pioneering spirit of the settler society. This unease is expressed by Water New Zealand's John Phalfert for whom, it seems, the very idea of commercially bottled water is anathema, despite it being a safe and healthy option: "Soaring sales of bottled water means that New Zealanders are throwing away millions of dollars on an unnecessary product", although, he concedes, "recent cases such as the contamination of Havelock North's water supply have made many people nervous" of tap water.⁴⁹

The attack on the bottled water industry has also come from the media. Here are two examples.

On 27 March 2017, *The Guardian* published an article from Dunedin-based journalist Eleanor Ainge Roy, who, while failing to mention that the Otago region accounts for 15 per cent of all consumptive water consents for irrigating pastoral and arable land, targeted Coca-Cola Amatil by juxtaposing Coca-Cola's worldwide "annual revenue of over \$60bn" with the NZ\$40,000 it paid in 2016 "to the local council for the right to extract up to 200 cubic metres of water a day" from Te Puna (The Blue Spring), near Putaruru.⁵⁰ Conflating the despoliation of Havelock North's drinking water supply with bottled water, Roy opined that "after a series of contamination scares in the North Island last year – one of which resulted in thousands of residents falling violently ill with gastroenteritis as a result of animal faeces entering the water – Kiwis are growing increasingly concerned that their freshwater reserves are being exploited by corporate multinationals, while they are forced to boil or buy back their water, at a cost of around NZ\$3 a litre."⁵¹ Also quoted in the article was "Catherine Delahunty, the Green party's spokesperson for water", who likewise misleadingly conflated bottled water exports with freshwater despoliation by agriculture, while promoting the idea that it no longer rains in New Zealand: "We are handing over this precious, finite resource and it is disappearing offshore. And that is really upsetting for Kiwis who have seen the increasing water degradation of their own supplies over the last 20 years"⁵²

Neither Roy nor Delahunty mentioned that Te Puna discharges 60 million litres a day, about 55 million of which flows down the Waihou River, across the Hauraki Plains and into the Firth of Thames.⁵³ Had they taken a disinterested approach they may have concluded that bottling water is a vastly greener enterprise than dairying, and as Eric Crampton has it, that it might "make more sense to leave out the middle-cow."⁵⁴ Or as Roger Young notes: "It just seems so obvious to cut out all the dirty stuff involved in milk powder production and sell the fresh water instead. Selling the water rather than [turning it into] milk powder is the smartest thing to do with a valuable resource."⁵⁵

On 14 June 2017, TV3's Newshub ran a Patrick Gower story on the bottled water industry, which presenter Mike McRoberts introduced as follows: "The latest Newshub-Reid Research poll shows a high number of New Zealanders are

unhappy that exporters are able to obtain the water for next to nothing then send it offshore for big profits. Asked if exporters should pay a royalty on the water so that taxpayers get some benefit, 87% said yes, just 9% per cent said no”, with 4% uncommitted.⁵⁶ Maureen Fraser, neighbour of the water bottling company at the centre of the story, had this to say: “It’s a simple fact that we are effectively giving something away for free that is a finite source.”⁵⁷ Neither “simple” nor a “fact”, Fraser’s belief, like Delahunty’s, that precipitation and flooding no longer occur in Aotearoa, underwrote Gower’s claim: “The support for charging a royalty so that Kiwis get some of the money back is universal. 88% of National voters say yes charge a royalty, so do 85% of Labour voters, 91% of Green and 89% of New Zealand First.”⁵⁸

While purporting to be a well-researched story by seasoned professionals, this was little more than yellow journalism. The poll, for instance, was not universal: French and Italians, who can no doubt tell the difference between chlorinated tap water and aged mineral water, were not included. The poll’s question was clearly designed to produce the outcome it achieved; it did not ask should farmers also pay a royalty on the water they “get for next-to-nothing” so that taxpayers can get some benefit from their offshore profits, perhaps because that might have posed a risk to Fonterra’s advertising spend with TV3. No mention was made of the cost to produce a litre of bottled water, nor did Gower explain how such “big profits” are made in a highly competitive international commodity market. Finally, no mention was made of taxpayers already benefitting by way of company tax paid by water bottlers or the consequences that might befall the Government’s books should the same 10 cents/L levy be applied to all industries relying on water consents.

