

# Submission from Straterra To MBIE Minerals and Petroleum Resource Strategy September 2019

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## Introduction

1. 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.
2. We welcome the opportunity to make this submission on the Draft Minerals and Petroleum Resource Strategy for Aotearoa New Zealand 2019-2029, [Responsibly Delivering Value](#) (the Draft Strategy).

## Mining and Minerals Responsibly Delivering Value

3. Mineral resources are scarce, and difficult and expensive to find and develop. We can choose to use New Zealand's limited endowment of these resources, or not. We can also choose the standards and conditions under which we allow resources to be developed – as we have done over recent times.
4. In choosing not to use our endowment we are explicitly choosing to shift mining or business activity offshore, to allow extraction and processing to occur in places that are likely to have much lower standards of environmental management and employment than we have in New Zealand. What we don't mine or produce in New Zealand we will import, usually in finished products. Either way these explicit decisions need to be made, transparently and openly.
5. Such decisions can only be made with the information available now, but that information includes the knowledge that demand, prices, minerals and technologies change. What we know now is different, sometimes very different, from what we knew yesterday. Lithium is in high demand now, but perhaps in 5 years, Vanadium will be the mineral of choice for batteries – we don't know.
6. This argues for New Zealand to keep options open around access, to provide a legislative framework that delivers a high standard of environmental and social outcomes but does not presume knowledge we don't have.

7. This high-level summary captures the issues and principles that we would include in the resource strategy for the minerals and aggregate sectors.
8. The Draft Strategy does not provide this, or any, clarity of purpose or principles.
9. We are pleased the Draft Strategy generally acknowledges the importance of mining in New Zealand. We summarise here why mining and minerals responsibly deliver value.
  - **The products of mining are essential for modern society.**

Minerals are vital to the way we live – in homes, food production, transport and infrastructure, at work and play. The list includes aggregates for infrastructure, housing and concrete; coking coal for steel; gold, copper, cobalt, rare earth elements (REEs), lithium and vanadium for electronics, hybrid cars, solar panels, batteries - this list goes on. This reliance on natural resources is not going to decrease. The Draft Strategy (page 11) touches on the growing demand for clean-tech minerals and refers to the recent report by the World Bank, [The Growing Role of Minerals and Metals for a Low Carbon Future](#). This report predicts increased demand for many minerals as we move to a lower carbon economy. New Zealand has the potential to supply many of these, and the responsibility to make use of the resources we have, in a global economy where demand for resources will only increase.
  - **Mining’s contribution to the economy is significant.**

As well as extracting and supplying essential product, mining is an industry which creates well-paid jobs and is particularly important to regional economies. Significant investment is made by the industry within local communities. Much is also made of the just transition to a low carbon economy – the implication being a transition out of fossil fuel production. While the government’s concept of a just transition is a worthy one, it needs to be pointed out that the industries that are often identified as replacements will not make the same economic contribution as mining which is among the highest productivity and highest average wage industries in the country. Few industries if any that can replace mining in terms of the economic contribution in the places mining occurs. For example, average mining wages are around three times ‘accommodation and food services’ (a proxy for tourism) and mining has 10 times its labour productivity.
  - **Mining and protecting the environment are not mutually exclusive.**

Mining is criticised for its environmental impact but in fact, modern mining in New Zealand is conducted responsibly, our recent track record is excellent, and it is disappointing to see these type of statements made without evidence. Our environmental standards, as well as labour and human rights, are among the best in the world. It is widely accepted that New Zealand’s robust and far-reaching environmental protection legislation is among the most stringent in the world. The Resource Management Act provides for an independent forum to thoroughly assess the social, environmental and economic impacts of a resource use proposal. In addition to this, mining companies know that as part of their social licence to operate implementation of the highest environmental standards is needed. In many cases mining projects not only

avoid, remedy and mitigate the transitory effects of mining, as is required under current legislation, but also achieve a net positive gain for the environment. All new mining significant projects should meet that outcome – a net positive contribution.

10. The Draft Strategy acknowledges these points to some extent, but we think they could be made much more strongly. To some mining may have a bad reputation, in New Zealand and overseas, but this is largely based on inaccurate prejudices, a lack of awareness around modern mining practices and the controls that already exist to ensure that mining is carried out responsibly.
11. This government and this strategy have an important role in educating the public on these issues, as discussed later in this submission under Action Area 4.

