Mining in New Zealand 2020

Improving the Understanding and Performance of the Minerals Sector in New Zealand

Straterra Briefing – Election 2020

July 2020

STRATERRA™
NATURAL RESOURCES OF NEW ZEALAND

Contents

Cover photo: Bathurst Escarpment

Message from the CEO

Minerals are essential to modern life and New Zealand is well placed to produce them in terms of geological resources and in managing impacts on people and the environment.

Demand for minerals – coal for steel, coal for energy, gold, aggregates, limestone, vanadium, ironsand, base metals, lithium . . . is driven by the standard of living we have in developed countries, and is demanded in developing countries.

With current technology and knowledge, ***the world demands more mining***, not less, in reducing poverty and in transitioning to a lower-emissions economy, even with recycling and reuse. New Zealand can be a part of that reality, or not.

As a small export-dependent nation, being part of that reality makes sense anytime, but more so as we look to the challenge of post Covid-19 pandemic economic recovery.

Like all land uses, ***mining entails trade-offs***. Over recent decades, the Resource Management Act has been the main mechanism to consider and deal with these trade-offs (and more recently the EEZ for offshore activity). The RMA provides a case-by-case adversarial examination and assessment of the environmental, social, and economic impacts of a proposal. This is widely regarded as being difficult, challenging, and sometimes tortuous - however, under the RMA regime, resource investment and development has occurred; jobs have been created, societal needs met, export revenue earned.

Has there been an associated degradation of the environment? The evidence would say not. Conversely, the damage caused by exotic animal pests and weeds is material and, in some areas, severe.

Mining occurs on 0.04% of the conservation estate. Consents to mine are granted with conditions that require rehabilitation and compensation. A mining project, when all conditions are considered, should make a positive contribution to the environment, and to society.

If that is not the case, the project should not be consented.

The key issue here is that the assessment of the 'positive contribution' is carried out by an independent body, e.g. the Environment Court or a decision-making committee.

However, opponents in New Zealand have, with alarming success, framed the argument as 'mining or the environment'. Recent policy proposals, and court decisions, reflect this binary and polarised construct. Preservation is the mantra, with little or no consideration of how many New Zealanders earn their livelihoods, or how our country makes its way in the global economy.

In addition, 'green creep' in regulation progressively and incessantly increases the barriers to development.

Recent court decisions such as the Ruataniwha Dam remove the flexibility any resource project needs to achieve that 'positive contribution'. District plans become more prescriptive and anti-development. Biodiversity proposals mean that projects will be 'nipped in the bud' and proponents never get the opportunity to present their case.

I note that the recently issued "The Resource Management System: A comprehensive review" promotes 'achieving positive outcomes' without a commensurate discussion about trade-offs and flexibility. That too locks in preservation.

How is this sustainable?

Where there are competing land uses mining is typically the highest-value use of land. Its impacts, including on biodiversity and freshwater, can be and are managed to international standards of ***good and best-practice.***

In the event that conservation values are considered, through an independent process, to be higher than the net value created by the mine proposal, consents will not be granted. That is how the RMA is intended to work and that is as it should be.

At issue here is that we should maintain a regime that considers projects, case by case and on their merits, that considers their impacts on competing values in the land, and proposals for managing those impacts to meet society's expectations.

There are many unintended consequences of this 'green creep' including increased cost of aggregates and other minerals for domestic industry, increasing our reliance on imports of minerals, and adversely affecting the potential for export earnings.

In addition, New Zealand can produce minerals at ***a lower carbon footprint*** than is often the case overseas, and our export coals lead to lower CO_2 emissions than would otherwise occur – points that further tip a weighing of the trade-offs in mining's favour. Emerging climate change policy ignores these considerations.

Of course we want to avoid a policy response that holds back the economy for no environmental gain but this is what our ETS will do if the price of carbon in New Zealand does not reflect that of our trading partners. It will simply transfer both New Zealand jobs and emissions to other countries.

In this policy briefing, we set out the information and data that underpin the points made in this message. We set out the role of minerals, their economic contribution to New Zealand, and how environmental impacts are managed. We discuss mining and climate change, and mining on conservation land.

A mature, informed conversation is needed on managing New Zealand's resources for conservation, for economic development and other outcomes.

We trust this document informs this conversation.

Chris Baker
CEO
Straterra Inc

Introduction
– Why have we produced this document?

Straterra is the industry association representing the New Zealand minerals and mining sector. Our membership is comprised of mining companies, explorers, researchers, service providers, and support companies.

Straterra is non-partisan. It does not support any particular political party, but it does support policies that enable the minerals sector to invest and operate responsibly and to contribute positively to the New Zealand economy.

Our intent is for this document to influence policy development and implementation. It is written to inform MPs and officials about mining and the policy issues that are important for our sector.

The document includes background information on minerals, mining and aggregates, and a discussion about the role of resources in New Zealand as well as commentary on various issues facing the sector. It then addresses a number of policy topics to inform the reader on Straterra's stance on each issue and sets out our recommended actions.

The document will also serve as a base against which we can assess parties' policies in the lead up to the 2020 General Election.

Clearly the Covid-19 pandemic will continue to dominate the political landscape over the coming months. The virus is, at the time of writing, under control – we now want to see that control maintained AND the economy recharged. That is the challenge for this and any incoming Government.

Straterra is the industry association representing the New Zealand minerals and mining sector.

Key Messages

- Mining presents real opportunities for New Zealand which the country is not taking full advantage of.
- Mining is one of the most productive sectors in New Zealand as measured by output per hour worked. The average annual wage in mining is $100,500 compared with $59,100 for the economy as a whole.
- The products of mining are essential for society. We import most minerals in the form of final products but are well endowed with many minerals which are able to be developed for society's benefit – jobs, investment and export revenue.
- There are some negative perceptions about mining, often based on mining's past, that today are not supported by the evidence.
- Minerals exploration and extraction are being undertaken responsibly in New Zealand. Environmental impact is managed through resource consent conditions including site rehabilitation to a standard as high as, or higher, than anywhere in the world.
- A mine development can, and should, be consented under conditions that provide a net societal benefit.
- The mining sector applies international best-practice and continually strives to reduce its impact on the environment so it can responsibly take advantage of New Zealand's mineral resources.
- Under our existing regulatory regime, mining projects are only approved if they meet high environmental standards – as is appropriate. There are always trade-offs with resource investment. These trade-offs are assessed and determined by the RMA and the EEZ. Recent decisions shift the focus from trade-offs to preservation.
- Mining's footprint is small, and it is temporary. The total area of mining relative to New Zealand's land mass is the equivalent of a flag laid out on a rugby field. When projects are completed the land is typically returned to a restored, or even enhanced, state.
- The extractives sector is not a big carbon emitter relative to its output and minerals will play a central role in the low-carbon economy and in renewable energy development.
- The 'mooted' ban on mining on conservation land would serve no useful purpose for the economy or the environment. It would lead to increased costs, lost opportunities and a raft of unintended consequences without any commensurate environmental benefits.
- Conservation land covers one-third of New Zealand's land area and includes a broad range of land types and conservation values – not just national parks. The current case-by-case assessment of mining proposals under our regulatory regime is far from perfect but has served the economy and the environment well over recent decades.