In short, the story seemed to rely on passions aroused by globalization and barely concealed xenophobia. Said Gower: “Otakiri Springs is on a typical back road in the Bay of Plenty but the Chinese company trying to buy it is anything but typical. Nongfu Springs is a *massive* water company and wants to take Otakiri Springs to the next level just like its bottling factory in China” (emphasis in the video).⁵⁹

“Settlerism”

All settler nation-states guard jealously the geographies they have stolen. New Zealand—expropriated by the British through a “revolutionary seizure of power” or “large-scale robbery” as Jock Brookfield maintains—is no exception.⁶⁰ Part of that process is an ongoing Othering of groups, communities and nationalities against whom an exceptionalised sense of difference can readily be established, inculcating in the settler imagination a moral right to belong in the process. It is this that is referenced by Fonterra in its Dairy for Life advertising campaign: “In this remote land surrounded by water, blanketed by rain, tempered by a gentle climate, the first European settlers began farming New Zealand over two centuries ago.”⁶¹ Or as Richie McCaw, Fonterra’s brand ambassador recounts: “I’ve competed all over the globe. That’s something I share with the farmers of Fonterra. They’re taking our dairy to the world, representing a big part of what this country does. I’ve seen how loved and trusted it is, which makes me

proud.”⁶²

Tangata whenua aside, it is the Chinese immigrant community that has been among the most targeted in this justificatory process. We know this from the poll tax imposed on Chinese migrants in 1881, which was not repealed until 1944 and not apologised for by the Government until 2002, and more latterly from the scapegoating by opposition parties of “overseas-based Chinese buyers” for purportedly adding to Auckland’s house-price inflation.⁶³ It is therefore worthy of note that at least five Chinese-owned companies exporting or planning to export water from New Zealand having been reported in the media: Oravida, One Pure International Group, Miracle Water, Cloud Water, and Nongfu Spring.⁶⁴

In addition, Suntory, the Japanese beer giant and owner of Frucor, “bottles its South Island sourced water for its H₂Go and Mizone products” at Kaiapoi, and Charlie’s Honest Water, “just straight up water in a bottle, sourced from beautiful New Zealand”, is bottled by Japanese brewer Asahi, owner of The Better Drinks Company, while the Kiwi Blue brand is bottled by Australian-owned Coca-Cola Amatil.⁶⁵ Of course, foreign ownership of Kiwi beverage companies is not just confined to water bottlers, as Kirin Holding’s ownership of Lion Breweries and Heineken Asia Pacific’s ownership of DB Breweries attest.

Arguably the company that has come in for most attention recently is NZ Pure Blue. Protesting its Kiwi credentials—“We are a New Zealand company, we’re registered here and we pay New Zealand taxes”—its shares, nevertheless, are held by a trustees services company.⁶⁶ When NZ Pure Blue attempted to buy Lot 9 from the Ashburton District Council’s business estate, which came with a 30-year water consent to extract 1.4 billion litres per annum from the town’s aquifers, 40,000 locals signed a petition, eventually stopping the sale.⁶⁷ Out of this protest arose Bung the Bore and its 15,700-strong petition presented to Parliament on 14 March 2017, calling for a moratorium on all water bottling consents.⁶⁸ When NZ Pure Blue subsequently applied to the Waikato Regional Council in July 2017 to extract 6.9 million litres per day from Te Puna, from which the South Waikato District Council also takes up to 4000 m³ or 4 million litres per day for Putaruru’s town supply, it was met by another petition opposing its application, this one signed by 39,000 people.⁶⁹ Trumping logic with sentiment, Jon Lloyd, the campaign’s organiser, had this to say:

The same water bottling company that tried to suck the drought-prone Canterbury Plains dry . . . now wants to build ‘the largest production bottling plant in the southern hemisphere’ in Waikato.

NZ Pure Blue’s planned monstrosity will drain the Putaruru’s Blue Spring of a staggering 6.9 million litres a day—exporting every drop of this pristine water for at least 15 years if NZ Pure Blue’s corporate greed has its way.

