



BRIEFING

Draft Resource Strategy for Ministerial Consultation

Date:	25 July 2019	Priority:	High
Security classification:	In Confidence	Tracking number:	0225 19-20

Action sought		
	Action sought	Deadline
Hon Dr Megan Woods Minister of Energy and Resources	<p>Agree to provide comments on the attached Resource Strategy (see Annex Two) to the Ministry of Business, Innovation and Employment.</p> <p>Note the Strategy has been revised reflecting comments received from Treaty partners and key stakeholders.</p>	1 August 2019

Contact for telephone discussion (if required)			
Name	Position	Telephone	1st contact
Andrew Hume	Acting Manager, Resource Markets Policy	Privacy of natural persons	✓
Erwin Ricketts	Senior Policy Advisor		

The following departments/agencies have been consulted
None to date. Consultation will begin on 26 July.

Minister's office to complete:

- | | |
|---|--|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Noted | <input type="checkbox"/> Needs change |
| <input type="checkbox"/> Seen | <input type="checkbox"/> Overtaken by Events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn |

Comments



BRIEFING

Draft Resource Strategy for Ministerial Consultation

Date:	25 July 2019	Priority:	High
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Purpose

To seek your feedback on our revised draft version of the Aotearoa New Zealand Minerals and Petroleum Strategy 2019-2029 (the Strategy) attached in Annex Two. This version of the Strategy reflects changes resulting from our early engagement with Treaty Partners and key stakeholders. This briefing also informs you of the key comments that we received through this early engagement, the timeline, and seeks agreement to circulate this to your Ministerial colleagues.

Executive summary

The Ministry of Business, Innovation and Employment has revised the Strategy reflecting comments received from Treaty partners and key stakeholders through engagement on the draft Strategy we circulated for two weeks (4 July - 18 July).

- A summary of the key comments received from Treaty partners and stakeholders can be found in Annex One.
- **The most recent version of the Strategy can be found in Annex Two.** This version includes all sections proposed for the final Strategy except for the "future actions" under the six Action Areas. Future actions will be confirmed after public consultation and included in the final version of the document.
- **Please provide any comments you have on this Strategy back to us via your Office by 1 August 2019.** Agency consultation will run from 26 July to 1 August 2019.

A summary of the key changes made to the Strategy are provided in the following table. These changes are further explained in the body of the briefing.

Vision	
Old Vision	New Vision
An environmentally and socially responsible mining sector that delivers for New Zealanders, both now and in the future	<u>A world-leading minerals and petroleum sector that delivers value for New Zealanders, both now and in the future, in an environmentally and socially responsible way</u>
Objectives	
Old	New
1) Responsibly delivers value for New Zealand (where value incorporates economic, social, environmental, and cultural dimensions).	1) Responsibly delivers value for New Zealand.
2) Fully contributes to building a productive, sustainable and	a) Supporting a productive, sustainable and inclusive economy.

<p>inclusive economy.</p> <p>3) Supports New Zealand's transition to a low emissions future.</p> <p>4) Is competitive and innovative.</p> <p>5) Is efficiently and effectively regulated.</p>	<p>b) Supporting New Zealand's transition to a carbon-neutral economy.</p> <p>2) Is productive and innovative.</p> <p>3) Is efficiently and effectively regulated.</p> <p>Commentary is also added explaining each objective.</p>
Environmental Principles	
Old	New
<p>1. The environment, ecosystems, and biodiversity are respected now and in the long term;</p> <p>3. Impacts during all stages of the mining life-cycle are managed responsibly;</p> <p>4. Negative impacts are either avoided or where they are unavoidable, they are reasonably minimised, mitigated, and/or offset;</p>	<p>1. The environment, ecosystems, and biodiversity are respected now and in the long term,</p>
Carbon Neutral Principle	
Old	New
<p>5. Support the transition to net zero carbon by 2050.</p>	<p>3. Support the transition to a carbon neutral economy by 2050, <u>accounting not only for the domestic emissions balance, but also importation of carbon emissions in the form of products;</u></p>
Just Transition Principle	
Old	New
<p>Was not included originally</p>	<p>4. The impact on different communities, regions and the minerals and petroleum sector are managed in a just and inclusive way.</p>
Account for Investments Principle	
Old	New
<p>Was not included originally</p>	<p>9. The value of past and existing investments in the mining and extractives sector is taken into account when making decisions.</p>
Strategic Alignment Principle	
Old	New
<p>6. Actions taken within the mineral and petroleum sector should align with the strategic direction of other related sectors and Government strategies.</p>	<p>Removed.</p>

Action Area 2	
Old	New
Action Area 2: Understand our Strategic Resources.	Action Area 2: Securing Affordable Resources to Meet our Minerals and Energy Needs.

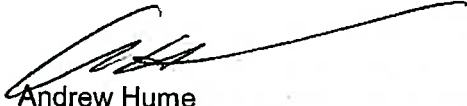
Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

- a **Note** early engagement with Treaty partners and key stakeholders on a draft copy of the Strategy which ran from 4 July – 18 July 2019 has since concluded, and MBIE received 16 submissions.
- Noted*
- b **Note** the Strategy has been revised to reflect Treaty partner and key stakeholder comments, and is attached in Annex Two.
- Noted*
- c **Note** changes have been made to the Vision, Objectives, Principles and the name of one Action Area.
- Noted*
- d **Agree** to provide comments on the Strategy attached to Annex Two of this briefing back to MBIE by 1 August 2019.
- Agree / Disagree*
- e **Note** that an updated Strategy (reflecting agency and Ministerial comments) along with a draft Cabinet paper will be provided to your Office on 9 August 2019, with comment sought from you by 5pm on 12 August 2019.
- Noted*
- f **Agree** to forward a copy of this briefing and the attached Strategy to the Minister of Regional Economic Development.
- Agree / Disagree*
- g **Agree** to forward a copy of this briefing and the attached Strategy to the Minister of Conservation.
- Agree / Disagree*
- h **Agree** to forward a copy of this briefing and the attached Strategy to the Minister for the Environment.
- Agree / Disagree*
- i **Agree** to forward a copy of this briefing and the attached Strategy to the Minister of Maori Crown Relations.
- Agree / Disagree*

J **Agree** to forward a copy of this briefing and the attached Strategy to the Minister of Economic Development.

Agree / Disagree



Andrew Hume
Acting Manager, Resource Markets Policy
Building, Resources and Markets, MBIE

25/7/19

Hon Dr Megan Woods
Minister of Energy and Resources

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PROACTIVELY RELEASED

Background to the Strategy

1. The Mineral and Petroleum Resource Strategy for Aotearoa New Zealand: 2019-2029 (the Strategy) will set the Government's long term vision for the minerals and petroleum sector. It is a ten year strategy (2019-2029) that will build a sector supporting the transition to a low carbon and productive, sustainable and inclusive economy. This Strategy will underpin the Tranche Two review of the Crown Minerals Act 1991 (CMA), and will guide future Government policy affecting the sector.
2. In January 2019, we provided you with the first draft overview of the Strategy [2145 18-19 refers]. On 28 February 2019, you agreed to a collaborative co-design approach to the development of the Strategy [2147 18-19 refers]. Accordingly, since February 2019 we have been engaging with Treaty partners and stakeholders on the Strategy.

Early Engagement on the Draft Strategy has concluded

3. On 13 June 2019 we informed you of our intention to circulate a draft version of the Strategy to Treaty partners and select environmental groups, academics, industry groups, and research institutes for their comment [3858 18-19 refers]. After editing this version of the Strategy in line with comments we received from Minister Sage's Office, we circulated this version for comment for two weeks (4 July - 18 July).
4. We received submissions from 16 respondents, including the following Treaty partners: Te Atiawa (Blenheim), Ngāti Tama, Ngāruahine, Ngāti Ruanui, Ngāti Kuia. An overview of the comments received can be found in Annex One.

Summary of the Strategy

5. Attached to this briefing in Annex Two is the draft version of the Strategy that we propose you circulate for Ministerial comments. This version reflects comments we have received from the groups above (substantive changes are discussed below). It also contains all the sections we propose to include in the final version with the exception of the future actions under the action areas. We propose to leave this area blank (to seek public input) and to confirm future actions after public consultation.
6. A summary of the key elements of the Strategy is provided below:
 - a. **Vision:** A world-leading minerals and petroleum sector that delivers value for New Zealanders, both now and in the future, in an environmentally and socially responsible way.
 - b. **Objectives:** a minerals and petroleum sector that:
 - 1) Responsibly delivers value for New Zealand.
 - a) Supporting a productive, sustainable and inclusive economy.
 - b) Supporting New Zealand's transition to a low emissions economy.
 - 2) Is productive and innovative.
 - 3) Is efficiently and effectively regulated.
 - c. **Action areas:**
 - 1) Modernising the Crown Minerals Act.
 - 2) Securing affordable resources to meet our mineral and energy needs.

- 3) Improving Treaty Partnership.
- 4) Improving stakeholder and community engagement.
- 5) Improving industry compliance.
- 6) Resource and investment in better mining and resource use.

d. Principles:

To guide everyone
(including the Crown
and Industry)

**Principles for the
Crown:**

**Principles for the
Industry**
(notwithstanding
Principles 1-5 above,
and voluntary
principles adopted
by the Industry):

1. The environment, ecosystems, and biodiversity are respected now and in the long term;
2. Maori cultural interests are understood and respected;
3. Support the transition to a carbon neutral economy by 2050, accounting not only for the domestic emissions balance, but also importation of carbon emissions in the form of products;
4. The impact on different communities, regions and the minerals and petroleum sector are managed in a just and inclusive way.
5. Support a circular economy by meeting resource needs through resource efficiency, recycling and reuse.
6. The Crown honours its duty towards Māori as a Treaty partner and adheres to the Principles of the Treaty of Waitangi;
7. The Crown receives a fair financial return for its minerals and petroleum;
8. The Crown regulates in a way that is fair, reasonable and proportionate;
9. The value of past and existing investments in the mining and extractives sector is taken into account when making decisions.
10. The Crown makes decisions based on the best evidence, and accounting for the foreseeable need for minerals and petroleum, both now and for future generations; and
11. The Crown proactively engages and consults with relevant stakeholders and decisions are communicated in a clear and transparent way.
12. Pursue continuous improvements in health and safety;
13. Strive to implement industry best practice in their operations;
14. Seek innovative ways to improve the resource efficiency of extraction operations; and minimise the negative impacts of these operations; and
15. Engage with stakeholders and implement management systems to understand and manage impacts, and realise opportunities for redress where needed.
16. Pursue continuous improvements in health and safety.