Key Recommendations

- That the outcome of the government's review of the RMA upholds the original intent of the RMA, which was an effects-based, case-by-case approach to proposals for development, that are able to address the balance between social, environmental and economic priorities.
- The government discussion document reviewing the Crown Minerals Act 1991 should be rescinded, and a CMA review from first principles should be revisited in consultation with the sector.
- That the proposed National Policy Statement for Indigenous Biodiversity (NPS-IB) does not proceed and that a new, alternative NPS-IB be drafted enabling an "effects management hierarchy" to apply offsetting and compensation as standard practice.
- That the proposed reform of the Overseas Investment Act facilitates overseas investment in the minerals sector and removes unnecessary deterrents, in a way that increases New Zealand's attractiveness for foreign investment.
- That the EEZ Act be reformed to allow for the case-by-case development of the natural resources of New Zealand's Exclusive Economic Zone, while meeting environmental objectives.
- Rather than an outright ban, seabed mining and seismic surveying applications are best assessed on a case-by-case basis, science-based and with an objective assessment of the merits of the application.
- Sanctuaries should only be created or extended if there is a particular conservation value that needs to be protected, not as a vehicle to achieve other environmental objectives.
- That the government should develop a strategic approach to supporting minerals research, in consultation with the minerals sector.
- That the government amends its approach to carbon pricing in line with international trends to reduce the risk of business closures and contraction, and carbon leakage; and does not confuse and undermine the Emissions Trading Scheme (ETS) with non-market emissions reduction policies.

The Importance of Mining and Minerals

We mine to meet demand and the demand for minerals exists to maintain and improve our standard of living, in New Zealand and globally.

The products of mining are essential for modern society. Almost every aspect of our modern lives relies on minerals or mineral products. Aggregates for infrastructure, housing and concrete; coking coal and iron ore (including ironsands) to make steel; gold, silver, copper, rare earth elements (REEs), lithium and vanadium for electronics, hybrid cars, solar panels, batteries – the list goes on.

We import most minerals in the form of final products but have prospectivity for many minerals which can be developed. If we do not mine these, we simply import the resources we need from other countries and lose the opportunity to generate jobs and earn export receipts. We can choose to allow all mining to occur overseas, but that will often be in places with lower environmental and safety standards than we have in New Zealand, and sometimes in places where labour is exploited.

Mining in New Zealand

Demand for coal for the domestic economy comes from the agricultural and food processing sector, steel manufacture, generation of electricity at Huntly (as a back up to our renewable resources to maintain security of generation), and to a minor extent, to heat schools and hospitals, mostly in the South Island where reticulated natural gas is not available.

New Zealand also mines premium grade coking coal to meet demand from international steel manufacturers. Coal for steel making is a mineral input. Coal was part of the essential service supply chain in the Covid-19 Level 4 lockdown – primarily for dairy and hospital services.

New Zealand's gold prospectively and resources are globally significant. Demand for gold is complex, and strong – as a store of value including for stability of financial markets, for jewellery, electronics, telecommunications, and in medical diagnostics.

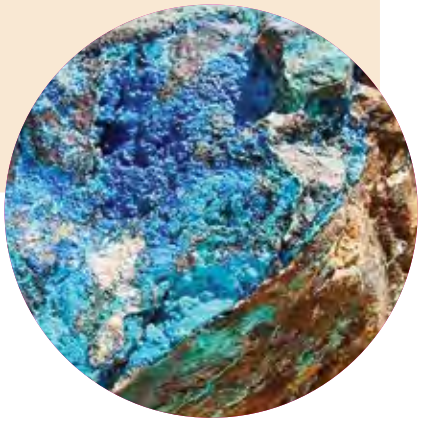
Silver goes into jewellery, soldering alloys, dental alloys, battery contacts, electronics and tableware, among many uses.

Sand and aggregate sourced from rock quarries and alluvial deposits (riverbeds and shorelines) and other products produced by this sector are essential inputs for construction, roading and other infrastructure development – directly and in the form of concrete.

Ironsand – NZ Steel uses titanomagnetite ironsands mined in the Waikato as the source of iron to make steel. Ironsand is also exported to steel manufacturers in Asia.

Halloysite, a clay mineral, is exported for manufacturing premium quality porcelain and bone china.

Limestone is widely quarried as a soil conditioner and calcium source for pastoral farming, for cement manufacture, and in the form of lime for water treatment and a wide range of industrial uses, including in paint and paper manufacture.



The world's reliance on natural resources is not going to decrease.

The minerals sector presents opportunities for New Zealand

The world's reliance on natural resources is not going to decrease.

A 2017 report by the World Bank, The Growing Role of Minerals and Metals for a Low Carbon Future[1], predicted increased demand for many minerals as the world moves to a lower carbon economy. Minerals are needed in abundance to make wind turbines, solar panels and batteries etc. and New Zealand has the potential to supply many of these as discussed later in this document.

New Zealand's major mineral deposits currently being mined are outlined on the previous page but there are also significant resources of other strategic minerals about which we have reasonable knowledge – iron, vanadium, titanium, lithium as a by-product of geothermal energy, and potential for minerals such as those mentioned in the government's resource strategy, A Minerals and Petroleum Strategy for Aotearoa New Zealand: 2019-2029[2].

[1] http://documents.worldbank.org/curated/en/207371500386458722/pdf/117581-WP-P159838-PUBLIC-ClimateSmartMiningJuly.pdf
[2] https://www.mbie.govt.nz/assets/nzpm-resource-strategy-multi-agency.pdf

Economic Contribution of Mining

The economic contribution from mining comes not only from the products that are created but also the people employed, tax and rates paid, and economic activity generated in the local community.

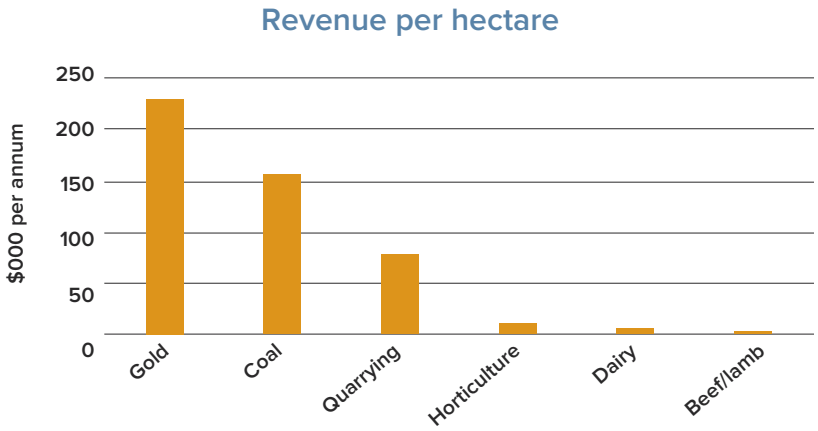
As well as supplying the world with the minerals modern society needs, mining creates jobs and is a direct contributor to our economic prosperity.

Mining productivity is high compared to other land uses as well as other economic activities generally. Productivity in the mining and exploration sector was $606,001 per FTE worker in 2019, compared with $129,832 across the economy (according to Infometrics). In fact, the resource sector, including mining, is the number one ranked sector for productivity in New Zealand. The average annual wage in mining was $100,500 (compared with $59,100 for the economy as a whole) in 2019.

Mining is the highest-value use of land and is conducted over a relatively small footprint as shown in the graph below.