NZ Pure Blue thinks it can exploit yet another precious source of water, processing and shipping it overseas all in the name of corporate profit . . . This deal is bad for the environment and bad for Kiwis, and the Waikato Regional Council must reject it without delay.⁷⁰

There was no mention by Lloyd that 75 per cent of all “consumptive freshwater is for irrigation of pastoral and arable land” of which Canterbury utilises 63 per cent, or that the aquifer servicing Te Puna has an assumed size of 2,500 km², holds an estimated 1.2 trillion litres renewed by annual precipitation measured by NIWA at over 1300mm, or that 92 per cent of its daily output flows out to sea.⁷¹

It would seem from the foregoing that the wider politico-public debate about bottled water is not so much about bottled water as it is about the relentless commodification of life by neoliberal economic philosophy and practice, which has led in turn to the diminishment of cultural values and ways of being on which all biopolitical bodies depend. In defence of the neoliberal order, its purveying elites promote it as a melioristic pathway to wealth, extol avarice and inequality as virtues, all the while co-opting and corrupting language to disguise the order’s suppression of labour, groups and communities, even entire countries by way of brutal doses of austerity.⁷² This in turn has fuelled irrational responses from those feeling threatened and overwhelmed.

“The law and the biopolitical fracture”

As might be anticipated from the water footprint values presented in this essay, one of the pressing issues facing New Zealand is that its “growth model, largely based on exporting primary products, has started to show its environmental limits, with increased greenhouse gas (GHG) emissions, diffuse freshwater pollution and threats to biodiversity.”⁷³ Should the government continue to pursue its aim of having “one million ha under irrigation” and a doubling of primary industry exports from \$32 billion to \$64 billion between 2012 and 2015, it will not only continue to be in conflict with the National Policy for Freshwater Management (2011, 2014) but will also put “further pressure on freshwater resources and ecosystems.”⁷⁴ In this regard, there appears to be no questioning of the need for economic growth or for how long it can be sustainably managed, let alone “the impossibility of exponential growth in a finite world.”⁷⁵ It is the sustainability of growth that troubles the OECD: “It is unclear how the twin objectives of reducing environmental impacts and doubling primary industry exports in real terms will be achieved, and whether the government assessed use of finite freshwater resources and impacts on water quality before setting such objectives.”⁷⁶

Hence, the OECD recommends a coherent national governance plan that incorporates the following four principles: *the polluter pays principle* by which polluters are made responsible for their actions, including clean-up; *the beneficiary pays principle* by which beneficiaries of water quality and quantity management share the financial burden of its management and maintenance; *equity* by which a fair allocation of water rights and costs are apportioned; and *policy coherence* by which initiatives of different policy communities are aligned with water management objectives.⁷⁷

However, there are yet deeper issues at play requiring urgent attention, namely,

which law will be used to define the legal character of te wai: tikanga tuku iho, by which “legal personhood” may be granted to water bodies and proprietary rights granted in beds, banks and their water columns to afford them greater protection, or the common law that allows for if not encourages the environment’s subjugation and exploitation by way of private property rights?⁷⁸ As the Waitangi Tribunal has it, “a framework needs to be developed for Māori proprietary rights and their reconciliation with other legitimate rights, before governance and management regimes are reformed.”⁷⁹

This matter is a critical one for two important reasons.

In *The New Zealand Maori Council and Others v The Attorney-General and Others* the Crown acknowledged “that Maori have interests and rights in relation to particular waters”, and the Supreme Court accepted “that the Crown was bound to comply with the principles of the Treaty before deciding to sell the shares” in a mixed ownership model company generating revenue and dividends from a water resource. practicable.⁸⁰ Furthermore, in litigating the Crown’s right to partially privatise Mighty River Power before determining Māori’s proprietary rights and interest in the source of its income, the New Zealand Māori Council, perhaps unwittingly, not only challenged the neoliberal order but also offered a glimpse of a redemptive way ahead, as Eddie Durie explains: “We don’t manage the eco-system we are part of the eco-system. We are creatures on this earth along with many other creatures. Our survival depends as much on their survival as anything else.”⁸¹ The OECD put it like this: “Maori have a deep spiritual and cultural relationship with the entire landscape of New Zealand that is based on a holistic view of the environment. . . . Maori recognise that privileges bestowed by the environment go hand-in-hand with the responsibility to maintain it for future generations.”⁸² It would therefore seem imperative that the Crown recognise the residual proprietary rights of tangata whenua in its water bodies as soon as is practicable.