Changes made to the Strategy

7. The last version of the Strategy that we sent to your office [3858 18-19 refers] contained the substance of the Strategy: its vision, objectives, principles, and action areas. It also contained sections regarding why we need a strategy, the purpose of the Strategy and the way this Strategy aligns with other Government priorities.

8. The version attached this briefing includes all sections from the previous version of the Strategy, plus the following:
 - a. Ministerial foreword;
 - b. Infographic of why the minerals and petroleum sector matters to New Zealand;
 - c. Infographic of the uses of minerals and petroleum;
 - d. Infographic of the state of mining and petroleum extraction in New Zealand;
 - e. The minerals and petroleum regulatory system; and
 - f. Detail of the completed and current actions under the six action areas.
9. Note that design elements (such as the look of the current infographics and diagrams) will be finalised ahead of public consultation in late August 2019.

Summary of significant changes resulting from stakeholder consultation

10. We have reviewed the comments provided on the draft Strategy as a result of our most recent engagement process (a summary of the key themes can be found in Annex One of this briefing). In response to these comments, we have made some changes to the Strategy – these are explained below.

Vision

11. Three changes (underlined) were made to the Vision statement.

Old	New
An environmentally and socially responsible mining sector that delivers for New Zealanders, both now and in the future.	A <u>world-leading</u> <u>minerals and petroleum</u> sector that delivers <u>value</u> for New Zealanders, both now and in the future, in an environmentally and socially responsible way.

Reason for change:

- a. *World-leading* – Some comments noted that the Strategy was relatively silent regarding the global context that New Zealand exists within. Acknowledging the merit of this comment, we included “world-leading” within the Vision. New Zealand can help lead the way in responsible mining (i.e. through the development of climate smart mining techniques), and may also play a role in supporting the global transition by aiding in the supply of clean-tech minerals.
- b. *Minerals and petroleum sector* – Initially we defined mining sector to include both petroleum and mineral activity. Several industry groups noted that notwithstanding our definition, people often do not associate petroleum with “mining”. To ensure clarity that the vision and wider Strategy applies to both the minerals and petroleum sector we have explicitly referenced the two sectors separately throughout the Strategy.
- c. *Value* – Across all submitters, a common theme that came across was the need to define exactly what the minerals and petroleum sector needs to deliver. Accordingly, we added the word “value” – value being the simplest way to state what the sector needs to deliver while keeping the vision statement short. Value in the context of this Strategy is further defined through commentary on the objectives which immediately follows the Vision in the Strategy document.

Objectives

12. The number of objectives have been reduced and additional commentary on the remaining objectives has been added.

Old	New
<p>1) Responsibly delivers value for New Zealand (where value incorporates economic, social, environmental, and cultural dimensions).</p> <p>2) Fully contributes to building a productive, sustainable, and inclusive economy.</p> <p>3) Supports New Zealand's transition to a low emissions future.</p> <p>4) Is competitive and innovative.</p> <p>5) Is efficiently and effectively regulated.</p>	<p>1) Responsibly delivers value for New Zealand.</p> <p>a) Supporting a productive, sustainable and inclusive economy.</p> <p>b) Supporting New Zealand's transition to a low emissions economy.</p> <p>2) Is productive and innovative.</p> <p>3) Is efficiently and effectively regulated.</p> <p>Commentary is also added explaining each objective</p>

Reason for change:

13. We edited the Objectives section to better support the inclusion of "value" in the Vision. Within the commentary associated with Objective 1, we indicate that value is to be understood in terms of wellbeing (i.e. that the sector needs to maximise wellbeing across the natural, social, human and financial capitals). This wellbeing approach is aligned particularly with Treaty partner comments which stressed the importance of Maori cultural values (which fall within the social capital domain of wellbeing).
14. Under Objective 1, we include the following commentary which provides a more tangible definition of value:
- a. *Supporting a productive, sustainable and inclusive economy.* This can be achieved through the provision of secured and affordable energy and minerals, employment opportunities, export opportunities, and royalties for Crown owned minerals. Inclusion also means that extraction occurs in a way that respects Maori and wider community interests.
 - b. *Supporting New Zealand's transition to a low emissions economy.* The minerals sector has a significant role to play in providing the minerals necessary to build low emission technologies such as batteries and wind turbines.

Principles

15. Changes to the Principles are discussed below:

Environmental Principles

Old	New
<p>1.The environment, ecosystems, and biodiversity are respected now and in the long term;</p> <p>3.Impacts during all stages of the mining life-cycle are managed responsibly;</p> <p>4.Negative impacts are either avoided or where they are unavoidable, they are reasonably minimised, mitigated, and/or offset;</p>	<p>1.The environment, ecosystems, and biodiversity are respected now and in the long term;</p>

Reason for change:

16. Several comments noted that the original principles (1,3 and 4) essentially duplicated each other. One commenter also suggested that the cumulative effect of these principles indicated that the Strategy overly weighted environmental considerations. We also received comments from environmental groups and Treaty partners that were critical of original principle 4. To address these comments, we removed original principles 3 and 4 on the grounds that they are implicit within principle 1 (which has been retained)

Carbon Neutral Principle

Old	New
<p>5. Support the transition to net zero carbon by 2050.</p>	<p>3. Support the transition to a carbon neutral economy by 2050, <u>accounting not only for the domestic emissions balance, but also importation of carbon emissions in the form of products;</u></p>

Reason for change:

17. This addition to the carbon neutral principle was made in response to the risk of carbon leakage which was raised by New Zealand steel. Carbon leakage occurs when emissions increase in one country in response to emission reductions (through stringent climate policy) in another.
18. It has been highlighted that mineral products such as steel and cement may be imported, which is cheaper yet more carbon intensive to produce compared with domestic products. Given the overall aim of a carbon neutral economy is to reduce total carbon emissions, it is important that we account for the total carbon cost of meeting our mineral and petroleum needs (whether sourced domestically or internationally).

Just Transition Principle

Old	New
<p>Was not included originally</p>	<p>4. The impact on different communities, regions and the minerals and petroleum sector are managed in a just and inclusive way.</p>

Reason for change:

19. The Government is committed to a just transition as we shift towards a carbon neutral economy. Given the impact that the transition will have on the minerals and petroleum sectors, it is important to signal clearly in this Strategy the transition will occur in a way that is just and inclusive (i.e. mindful of the uneven impacts climate change policy can have on different sectors and communities).

Account for Investments Principle	
Old	New
Was not included originally	9. The value of past and existing investments in the mining and extractives sector is taken into account when making decisions.

Reason for change:

20. This principle was added to further reinforce a just transition approach.

Strategic Alignment Principle	
Old	New
6. Actions taken within the mineral and petroleum sector should align with the strategic direction of other related sectors and Government strategies.	Removed.

Reason for change:

21. Some industry groups indicated discomfort with this principle. While actors within the sector are required to comply with the law, they do not necessarily have to cooperate with the direction of Government. Acknowledging this point, we have removed this principle. We further add that it is unnecessary to state this principle explicitly for the sake of Government as officials will implicitly strive to for coherence across Government strategies.

Action areas

22. One change was made to the title of Action Area 2:

Old	New
Action Area 2: Understand our Strategic Resources.	Action Area 2: Securing Affordable Resources to Meet our Minerals and Energy Needs.

Reason for change:

23. Several groups indicated the importance of affordable and secure supply of energy and minerals (such as aggregate). This is one of the outcomes sought through Action Area 2, accordingly, we elevated this to the title of the action to better communicate the purpose of this action area.

Questions for public consultation

24. When we release the Strategy for public consultation, we intend to seek feedback on the following areas:
- Vision.
 - Objectives.
 - Principles.
 - Suggestions for 'Future actions' that the Government could take to advance the six action areas.

Next steps and timeline for the development of the Strategy

25. A timeline of the process is noted below. The most important times are highlighted in orange.

Action	Timing
Ministerial and agency consultation period	26 July to 1 August 2019
Revised Strategy and draft Cabinet paper sent to your Office	9 August 2019
Approval and final feedback from your office provided to MBIE	12 August 2019 (5 pm)
Lodge Cabinet Paper	14 August 2019
DEV Cabinet Committee	21 August 2019
Cabinet approval	26 August 2019
Commencement of public consultation	27 August 2019
Public release of the final Strategy	6 November 2019

26. We appreciate that this is a tight timeframe. Because the Strategy underpins the Crown Minerals Act 1991 Review, the Strategy needs to be complete before the Review document goes for public consultation (currently planned for November). In order to meet these publishing requirements, please:
- Provide any comments you have on the Strategy back to us via your Office before 1 August 2019.
 - Provide comment on the final version of Cabinet paper and Strategy on 12 August 2019. You will receive a revised version of the Strategy to on Friday, 9 August 2019.
27. As noted above, the version of the Strategy that goes to Cabinet on 21 August will include all design elements. The future actions under the action areas will not be confirmed until the public release of the final Strategy on 6 November 2019.