## Minerals and Petroleum Sector Snapshot

12. The economic contribution of minerals and mining are well-illustrated by the infographics on pages 3 and 4. These statistics are a welcome way of alerting casual readers of the document to the economic contribution of mining, but we believe the importance of this needs to be emphasised more in the strategy.
13. We note a couple of discrepancies in the statistics given, firstly the value of mineral exports is around \$1.0 billion not \$299 million, according to Statistics New Zealand. Secondly, we estimate the amount of aggregates consumed annually per person is 8.6 tonnes not the 7.6 tonnes given.

## The Purpose of the Strategy

14. The document says the strategy must be consistent with or complementary to a number of government workstreams, strategies and policies. We comment on some of those specified here (pages 19-21), as well as the Overseas Investment Act which is absent from the list.

### **New Zealand Biodiversity Strategy (pg 21)**

15. Submissions on the New Zealand Biodiversity Strategy are being sought concurrently with the Resources Strategy. In addition, there is the NPS for Indigenous Biodiversity which is due for public consultation shortly. We are very concerned that an ecologically conservative definition of 'significant' indigenous biodiversity will have an unintended, detrimental impact on land-based business and future investment. While the aims of these initiatives are to sustain and improve New Zealand's important indigenous biodiversity, they may in fact have an adverse impact on this if they act to prevent future development.
16. Our broad aim should be to encourage responsible, sustainable investment, not to require preservation.

## **No New Mines on Conservation Land (pg 21)**

17. We are disappointed with the status given in the Strategy to the No New Mines on Conservation Land proposal. As we have previously argued, the proposal is indefensible from anything other than an ideological perspective, and the Resource Strategy is an excellent opportunity to consider access issues in a broader and well considered context. Perhaps there are some issues that could support some form of No New Mines proposal – these could be considered in the context of the resource strategy, but certainly not as a pre-condition. Further, consultation on the No New Mines has not yet occurred and will clearly not occur in the timeframe of the Resource Strategy consultation.
18. Our estimate is that only 0.04% of the conservation estate is affected by mining. This after more than 40 years of access to explore and mine on Department of Conservation (DOC) land not included in Schedule 4. Mining has a small footprint because of the realities of commercial mining. Minerals resources are rare, hard to find, and are, almost by definition, very localised. Mining only happens where the minerals are present and economically recoverable.
19. In addition, a number of regulatory hurdles have to be navigated before companies get a permit to mine on conservation land. These include the consent conditions imposed by the Resource Management Act which considers the social, economic and environmental aspects of any proposal, the Conservation Act, the Wildlife Act and the Crown Minerals Act.
20. Not all conservation land is of equal conservation value. National parks, which make up 35% of the DOC estate, are clearly off limits for resource-based activity, including mining. However, for the other categories of DOC land the opportunity should remain open to put forward a proposal for mining which can be considered on its merits, through an independent and transparent process, rather than being excluded through the application of arbitrary criteria and in the absence of adequate information.
21. 82% of the area of the West Coast is conservation estate – which has much of New Zealand’s most prospective land for minerals, yet this is potentially out of bounds if the conservation land ban were to be put in place.
22. We note the statement, in the context of the No New Mining on Conservation Land proposition (page 21), that mining must be done in the right place, in the right way. Mining can only be done in the very few places where economic minerals exist – and then only subject to investment to generate the information that allows consents to be granted (or not) and funding to be raised. Existing regulations provide that framework and will determine that mining is done in a way acceptable to our society. A ban simply bypasses this process and has no part to play in a ‘resource strategy’.
23. The Draft Strategy makes several references to Clean-Tech minerals or REEs. The GNS Science study, referred to on page 29, found 79% of land prospective for REEs in New Zealand lies within the conservation estate. 69% is the figure for nickel-cobalt and for lithium its 66%. A blanket

ban would close down access to these and other minerals which are being promoted as important for the transition to a low carbon economy.