Revenue per hectare – various land uses

In 2016/17 the revenue per land area comparison shows the following revenue generated per hectare from various primary production activities (estimates below calculated from internal data). Also, mines have a finite life. Following mine/quarry closure the land on which it sits is typically repurposed.



Mining currently generates around $1 billion in export earnings a year. Gold is our largest export by value to Australia.

Mining is concentrated in small parts of the country so its impact on the economic development of certain regions is significant. In 2018, 40% of OceanaGold's expenditure on its Waihi operations was spent in the region. It paid $3.5 million in royalties and $850,000 in rates and made significant donations to local groups.

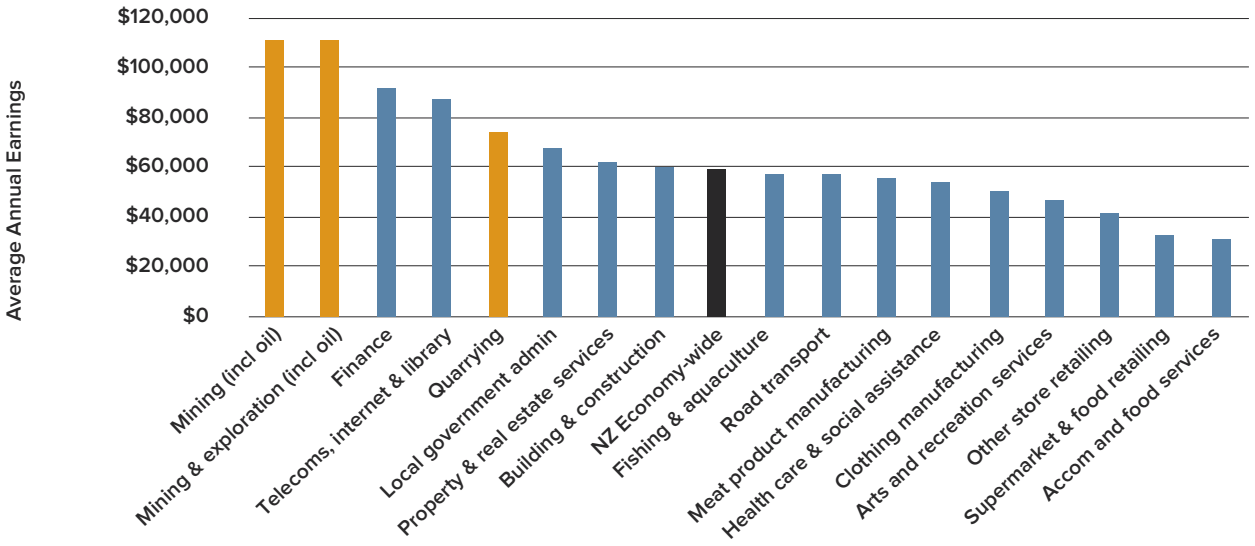
Mining's economic contribution to the West Coast

The mining sector makes a particularly important contribution to the West Coast. In the Buller District, for example, mining directly employs 8.3% of the total workforce, and the indirect contribution to employment is many times greater. Buller is more dependent on mining than Wellington is on the public service. Mining in Buller directly contributes $96 million of GDP, or 17.7% of the district's total GDP.

It is often argued that places such as the West Coast would do well to move out of mining. Tourism is often cited as an alternative. The reality is these activities are not mutually exclusive and regions such as the West Coast need positive contributions from all sectors. The Covid-19 impact on tourism adds weight to this observation.

A shift away from mining would hurt regional economies because of the sector's high productivity and high wages relative to other industries. Furthermore, it would not be easy for many miners to retrain in hospitality and the like and nor would they want to, and a retrenchment of mining is more likely to lead to permanent departures of miners and their families to Australia, where the mining sector is strong.

Mining wages are amongst the highest in the country



Source: Statistics NZ and Infometrics

Mining and the Environment

Mining **and** the environment, not mining **or** the environment

Mining is sometimes criticised for its environmental impact but, in fact, modern mining in New Zealand is conducted responsibly and its recent track record is excellent by international standards.

New Zealand's environmental standards, as well as labour and human rights, are among the best in the world. New Zealand today applies world best-practice in workplace health and safety, environmental and conservation management.

The cornerstone of the land-based environmental regulatory regime is the Resource Management Act (RMA). This provides for an adversarial assessment of the social, environmental and economic impacts of a resource proposal. Applications are considered on a case-by-case basis by independent experts and consents, if granted, are subject to conditions to ensure that the impacts of the proposed activity are acceptable to society.

Consent conditions should ensure that the project creates a net positive contribution to society against the criteria assessed. The RMA provides a high bar for mining companies to establish rationale and justification to mine with the Environment Court as the arbiter. Further commentary on the RMA and mining is discussed later on page 22.

In addition to the above, mining companies know that to safeguard the environment, and to earn and retain a corresponding social licence to operate, implementation of the highest standards is needed. Communities and Māori are informed and consulted on a mining company's plans.

From the company's perspective, the more local understanding and buy-in to the project, the more likely success will be achieved. Furthermore, companies are improving their reporting on sustainability and social performance because these measures are increasingly demanded by shareholders and investors.

After a mine or quarry operation is concluded the land is restored as per consent conditions. This restoration is 'guaranteed' by bonds and administered by the relevant council. Responsible companies have a strong commitment to this rehabilitation, above and beyond what is required in law and regulation, as is discussed later on page 12. Positive work is often done at places other than the mine site, and environmental compensation and biodiversity offsets are used in this connection.

Mining's most important contribution to the environment lies in the fact that minerals will be at the centre of creating a low-carbon economy. Minerals are needed to make wind turbines, solar panels and batteries etc. This demand will grow and New Zealand has the potential to supply some of these which represents a real economic opportunity as discussed later on page 14.

Notwithstanding, mining's recent environmental track record standing up well, we recognise that there is always room for improvement. As international best-practice on social responsibility and sustainability evolves, so does practice in New Zealand.

We agree with the government's resource strategy, Minerals and Petroleum Resources Strategy for Aotearoa New Zealand 2019-2029 [3], which identifies an opportunity to research and invest in better mining and resource use practices to this end (Action Area 6). These include adopting practices to minimise the resource intensity of mining operations; unlocking higher value uses for our resources (moving up the value chain) including their use in low emission energy; and exploring efficiencies in our resource use and reuse.

There are lots of examples in the industry of companies taking steps to further reduce their environmental impact. For example, companies looking to mine underground, where the geology allows, converting to electric dump trucks and mines adopting net zero emission targets.

Regulatory safeguards for mining

A company wanting to explore or mine must navigate three regimes:

Title for the mineral rights if the mineral is Crown owned. These are known as mining (or prospecting, or exploration) permits. Permits are granted, or declined, under the Crown Minerals Act, which sets out a range of requirements that applicants must meet to be granted access to the Crown's minerals. Some minerals are privately owned generally by the landowner but sometimes under a separate title.

Land access. In New Zealand access agreements are negotiated with the landowner, who has the right to grant or decline access. This requires the miner to build trust and confidence with the landowner, and local community and iwi as applicable. Where the landowner has a commercial interest in the land, like a farmer for example, negotiations are normally relatively straight forward. The value generated by a mine on a unit area basis is always much higher than that generated by alternative commercial land uses (if that were not the case the project would not proceed), and an access arrangement is typically reached when the miner makes the deal worthwhile for the landowner. For land in the conservation estate, DOC is the landowner and access is often granted at a cost and under a set of conditions that are in addition to those imposed under the RMA.