The Supreme Court also remarked that the arguments of the case “touch on fundamental elements of the New Zealand legal order.”⁸³ And it is here that we see the biopolitical fracture exposed by the freshwater debate. While the Crown under its kāwanatanga authority may be able to impose governance costs for water usage, as it does now, it seems doubtful it could charge a royalty for that usage, because that implies ownership of the resource, which no one owns for the very reason that natural resources “such as water . . . are required for the benefit of all New Zealanders.”⁸⁴ Indeed, the Crown’s position, according to its Red Book, is unequivocal: “while under New Zealand law the banks and bed of a river can be legally owned, the water cannot. This reflects the common law position that water, until contained (for example, put in a tank or bottled), cannot be owned by anybody.”⁸⁵ Thus, if “the Crown cannot transfer what the Crown does not own” on the basis that “no one owns water” then it should follow that the Crown cannot charge for what the Crown does not own.⁸⁶ It would seem, then, that the only way the Crown could impose royalties on freshwater across the country would be to seize ownership of the resource itself, the selfsame ownership it denied tangata whenua, but that in turn may spark an escalation of the existing conflict with tangata whenua.⁸⁷ In other words, the Crown cannot

continue to deny tangata whenua proprietorship of water as a taonga under Article 2 of te Tiriti o Waitangi at the same time that it claims ownership for itself in order to charge royalties on the entire resource.

It is at this point that the biopolitical fracture that exists within the amphibolous notion of “New Zealanders” becomes fully exposed. Succinctly described as a *différend*, or “a case of conflict, between (at least) two parties, that cannot be equitably resolved for lack of a rule of judgement applicable to both arguments”, it appears to leave the Crown with two choices: to seize ownership of freshwater or accept the Waitangi Tribunal’s finding “that the proprietary right guaranteed to hapū and iwi by the Treaty in 1840 was the *exclusive right to control access to and use of the water while it was in their rohe*”, but about which the Tribunal also opined that “the Treaty changed Māori rights even as it protected them.”⁸⁸ If the latter choice were accepted, we would arrive at the Māori Council’s view: “Māori do not claim sole or exclusive ownership of all flowing water today. They recognise and accept the rights of non-Māori to share in the use and benefits of New Zealand’s waters. Rather, Māori claim that there is an ongoing breach of their residual proprietary rights, which were guaranteed and protected by the Treaty of Waitangi from 1840 onwards.”⁸⁹

Should the Crown accept the Tribunal’s finding, that might also allow the repudiation of the fake notion that the rangatira who signed te Tiriti in February 1840 ceded sovereignty to the British Crown, and pave the way for a genuinely holistic Treaty-based sharing of the governance of the country as a whole, not just freshwater.⁹⁰ Put otherwise, a governance plan for water based on Articles 1 and 2 of te Tiriti could act as a blueprint for the re-imagining of the governance of Aotearoa New Zealand.

“The uniqueness of te wai”

What the bottled water debate has highlighted is the uniqueness of freshwater and the complexity of its governance, as well as the urgent need to abandon “neoliberal ideology [that] reduces all humans to homo economicus.”⁹¹ “There is nothing about neoliberalism that is deserving of our respect”, and to continue to embrace it will only result in an increased environmental precariousness.⁹² We already have a vision for a better model thanks to tangata whenua’s worldview, the OECD’s report, this country’s own advanced research and reports from co-operating bodies, as well as a shared governance blueprint for our freshwater resource from the Tribunal by which the Crown has *kāwanatanga* (governance) and Māori has *tino rangatiratanga* (control) and *kaitiakitanga* (stewardship).⁹³ Ironically for its detractors, bottled water, wisely managed, fits this vision, because, as those detractors keep reminding us, it generates “millions of dollars” “for next to nothing” and does so, as we now know, with minimal environmental impact.⁹⁴

Te wai remains uniquely its own self in Aotearoa New Zealand. Its beds and banks may not move but its columns flow, even as it moves around its own life-sustaining cycle. Its elusive character has enabled it to avoid capture by the Crown and those economic theories that have touched these shores, from

mercantilism to laissez-faire capitalism, from Keynesianism to neoliberalism. Unlike te whenua and the minerals that lie within it, te wai has not been privatised by the settler society because it has long been held to belong to no one but to be accessible by all.

