

The Weight of Risk and the Risk of Waiting

[Manu Caddie](#)

[Oil & Gas Symposium](#), Hastings District Council

11 October 2013

Introduction

Te mihi tuatahi ki te mana whenua, Kahungunu ki Heretaunga me ngā hapū o te rohe nei, tēnei te piki mihi ki a koutou, he mihi hōnore, mihi maioha hōki.

I would like to thank Mayor Yule for initiating this important event and for being committed to an open and inclusive process on the issues. To councillors and candidates present – good luck for tomorrow. I also acknowledge my fellow speakers, any central government agents in the audience and members of the public and media who took the time to come and participate today.

I also acknowledge the tragic loss of young Uetaha Wanoa this week, people around the country have had his family, the contractor and Hastings District Council in our thoughts and prayers.

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I was raised on a farm in the Bay of Plenty, my parents are still market gardeners near Tauranga and I have lived in Gisborne for the last 15 years. My wife is from the Coast and our children are growing up with strong connections to their marae and the unique landscape and coastline of Te Tairāwhiti.

I am a first term councillor and RMA Commissioner.

Gisborne has one active exploration permit. It is held by a small Canadian company TAG Oil which also operates in Taranaki and had partnered with Apache Corporation until they withdrew at the start of this year. We also had Brazilian corporation Petrobras that had an offshore exploration permit that included GDC jurisdiction, they have also withdrawn. During the current consenting process TAG representatives said GDC has been the most rigorous council they have worked with. The full applications, technical reports, correspondence and consents are [available on the GDC website](#).

I have growing concerns about both the process – notwithstanding some positive and negative changes to the way the Crown Minerals Act, EEZ Act and Resource Management Act are written and administered and potential outcomes of petroleum exploration and exploitation in our communities.

My concerns are environmental, social, cultural, economic and political, but the regulatory processes are quite truncated in scope so wider issues are unable to be taken into account through most consenting processes. An example is what constitutes ‘no more than minor effects’ and ‘special circumstances’ – conservative planners will say ‘high public interest’ is not a lawful reason to notify but tend to overlook the opportunity for public notification if a potential effect is unlikely but would be more than minor if it happens.

Another example of concern is the [current consultation on draft guidelines for managing the environmental effects of oil and gas development activities](#), including hydraulic fracturing announced by Amy Adams when the PCE has not completed her inquiry on those issues, with a deadline of 1 November.

While central government policy settings and priorities encourage fossil fuel production (while paying lip service to action on reducing greenhouse gas emissions), I think it’s up to

local communities to do what we can to make it harder rather than easier for this dirty industry to have their way with our communities and natural environment.

This presentation provides a quick overview of these concerns.

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LOCAL ENVIRONMENT

Water Allocation

With existing challenges around freshwater availability for agriculture and horticulture on the East Coast, UN Intergovernmental Panel on Climate Change predicting increasing frequency and severity of droughts it seems prudent to fully assess the likely impacts of any new industry in terms of potential freshwater demands and weigh that up with impacts on existing industries.

Taranaki has not had the same issues with competition for water that we have seen in Australia and the US for a couple of reasons: the tight sands geology in Taranaki requires comparatively low volumes of water and the number of wells has been low to date but is now starting to ramp up. On the East Coast we can expect larger volumes of water being required.

Water Contamination

[Industry publications suggest well casing failure rates of around 60% in 30 years](#) – so long after wells are abandoned, half of them leak oil, gas and/or brine on the surface and into aquifers.

Aquifer contamination is a real concern given NIWA has shown our aquifers are declining and we're looking at artificial means to replenish them. There is a real risk of pollution to streams from accidental spill, poor engineering or natural disaster such as flooding as happened [last month in Colorado where fracking waste ponds and whole wells were inundated](#) and destroyed and toxic material spread far and wide.

A team from Duke University led by Professor Avnor Vengosh (who [visited Gisborne last year](#)) [announced last week findings from a major study](#) that has demonstrated radium isotopes found in surface water was brought up through the fracking process.

Professor Peter Malin and the team from the [Institute of Earth Science and Engineering](#) at Auckland University have a good relationship with [Duke University](#) and have some useful suggestions around groundwater monitoring regimes that seem more rigorous and robust than consent conditions issued to date. It is entirely appropriate for consenting authorities to insist on the highest standard within any consent conditions for things like baseline establishment tests and ongoing monitoring regimes before, during and after a drilling operation.

Waste Storage & Disposal

[Climate Justice Taranaki](#) has kept a detailed account on their website of consent breaches and pollution from waste storage facilities around the region – and these are mostly just reported incidents within a regulatory framework that the [PCE](#) and others have suggested leaves too many areas unmonitored at present.

Transporting waste is of concern to some people, there are significant cultural issues with taking polluted water from one region to another and the respective iwi and hapū involved

have raised these issues already.