Consents for activities under the RMA, and other relevant legislation. The RMA is an effects-based legislative regime that considers the social, cultural, economic and environmental aspects of any proposal. The Environment Court is the arbiter as are hearing commissioners appointed by local authorities. RMA consents are required, broadly, for any activity that disturbs or impacts the environment; taking and discharging water, dust, noise, disturbance of land, waste dumps, tailings storage facilities, mining, processing facilities, windmills, hydro dams...the list goes on. The RMA provides an independent and robust process. Applications are considered by independent experts and any consents are subject to conditions that decision-makers consider are required to ensure that the impacts of the proposed activity are managed in a way that is acceptable to society. While the RMA applies to the land, the EEZ Act is effects-based legislation which allows for the case-by-case development of the natural resources in the Exclusive Economic Zone.

Other legislation. In addition, there is a raft of other legislation that miners need to negotiate including the Overseas Investment Act, the Conservation Act, the Reserves Act and the Health and Safety at Work Act among others.

[3] https://www.mbie.govt.nz/assets/nzpm-resource-strategy-multi-agency.pdf

Rehabilitation

We borrow the land, mine it, and return it – to the standards demanded in New Zealand legislation and expected by New Zealand society.

Unlike most other land uses, mining has a finite life. After a mine or quarry operation is concluded the land is restored as required by the consent conditions and reapplied to new uses or returned to the community, often as a public facility. This involves tree planting, landscaping and other active management, and is usually part of the conditions for permitting the mine in the first place. Where possible, rehabilitation is progressive – as at OceanaGold's Macraes opencast mine and most alluvial gold and gravel quarrying operations. At OceanaGold's Waihi mine, the open pit will be filled with water and developed as a community asset when mining is finished. Underground mining leaves little impact with a surface expression that can be measured in a few tens of hectares.

There are many examples across New Zealand of world-class rehabilitation with former mines and quarries making a positive contribution to conservation and community projects.

Productive wine growing land in Marlborough, Halswell Quarry in Christchurch, Mount Smart Stadium and the Three Kings housing development in Auckland are just some examples of rehabilitated quarries. Post-quarrying land uses can enhance amenity and lifestyle for local communities and provide habitat for threatened species (an example is the Isaac Conservation and Wildlife Trust in Christchurch).

Halswell Quarry Park, Christchurch

Golden Cross

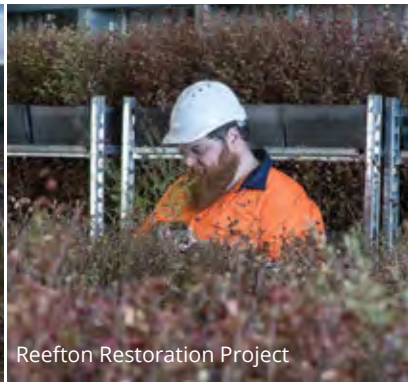
A farm that is mined will be returned to farmland – and is often more productive as a result. This is often the case with alluvial gold mining on the West Coast and in Central Otago. Conservation land or native forest will be returned with active plantings, translocation of native wildlife, pest management, and time will do the rest.

An open pit or tailings storage facility may be formed into a pond, lake or wetland for conservation or community use. The tailings storage facility at the former Golden Cross mine in the Coromandel is now a wetland surrounded by pasture and used by livestock, as well as native wildlife. Roads may be retained as part of the transport network. The Macraes gold mine in East Otago built a trout hatchery. At Waihi, the mining company restored the Ohinemuri River with several kilometres of riparian planting; resulting in cleaner water and a much improved habitat for fish and insects.

Mining companies must earn, and retain, their social licence to operate and a positive legacy is the best ticket that a mining company has to be granted community and regulatory consent for their next investment. Rehabilitation is both a requirement and a labour of love for most mining projects as well as an investment in the mining company's future.


Waihi tailings storage


Reefton Restoration Project, Globe Pit Lake


Reefton Restoration Project


Waihi tailings storage

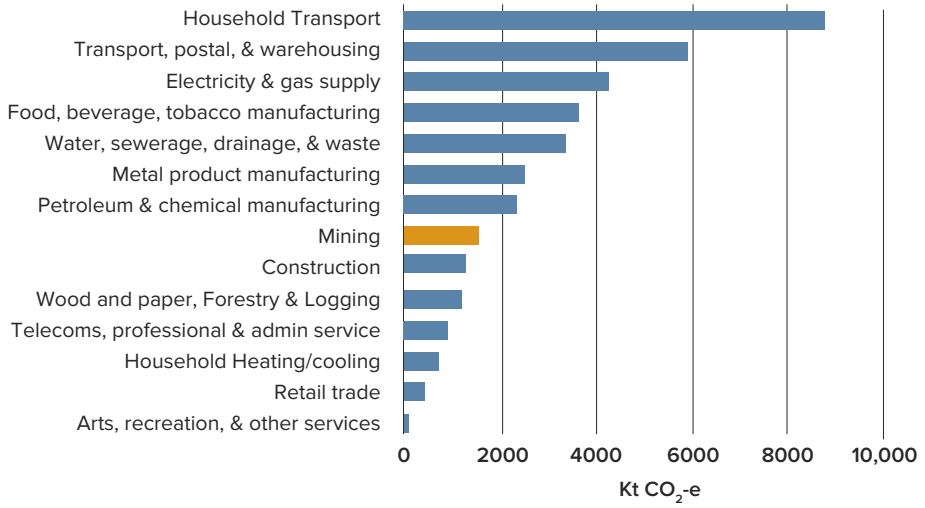
Mining, Minerals and Climate Change

There is a lot of focus, and some misinformation, on the minerals industry in relation to climate change. Minerals in fact will play a crucial role in both combatting and adapting to climate change and as part of the lower carbon economy.

Generally, the extractive sector is not a big carbon emitter. Mining companies are emitters like any other that uses fossil fuels as an input – emissions come mostly from burning the diesel used to extract, transport and process minerals. These processes are relatively energy intensive with wide variation across mining operations, but the mining sector falls in the middle of the pack when it comes to sector emissions, as indicated in the graph below.

Adjusting for the relative size of the sector, mining's emissions are not as high as many other industries on a per person employed or per unit of output basis.

Emissions by Industry and Household



Source: Statistics NZ

Coal and climate change in New Zealand

Coal produces emissions when it is burned, and coal has the highest emissions intensity of the fossil fuels. Coal is a focus internationally because of this high intensity and the fact that it is responsible for around 40% of energy-related emissions globally.

Coal use in New Zealand contributes only 4% of our gross CO_2-e emissions. Coal might be the single biggest source of emissions internationally, but it isn't here.

Emissions from the use of coal, and fossil fuels generally, will shrink as demand is reduced. This will happen as policies and regulations dictate, and competitiveness and cost burdens allow. Coal miners produce coal to meet the demands of New Zealand businesses striving to be competitive; of processes such as steel making that have no current technological alternative at scale and to supply electricity to keep the lights on. It is hypocritical for consumers of everyday items

to target coal miners for the emissions they are indirectly responsible for.