However, given the commercial benefits obtained from water across a wide range of activities, given the damage done to this country's freshwater systems especially by agriculture, and given the Crown's acknowledgement of Māori rights and interest in this taonga, it is surely a question of when, not if, those rights are enshrined in legislation and an equitable, inclusive and sustainable approach to freshwater developed and maintained. And who better, and better for us all, than tangata whenua, whose whenua, after all, this is, to have those rights so formalised. Let us not wait until dairying is on its knees because of the invention of synthetic milk and Aotearoa has become the world's largest exporter of water due to its taste, pristine quality and renewable abundance before such a move is made.

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¹ "The water and the land". My grateful thanks to my generous readers who kindly critiqued and corrected this essay and offered insightful comments and advice. Any remaining errors are mine.

² See the "Water footprint comparison" section for the derivation of these numbers.

³ International Bottled Water Association (IBWA), Media Release (9 March 2017):

<http://www.bottledwater.org/bottled-water-nations-healthiest-packaged-beverage-officially-americas-favorite> ; Antea Group, "Water Use Benchmarking Study: Executive Summary" (Antea Group: St Paul MN, 2015): <http://www.bottledwater.org/public/IBWA%20Water%20and%20Energy%20Use%20Benchmarking%20Report%20-%20Exec%20Summary%20%28Revised%20May%2018%202016%29.pdf> ; European

Federation of Bottled Waters (EFBW), "Bottled Water: Achieving a Sustainable Life Cycle", 4, 6: http://www.asvanyvizek.hu/js/tinyMCE/plugins/filemanager/files/efbw/Asvanyviz-fenntarthato_eletciklus.pdf .

⁴ Office of Treaty Settlements, *Healing the past, building a future: A Guide to Treaty of Waitangi Claims and Negotiations with the Crown* (Wellington: Office of Treaty Settlements, 2015, first published 1999), 103: <https://www.govt.nz/assets/Documents/Red-Book-Healing-the-past-building-a-future.pdf> .

⁵ Giorgio Agamben (trans. Daniel Heller-Roazen), *Homo Sacer: Sovereign Power and Bare Life* (Stanford: Stanford University Press, 1998), 177. Giorgio Agamben (trans. Daniel Heller-Roazen), *Homo Sacer: Sovereign Power and Bare Life* (Stanford: Stanford University Press, 1998), 177. As Agamben explains: "The 'people' . . . always already carries the fundamental biological fracture with itself. It is what cannot be included in the whole of which it is a part and what cannot belong to the set in which it is always already included" (*Homo Sacer*, 177-8). See also Benedict Anderson, *Imagined Communities, Reflections of the Origin and Spread of Nationalism*, Revised Edition (London: Verso: 2006, first published 1983), 6.

⁶ Cherie Sivignon, "Greens announce 10c excise levy plan for bottled water at election campaign launch", Stuff (9 July 2017), video transcript: <https://www.stuff.co.nz/national/politics/94546865/greens-announce-10c-excise-levy-plan-for-bottled-water-at-election-campaign-launch> ; Claire Trevett, Greens launch election campaign, propose 10c a litre charge for bottled water sales" (9 July 2017):

http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11888143 ; James Shaw, "Green Party will ensure clean, safe drinking water for everyone" (9 July 2017 14:09): <https://www.greens.org.nz/news/press-release/green-party-will-ensure-clean-safe-drinking-water-everyone> .