24. As stated, we do not think the current regime for mining on conservation land is inconsistent with the phrase 'mining must be done in the right place, in the right way.' Some parts of the conservation estate are the right place and as long as mining is done in the right way with environmental impacts minimized, as determined by our environmental regulatory regime, such mines will make a net positive contribution.
25. Until the consultation on No New Mines on Conservation Land occurs there is uncertainty as to what it means therefore it is too early for it to be reflected in the review of the Crown Minerals Act. The Resource Strategy would benefit from being considered without the burden, or shackle, of the No New Mines on Conservation Land proposal, a proposal that has no basis in logic or evidence.

### **Just Transition to a Carbon Economy / Renewable Energy Strategy Work Program (pg 20)**

26. Mining and fossil fuels are often conflated in the public mind and sometimes willfully by mining's opponents. The resource strategy needs to keep the lines of demarcation clear.
27. Mining's emissions, at less than 300,000 tonnes per annum (less than 0.4% of NZ's gross emissions), means the extraction of minerals is not a significant emitting industry in New Zealand especially relative to the size of the sector. While coal which is one of New Zealand's most significant mineral resources is a high emissions fuel, the reality here is that the burning of coal is responsible for only 5% of the New Zealand total and a large proportion of coal mined in New Zealand is exported to be used in the steelmaking process overseas. (Those countries take responsibility for emissions produced during their steelmaking processes).
28. As the Draft Strategy notes, there are two types of coal in New Zealand. Premium grade coking coal is mined to meet demand from international steel manufacturers. At present, there are no commercially viable technologies to make steel, at scale, without coking coal. This demand will no doubt reduce, over decades, as new technologies and new materials allow. These exports do not count to New Zealand's emissions liability.
29. Thermal coal plays two important roles in New Zealand;
  - to provide energy security – in dry years, when gas shortages occur and as a result of adverse weather events. Over the past three years the Huntly power station used an average of 310,000 tonnes of coal a year from local production and imports; and
  - to maintain the international competitiveness of our agriculture sector – dairy in particular – and in domestic food production.

30. Thermal coal is also used to heat schools and hospitals mostly in the South Island where no reticulated gas is available. This is changing as technology advances allow and funding is prioritised.
31. In this context, we are pleased the Draft Strategy notes that fossil fuels, including coal, will continue to play a role in providing secure, affordable energy to New Zealand over the medium term. It also notes fossil fuels will be phased out carefully over time.
32. In the context of the renewable energy strategy, what is overlooked by many is that the minerals sector has a vital role to play in the successful transition to a low carbon future. Some of the enablers of a global, lower emissions future – windmills, solar panels, electric vehicles and batteries – all require large quantities of minerals.
33. Finally, it should be noted, coal has a number of other uses as an essential ingredient in the production of specialist products:
  - Activated carbon - used in filters for water and air purification and in kidney dialysis machines.
  - Carbon fibre - an extremely strong but light weight reinforcement material used in construction, mountain bikes and tennis rackets.
  - Silicon metal - used to produce silicones and silanes, which are in turn used to make lubricants, water repellents, resins, cosmetics, hair shampoos and toothpastes.
  - Future technology may include coal for use in carbon batteries (used in solar farm battery banks).

### **Circular economy and resource recovery (pg 21)**

34. We acknowledge the importance of the circular economy, in the minerals sector and generally, maximising the use and reuse of the same resources as long as possible. This is already occurring to an extent. For example, about 86% of waste steel is recycled or reused, the highest rate of recycling of any metal.
35. Increased recycling and resource efficiency are likely to have more of an impact in the future, but the need for extraction of new minerals will continue for the foreseeable future.
36. Recycling and re-use already occurs where it is economic to do so. Where it isn't economic, but where there is a public policy case for it to occur, then government incentives have a role to play. Any decision to do this would take account of the costs - which are often prohibitive.
37. It is also important to note that many of the recycling and reuse processes have significant environmental costs, or may be more energy intensive, in themselves.

## **Provincial Growth Fund (pg 21)**

38. The Provincial Growth Fund is a key component of the government regional economic development strategy.
39. The nature of mining is that it is concentrated in a handful of areas where it is the lifeblood of those places. The areas most dependent on mining (in terms of employment) are the West Coast, Hauraki, Waitomo and Waitaki. For example, mining and exploration directly employ 339 people in the Buller District. This is 8.12% of its total workforce. Mining directly contributed \$202 million of GDP or 22.9% of Hauraki District's total in 2017.
40. New Zealand's regional economic development generally is severely impacted by antimining policies which would offset many of the gains achieved by the Provincial Growth Fund. Industries such as tourism are often touted as alternatives to mining, but average mining wages are around three times 'accommodation and food services' and 10 times the labour productivity. Furthermore, as global action in respect of climate change intensifies it may well be that long haul tourism will suffer a decline. Policies, PGF or otherwise, to encourage shift out of mining into tourism, would severely detract from economic growth in the regions.