Annex One: Summary of submissions on the Strategy (July 4 2019 – July 18 2019)

	Treaty partners	Environmental Groups	Industry Groups	Council / Research Institutes
General views on the Strategy	<ul style="list-style-type: none"> Need to ensure the Strategy results in 'Enduring Net Restorative Outcomes.' Strategy should be consistent with the Treaty principles, Crown Minerals Protocols and protection of cultural values. There should be greater focus on decarbonising the economy, with an action area on reducing emissions. Te Atiawa concerned about the use of the word 'resource,' arguing it is inappropriate and Euro-centric, implying everything aside from humans is a resource for human exploitation. Te Atiawa also pointed to the role of the economy and that 'growing the economy' will require more from the planet. Other iwi also emphasised a shift away from 'growing the economy' to a focus on social and cultural wellbeing. 	<ul style="list-style-type: none"> The Strategy must recognise the climate emergency. The statement around oil and gas' role in the economy and transition clashes with the climate change emergency Reframe "building" the sector to "minimising" the sector by phasing out of fossil fuels. Kiwi's Against Seabed Mining (KASM): Put the precautionary principle at the centre of this strategy, and consider that the Government steps back from promoting mining, but rather acts as a regulator Coal Action Network Aotearoa: This Strategy needs to work in conjunction with the goals of the ZCA, or it risks undermining it. 	<ul style="list-style-type: none"> Petroleum and minerals should be treated differently due to different demand. There should be more background and 'policy setting.' Petroleum Exploration & Production Association of New Zealand (PEPANZ) would like to see Carbon Capture and Storage included. Major Gas Users Group believe it's not clear whether the Strategy considers gas to be a part of delivering value in New Zealand. 	<ul style="list-style-type: none"> There was some disagreement on timeframes, with the Council suggesting a 50 year timeframe while others believing the proposed timeframe is too long. Need a focus around reducing emissions, one institute arguing no further resources should be dedicated to mining activities. Venture said the Strategy needs a more external view, considering international commitments, for example.
Vision	<ul style="list-style-type: none"> Vision should align with the concept of sustainability, including environmental, cultural and social aspects. Ruanui Trust disagree with the concept of 'responsible mining' as this is not a sustainable activity. Reflect the commitment to improving the Treaty partnerships and engagement. Te Korowai o Ngāruahine Trust (TKONT) wants to ensure the vision attends fairly and equitably to the positions of different New Zealanders. 	<ul style="list-style-type: none"> Do not agree that mining can be 'environmentally and socially responsible.' Should focus on phasing fossil fuels out. 	<ul style="list-style-type: none"> Vision lacks detail. PEPANZ thinks the Strategy should specify what the sector is delivering and recognise the importance of a successful mining and petroleum sector to NZ. 	<ul style="list-style-type: none"> Greater focus on delivering for the 'well-being' of New Zealanders. Acknowledge climate change and its effects.
Objectives	<ul style="list-style-type: none"> Mention the Treaty principles. Ngatiukuia state the Strategy should 'give effect' to the Treaty. Again emphasise a focus on sustainability and decarbonising to achieve a net zero future. 	<ul style="list-style-type: none"> Need an objective for reducing emissions and transitioning to a net zero emissions future. KASM would like to see a reference to science-based evidence and an adherence to the precautionary principle. KASM also point out that one action area not mentioned here is NO ACTION. Just because a resource is there doesn't mean it should be mined. This is certainly the case with seabed mining. 	<ul style="list-style-type: none"> PEPANZ believes there should be reference to the domestic energy security and affordability that natural gas offers; and to the principle that Crown minerals should be efficiently allocated and developed. Want the Strategy to recognise the role the resources sector is performing and how it is delivering the energy resource to end users, including acknowledgement of existing agreements and licences. 	<ul style="list-style-type: none"> Look to the future to consider opportunities, needs and technologies.
Guiding Principles	<ul style="list-style-type: none"> Should pay more attention to cultural values and the Māori-Crown relationship. Need to emphasise sustainability and achieving a net benefit for the environment. Ruanui Trust believes that the principles which refer to 'recommended to guide the industry' appear to give a preferential treatment to industry rather than establishing requirements. The grouping approach should be removed to eliminate the perceived 'bias' towards the industry. 	<ul style="list-style-type: none"> Must recognise we are now in a climate emergency to reduce reliance on fossil fuels and phase out production. Need to minimise rather than build the mining sector. Need to define key terms such as 'respected' and 'responsibly.' Greenpeace state that an additional guiding principle for the Crown is to make decisions in the best interests of the New Zealand public and the natural environment both now and for future generations. 	<ul style="list-style-type: none"> Broad support. PEPANZ wants explicit recognition of long-term role of petroleum. 	<ul style="list-style-type: none"> Consider science and innovation. Aspirational.

<p>Action Area 1: Modernise the CMA</p>	<ul style="list-style-type: none"> Should include greater protection of cultural interests and sites, including increased opportunities for Māori involvement in decision making. Te Atiawa state this area should encourage post-mining strategies for the restoration of areas affected by mining activities. Ruanui Trust wants better alignment between the CMA and RMA; They see the RMA guided by the objective of sustainability while the CMA holds the purpose of resource exploitation. 	<ul style="list-style-type: none"> The CMA must be refocused towards phasing out fossil fuels and building a regenerative economy rather than an extractive one. It must reflect the climate emergency. 	<ul style="list-style-type: none"> NZ Steel believes the CMA must promote the further, and intensified, discovery and exploration of New Zealand's underlying resources via exploratory drilling or other methods. 	<ul style="list-style-type: none"> The Strategy should be based on a developed CMA.
<p>Action Area 2: Understand our Strategic Resources</p>	<ul style="list-style-type: none"> Te Atiawa highlight the need to understand the behaviours, lifestyles and patterns of mineral and petroleum users. Sustainability focus in order to achieve a zero-carbon economy. 	<ul style="list-style-type: none"> Disagree that Crown resources should be invested into mining activities. 	<ul style="list-style-type: none"> Strongly support this action area. Acknowledge that full cataloguing of mineral resources will be hard to achieve. 	<ul style="list-style-type: none"> Must support new/future technology.
<p>Action Area 3: Improve Treaty Partnership</p>	<ul style="list-style-type: none"> Give effect to the Treaty principles, including co-governance and active protection of iwi interests. Improve trust through improved sharing of information. TKOT believe that attention to Mātauranga Māori principles should be embedded in process requirements for both industry and government. 	<ul style="list-style-type: none"> Greenpeace believe the Strategy should acknowledge that there is strong iwi and hapū opposition to some mining activities, in particular seabed mining and oil and gas exploration. 	<ul style="list-style-type: none"> No views or broad support. 	<ul style="list-style-type: none"> No views.
<p>Action Area 4: Improve Community & Stakeholder Engagement</p>	<ul style="list-style-type: none"> TKONT encourage the consideration of current engagement processes and how they can be amended to encourage fair and equitable engagement. 	<ul style="list-style-type: none"> The Strategy must aim to achieve transparency and uncomplicated public engagement with mineral and resource decisions. KASM state that the power of the mining industry vs small community groups means there is an inherent imbalance. 	<ul style="list-style-type: none"> No views. 	<ul style="list-style-type: none"> No strong views.
<p>Action Area 5: Improve Industry Compliance</p>	<ul style="list-style-type: none"> Ruanui Trust wants to include the concepts of interactional trust, institutionalised trust, social legitimacy and Corporate Social Responsibility. Ngaiikuia want the regulatory regime is seen as fair, transparent, competent and effective. 	<ul style="list-style-type: none"> The regime needs to extend to regional and local councils, because they are the ones who have to police compliance. Industry should carry the risks of environmental damage and social costs that can result from mining activities. 	<ul style="list-style-type: none"> ACA would like an action to amend the RMA to provide simplified approval processes, sharpen risk focus to alleviate bureaucratic delays, and provide clear and timely information. Should include the range of other statutes the sector must comply with. 	<ul style="list-style-type: none"> GNS suggested action around managing the depletion and replacement of resources.
<p>Action Area 6: Research & Investment in Better Mining & Resource Use</p>	<ul style="list-style-type: none"> Whilst it is important to improve the efficacy and efficiency of existing systems, there is the need to minimise the use of petroleum and minerals by investing in alternatives. Greater emphasis on protecting the environment and achieving a net benefit for the environment and community. 	<ul style="list-style-type: none"> Give greater priority to reducing negative impacts. Better mining should be about actually minimising the impacts of mining activities on the natural world, people's health and culture. 	<ul style="list-style-type: none"> AQA would like to see a review of the Waste Minimisation Act to ensure recycling and reuse is incentivised, as well as research funding made available for work on alternative uses of aggregates and other construction materials in order to maximise resource use and minimise impacts. NZ Steel wants the Strategy to consider support and seed funding for industry bodies. 	<ul style="list-style-type: none"> Need to ensure best practice technology. GNS support technology that improves the success rate of exploration of new resources.



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

25 July 2019 - Version for Ministerial Consultation
In-Confidence DRAFT Not Government Policy

Responsibly Delivering Value

A Minerals and Petroleum Strategy for Aotearoa New Zealand: 2019-2029

PROACTIVELY RELEASED

Contents page

[forthcoming]

PROACTIVELY RELEASED

Ministerial Foreword



Aotearoa New Zealand's future prosperity depends on a minerals and petroleum sector that can responsibly deliver the resources we need. This presents us with a challenge, and an exciting opportunity. I firmly believe that economic growth need not be at the expense of the environment.

Whether we are aware of it or not, minerals and petroleum play a role in the everyday lives of all New Zealanders. Our digital devices require minerals such as lithium and cobalt. Our buildings and infrastructure require aggregate (crushed rock and stone) in the building process. And petroleum still plays a role in transporting goods both within, and beyond our borders, and providing us with the energy we need to run our economy as we transition towards a carbon neutral economy.

Looking towards the future, resources will continue to play a significant role in our lives; however, the kinds of resources we need will be considerably different. We need to take action against the existential threat of climate change, which is why we are transitioning to a carbon neutral economy by 2050. This economy will require significantly less fossil fuels such as coal and petroleum, and will increasingly meet its energy needs through renewable energy. As the economy transforms, clean tech minerals such as lithium and cobalt will become increasingly important as a key input into clean technology such as batteries.