There are several examples where coal consumption will contribute to reduced emissions and be part of the transition to a lower carbon economy. For example, the Productivity Commission and Interim Climate Change Committee have stated that 100% renewable electricity generation is counterproductive to reducing emissions overall because the expense of achieving that target translates to higher electricity prices, which would disincentivise the electrification of transport and industrial heat. Accepting that coal and gas can usefully be used as a back-up to our renewable resources rather than going all the way to 100% can achieve emissions reductions overall. The government's policy of 100% renewable electricity generation should therefore be abandoned – at least until the evidence dictates otherwise.

Minerals and their role in adapting to climate change

A lot of the debate in New Zealand is about mitigating climate change i.e. reducing emissions. In this, New Zealand is totally dependent on the actions of others. Of course it is important New Zealand does its bit, but this reality dictates pragmatism and appropriate focus on the importance of *adapting* to globally caused climate change as it makes its impact on New Zealand.

Minerals and aggregates are part of the solution, not the problem. They will have an important role in helping New Zealand adapt to the changing climate. For example, aggregates are needed to strengthen sea walls to adapt to sea level rise and provide flood protection. They are needed to make infrastructure more resilient generally to resist greater-intensity storms and extreme weather events.

Minerals and the low-carbon economy

The products of mining are also part of the solution for reducing New Zealand's and the world's emissions and they will play an important role as we move to a lower carbon economy. Minerals are needed in abundance to make wind turbines, solar panels and batteries etc. Demand for many minerals is likely to increase according to the 2017 report by the World Bank. New Zealand has the potential to supply some of these minerals. Vanadium, lithium, REEs and nickel-cobalt are examples of minerals which will be part of the low-carbon economy – all of which New Zealand has the potential to supply, providing we have access to land and sea to explore and appropriate regulation.

We maintain that minerals mined in New Zealand are part of that low-carbon economy. Coal and ironsands, for example, are needed to make steel – which is needed to make wind turbines. Limestone is a key input in the manufacture of cement, which is needed for infrastructure including hydroelectric schemes.

New Zealand Strategic Minerals used for Selected Green Technologies

	Iron	Steel	Lithium	Nickel	Cobalt	REEs
Wind Turbine Manufacturing	✓	✓		✓		✓
Solar Photovoltaic Installations			✓	✓		
Carbon Capture and Storage Installations				✓	✓	
LED Manufacturing				✓		
Electric Vehicle Manufacturing	✓		✓	✓	✓	✓
Lithium-Ion Batteries			✓			

Source: World Bank June 2017[4]

[4] http://documents.worldbank.org/curated/en/207371500386458722/pdf/117581-WP-P159838-PUBLIC-ClimateSmartMiningJuly.pdf

Nature and Characteristics of Minerals

Economic mineral resources are rare, hard to find, and are very localised. Mining can only happen where the minerals are present and economically recoverable.

The nature of mineral and aggregate deposits means that they are limited in quantity, location and availability. They can only be sourced from where they are physically located and where the industry is able to access them cost-effectively.

This means it is important that the nature and location of mineral deposits of value to the country (and local communities) are identified and assessed. This means access for exploration should be maintained as a priority, and in the knowledge that the approval process for any mine discovery is robust and rigorous. Access to such deposits must not be allowed to be shut off (inadvertently or otherwise) through spatial planning, arbitrary 'bottom lines', and environmental hurdles (such as the proposed biodiversity NPS) that effectively prevent projects being reviewed under the RMA.

Not providing for current and future access to aggregate and mineral resources, means lost opportunities for creating wealth, investment and jobs, as well as lost access to aggregates and other minerals which are important inputs in developing infrastructure, in turn driving local supply chains.

Growing residential areas and increasing competition for industrial and other land use mean that areas of mineral deposits are at risk of being taken out or sterilised by competing land uses.

In particular in the case of quarries, determining a reasonable distance for residential areas from potential quarry areas is essential due to the significant expense of transporting quarry materials far from their source. Another key factor to be considered is the nature of extractive industry operations – including noise, vibration and airborne dust.

Straterra works with central government, with the technical input of GNS and NIWA, to increase knowledge of the location of aggregate resources so we can assist councils to establish where such resources lie in their districts. Government resources allocated to this research would be money well spent.

Mining on Conservation Land

A great deal of mining in New Zealand by area is carried out on land in the conservation estate. The government and some political parties have proposed to introduce a ban on new mines on conservation land. We strongly oppose this proposal because it would lead to costs, lost opportunities and a raft of unintended consequences without commensurate environmental benefits.

For the reasons outlined below, we argue the current regime, that allows a case-by-case assessment of resource proposals, provides excellent safeguards. There is no history of this regime leading to environmental degradation and no evidence that biodiversity is suffering because of mining on the small footprint of conservation estate where it occurs.

Current situation

New Zealand has allowed mining on conservation land for many decades. Such activity is consented under the RMA and other regulatory hurdles on a case-by-case basis. See page 11. DOC must also issue access agreements to mine on its land under a range of criteria including assessed conservation values, and conditions additional to those set under the RMA. Historically, most access applications from mining companies have been granted. Any independent assessment would conclude this has been a net positive to society and the environment.

Mining's small footprint – only 0.04% of conservation land is currently mined

Our current estimate is that only 3,500 hectares or 0.04% of the conservation estate is disturbed (now) by mining. And this is after more than 40 years of mining on conservation land – there appears to be no problem the proposal seeks to address, other than an unprincipled vote catcher.

The footprint is small because of the realities of commercial mining. Economic mineral resources are hard to find and are typically concentrated spatially. Mining only occurs where the minerals are present and economically recoverable while meeting the consent conditions imposed under the RMA and other applicable legislation.

Mining also has a much smaller total footprint than many other uses that are allowed on conservation land, including hydro schemes, farming, ski fields, roads and carparking. And, unlike the other land uses, mining has a finite life and land is returned after rehabilitation, often in a better condition than when mining commenced – as discussed here. There is in excess of 5,000 skiable hectares of conservation land on ski fields which are unlikely to ever be restored to their natural state. The creation of roads, airports and carparks on conservation land have permanently destroyed that land's conservation value. These are trade-offs society is happy to accept. Yet not accepting these trade-offs in mining simply shifts the problem overseas to the detriment of the planet, and New Zealand.

Not all conservation land is high conservation value

The conservation estate makes up about 33% of New Zealand's land area. It includes a range of land types and conservation values. Thirty-five per cent of the conservation estate is national park land and is off limits – there is no argument there.

The rest of the conservation estate has varying conservation values and there are several land categories. Stewardship land, which makes up 35% of the total, was included in 1987 as part of the re-organisation of Crown land – not because of any assessment of conservation values. DOC was to act as steward for this land until its destiny was determined.

Some parties are proposing excluding stewardship land from a conservation land ban and allowing mining on that. This would be preferable to a total ban on mining on conservation land but applying a subjective categorisation like this is flawed. Ruling out such a vast area of land significantly reduces the probability of identifying an economic mineral resource and creates unnecessary uncertainty for investors. The case-by-case approach of the current regime, whereby conditions are imposed to achieve a net positive societal contribution, suggests mining could occur anywhere provided this criterion is met. Therefore, proposals on all categories of conservation land, except for national parks, should not be ruled out in advance for consideration.