In spite of the report on land-farming released last week, the best greenwashing job in the world is going to struggle to ever convince retailers and consumers about the safety of milk from cows grazed on land that has had toxic waste spread on it. I understand the PCE staff have concerns about the methodology used but are reading the report in detail before providing any official comment.

Seismic Risk

The science suggests significant earthquakes can be caused by reinjection and small earthquakes from fracking itself. The level of risks associated with both practices are still unclear, particularly in areas with high numbers of faults and active faults – and as Michael Hasting suggests (via personal correspondence) the GNS monitoring facilities in Taranaki that were subject of a [TRC report](#) giving the all clear are actually inappropriate in terms of the calibration and proximity to the activity.

In 2006, the largest mud volcano on the planet was born when steam, water and mud began erupting on the Indonesian island of Java. At its height, it spewed 180,000 cubic meters of boiling mud per day, enough to submerge a football field under nearly 34m of earth. The mud volcano still erupts with outbursts like a geyser. The resulting disaster, known as the Lusi mud eruption, buried factories, highways and villages, causing 13,000 families to lose their homes. Scientific reports have suggested two potential causes for the calamity – nearby drilling and [fracking](#) or a [natural earthquake](#).

Landscape Industrialisation & Other Issues

[Silica dust is a major issue](#) for both workers and neighbours in a number of US communities where fracking is happening. Trucks, operating noise levels, night light and air pollution from flaring are all significant issues for many well sites that need to be taken into consideration more during consenting processes.

The [UK Royal Society and Royal Academy of Engineering report](#) issued last year on fracking is oft cited by the oil industry here, what they fail to mention is the President of the RAE at the time the report was commissioned is Chairman and 30 per cent owner of the UK's largest fracking company.

GLOBAL ENVIRONMENT

Moral Obligations

In [an age of 400ppm](#) is there such a thing as environmentally safe drilling?

The greatest challenge of course is a moral one: why would we welcome an industry that is, probably more than any other, responsible for causing catastrophic changes in our climate? What are we going to tell our grandchildren when they ask why didn't we make the transition to renewable energy faster?

And yes, anyone suggesting we need to change and still using fossil fuels is compromised, but that's a bit like saying Gandhi and Mandela should not have spoken English during their struggle against colonisation.

The transition to renewables will take time – it took petroleum a few decades in the early

20th Century to supersede coal as the primary fuel – but the longer we allow cheap access to fossil fuels, the longer the transition takes.

Humans have already discovered five times more oil and gas than we can consume without pushing planetary warming above the critical two degrees increase. We don't need to find any more. Several reports have stressed that we need to keep 80 per cent of all remaining fossil fuels in the ground to keep global warming below 2°C.

It has been interesting to see the Anglican Church across New Zealand, including the Wellington and Waiapu dioceses in the last few months decide to [divest from any fossil fuel investments in their portfolios](#). They have decided it is an immoral industry that should not be supported by the church.

While our national politicians are desperate for any income that will boost the national coffers, neither National nor Labour leaders have had the courage to make polluters pay, set a binding transition plan and incentivise a rapid development of renewables. In the absence of the requisite moral fortitude at a national level, I'm convinced that like the anti-nuclear movement, the transition movement will start with churches, community groups and marae – then local governments will get on board and once the tipping point is reached we will see New Zealand moving into the leadership role on global issues we have been so proud of in our history.

So I do think there is a moral question to be answered – which isn't very common in politics. But if we agree fossil fuels are bad for the planet, we could compare it to the tobacco, nuclear or arms industries. Just because we can do it, should we?

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CULTURAL

Mana Motuhake

Te Whānau-a-Apanui – want to maintain traditional activities and assert mana motuhake over traditional territory. NZ military used to protect the interests of a multinational corporation over the interests of the citizens.

Communities hit first and worst from extractive industry impacts are most often the least responsible for the crisis and least resourced, yet are actively leading the fight against major climate polluters. It is fascinating to see such strident and almost unanimous opposition to petroleum exploration right around the East Coast – a region that desperately needs new employment opportunities.

But resistance comes at a cost for iwi.

In their struggle, Apanui resistance to Petrobras drained that community financially and physically. It could be said that the Apanui stand has benefitted other communities by providing a story of solidarity and resilience. But their fight tied up key leaders and this has impacted on the physical, financial and spiritual wellbeing of the tribe and key leaders. They are still dealing with that impact to this day. However an oil spill, and climate change itself, may well wipe out a coastal community's ability to maintain whatever level of traditional food sovereignty they have left. Both Apanui and Ngati Porou coastal and remote communities are hugely reliant on the health of their lands and waters.

It is important to note the government and oil companies have endless resources in comparison to host indigenous communities who resist.