Along with transitioning to a carbon neutral economy by 2050, we are also intent on building a productive, sustainable and inclusive economy. This economy needs to deliver housing and infrastructure that is suitable and affordable for the growing number of New Zealanders. This built environment will only be realised if we can ensure an affordable and secure supply of resources such as aggregate and steel. We also need to ensure that we have the affordable, sustainable and secure energy to power this economy.

Meeting our evolving future resource needs, in a way that respects our environment, the cultural interests of Maori, and the expectations of our communities is going to be a challenge. But it is a challenge that I am confident we can meet, provided our Treaty Partners, industry, our local communities and Government work together. This Strategy is an opportunity. It lays the ground work to help us realise our vision of a responsible minerals and petroleum sector that delivers value for New Zealand, now and in the future.

[Insert signature]

Hon Dr Megan Woods
Minister of Energy and Resources

Minerals and Petroleum Sector Snapshot

Why the sector matters to New Zealand

XXX*

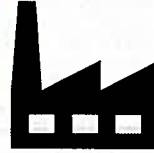


Value of oil and gas exports in 2017

\$299 m



Value of mineral exports in 2017



\$2.4 Billion

The value minerals and petroleum contributed to New Zealand GDP in 2017



6,477

People employed in directly in the minerals and petroleum sector

Over 2x Average Wage

People working in the minerals and petroleum sectors make almost twice the average wage (\$49,475 in 2017).



\$244 Million

Total revenue to the Crown (June 2017-June 2018) from royalties on petroleum and minerals.



\$96,000

Average wage of a person working in the minerals sector (excluding quarrying).



\$143,000

Average wage of a person working in the oil and gas sector.

10%

Percentage of New Zealand land where there is rare earth element, nickel-cobalt and lithium potential.

Clean Tech Minerals

Minerals such as Cobalt, Nickel and Lithium are key to producing clean technologies such as batteries and wind turbines.



7.6

Tonnes

The amount of aggregate (crushed stone and sand) on average that each New Zealander consumes per annum. We consume aggregates through the infrastructure and buildings that we use.

*Numbers still to be confirmed.
Source: Statistics New Zealand, MBIE and the University of Auckland.

Why we need a Strategy

The minerals and petroleum sector contributes significantly to the wellbeing of New Zealand: it provides jobs, income, and the resources we need to power and build our economy. In the future however, the sector will have to do some things differently to meet our needs. Our Treaty partners and communities are expecting greater engagement, and care for the environment. Resource demands will also change as we transition to a more productive, sustainable and inclusive economy, and in response to climate change. This Strategy is a first step towards transitioning our minerals and petroleum sector to a more socially and environmentally responsible sector that better supports our future.

Low Carbon Economy

Many countries around the world, including New Zealand, are committed to decreasing their carbon emissions. As countries transition to low carbon economies, where low emission technologies like electric vehicles and solar panels become more prevalent, the demand for clean-tech minerals such as cobalt and lithium is projected to increase dramatically. There may be opportunities for New Zealand to meet this domestic and global demand for clean tech minerals and lead the way in climate smart mining techniques which focus on sustainable and environmentally responsible mining operations.

Growing a Productive, Sustainable, and Inclusive Economy

Projections indicate that the population of New Zealand could grow as high as between 5.3 and 7.9 million by 2068.¹ To meet the needs of this growing population we will require more housing, more energy, and expanded infrastructure. The minerals and petroleum sector has a critical role to play in building this future.

We need to ensure we have the aggregate (crushed rock and stone) required to build the foundations of our houses and roads. We need coking coal to make the steel necessary to build our cities. And oil and gas have a role in providing us with the energy we need to run our economy as we transition. As the energy system transforms, we will also need to ensure we have the minerals (such as rare earth elements) necessary to produce the technology we need to power our future. To meet these challenges, the minerals and petroleum sector needs to plan now, in order to build a more productive, sustainable, and inclusive economy.

Social Responsibility

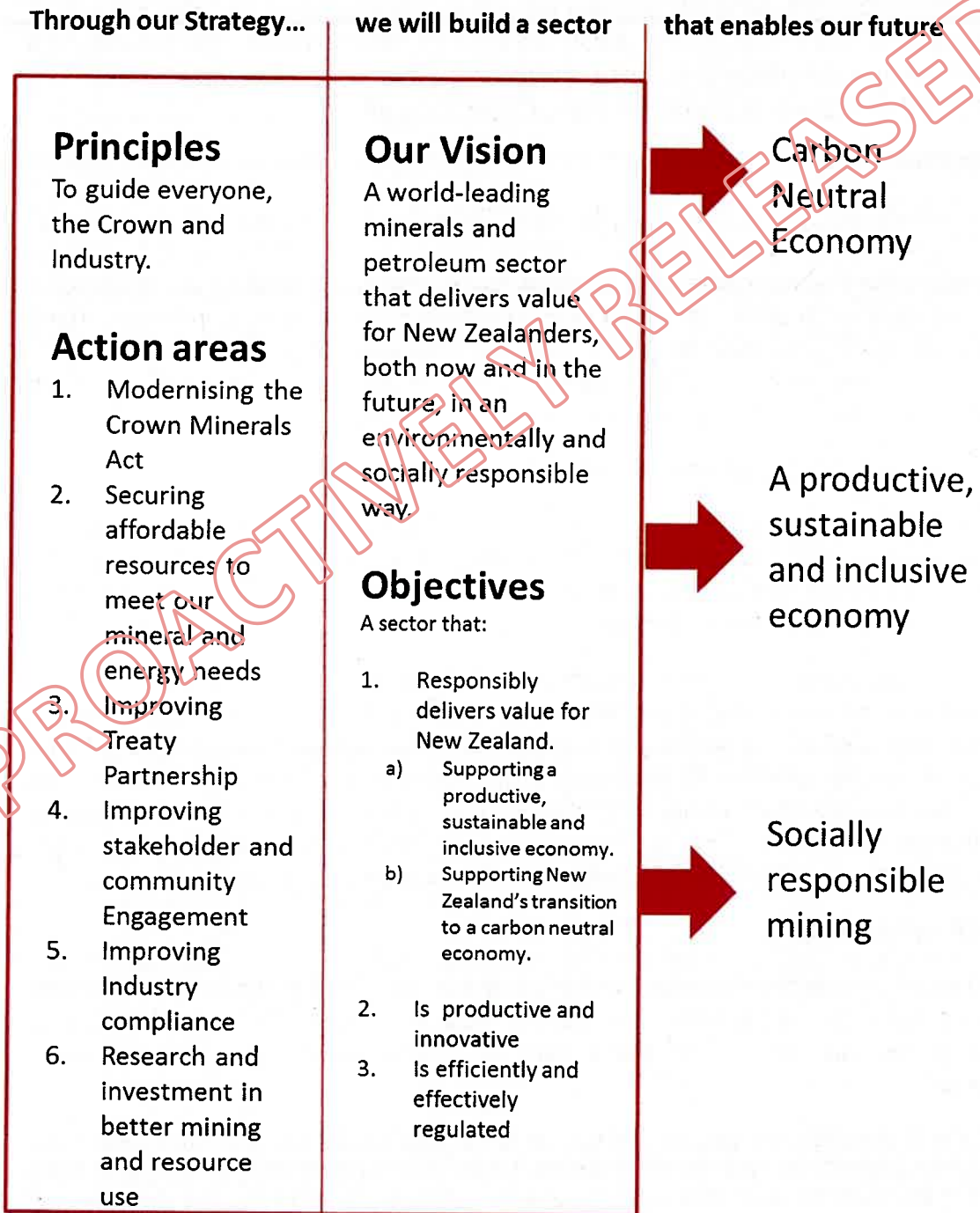
Social licence to operate exists when society trusts that a business or industry is conducting itself in a legitimate, accountable, and socially responsible way. When social licence to operate is lost, an industry can find it hard to continue operating due to community resistance.

More New Zealander's are becoming aware of the impact fossil fuels and mining can have on the environment, as well as the interests Māori have in protecting certain land from mining. If the minerals and petroleum sector is to continue providing the raw materials we need to sustain and grow our economy, we need to acknowledge and address society's evolving expectations.

¹ Source: Statistics New Zealand.

Overview of the Strategy

Responsibly delivering value



Overview of the Strategy

Principles

Principles to guide everyone (including the Crown and Industry):

1. The environment, ecosystems, and biodiversity are respected now and in the long term.
2. Maori cultural interests are understood and respected.
3. Support the transition to a carbon neutral economy by 2050, accounting not only for the domestic emissions balance, but also importation of carbon emissions in the form of products.
4. The impact on different communities, regions and the minerals and petroleum sector are managed in a just and inclusive way.
5. Support a circular economy by meeting resource needs through resource efficiency, recycling and reuse.

Principles for the Crown:

6. The Crown honours its duty towards Māori as a Treaty partner and adheres to the Principles of the Treaty of Waitangi.
7. The Crown receives a fair financial return for its minerals and petroleum.
8. The Crown regulates in a way that is fair, reasonable and proportionate.
9. The value of past and existing investments in the mining and extractives sector is taken into account when making decisions.
10. The Crown makes decisions based on the best evidence, and accounting for the foreseeable need for minerals and petroleum, both now and for future generations.
11. The Crown proactively engages and consults with relevant stakeholders and decisions are communicated in a clear and transparent way.

Principles for the Industry (notwithstanding Principles 1-7 above, and voluntary principles adopted by the Industry):

12. Pursue continuous improvements in health and safety.
13. Strive to implement industry best practice in their operations.
14. Seek innovative ways to improve the resource efficiency of extraction operations; and minimise the negative impacts of these operations.
15. Engage with stakeholders and implement management systems to understand and manage impacts, and realise opportunities for redress where needed.