## **Thirty Year New Zealand Infrastructure Plan (Pg 21)**

41. We support the comment here that minerals and materials such as aggregate and steel are important components of infrastructure. We agree the Strategy should aim to 'make sure' we have a secure and affordable supply of these resources in order to meet our future infrastructure needs. In terms of access to aggregate there are a number of factors which the Resource Strategy should take account of – specifically the growing encroachment of residential areas towards, and into, both existing and potential quarry land and the incomplete knowledge as to location and stock of potential aggregate resources.
42. Encroachment of residential areas is an issue which a number of current policy programmes and work streams are having an input into including the NPSs on Urban Development and Highly Productive Land. In this regard we draw your attention to the submissions from our partners the Aggregate and Quarry Association of New Zealand.
43. We also refer to Action Area 2 which relates to the need for increased knowledge of the location and stock of resources – in this case, specifically aggregate and sand.

## **Overseas Investment Act**

44. There are other policies / regulatory regimes which are not mentioned here but do have an impact on the sector and need to be addressed. First and foremost, the Overseas investment Act is referred to in the Minerals and Petroleum Regulatory Regime section on page 14 but not to any detail.

45. We were alarmed at the recent decision to decline the application of OceanaGold to purchase land adjacent to its Waihi mine and believe that the Overseas Investment Act needs to be amended around the Ministerial veto power and the use of environmental barriers to overseas investment. With regard to the latter, there are more appropriate mechanisms for environmental regulation. When decisions such as this can be made it is difficult to see that a resource strategy has any value or status.

## Guiding Principles

46. Most of the principles are impossible to disagree with but many are so open they could be interpreted any number of ways which means while positive outcomes are possible, it brings some risks to the industry.
47. For example, **Principle 1** - *The environment, ecosystems and biodiversity are respected now and in the long term*. We fully agree with this principle but with the very strong caveat – that respect to be delivered through an independent process that considers all relevant social, environmental and economic issues. The proposed Biodiversity NPS for example, as discussed elsewhere in this submission, comes to mind here.
48. We are pleased **Principle 10** notes that the government will honour the rights of current permit holders to continue production or exploration activities under existing permits. The Strategy must also be clear that this includes the rights of entities with existing permits, and rights to subsequent permits. That is, it needs to consider the natural extension of permit areas should mineral deposits be expanded through mining works, and the ability to extend the duration of these existing permits. We will have more to say on this as part of the consultation on the review off the Crown Minerals Act.

## Action Areas

### Action Area 1 – Modernising the Crown Minerals Act

49. The Strategy, once finalised, will inform future Government policy affecting mining and in particular the review of the Crown Minerals Act (CMA). We note that Cabinet has already agreed the terms of reference for the review of the CMA as outlined in the 12 August Cabinet Paper, [Crown Minerals Act 1991 Review Tranche Two – Terms of Reference](#). We look forward to working with government on the review.
50. We agree that the CMA needs modernising to be fit-for-purpose and responsive to changes in the sector. Processes within the CMA need to be enabling and efficient so as to support the Government’s wider priorities including affordable energy, housing, urban development and roading infrastructure.
51. However, we support the CMA’s current emphasis on ‘the promotion of prospecting, exploration and mining of Crown owned minerals for the benefit of New Zealand’ and are opposed to any

significant changes to this fundamental role of the CMA. The Crown holds significant reserves of minerals and the government can play an active role in achieving its goals through promoting extraction and use of these. Emphasis need to be retained within the Act to encourage and enable mineral use, with appropriate caveats. If this is emphasis is not present, then the change to the CMA would signal discouragement, which is counterproductive by reducing the ability for Government's goals to be achieved.