Kaitiakitanga

Parihaka

[James Anaya, the UN Special Rapporteur on the Rights of Indigenous Peoples](#) in a [2011 report](#) said many mining projects have been implemented in indigenous territories without proper guarantees and without the involvement of the people concerned. Consequently, disputes related to extractive industries had sometimes escalated into violence, and there was an increasing polarization and radicalization of positions about those industries.

Unemployment is high for Māori. Many of the proposed extractive permits are for regions where there are currently few jobs available. Some hope that oil exploration will lead to employment and trade opportunities and will provide an economic base for Māori. It is hypothesized that run-off benefits would raise the socio-economic status for families in light of increasing inequality. Specific cultural benefits may come not as a direct result of the nature of the industry but due to consequent financial investment into retention and revival of cultural practices and relationships.

Both the MP Shane Jones and Te Rarawa Iwi Chair Haami Piripi are examples of influential Māori who advocate for extraction industries as an option for Māori development.

But these benefits are offset by what we know of indigenous communities around the world and growing Māori opposition in the NZ petroleum heartland of Taranaki.

Short-sighted cheerleaders for the industry often overlook the investment in clean tech industries that can directly utilise local knowledge and resources of indigenous communities in a way that extraction industries do not, as well as gain from the financial outputs. For example Omaio in Te Whānau-a-Apanui has recently run a competition between nine teams from three engineering schools to work with the community and create the business case for a renewable energy system for their community. Private investors and the community are assessing the three top proposals to choose the winning design.

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SOCIAL, HEALTH & ECONOMIC

Social Implications

Williston (Bakken) man camps – 3,000 men housed in close quarters.

Recent studies and [news articles](#) have documented dramatic increases in [crime](#) / [STIs](#) / [prostitution and meth labs](#) in boom towns. It's great to see health impacts on the agenda today. We need much more investigation into these issues and to access and share more research on these issues.

Increasing Inequalities

A [2009 report](#) from the Queensland Government and [Centre for Social Responsibility in Mining \(CSRMI\)](#) at the University of Queensland showed that housing affordability often declines for people in mining towns who aren't working in the industry.

Stats from the Real Estate Institute of Queensland (REIQ) show a close correlation between

Queensland resources and property booms — median house prices in one suburb soared 65 percent in a year. Great if you're a property investor, but if you just want an affordable home for your family you might be out of luck.

CSRM studies have documented the “two-speed economy” that follows mining “boom towns”, where people who aren't working in the industry get a sharp shock when they realise that normal life is suddenly a lot more expensive as food, fuel and housing costs increase quickly.

Jobs

Venture Taranaki numbers don't match Statistics NZ employment figures, someone should reconcile the two and I imagine we'll find the actual number of direct and indirect petroleum jobs is somewhere in between the two. But even if we give the Venture Taranaki estimates even a few more and round it off to 10,000 jobs, that's less than half of one per cent of the jobs in New Zealand and the contributions to the public purse derived from royalties, levies and taxes at around \$700 million is less than one per cent of government income. Not insignificant but not as important as the industry and government imply through claims of the industry being in the top four contributors to GDP.

The [East Coast Petroleum Development Study](#) found that the most likely scenario is that the deposits are so small they will not be commercially viable and there will be no jobs. Of course this contrasts starkly with the way our region is being pimped to North American investors by TAG and others.

The next most likely scenario predicted in the report is for a very limited industry presence with a couple of hundred jobs for a few years. Fortunately from my perspective, the massive boomtown scenario that would industrialise much of the rural landscape was almost not worthy of a mention according to the analysts who looked at the geology and commercial potential.

And even if a lot of oil and/or gas is discovered it doesn't necessarily translate to a lot of jobs. A US Department of Agriculture study published last year found that in three states experiencing petroleum booms, a large increase in production caused only modest increases in local jobs and median household income and employment rose an average of 1.5 percent on pre-boom levels.

So while some incomes will rise during an oil boom, the cost of living for everyone is likely to increase as well — meaning those on a fixed income are in fact worse off.

While this may not on its own be reason enough to say “no” to oil and gas exploration here, it's important to understand the real opportunities and risks before rolling out the red carpet. So where is the independent research that might enable communities to weigh up the potential benefits and risks?

Impact on Other Industries

Fonterra has said they're not taking milk from any more dairy units where land-farming is used. The idea of drinking milk from cows grazing on land that has toxic waste dumped on it must be the kind of image Fonterra will run a mile from.

Two months ago [Rabobank Group](#) said it would no longer provide finance to anyone involved in extracting unconventional fossil fuels such as oil shales through fracking (see their [Oil & Gas Policy](#)).

One of the world's largest lenders, Rabobank is worried about the impact oil and gas production is having on people, productive agricultural land, wildlife and the climate — as

well as the release of greenhouse gases and their warming of the planet.