Minerals enable our way of life

Our economy depends on minerals. We need to ensure we have an affordable and secured supply of the right minerals to support a productive, sustainable and inclusive economy both now and in the future.

Clean tech minerals

New Zealand needs to ensure it has the resources to support its transition to a low carbon economy.

Global demand for the minerals necessary to build low emissions technologies such as wind turbines and batteries are predicted to increase significantly. The World Bank predicts demand increases through 2050 for the following minerals: cobalt (585%), Copper (7%), Lithium (965%), Nickel (107%) and Rare Earth element (37%).

Gold

It's been used in jewellery and as currency for centuries.

It's an efficient conductor and non-tarnishing which makes it ideal in electronic goods. It is also used in healthcare: it's used as dental fillings and crowns, and also is an important part of some cancer treatments.

Silver

Used in virtually every electronic device because it is one of the best thermal and electrical conductors. It has a very important role to play in the production of solar cells.



Industrial Minerals

Windows require silica sand, concrete requires pumice, limestone is a key component in the production of cement and bricks need clay.

Aggregates

Houses, roads, bridges, and buildings would not exist without aggregates. The crushed rock is expensive to transport (the cost of aggregate doubles in the first 30km of transport) which is why it is important that quarries are located near their end uses.

Thermal Coal

Thermal coal is currently used for power generation at Huntly, and other industrial processes, including the manufacturing of cement which is critical to the construction industry. A small percentage of thermal coal is still used in the generation of heat for commercial and residential purposes. Lignite coal is low grade and is often used for drying timber and dairy processing.

Coking Coal and Iron Sands

Steel is used in many things such as railroads, bridges, and buildings. To create steel, you need carbon and iron. Both things New Zealand has in the form of iron sands and high quality coking coal. There is currently no commercially viable alternative to making new steel at scale without coal in the production of steel.

Current uses of Oil and Gas

Oil and gas provided around 53% of our energy needs in 2017. As we transition to a low carbon economy, its contribution to our energy needs will diminish, but there will be some uses that will not be replaced.

Energy (Natural Gas)

Gas is used for electricity generation, cooking and heating. In 2018, gas constituted 21% of our primary energy supply.

It also produces around half the CO² emissions of coal and can support the transition towards a low carbon economy.

Gas plays an important supporting role to our renewable electricity system, especially when hydro lakes are low.

Methanol

45% of New Zealand's gas is used in the production of methanol. Methanol is used as a feedstock to produce chemicals such as acetic acid and formaldehyde, which in turn are used in products like adhesives, foams, plywood subfloors, solvents and windshield washer fluid. It can also be used as a clean burning fuel – it has been widely applied as a marine fuel.

Fertilizer

Plants need nitrogen to survive. New Zealand produces Urea at Kapuni in Taranaki, which is an inexpensive form of nitrogen fertilizer. It is produced from natural gas, sourced from the Maui gas field. Petroleum by products can also be used as fertilizer.



Household uses

Petroleum by-products feature in everyday products such as:

- Combs
- Toothbrushes
- Soap
- Aspirin
- Crayons
- Cameras
- Refrigerators
- Toilet seats
- Candles

Transport

It took 231 Petajoules of oil to power New Zealand's transport needs in 2017. That's 37 million barrels of oil.

Looking ahead, hydrogen and electric powered vehicles will increasingly play a role in New Zealand's transport system.

Clothing

Acrylic is lightweight, soft, warm and wool-like. Polyester is strong and resistant to stretching and shrinking. Nylon repels water. Spandex can stretch without pilling or building up static. All these materials that feature in some of our clothes are petroleum by-products.

Current mining and petroleum extraction in NZ

Gold and Silver

In 2017, 330,000 ounces of gold (valued at \$580 million) and 260,000 ounces of silver (valued at \$6 million), were produced from two large hard rock mines, and a number of smaller alluvial gold mines around the South Island.

Quarrying

In 2017, over 41,000 tonnes of aggregate, building stone and limestone was produced. Approximately 1800 quarries sites (1100 active) operate across NZ. They range from large scale to single person operations.

Coal

In 2018, we had 17 operating coal mines that produce 3.2 million tonnes of coal. 1.2 million tonnes was exported as coking coal used in steel. The Glenbrooke steel mill is our largest domestic user of coal.

Ironsand

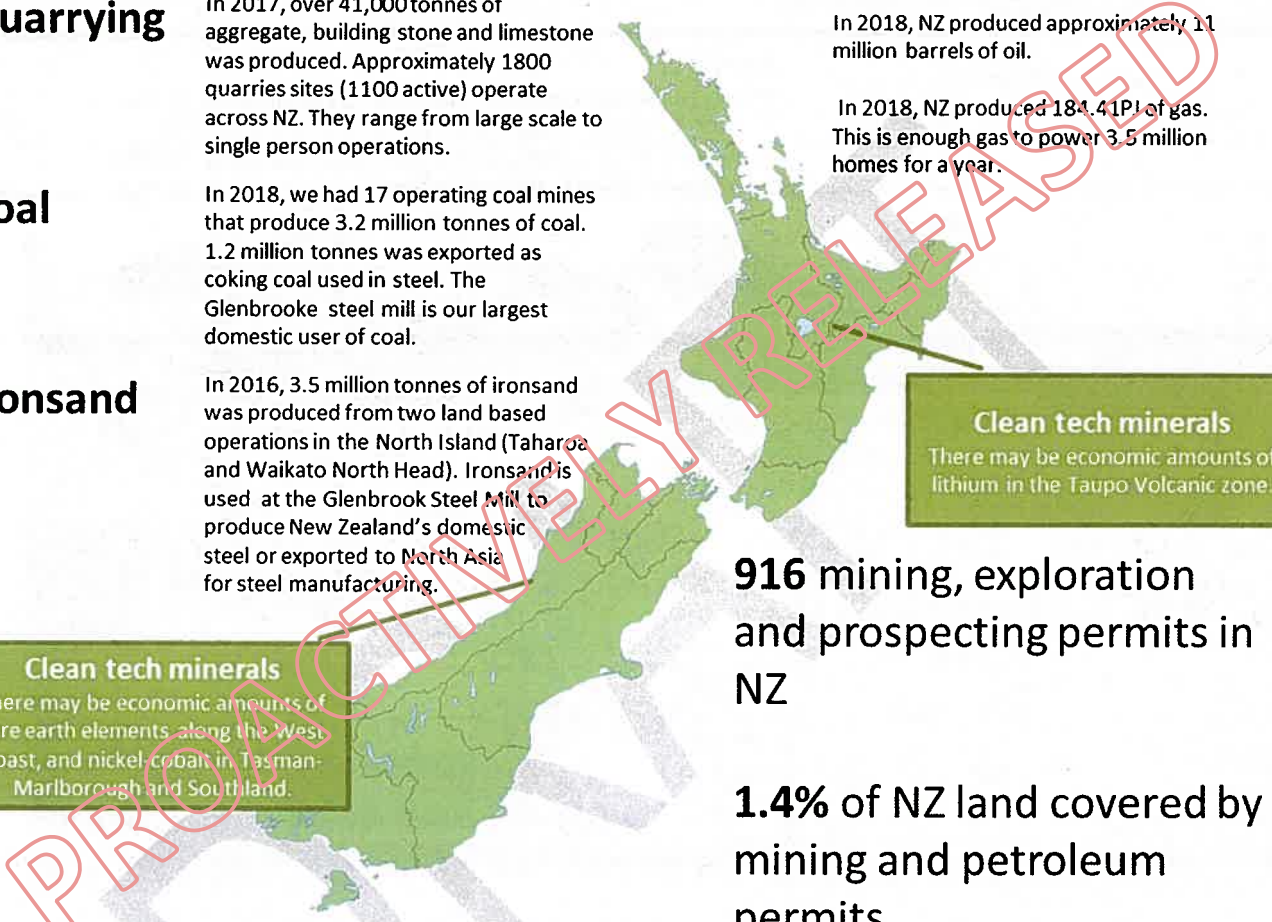
In 2016, 3.5 million tonnes of ironsand was produced from two land based operations in the North Island (Taharoa and Waikato North Head). Ironsand is used at the Glenbrook Steel Mill to produce New Zealand's domestic steel or exported to North Asia for steel manufacturing.

Oil and Gas — since its discovery in 1959, it has played a huge role in NZ. Most of it lies in offshore Taranaki. Over the last decade, oil and gas has generated more than \$3.5 billion in royalties for the Crown.

We currently have 27 fields producing in NZ.

In 2018, NZ produced approximately 11 million barrels of oil.

In 2018, NZ produced 184.41PJ of gas. This is enough gas to power 3.5 million homes for a year.



Clean tech minerals
There may be economic amounts of rare earth elements along the West Coast, and nickel cobalt in Tasman-Marlborough and Southland.

Clean tech minerals
There may be economic amounts of lithium in the Taupo Volcanic zone.

916 mining, exploration and prospecting permits in NZ

1.4% of NZ land covered by mining and petroleum permits

Mining Techniques Practiced in New Zealand

Hobby mining	Underground mining	Quarries	Alluvial Mining	Open pit/open cast
Small (non-commercial) activities which often involves hand held equipment (such as a riffle box and sieve). Generally hobby miners are looking for gold, and they have minimal environmental impact, thereby not requiring rehabilitation.	Mining that occurs underground as opposed to on the surface. Used to reach gold, silver, and coal. Surface rehabilitation is limited due to minimal impacts on the surface.	Quarries are surface operations that extract non-coal or non-mineral resources such as aggregates (such as gravel) and sand. Quarries employ open pit/open cast mining techniques. Rehabilitation depends upon the impact of a quarry, but most quarries in NZ are small and require minimal rehabilitation.	The extraction of minerals (with a pump or machinery) from sediments such as sand or gravel. Commonly used in NZ for gold, iron sand and garnet. Rehabilitation depends upon the area, but is generally limited to the extracted area (replanting) and the supporting works (such as access ways and storage areas)	Heavy machinery is used to dig a pit to access and extract a mineral deposit. Blasting may be used to fracture rock to make excavation easier. Generally used in NZ for gold and coal. Rehabilitation generally involves refilling the pit with removed earth. The pit might also be transformed into a lake.