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- ⁷ Government Inquiry into Havelock North Drinking Water, “Report of the Havelock North Drinking Water Inquiry: Stage 1” (Auckland: 2017), 1-3.
- ⁸ Ibid., 3.
- ⁹ James Shaw, “Green Party will ensure clean, safe drinking water for everyone” (9 July 2017 14:09): <https://www.greens.org.nz/news/press-release/green-party-will-ensure-clean-safe-drinking-water-everyone>.
- ¹⁰ Elton Rikihana Smallman, “Fight to charge water bottlers heats up”, Stuff (28 June 2017): <http://www.stuff.co.nz/national/94118515/Fight-to-charge-water-bottlers-heats-up>. Denis O’Rourke, “New Zealand First Tables Water Royalty Bill”, New Zealand First (23 March 2017): http://www.nzfirst.org.nz/new_zealand_first_tables_water_royalty_bill.
- ¹¹ Smallman, “Fight to charge water bottlers heats up”.
- ¹² Ibid.
- ¹³ Ibid.
- ¹⁴ Ibid.
- ¹⁵ Isaac Davidson, “Labour leader Jacinda Ardern wants royalty on commercial freshwater use to help clean up rivers”, *The New Zealand Herald* (9 August 2017): http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11900746.
- ¹⁶ Ibid.
- ¹⁷ Patrick Smellie, “Labour confirms royalties for bottled water and irrigation schemes”, National Business Review (9 August 2017): <https://www.nbr.co.nz/article/labour-confirms-royalties-bottled-water-and-irrigation-schemes-b-206260>; Editorial: Labour’s water charge leaves much to be decided”, *The New Zealand Herald* (10 August 2017): http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11901077; Matt Shand, “Chinese company seeks consent to draw 580 million litres of pristine spring water”, Stuff (13 August 2017): <https://www.stuff.co.nz/business/industries/95670283/Chinese-company-seeks-consent-to-draw-580-million-litres-of-pristine-spring-water>.
- ¹⁸ OECD (2017), *Environmental Performance Reviews: New Zealand 2017* (Paris: OECD Publishing, 2017), 175: <http://dx.doi.org/10.1787/9789264268203-en>.
- ¹⁹ Hamilton and Waikato Tourism, “Blue Spring - Te Waihou Walkway”: <http://www.hamiltonwaikato.com/experiences/walking-and-hiking-trails/blue-spring-te-waihou-walkway/>.
- ²⁰ Nick Smith, in “Oral Questions – Questions to Ministers”, Hansard, Vol. 712, 10309 (7 April 2016): https://www.parliament.nz/en/pb/hansard-debates/rhr/document/51HansD_20160407_00000008/oral-questions-questions-to-ministers; Nick Smith, in Hansard Vol. 723 (27 June 2017): https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansD_20170627_20170627/. Nick Smith, “Bottled water concerns misplaced”, beehive.govt.nz (21 April 2016): <https://www.beehive.govt.nz/release/bottled-water-concerns-misplaced>. See also Nick Smith, “Bottled water debate misses the mark”, beehive.govt.nz (17 March 2017): <https://www.beehive.govt.nz/release/bottled-water-debate-misses-mark>.
- ²¹ OECD (2017), *Environmental Performance Reviews: New Zealand 2017*, 158.
- ²² OECD (2017), *Environmental Performance Reviews: New Zealand 2017: Highlights* (Paris: OECD Publishing, 2017), 13.
- ²³ According to Statistics New Zealand, bottled water exports for New Zealand totalled 14,460,934 litres and its population was 4,509,900 in 2014: http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/NationalPopulationEstimates_HOTPA30Jun14.aspx while its bottled water exports for 2016 totalled 26,819,390 litres. The figures 14.46 million, 26.8 million and 10 trillion are effectively blue water footprint figures. See n. 23 for definitions of blue, green and grey water footprints.
- ²⁴ Waterfootprint.org: <http://waterfootprint.org/en/resources/interactive-tools/product-gallery/>.
- ²⁵ M A Zonderland-Thomassen and L F Ledgard, “Water footprinting – A comparison of methods using New Zealand dairy farming as a case study”, *Agricultural Systems* 110 (2012), 30, 35. The authors define the footprint categories as follows: “The blue water footprint measures the volume of groundwater and/or surface water consumed, i.e., withdrawn and then evaporated, returned to another catchment or integrated in a product. The green water footprint measures the volume of freshwater lost by evapotranspiration from soil water derived from rainfall made accessible for plant grown. The grey water footprint measure the volume of freshwater that is

required to dilute the load of pollutants to existing ambient water quality standards” (“Water footprinting”, 32). These definitions are based on those found in (M M Mekonnen and Y A Hoekstra, *The Green, Blue and Grey Water Footprint of Farm Animals and Animal Products Volume 1: Main Report* (Delft: UNESCO-IHE Institute for Water Education, 2010), 9.