As we are seeing in Taranaki now, there is increasing conflict in the communities affected by the expansion of oil and gas there and a perceived risk to the rural sector from residents near new developments.

A letter to Tiniroto resident John Brodie from the FMG Service Centre says:

“Our Underwriters have confirmed we exclude cover of Fracking and anything related to this activity. Fracking is outside of FMG’s preferred risk profile and is not something we would be willing to cover as we do not insure any risks relating to the mining industry.”

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POLITICAL

Deliberation

Last year 2000 locals asked for public notification of any mining resource consent yet Gisborne District Council has chosen not to do so. What Council has committed to is a formal review of the provisions for extractive industries in our region. I expect from this process we will see all petroleum-related applications publicly notified.

We need a well resourced process that includes the public and diverse interests, can commission reports, share information between communities and find consensus on the issues.

The Ministry for the Environment is AWOL, conspicuous in their lack of contribution in helping communities consider the most significant impacts – both positive and negative. The only involvement I have seen from MfE was a small grant to Gisborne District Council to commission [a report by Lincoln University](#) that highlighted the dearth of reliable research, the need for much more and some major concerns about how food production industries don’t tend to sit well with a landscape industrialised by petroleum development.

In the absence of constructive, inclusive, properly resourced and evidence-based community deliberation, we see a polarising of positions and a radicalised proportion of the population preparing to take direct action against drilling installations. I met a grandmother last weekend who is ready to chain herself to the machines as is happening in Australia, North America and the UK right now. I have been at public meetings where death threats have been made against drillers and while some of the natives will be bought off by the prospect of generous royalties, compensation or consultancy fees, we should expect some people – both Māori and non-Māori – will be prepared to damage property and risk their safety and freedom to protect what they treasure.

I think the news media have let us down on this issue too. Because there are more than the usual number of alarmists and conspiracy theorists around the edges of the transition movement, the media should have done a better job of investigating some very technical issues, economic questions and the socio-cultural implications. Instead we see industry representatives and political leaders spout all kinds of half-truths that are printed as gospel.

The Alternatives

At the EDS Conference a couple of months ago a representative from Z Energy talked about the concept of ‘permitted oil’ as opposed to ‘peak oil’. Earlier this year [Z Energy partnered with Norske Skog](#) and others to invest over \$13 million in a biomass development project in the Bay of Plenty using woodchips and sawdust to create biofuels. That kind of money is not just green-washing, they are serious about using our existing resources to reduce New

Zealand's \$6 billion/year addiction to fossil fuels and our community should be talking to them.

Scion, the forestry research institute has estimated that eight biomass plants around the country could replace ten percent of our crude oil requirements using just the current waste from the wood industry.

A recent [Auckland University and Vivid Economics report](#) commissioned by Pure Advantage, a group New Zealand's most influential business leaders, suggested that green growth may not out perform the dirty alternatives if the goal is short-term profit but a different way of measuring growth and wealth may be required.

The report says: "The benefits of green growth policies do not always show up rapidly as higher growth, and higher short-run growth should not be a necessary criterion for a good green growth policy. This is because conventional measures of growth do not measure the state of the economy's stocks of wealth, and many valuable environmental outcomes are not traded in markets, so improvements do not appear as growth. A green account addresses these deficiencies."

Renewable energy industries do however have a much higher job creation result for the same investment in fossil fuels, and Tairāwhiti is well placed to take advantage of any shifts in the allocation of resources around the national economy during the transition period.

Transition

Last year I bought a little diesel car to run biodiesel made from vegetable oil – the price of that product has not yet achieved parity with regular diesel and petrol yet. There are alternatives, we just have to decide if we have the courage to step away from the suicidal trajectory we are currently on and into the opportunities.

David Robinson (PEPANZ) and I both agree New Zealand needs a binding Transition Plan to get us off fossil fuels – but so far successive governments haven't even mentioned such an idea.

Earlier this year Greenpeace commissioned economic modeling from some of the world's leading energy market analysts at the Institute of Thermodynamics of the German Aerospace Centre (DLR). That [transition plan provides a pathway towards achieving 100% renewable energy by 2050](#) – this is the kind of research the Government should be spending money on instead of trying to prove why the East Coast and our kids futures should be pimped as fast as possible to transnational oil companies.

We need binding policy like the UK & a comprehensive Carbon Tax, while national politicians haven't had the balls to do it. But like the nuclear debate 30 years ago, local communities and local politicians should make a stand and demand public policy that protects our communities.

David Robinson says we all need to use less fossil fuels, but just like the tobacco industry, change won't happen if we rely on consumers to simply 'make the right choice' – regulation and legislation is required to make change a reality as quickly as possible.

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For more information or to contact Manu visit: www.manu.org.nz