The Minerals and Petroleum Regulatory Regime

Minerals and Petroleum activities in New Zealand are regulated by a series of separate pieces of legislation and government agencies. The separation in the statutory framework between powers and functions was designed to ensure independence, transparency and accountability and minimise potential conflict between the Crown's dual roles as resource owner and as regulator.

The Crown as a resource owner

The Crown has exclusive ownership of all gold, silver, petroleum, and uranium existing in its natural condition in land, and owns about half of the coal, metallic and non-metallic minerals, industrial rocks and building stones. The Crown also has vested rights to all minerals in the Exclusive Economic Zone (EEZ) and extended continental shelf.

The Crown as a regulator

The Crown regulates all minerals and petroleum activities that occur in New Zealand. It does this through several pieces of legislation and regulations, which together operate as a system of checks and balances across the "four capitals" (natural, human, social and financial²), which contribute to our wellbeing.

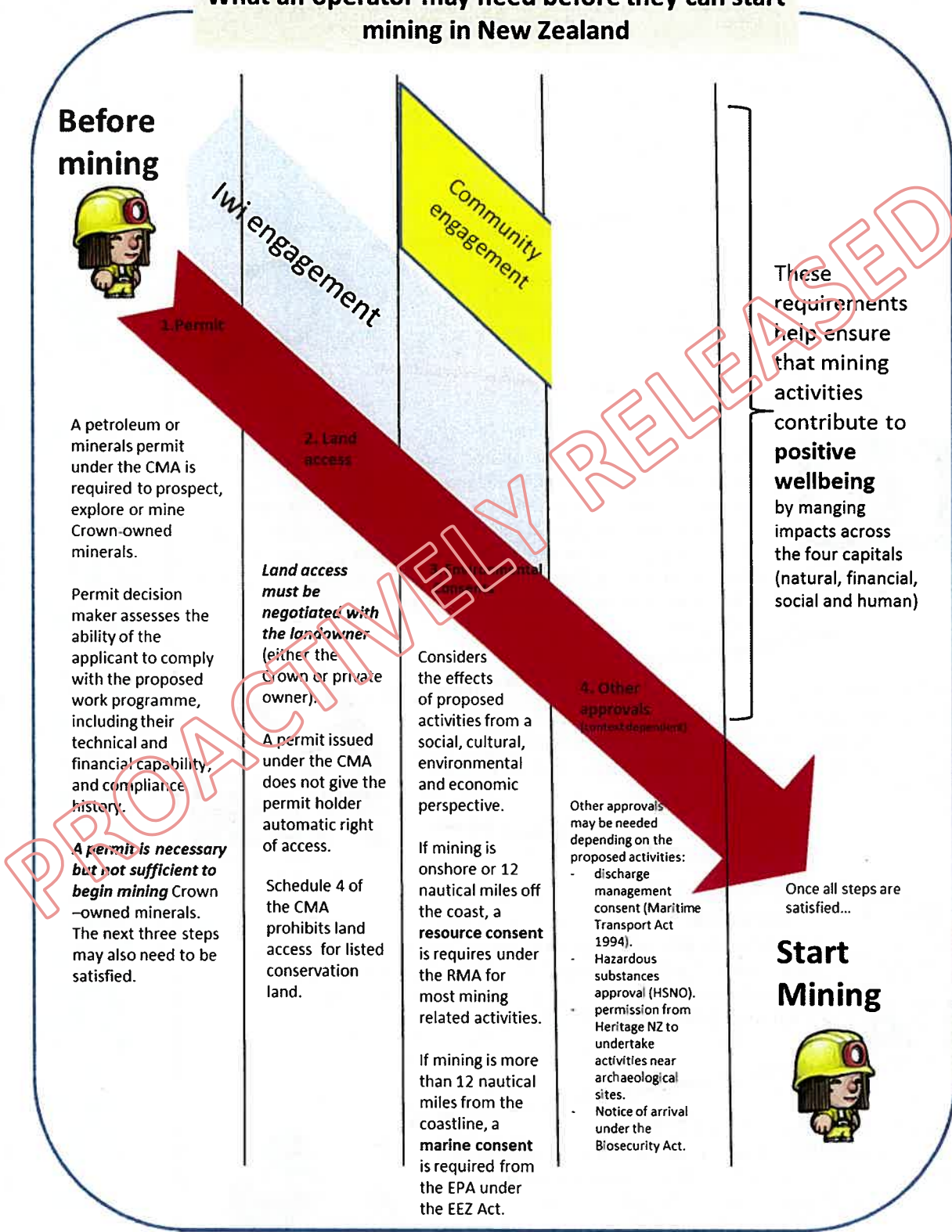
The diagram on the next page shows how the regulatory system governing minerals and petroleum in New Zealand accounts for the broader dimensions of wellbeing (natural, human, social and financial capital).

² The Treasury's Living Standards Framework.

How the minerals and petroleum regulatory system accounts for broader dimensions of wellbeing

HUMAN CAPITAL	SOCIAL CAPITAL
	<p>Heritage New Zealand Pouhere Taonga Act 2014 An operator will need to obtain an archaeological authority from Heritage NZ if an archaeological site may be affected by petroleum and minerals activities.</p>
	<p>Marine and Coastal Area (Takutai Maori) Act 2011 Before an applicant may lodge an application that relates to a right conferred by a customary marine title (CMT) order or agreement, the permit applicant must notify and seek views from applicant group who have applied for a CMT over the area.</p>
<p>Health and Safety at Work Act 2015 (HSWA) Under the HSWA all permit holders are required to maintain safe working environments and implement sound practices.</p>	<p>RMA 1991 The public are able to provide input into the resource consent process for most mining activities that are considered to have more than a minor adverse effect on the environment.</p>
<p>CMA 1991 When granting a permit the Minister must be satisfied that the work programme is consistent with good industry practice. A high level health and safety capability assessment is carried out before granting a Tier one permit.</p>	<p>CMA 1991 When granting a permit the Minister is required to have regard to the principles of the Treaty of Waitangi. Schedule 3 of the Minerals Programme for Minerals (Excluding Petroleum) 2013 and chapter 3 of the Minerals Programme for Petroleum 2013 lists land that is of particular importance to the mana of iwi or hapu and must not be included in a permit.</p>
<p>CMA 1991 When granting a permit the Minister must be satisfied that the work programme is consistent with the purpose of the Act. Royalties are set to ensure "a fair financial return for the Crown".</p>	<p>CMA 1991 Schedule 4 provides for the protection of the surface of high value conservation land, such as National Parks, from all but minimum impact exploration and mining activity, by limiting access to it.</p>
	<p>RMA 1991 The RMA regulates the environmental effects of mineral and petroleum activities on land and within the territorial sea. Resource consents, if required, will impose conditions to avoid, remedy, or mitigate adverse effects of the proposed activity on the environment.</p>
	<p>DOC is responsible for protected species under the Wildlife Act 1953, and Marine Mammals Protection Act 1978, Conservation Act 1987.</p>
	<p>EEZ Act Under the EEZ Act the EPA manages the environmental effects of petroleum and minerals activities beyond the territorial sea. A marine consent is required from the EPA for those activities not permitted in the regulations.</p>
	<p>Other Acts Biodiversity Act 2002, Hazardous Substances and New Organisms Act 1996 and Maritime Transport Act 1994.</p>
FINANCIAL CAPITAL	NATURAL CAPITAL

What an operator may need before they can start mining in New Zealand



The Mining Lifecycle

Below depicts the lifecycle of a mine from start (prospecting) through to end (rehabilitation)

1



Prospecting (locating targets)

Prospecting is often the very first stage in the search for mineral deposits. It includes low impact work such as desktop studies, geological mapping, geophysical surveys and minimum impact sampling. There is either no or very little environmental impact.

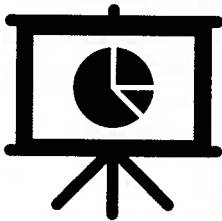
Exploration (defining targets)

Exploration is carried out in areas identified as possibly harbouring resources through the prospecting stage. It involves a more detailed search (through drilling and sampling) to determine if resource deposits are commercially viable..

2



3



Feasibility studies

When a potentially economic mineral resource is identified a company will carry out feasibility studies. Detailed engineering, financial, social and environmental studies will be undertaken. Iwi and stakeholder consultation will also occur at this stage. This stage can often include further drilling, sampling, geological modelling and resource and reserve estimation. It can also include possible mining designs, mining methods, production schedules and projected financial viability assessments.

Mine Development

Once feasibility studies are complete, and iwi and the community have been engaged, mine development can begin. The mining company will access the mining site and begin to construct mining infrastructure.

4



5



Production

If a resource discovered during the exploration phase is considered commercially viable, operators will begin the process to commercially extract minerals. This includes the extraction, transportation, distribution and sale of minerals.

Decommissioning and Rehabilitation

Once mining is completed mine infrastructure is removed and the mine site is remediated to the specifications outlined in the resource consent. This can involve the backfilling of pits, recontouring of pits and dumps and re-vegetation. It can also include the regular ongoing monitoring of the surrounding area to ensure the landform is safe and sustainable.

6



Up to 4 years

Up to 18 years

Up to 40+ years

Up to 3 years

Monitoring Ongoing

The Petroleum lifecycle

Below is depicted the petroleum (oil and gas) extraction lifecycle from start (prospecting) through to end (rehabilitation)

1



Allocation

The Crown allocates permits for petroleum exploration in the onshore Taranaki Basin. This allocation is done through a competitive process called Block Offer, which allows for competent petroleum exploration companies to obtain exploration permits. This process includes consultation with iwi, hapū and councils.