²⁶ Waterfootprint.org: <http://waterfootprint.org/en/resources/interactive-tools/product-gallery/>. It is arguable that the blue and grey water footprints only for milk would make its footprint more comparable with bottled water. In that case, this would produce a water footprint of 274 litres for 1 litre of milk (29% of 945) in the Waikato region and a water footprint 585 litres (54% of 1084) per litre of milk in the Canterbury region.

²⁷ David Lee-Jones (approved by Sarah Hanson), “New Zealand Semi-Annual Dairy and Milk Supply Report 2017”, *GAIN Report*, Number 1704 (15 May 2017), 2: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Dairy%20and%20Products%20Semi-annual_Wellington_New%20Zealand_5-15-2017.pdf. If we take the average of the blue and grey water footprint for the Waikato and Canterbury regions, which totals of 41.5% (12% blue + 29.5% grey), the total water footprint (green, blue and grey) reduces from 2.1 trillion litres to 0.892 trillion litres or 892 billion litres.

²⁸ Lee-Jones (Hanson), “New Zealand Semi-Annual Dairy and Milk Supply Report 2017”, 7.

²⁹ Waterfootprint.org: <http://waterfootprint.org/en/resources/interactive-tools/product-gallery/>.

³⁰ The multiplier used for Other is not provided by WFN but is based on an average of the WFN multiplier for the other four products.

³¹ According to Statistics New Zealand, New Zealand’s total water exports for 2016 were 26,819,390 litres. We arrive at a total water footprint of 35,401,000 litres for those exports on the basis that 1 litre of bottled water takes “on average” 1.32 litres of water to produce it, including the litre in the bottle (IBWA, Media Release [9 March 2017]); Antea Group, “Water Use Benchmarking Study: Executive Summary” (2015). No figures are available from Statistics New Zealand for national sales of bottled water.

³² Dairy Companies Association of New Zealand (DCANZ), “About the NZ dairy industry: Fast Facts”: <https://www.dcanz.com/about-the-nz-dairy-industry/>.

³³ This calculation is based on WFN’s global average for the blue and grey water footprint for milk, cheese, butter and WMP being 15% of their total water footprint. See: Waterfootprint.org: <http://waterfootprint.org/en/resources/interactive-tools/product-gallery/>.

³⁴ Andrew Curtis, “Taxing water not as crystal clear as it seems”, *Stuff* (18 July 2017): <https://www.stuff.co.nz/business/farming/agribusiness/94820707/taxing-water-not-as-crystal-clear-as-it-seems>.

³⁵ Waterfootprint.org: <http://waterfootprint.org/en/resources/interactive-tools/product-gallery/>.

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ The Coca-Cola Company and The Nature Conservancy, “Product Water Footprint Assessments: Practical Application in Corporate Water Stewardship” (2010): http://www.coca-colacompany.com/content/dam/journey/us/en/private/fileassets/pdf/2010/09/TCCC_TNC_WaterFootprintAssessments.pdf.

⁴¹ IBWA, Media Release (9 March 2017).

⁴² EFBW, “Bottled Water: Achieving a Sustainable Life Cycle”, 4, 6.

⁴³ Enviro-Mark Solutions, “Summary of carboNZero certification: The Antipodes Water Company Limited”: https://www.enviro-mark.com/_data/assets/pdf_file/0015/124044/Disclosure_1516_AWC_CZ_Prod.pdf.

⁴⁴ OECD (2017), *Environmental Performance Reviews: New Zealand 2017*, 15.

⁴⁵ The *Collins Concise Dictionary* (Glasgow: William Collins Sons, 2003), 826, defines “laissez-faire” as “the doctrine of unrestricted freedom in commerce, esp. for private interests.” According to a recent report from Yale University, New Zealand, “where more than 40,000 people live on the streets or in emergency housing or substandard shelters”, has the highest level of homelessness in the OECD, (Joseph Chamie, “As Cities Grow Worldwide, So Do the Numbers of Homeless”, *YaleGlobal*, Yale University (13 July 2017):

<http://yaleglobal.yale.edu/content/cities-grow-worldwide-so-do-numbers-homeless>. According

to UNICEF and the Child Poverty Monitor, 295,000 or 28 percent of children in New Zealand live in poverty: <https://www.unicef.org.nz/learn/our-work-in-new-zealand/Child-Poverty-in-New-Zealand> and 90,000 or 8% in severe poverty: <http://www.childpoverty.co.nz> .