52. As stated throughout this submission, the minerals sector fully acknowledges the importance of environmental considerations but we think they are best addressed in specialist legislation and so do not need to be brought into the Purpose Statement of the CMA as is one of the proposals likely to be considered as part of the review. The Resource Management Act (RMA) currently has a number of mechanisms either in place or proposed to address environmental concerns, particularly in relation to biodiversity and freshwater. If environmental considerations are required as a part of a CMA approval process, then a duplication of roles would result under each respective act. This would discourage investment. It would also likely create issues such as the re-litigation of the same or similar issues but in two different formats. It could also result in competing requirements that do not align. Given a preexisting format for environment regulation is in place and operating under the RMA, it is therefore logical, and essential, for this to remain outside of the CMA and with the RMA. If issues with environmental regulation are present, then the appropriate place for changes is within the RMA direct.
53. As stated earlier we do not support the government no new mines on conservation land proposition and do not think it needs to be reflected in the Crown Minerals Act.

## **Action Area 2 – Securing Affordable Energy Resources to meet our Mineral and Energy Needs**

54. We agree we need to develop a better understanding of our stock of resources – while noting technologies, supply and demand and commodity prices change in reals time. It is important that this knowledge base is built as it informs many of the choices New Zealand will confront in future.
55. The recent GNS Science research into location of lithium, and rare earth elements are a great start. The research shouldn't just apply just to clean tech resources (referred to page 29) but also other essential mineral resources including aggregate.
56. Ascertaining the available sources and location of aggregate and sand throughout the country, will be essential so that it remains accessible to meet future demand for housing and infrastructure growth. This is expected to be high as discussed throughout the Draft Strategy. While work by GNS has been started to identify future aggregates and sand sources, this work needs to be advanced.

## **Action Area 3 – Improving Treaty Partnerships**

57. On page 5 of the Draft Strategy it refers to the interests Maori have in protecting certain land from mining. While this may be true in places, at the same time, Maori have significant interests in the resource sector and in retaining access for historical, cultural and economic reasons.
58. Archaeological evidence of early Maori tools, weapons and ornaments demonstrate Maori have been extracting mineral resource since 1400 AD, within 150 years of Māori settlement. Former quarries have been identified where blocks of adzite and obsidian were excavated, and fragments trimmed to a convenient size.
59. Page 11 of the Draft Strategy refers to cultural minerals such as Pounamu, Pakohe (Argillite) and Mata (Obsidian). Pounamu, most of which is recovered in association with other minerals - particularly alluvial gold, is the most important of these.
60. In addition, many Maori work and have business interests in the sector. The percentage of Maori employed in mining is much higher / almost twice as high as the equivalent figure for the population as a whole.

## **Action Area 4 - Improving community and stakeholder engagement**

61. We agree with the statement that ‘Effective and genuine engagement with stakeholders and our wider communities by the minerals and petroleum industry is key to building trust and generating social licence to operate’.
62. These issues are company and project specific and do not require government oversight. If a company fails to adequately consult effected stakeholders, it is very unlikely the project will proceed – the Faulden Maar situation being a case in point.
63. It is unfortunate that minerals’ significant contribution to society is often not well appreciated by the public at large and the government could play a role in ensuring that the public is well informed as to the importance of minerals to modern living standards and the need for new minerals for the proposed low carbon economy. The adoption of a balanced Resource Strategy can and should go some way to do that.
64. We believe Government has a role in informing the public of the importance and contribution of minerals and resources including for the low carbon economy. The adoption of a balanced Resource Strategy can and should go some way to do that.
65. We would be opposed if the Strategy was aimed at adding public engagement to the CMA permitting process. Public engagement processes are available through the RMA and DoC access arrangement process and introducing them here as well would not add any value.

## **Action Area 5 - Improved Industry Compliance**

66. We are looking forward to working with ministers and officials on the review of the CMA which follows the completion of this Strategy. We support compliance costs being part of the terms of reference.

## **Action Area 6 – Research and Investment in better mining and resource use**

67. We support the objectives of research and investment in better mining and resource use and the aims listed in this Action Area. Research into potential alternative green future uses of coal should be included. The Institute for Minerals to Materials Research is doing some promising work here including research in the areas of carbon foam, as well as environmentally friendly urea-base fertilizer and developing ultra-fine nanogold particles possibly without having to rely on chemicals.