Exploration and Discovery

Once awarded an exploration permit, the permit holder explores for commercially recoverable reserves of oil and gas. Exploration activities can include seismic and geophysical surveys, desktop studies, drilling and other technical studies.

2



3



Appraisal

Once a discovery has been made appraisal drilling may be undertaken to better delineate the discovery. Economic feasibility studies are conducted to determine if the project is commercially viable. A petroleum mining permit may be granted over the forecast lifetime and area defining the field.

Development

Production wells are drilled and production facilities installed. This phase of a projects lifecycle is capital intensive, potentially costing billions of dollars. The development phase can require the employment of many people, normally with specialist skillsets, and can take many years to complete.

4



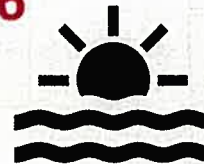
5



Production

Hydrocarbons are extracted and separated into oil, gas and water components. Production can continue for many years and depends on the size of the producing field. Production activities are normally run 24 hours a day 7 days a week, with very stringent health, safety and environmental requirements to detect, prevent and mitigate any failures which may occur. Oil and gas is then transported around the country with trucks or pipelines.

6



Decommissioning and Site Remediation

At the end of field life, production is no longer profitable and decommissioning commences. This typically includes well plugging and abandonment to seal any remaining hydrocarbons underground and prevent future contamination, the removal of production facilities and production related equipment and, site remediation. Restoration can include the ongoing monitoring of sites.



Up to 2 years

Up to 4 years

Up to 15 years

Up to 50+ years

Up to 3 years

Monitoring Ongoing

The Purpose of this Strategy

This Strategy sets the Government's vision for the minerals and petroleum sector over the next 10 years (2019-2029). It articulates objectives that build towards this vision. Achieving this vision requires collaboration across many groups. This Strategy articulates principles that should assist Government, iwi/hapū, industry and any other groups making decisions that affect the sector. Finally the Strategy contains action areas which the Government will focus on in the coming years.

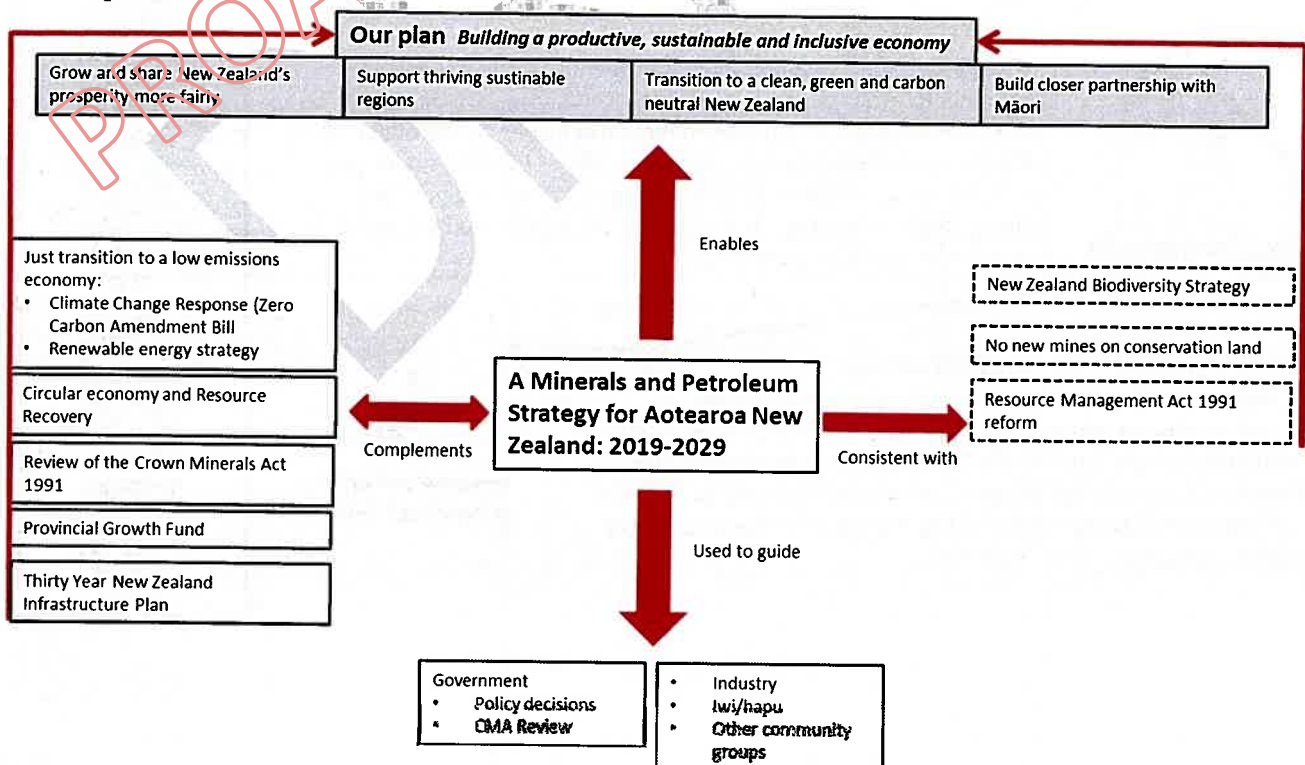
This Strategy will:

- Provide a shared vision and principles which can help all groups think through minerals and petroleum resource issues;
- Communicate the vision the Government has for the sector thereby giving certainty to industry and the wider public; and
- Inform future Government policy affecting the minerals and petroleum sectors.

Note that this Strategy will not:

- **Set future policies** - rather it provides the strategic vision and framework to which all future relevant policies will align, and
- **Revisit the Government's policy to limit new petroleum exploration permits to the onshore Taranaki region only** – this is a key step towards transitioning to a low emissions economy which is an aim of this Strategy.

How does the Strategy fit in with Government priorities?



This Strategy will help guide the development of the minerals and petroleum sectors. It informs the direction of future government policy, and encourages stakeholders to make decisions that align with this Strategy's vision for the sector. It contributes directly to the following priorities detailed in our "Our Plan" (the Government's priorities for New Zealand):

- **Grow and share New Zealand's prosperity more fairly** – The minerals and petroleum sectors will continue to generate Crown revenue through royalties and taxes for the foreseeable future. The Strategy also focuses on improving community engagement, which should help build a fairer minerals and petroleum sector through improved public participation in the regulatory process.
- **Support thriving, sustainable regions** – Mining will continue to create skilled jobs, particularly in the regions. Furthermore, the Strategy's focus on clean tech minerals may create new mining developments which will further contribute to the success of our regions.
- **Transition to a clean, green carbon neutral New Zealand** – The Strategy aims to create a minerals and petroleum sector that is more environmentally responsible and efficient. It also encourages planning now for the resources we will need in the future; to realise a clean green future, we will need clean tech minerals in particular to produce the technologies of the future.
- **Build closer partnerships with Māori** - One of the actions areas of this Strategy is to improve the Treaty partnership with Māori.

Complimentary Government Policies

The minerals and petroleum sector is deeply integrated within the wider economic system. Many parts of the economy rely on inputs from the minerals and petroleum sector (e.g. the energy system requires natural gas, and the construction sector requires aggregate), but these demands can vary based on practices such as recycling which reduces the need for new extraction of minerals.

Accordingly, there are several Government workstreams/strategies which interact with this Strategy in a complimentary way. They are complimentary in that they both seek changes in the economy which reinforce each other as they build towards a productive, sustainable, and inclusive economy.

Just Transition to a carbon neutral economy

This Strategy enables the changes intended by the Climate Change Response (Zero Carbon) Amendment Bill and the Renewable Energy strategy. To effectively transition, the minerals sector needs to provide the raw minerals necessary to produce clean technology such as batteries, solar panels and wind turbines.

This transition towards a low emissions economy needs to be a just one. Accordingly, fossil fuels (coal, petroleum, and gas) will continue to play a role in providing secure, affordable energy to New Zealand over the medium term. Fossil fuels will be phased out carefully over time, this was initiated with the Crown Minerals

(Petroleum) Amendment Act 2019, which put an end to the granting of new offshore oil and gas exploration permits.

Circular economy

The circular economy is about a systemic shift away from a 'take, make, dispose' economic model to an economy which maximises the use and reuse of the same resources as long as possible. As we progress towards a circular economy, increased recycling and resource efficiency will impact the demand on the minerals and petroleum sector for new materials. Accordingly, this Strategy and work on the circular economy will move in tandem.

Review of the Crown Minerals Act 1991 (CMA)

The government is currently undertaking a review of the CMA to ensure it is fit for purpose to meet the needs of New Zealanders. This Strategy will underpin this review and any amendments made to the CMA as a result of the review will ultimately support the vision of this Strategy.

Provincial Growth Fund

This Strategy encourages the development of innovative downstream applications which increase the value we receive from our extracted mineral resources. This complements the Provincial Growth Fund (PGF), which has an overarching goal of increasing productivity in the regions. The PGF also has a role to play in developing new economic opportunities in regions affected in the transition to a more socially and environmentally responsible minerals and petroleum sector.

Thirty Year New Zealand Infrastructure Plan

This Plan sets a vision that: "By 2045 New Zealand's infrastructure will be resilient and coordinated, and contribute to a strong economy and high living standards." Quality infrastructure is vital to New Zealand's economic and social well-being, but our transport and urban infrastructure needs to keep up with our population growth and increased demand. Minerals and materials such as aggregate and steel are important components of infrastructure such as roads, rail, schools and hospitals. This Strategy should ensure we have a secure and affordable supply of these resources in order to meet our future infrastructure needs.

Consistent Government Policies

The policies below are consistent with this Strategy.