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⁴⁷ Jacques Derrida, *Of Grammatology*, corrected edn, trans. Gayatri Chakravorty Spivak (Baltimore: The Johns Hopkins University Press, 1997, first published 1974), 276.

⁴⁸ *Ibid.*, 275-6.

⁴⁹ Water New Zealand/Wairoa Aotearoa, Press Release (November 2016): https://www.waternz.org.nz/Story?Action=View&Story_id=260 .

⁵⁰ Eleanor Ainge Roy, "New Zealand anger as pristine lakes tapped for bottled water market", *The Guardian* (27 March 2017): <https://www.theguardian.com/world/2017/mar/27/new-zealand-anger-as-pristine-lakes-tapped-for-bottled-water-market> ; OECD (2017), *Environmental Performance Reviews: New Zealand 2017*, 175. Total revenue for Coca-Cola's 2016 year was reported as being US\$41.9 billion: <http://www.coca-colacompany.com/content/dam/journey/us/en/private/fileassets/pdf/investors/2016-Q4-Earnings-Release.pdf> .

⁵¹ Roy, "New Zealand anger as pristine lakes tapped for bottled water market".

⁵² *Ibid.*

⁵³ M A Gusyev, U Morgenstern, G Zemansky, S Cameron, M W Toews, C Tschritter (GNS Science), "Delimitation of protection (capture) zones for the Putaruru well field and the Blue Spring on the Waihou River" (Hamilton: Waikato Regional Council, 2011), 2.

⁵⁴ Eric Crampton, "Bottling water and cutting out the middle-cow", *National Business Review* (8 April 2016): <https://www.nbr.co.nz/opinion/bottling-water-and-cutting-out-middle-cow-ec> ; Jon Morgan, "Cutting out the middle cow", *Stuff* (25 January 2017):

<http://www.stuff.co.nz/business/farming/88540744/water-cutting-out-the-middle-cow> .

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⁵⁶ Mike McRoberts, Patrick Gower, "Newshub poll: 87pct say charge royalties on water", *Newshub* (14 June 2017), video transcript: <http://www.newshub.co.nz/home/politics/2017/06/newshub-poll-87-say-charge-royalties-on-water.html> .

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ F M (Jock) Brookfield, *Waitangi & Indigenous Rights: Revolution, Law & Legitimation* (Auckland: Auckland University Press, 1999), 181.

⁶¹ Fonterra, "Dairy for Life" (10 April 2016): <https://www.youtube.com/watch?v=xVbYQQkOVTg>

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<http://www.radionz.co.nz/national/programmes/morningreport/audio/201836503/bung-the-bore-petition-to-be-presented-at-parliament-today> ; Isaac Davidson, “Govt rules out ban on bottled freshwater exports despite nationwide protest”, *New Zealand Herald* (14 March 2017): http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11817982 .

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⁷³ OECD (2017), *Environmental Performance Reviews: New Zealand 2017*, 15, 116. The OECD also states the New Zealand’s GHG emissions per capita “remain among the five highest in the OECD” (20).

⁷⁴ OECD (2017), *Environmental Performance Reviews: New Zealand 2017: Highlights*, 12; OECD (2017), *Environmental Performance Reviews: New Zealand 2017*, 156.

⁷⁵ Dean Carlson, “Why sustainable farming matters”, TED Talks (4 January 2013): https://www.youtube.com/watch?v=uf_mrQpN1Hw .

⁷⁶ OECD (2017), *Environmental Performance Reviews: New Zealand 2017*, 156-7.

⁷⁷ *Ibid.*, 176-7, 195.

⁷⁸ *Ibid.*, 178.

⁷⁹ Waitangi Tribunal, *Stage 1 Report on the National Freshwater and Geothermal Resources Claim*, Wai 2358 (Lower Hutt: Legislation Direct, 2012), 3.

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