Strategic minerals and conservation land

It is notable that New Zealand's mineral deposits – including for strategic, low-carbon economy minerals – often corresponds to areas of conservation land. (This natural phenomenon is often a result of geological outcomes.) A GNS study found 79% of land prospective for REEs in New Zealand lies in the conservation estate. The same study found that 69% is the figure for nickel-cobalt, and for lithium it is 66%. These minerals have been flagged as of significant strategic importance due to their use in clean tech and their potential in the low-carbon economy. A ban on conservation land would rule out access to them.

A ban would lead to a raft of unintended consequences

A blanket mining ban on conservation land would throw up a number of other unintended consequences:

- Reduced access to aggregates, particularly on the West Coast, impacting the ability to build and maintain roads, flood defences and more. 81% of the West Coast region is conservation land. There simply is not the access to these vital resources, if mining is only permissible on the other 19%. This irony was brought home recently by DOC needing to quarry conservation land for a track at Franz Josef Glacier.

- Reduced pounamu recovery. An exemption for pounamu may be under consideration for cultural reasons. We note, however, that most pounamu is recovered in association with other minerals, particularly alluvial gold, so any exemption would not deliver benefits in practice.

- Significantly reduced revenue from minerals royalties to the Crown and land access fees and compensation payments to DOC – the latter being particularly important because these fees are used by DOC to fund a range of activities, including improvements to the conservation estate.

- Mining provides the critical mass that supports the West Coast transportation infrastructure, the rail link from the West to East Coast in particular. A ban would, over time, reduce exports and threaten the viability of the rail link.

Covid-19 and the Extractive Sector

If another lockdown becomes necessary, activities that can be proven to operate safely should be allowed.

Mining's role in the recovery

The Covid-19 pandemic will continue to dominate all aspects of society during the coming months. While the health, safety and wellbeing of New Zealanders must remain the focus through Covid-19, the economic consequences of the pandemic will be profound. This means sound economic policies are required including ensuring that the industries that will be critical in helping New Zealand get through the crisis are not constrained.

With sensible policies, the mining and extractive sector will play a central part in mitigating the negative financial impacts of Covid-19 – pumping millions of dollars into heartland New Zealand in regions that need it most; contributing to exports as a major earner of foreign exchange as well as an essential link in the export supply chain; and providing construction materials (such as steel, cement and aggregate) needed for infrastructure projects.

The fact that coal for domestic use was deemed an essential service during the Covid-19 Level 4 lockdown and could continue to operate due to the integral role it plays in the provision of food and hospital services, illustrates this point.

Given the right conditions, the mining sector can contribute significantly to pulling New Zealand out of recession. But this requires a policy platform where businesses can invest with confidence along the lines set out in this document.

Reform of the EEZ Act is just one area, as discussed later in the document, which can give confidence to investors that development of the mineral resources in the Exclusive Economic Zone will be objectively considered. There are proven deposits of strategic minerals potentially worth billions of dollars at stake with a net societal benefit and an ability to create hundreds of jobs.

The recent decision by OceanaGold to invest US$447 million in its Waihi operations is an example of the impact the mining sector can make. It is estimated the investment will add $1.4 billion to the New Zealand economy and maintain current regional and local employment numbers to at least 2036. It will be a huge shot in the arm for the community and a boost of confidence for all New Zealanders, particularly coming at this time.

Operating environment under another outbreak

Most people accept that while the coronavirus is contained in New Zealand at present, another resurgence is quite possible. In the event of another Covid-19 outbreak requiring some form of lockdown, we believe lessons learned from experiences with Level 3 and 4 lockdowns mean that New Zealand should adopt a risk-based approach instead of an essential-service approach. In essence, if businesses can prove they can operate safely, without contact and with minimum risk of contagion, they should be permitted to do so.

Essential-service approach

The binary, essential-service approach applied earlier this year produced all manner of arbitrary and negative outcomes across the economy including for the extractive sector.

For example, some export businesses (particularly food), which were also supplying the domestic market as an essential service, were given the green light to export, but not others. Another example in our sector of arbitrary and inequitable treatment; ironsands were (appropriately) exported for overseas steelmaking, while coal could not be exported for overseas steelmaking.

These export bans caused major disruptions to businesses in the mining sector which lost business and markets to countries that did not have such restrictions in place. Some of these losses have not been regained.

Risk-based approach

Most mining and quarry operations can readily comply with social distancing requirements and would be permitted to under a risk-based approach.

Risk management protocols[5] for the sector are well developed and the experience and evidence in New Zealand and elsewhere strongly support the efficacy of these protocols. Also, if such standards can be achieved and maintained in the dairy processing sector, that can certainly be matched in our sector.

Guidelines need to be clear and unambiguous so that businesses can plan, and disruption is minimised. For gold, there is the additional issue that hard rock gold processing is a 24/7 business that, like the Tiwai Point processing facility, is not able to be switched off, and on again!

We note the mining industry in Australia, which adopted a risk-based approach, has continued through that country's restrictions.

[5] https://www.minex.org.nz/covid-19/

POLICY STATEMENTS

New Zealand's policy framework falls far short of what is needed to enable, and encourage responsible investment in the resource sector.

We set out here broad statements on some policy issues that impact on our industry not already addressed in this document. We intend to expand on these separately and in more detail in our engagement with the government post-election.

Policies covered include:

- Resource Management Act
- Crown Minerals Regime
- Biodiversity
- Overseas Investment
- Exclusive Economic Zone
- Marine Mammal Sanctuaries
- Minerals Research
- Climate Change Action

1. Resource Management Act

The Resource Management Act (RMA) is an effects-based regime. It provides for an adversarial assessment of the social, environmental and economic impacts of resource proposals. In the minerals sector, as with others generally, the Act allows a case-by-case assessment of proposals with a high bar for mining companies to establish justification to mine. This robust and independent regime has many strong and valuable features.

Straterra Position – Resource Management Act

The focus of the RMA should continue to be on promoting the sustainable management of natural and physical resources. For the resource sector generally, the RMA's effects-based, case-by-case approach for development proposals works well. It is fundamental to attracting investment, and to public acceptance of that investment, and to delivering good outcomes for the environment.

Case-by-case means the assessment of projects on their merits, their effects on competing values in the land, and proposals for managing those effects to meet the purpose of the RMA.

Fundamental to the success of the RMA is the use of mechanisms that allow flexibility – land swaps, biodiversity offsets, judicious and targeted use of wealth created.

Given the location of all economic mineral deposits cannot be known in advance of exploration, a strength of the current regime is that it provides that for exploration, while noting that any development proposal that might arise from that exploration is subject to a rigorous resource consent process.

Business, NGOs and politicians have all identified flaws in the resource management system and the system is currently the subject of a major review. While the legislative regime is far from perfect, we think the thrust of the current system whereby proposals are judged on how they address the balance between social, environmental and economic priorities, works well for the minerals sector and should not be discarded.

We oppose proposals to expand the role of local councils into climate change mitigation. Climate change should be addressed at a national level by the government using more effective tools such as the Emissions Trading Scheme. Councils are not at all equipped to judge on the climate change effects of business activities; there is also the risk of inconsistency between different regions, and of regulatory duplication.

We support the provision of greater national direction through national policy statements etc. While the track record of these has not been good for a variety of reasons, there is merit in central government providing some direction to councils.

Straterra Recommendation

That the outcome of the government's review of the RMA upholds the original intent of the RMA, which was an effects-based, case-by-case approach to proposals for development, that are able to address the balance between social, environmental and economic priorities including the use of flexibility provisions.

2. Crown Minerals Regime

Minerals owned by the Crown should be developed for the benefit of New Zealand. Private entities are best placed to undertake this development under appropriate regulation.

Straterra Position – Crown Minerals Regime

The Crown Minerals Act (CMA), together with its twin statute, the Resource Management Act (RMA), regulates most aspects of minerals sector activity. The CMA's role is to provide for the efficient allocation of rights to develop Crown-owned mineral resources, while the RMA regulates the environmental effects of the extraction of those resources.

It is important to provide an enabling regime for at least two reasons: minerals are essential to modern society, and the minerals industry must manage significant financial risk. The exchange of rights to develop minerals between the Crown and private interests reflects the reality that the latter are best placed to invest and carry out in minerals activities.

The CMA is under review. Under discussion is whether to remove the purpose of the CMA, which is to "promote" minerals activities. Removing the promotion of minerals activities from the purpose is akin to suggesting the Health Act should not be about promoting health, or the Education Act, education, both essential to society, as are minerals.

Straterra considers that promoting minerals activities is the role of the CMA. Important matters such as workplace health and safety, the environment, climate change, conservation, heritage, and overseas investment are addressed under separate specialist legislation. These matters should not form part of the CMA regime, except in relation to access arrangements for minerals activities on Crown land.

In its review, the government is also proposing public consultation on all Crown minerals permit applications. This is strenuously opposed. The public interest tends to concern environmental, social and cultural issues – covered under the RMA

and other legislation – not the technical aspects of exploration, or mining/quarrying. Indeed, the public at large is hardly able to comment on the geology, the geotechnical aspects of a mine plan, or on mineral processing technologies.

The CMA review also seeks to implement a government proposal of "no new mines on conservation land". Straterra upholds a case-by-case assessment approach of exploration and mining projects. We consider the no new mines on conservation land direction is unnecessary to achieve conservation objectives. Properly consented and managed, mines/quarries can also contribute to conservation, subject to conditions on regulatory approvals as discussed earlier in this document on page 17.

Straterra Recommendations

The government discussion document reviewing the Crown Minerals Act 1991 should be rescinded, and a CMA review from first principles should be revisited in consultation with the sector.

3. Biodiversity

New Zealand needs to protect and manage its indigenous biodiversity and find ways to address the conflict that can exist between land-based industrial activity and biodiversity.

Straterra Position – Indigenous Biodiversity

The mining sector recognises the importance of biodiversity and the need to protect it. Mining, by its nature, often requires the clearance of vegetation but the sector knows that to earn and retain a social licence to operate, implementation of the highest standards is needed, including the rehabilitation of mine sites.

Aiming to achieve positive biodiversity outcomes is best-practice in mining and quarrying. There has been improved awareness in recent years of the importance of biodiversity management, conservation, and increasing financial contributions to biodiversity are being made by the sector, largely via offsets and compensation.

Notwithstanding the impacts of mining on biodiversity, there needs to be a recognition that the greatest threats to indigenous biodiversity in New Zealand today are exotic animal pests and weeds. Mining, by contrast, affects only a tiny proportion of New Zealand's land area. Financial contributions from the sector have been used to help eradicate pests and weeds, and in wetland creation and restoration.

A National Policy Statement for Indigenous Biodiversity (NPS-IB) under the RMA, which the government is considering, can make a significant contribution to protecting and managing indigenous biodiversity and Straterra supports this approach.

We are concerned the government's proposed draft NPS-IB, if implemented in its current form, would have an adverse impact not only on the ability of land-based businesses to operate but on New Zealand's indigenous biodiversity itself.

It would prevent almost all land use and development outside of urban boundaries because almost all adverse effects on almost all biodiversity

would have to be avoided. This would lead to a negative impact on indigenous biodiversity because landowners and occupiers would have less incentive to manage animal pests and weeds on their land, which is the major threat to biodiversity in New Zealand.

We believe an "effects management hierarchy" to apply to all mineral and aggregate extraction is needed so that offsetting and compensation is available to the sector to manage the residual adverse effects of activities on biodiversity. Note that mining is ultimately a non-permanent use of land, and after mining the land is returned to a former use, or a new or enhanced use.

Straterra Recommendation

That the proposed National Policy Statement for Indigenous Biodiversity does not proceed and that a new, alternative NPS-IB be drafted enabling an "effects management hierarchy" to apply offsetting and compensation as standard practice.

4. Overseas Investment

Investment is essential to minerals exploration, mining and quarrying, and much of it is sourced from abroad. The minerals investment dollar is a global one, so, for New Zealand to attract that investment, we need to be an attractive destination.

Straterra Position – Overseas Investment

Mining in New Zealand has a large degree of overseas investment with demonstrated economic benefits for both New Zealand and the local communities where it occurs. Overseas investment provides a larger pool of funds and is accompanied by access to new expertise, technology and links to global distribution systems. At the local level, overseas investment in the industry is particularly valued for the community benefits it provides.

Straterra supports a relatively open overseas investment regime noting that the Overseas Investment Act has a role in protecting New Zealand's sensitive land and assets, and screening some applications before approval is given, is appropriate.

In parallel to the regulatory regime, and in recognition of the importance of overseas investment, government needs to play a role in promoting the New Zealand minerals and mining industry and its opportunities and potential to prospective overseas investors.

The regulatory regime has flaws in that too many transactions are unnecessarily captured for screening (both in terms of land type and investor definition). This imposes unnecessary compliance costs and puts at risk proposed investments which have the potential to provide benefits to New Zealand.

Sales of small parcels of land for industrial purposes which happen to be adjacent to land defined as sensitive; definition of overseas person being too broad; and investors who have already been screened for previous investments, are examples in our sector of issues leading to transactions which are being unnecessarily captured by the screening regime, and which are being addressed.

We support the proposed legislative changes in the No 3 Bill currently before Parliament which would allow certain, lower-risk transactions not to be screened.

Urgent measures introduced into the Overseas Investment Act provide for a minister to veto certain types of investment that fail a "national interest test" and that can include "strategically important businesses" to be listed in regulation. Straterra is concerned that a minister will have wide discretion in creating this list, with no public consultation, with the risk of veto powers on proposed overseas investment transactions being exercised on ideological grounds.

Straterra Recommendation

That the proposed reform of the Overseas Investment Act facilitates overseas investment in the minerals sector and removes unnecessary deterrents, in a way that increases New Zealand's attractiveness for foreign investment.

5. Exclusive Economic Zone

The Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act is intended to provide for responsible economic development in the EEZ. However, recent case law has effectively ruled out any seabed mineral development in the EEZ.

Straterra Position – Exclusive Economic Zone

New Zealand's Exclusive Economic Zone and Continental Shelf – the EEZ – presents major opportunities for the New Zealand economy and the resource sector. There are proven deposits of minerals including ironsands, vanadium, rock phosphate and potentially, REEs. All of these have significant economic potential. Many also fit nicely into the government definition of "strategic minerals".

The EEZ Act is effects-based legislation which allows for the case-by-case development of the natural resources of the EEZ. This was certainly the intention when it was passed by Parliament in 2012, recognising that the environmental impacts of seabed mining, while potentially significant, can be mitigated to a standard accepted by society, in consideration of the economic benefits of the projects.

Yet recent case law (most recently Trans-Tasman Resources has had its consent to mine the South Taranaki Bight for ironsand quashed by the Court of Appeal), has effectively ruled out any mineral development in the EEZ and, in fact, retrospectively deems decisions made concerning the EEZ to date to be legally questionable.

This situation is particularly concerning for the industry because the case law to date is precedent setting for future attempts at seabed mining in New Zealand waters. It also has serious implications for the EEZ Act – meaning that as written and interpreted, it prevents seabed mining. Reform of the Act is essential for the future development of seabed mineral resources.

Mining proponents seeking to mine the seabed in the EEZ will be considering the implications of the decision for them.

If seabed mining were to occur in the EEZ, or the Territorial Sea, the mining footprint is likely to be tiny. Resources in the EEZ, particularly vanadium-rich ironsand resources and the seabed deposits of rock phosphate on the Chatham Rise, have a range of significant environmental, social, economic and technological benefits. There are potentially billions of dollars of export receipts for New Zealand at stake, and hundreds of jobs. Significant investment has been attracted to New Zealand to assess this potential and more could follow.

Straterra Recommendation

The EEZ Act be reformed to allow for the case-by-case development of the natural resources of New Zealand's Exclusive Economic Zone, while meeting environmental objectives.

6. Marine Mammal Sanctuaries

It is important that marine mammals within New Zealand's marine jurisdiction are protected. However, opposition to seismic surveying and seabed mining on the grounds that these activities threaten marine mammals is not supported by science.

Straterra Position – Marine Mammal Sanctuaries

There is significant economic potential in the vanadium-rich ironsands resource on the seabed of the western seaboard of the North Island, and potential for a variety of high-tech mineral deposits to be found in other coastal and marine areas. Many of these areas fall within existing or proposed marine mammal sanctuaries.

Most authorities agree there is no scientific evidence that seismic surveying and seabed mining have a detrimental impact on marine mammals. Marine mammal sanctuaries under consideration are precautionary and prevent the case-by-case consideration of projects. We refer to ideas of extending the sanctuary for Hector's and Maui dolphin along the western coastline of the North Island, and the concept of a sanctuary in the South Taranaki Bight.

Because of the realities of commercial mining, the area of seabed likely to be mined is very small. Currently there are a small number of Crown minerals permits in place within New Zealand's marine jurisdiction. If seabed mining were to occur in the sanctuary, the mining footprint is likely to be infinitesimal compared with the area being protected or proposed to be protected.

The proposed sanctuary exempts existing permits. This small concession misses the point – most of the potential resource lies outside the permit areas. Therefore, the sanctuary proposed would effectively sterilise most of the resource, and with no scientific evidence to justify that loss.

Rather than an outright ban, seabed mining and seismic surveying applications should be assessed on a case-by-case basis where an objective assessment of the merits of the application are made. The Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act provides for this, as does

the Resource Management Act within the Territorial Sea. So could marine mammal sanctuaries.

Sanctuaries created under the Marine Mammals Protections Act (MMPA) should only be created if there is a particular conservation or visual value that needs to be protected, not as a vehicle to achieve other environmental objectives. Conditions for sanctuaries can be designed to provide for the continuation of minerals activities within them. This is consistent with the marine mammals management planning approach under the MMPA.

Straterra Recommendations

Rather than an outright ban, seabed mining and seismic surveying applications are best assessed on a case-by-case basis in light of science and with an objective assessment of the merits of the application.

Sanctuaries should only be created, or extended, if there is a particular conservation or visual value that needs to be protected, not as a vehicle to achieve other environmental objectives.

7. Minerals Research

Research & development are core to discovering new mineral deposits and resources, improving mining/quarrying and minerals processing technologies, and to adding value to minerals.

Straterra Position – Minerals Research

Minerals research in New Zealand is currently undertaken by universities, crown research institutes, private research institutes, and exploration companies. This work is largely publicly funded, on the basis that there is a strong 'public good' component to improving New Zealand's knowledge of its minerals estate, and as part of attracting minerals investment into New Zealand. It is also consistent with the purpose of the Crown Minerals Act 1991, to promote minerals activities for the benefit of New Zealand.

Government has a long history of funding minerals research programmes, most recently in: predicting and managing the environmental impacts of mining; in the "Zealandia" minerals system approach to deposit formation; in mapping aggregate resources; and in updating knowledge of coal resources. More recently, a regional research institute has been created, the New Zealand Institute for Minerals to Materials Research (NZIMMR), which looks to add value to New Zealand's mineral resources.

Straterra considers it is unfortunate that in the last MBIE funding round no minerals research projects were selected. It is important to maintain minerals research capability and capacity in New Zealand to continue momentum in a globally fast-moving field. Minerals investors judge investment destinations globally on many factors, including the quality of geological data, geoscience, minerals research, and local capability and capacity in these fields. Jurisdictions that invest public funds in minerals research are known to receive subsequent investment capital that far exceeds that public commitment.

New Zealand therefore needs a government-led strategy for minerals research with input from industry and the research community.

Strong connections and collaboration between the resources sector, the research, science and innovation sector, and government agencies are important to ensure mineral sector research is optimised.

Straterra Recommendation

The government should develop a strategic approach to supporting minerals research, in consultation with the minerals sector.

8. Climate Change Action

New Zealand needs to play its part in global commitments to meet the climate stabilisation objectives of the Paris Agreement 2015 and to reduce carbon emissions.

Straterra Position – Climate Change Action

Straterra supports the transition to a net zero carbon economy by 2050, provided this is an informed, evidence-based, careful and just transition that provides for New Zealand's continued prosperity and wellbeing.

The government has made headway on its climate change policy agenda. Key changes are: the creation of the Climate Change Commission, the capping of emissions in the Emissions Trading Scheme, and a mechanism to introduce an auctioning scheme of New Zealand Units to replace the uncapped fixed-price option.

This market-based approach to incentivising moves to lower emissions technologies and practices is supported as one most likely to promote economic efficiency and least cost emissions reductions in the transition to a low-carbon economy.

The government's proposal to ban coal use in low-temperature process heat from 2030 is strenuously opposed because it undermines economic efficiency and the ETS and would be detrimental for businesses for which the use of coal is key to their competitiveness. In fact, this proposal is likely to increase global emissions rather than reduce them.

The use of the ETS should take precedence over other mechanisms to intervene in the New Zealand economy with the intention of reducing emissions.

A further example of inappropriate mechanisms is the introduction into the RMA of an obligation on councils to take into account the climate impacts of decisions made under this Act (discussed above). This undermines the ability of the ETS to promote economic efficiency during the transition.

It is essential that the ETS aligns with our trading partners to ensure the ongoing competitiveness

of affected sectors of the economy. If production shifts offshore because of the higher costs imposed on New Zealand emitters, then jobs and businesses are put at risk for zero environmental benefit.

In terms of the government's setting of ceiling or trigger carbon prices in the ETS, consideration of global carbon prices needs to be taken into account. Less than 22% of global emissions are priced, and of these emissions, according to the World Bank, the average price is US$2 per tonne of CO_2-e. This fact undermines assumptions, on which many of New Zealand's climate change policy reforms have been based, including on the future price of carbon in New Zealand.

Straterra Recommendation

The government amends its approach to carbon pricing in line with international trends to reduce the risk of business closures and contraction, and carbon leakage; and prioritises the ETS over non-market emissions reduction policies.

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