No new mines on conservation land

The Government recognises the value of mining to New Zealand and the "no new mines on conservation land" objective is about making sure that mining is done in the right place, in the right way. A discussion document will be released in the coming months and feedback from the public will be sought. This Strategy will accommodate the final results of this policy.

National Biodiversity Strategy

The Department of Conservation is currently developing a biodiversity strategy reflecting the central importance biodiversity plays to this Government's wellbeing agenda (due December 2019). This Strategy has a focus on minimising the negative environmental impacts of mining so is consistent with the National Biodiversity Strategy.

Resource Management Act 1991 Reform

The Government is currently reforming the RMA so that it better supports a more productive sustainable and inclusive economy and is easier for New Zealanders to understand and participate in. The RMA plays a key role in mining operations (RMA consent is required before mining activity can begin), and any changes to the RMA will be accommodated in this Strategy.

The Strategy

Our vision:

A world-leading minerals and petroleum sector that delivers value for New Zealanders, both now and in the future, in an environmentally and socially responsible way.

Objectives for the Sector

To achieve our vision, we will aim to build a sector that:

1. Responsibly delivers value for New Zealand.

Our minerals and petroleum sector needs to deliver value to New Zealand in a way that maximises wellbeing across the four capitals (natural, social, human and financial). Value in this context also includes:

- *Supporting a productive, sustainable and inclusive economy.* This can be achieved through the provision of secured and affordable energy and minerals, employment opportunities, export opportunities, and royalties for Crown owned minerals. Inclusion also means that extraction occurs in a way that respects Maori and wider community interests.
- *Supporting New Zealand's transition to a low emissions economy.* The minerals sector has a significant role to play in providing the minerals necessary to build low emission technologies such as batteries and wind turbines.

2. Is productive and innovative.

A productive and innovative minerals and petroleum sector is key to getting the most value out of our resources. Competition within the sector drives efficiency, and innovation drives productivity through high-value applications, and efficient operating processes.

3. Is efficiently and effectively regulated.

In the context of the minerals and petroleum sector, the regulatory system balances impacts across the four capitals to ensure that mining activity contributes to wellbeing. It is important however this regulatory system is efficient and effective: it needs to minimise the costs to business competitiveness and innovativeness, while ensuring that regulations are complied with.

How will we achieve our vision?

Achieving our vision will require action from many groups in New Zealand. The Government will play its part by focusing on the following areas:

Action areas	What objective does it contribute to?
Modernising the Crown Minerals Act	1,2, and 3
Securing affordable resources to meet our minerals and energy needs	1
Improving Treaty Partnership	1, and 3
Improving Stakeholder and Community Engagement	1 and 3
Improving Industry Compliance	3
Research and investment in better mining and resource use	1 and 2

PROACTIVELY RELEASED

Guiding Principles

This Strategy does not prescribe all the actions that will build towards our vision for the minerals and petroleum sector. Achieving our vision will require action across Government, Treaty partners, industry and other stakeholders. The following principles should help guide action that will occur in the sector:

The following principles should guide everyone (including the Crown and Industry):

1. The environment, ecosystems, and biodiversity are respected now and in the long term.
2. Maori cultural interests are understood and respected.
3. Support the transition to a carbon neutral economy by 2050, accounting not only for the domestic emissions balance, but also importation of carbon emissions in the form of products.
4. The impact on different communities, regions and the minerals and petroleum sector are managed in a just and inclusive way.
5. Support a circular economy by meeting resource needs through resource efficiency, recycling and reuse.

The following principles apply specifically to the Crown:

6. The Crown honours its duty towards Māori as a Treaty partner and adheres to the Principles of the Treaty of Waitangi.
7. The Crown receives a fair financial return for its minerals and petroleum.
8. The Crown regulates in a way that is fair, reasonable and proportionate.
9. The value of past and existing investments in the mining and extractives sector is taken into account when making decisions.
10. The Crown makes decisions based on the best evidence, and accounting for the foreseeable need for minerals and petroleum, both now and for future generations.
11. The Crown proactively engages and consults with relevant stakeholders and decisions are communicated in a clear and transparent way.

The following principles are recommended to guide the Industry (notwithstanding Principles 1-5 above, and voluntary principles adopted by the Industry):

12. Pursue continuous improvements in health and safety.
13. Strive to implement industry best practice in their operations.
14. Seek innovative ways to improve the resource efficiency of extraction operations; and minimise the negative impacts of these operations.
15. Engage with stakeholders and implement management systems to understand and manage impacts, and realise opportunities for redress where needed.

Action areas

Building a minerals and petroleum sector that meets our vision requires collaboration across many groups in New Zealand. This Strategy identifies six action areas where the Government can make a significant contribution towards this Strategy's objectives. Under each action, we note specific actions that we have completed within the past 12 months, actions we are currently undertaking, and actions we are going to take in the future. Note, however, that these future actions (unless otherwise stated) are indicative only and are subject to future resourcing and policy decisions.

	Completed actions	Current actions	Future actions
Action Area 1: Modernising the Crown Minerals Act	<ul style="list-style-type: none"> Implemented the Crown Minerals (Petroleum) Amendment Bill 2018. 	<ul style="list-style-type: none"> Review of the Crown Minerals Act 1991. 	<ul style="list-style-type: none"> 'No New Mines on Conservation Land' objective. <p>[list of future actions will be informed by public consultation]</p>
Action Area 2: Securing affordable resources to meet our minerals and energy needs	<ul style="list-style-type: none"> Minerals Potential Studies (lithium, rare earth elements, and nickel-cobalt). Regional aeromagnetic and large scale geochemical soil sampling. 	<ul style="list-style-type: none"> Studies into the lithium potential of the Taupo Volcanic Zone. Field reviews focusing on our gas reserves. Improving our systems to make geoscience data more accessible. 	<p>[list of future actions will be informed by public consultation]</p>
Action Area 3: Improving Treaty Partnership	<ul style="list-style-type: none"> Strengthened iwi engagement conditions for Block Offer petroleum exploration permit holders. Improving communication when site visits occur. 	<ul style="list-style-type: none"> Supporting iwi engagement with Government on minerals permitting decisions. Identifying ways to improve engagement between iwi and permit holders. Reviewing iwi engagement as part of the CMA review. 	<p>[list of future actions will be informed by public consultation]</p>
Action Area 4: Improving community and stakeholder engagement	<ul style="list-style-type: none"> Participated in One Window pilot 	<ul style="list-style-type: none"> Consulting with the public on the Resource Strategy and the CMA Review Improving our resource management system. 	<p>[list of future actions will be informed by public consultation]</p>

	Completed actions	Current actions	Future actions
Action Area 5: Improving industry compliance	<ul style="list-style-type: none"> • The Regulators Update newsletter • Established a dedicated Compliance Team. • Undertook a site visit push. 	<ul style="list-style-type: none"> • Improving annual reporting tools. • Improving and developing better guidance tools. 	[list of future actions will be informed by public consultation]
Action Area 6: Research and Investment in Better Mining and Resource Use	<ul style="list-style-type: none"> • Established the New Zealand Institute of Minerals and Materials Research (NZIMMR). • Mine Environment Life Cycle Guides. 	<ul style="list-style-type: none"> • Plan for a circular economy / āhanga āmiomio. 	[list of future actions will be informed by public consultation]

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Action Area 1:

Modernising the Crown Minerals Act

The Crown Minerals Act 1991 (CMA), associated regulations and the wider legislative regime (such as the Resource Management Act 1991) set the regulatory framework which governs the minerals and petroleum sectors in New Zealand. It will play a role in setting the direction of the sector and in supporting the no new mines on conservation land objective. Given the demands of a rapidly changing energy system, and New Zealand's transition towards a low emissions economy, our needs from the minerals and petroleum sectors are constantly changing. As the demands on the sector changes, so too must the regulatory system respond and adapt to ensure the sector is best placed to meet these demands.

What do we aim to achieve?

- The CMA reflects the Government's no new mines on conservation land objective.
- The CMA will be fit for purpose and responsive to changes in the sector;
- The regulatory system will help build towards Our Vision for the sector; and
- The regulatory system will build towards all objectives of the Strategy.

Completed actions:

- Implemented the Crown Minerals (Petroleum) Amendment Bill 2018.

Current actions:

- Review of the Crown Minerals Act 1991.

Future actions

- 'No New Mines on Conservation Land' objective.
- [list of future actions will be informed by public consultation]

Completed actions

Implemented the Crown Minerals (Petroleum) Amendment Act 2018

On 12 April 2018, the Government took an important step towards addressing climate change and creating a clean, green and sustainable future for New Zealand: it announced that there would be no further offshore oil and gas exploration permits granted. It further limited new petroleum exploration and mining permits to the onshore Taranaki region only. This announcement did not however impact existing rights.

In order to implement this announcement, officials began Tranche One of the CMA Review. Tranche One recommended changes, which were ultimately included in the Crown Minerals (Petroleum) Amendment Act 2018.

Current actions

Review of the Crown Minerals Act 1991

Tranche One of the CMA review and the resulting Crown Minerals (Petroleum) Amendment Act 2018 made only those changes necessary to implement the 12 April 2018 announcement. In November 2018, the Government kicked off Tranche Two of the CMA Review. Unlike Tranche One, Tranche Two will provide an in-depth look into the issues affecting the CMA – to ensure it is fit for purpose to meet the needs of all New Zealanders.

Tranche Two is currently being progressed by the Ministry of Business, Innovation and Employment (MBIE). The Government will soon release a Terms of Reference governing Tranche Two.

The following components will be explicitly addressed by Tranche Two:

- The fundamental role of the CMA and purpose statement;
- Land access arrangements;
- Non-interference provisions;
- Liability and financial assurance;
- Compliance tools;
- Iwi engagement and community participation;
- Petroleum permitting; and
- Technical amendments.

We have engaged our Treaty partners, as well as industry and other relevant stakeholders to inform the review. A discussion document on the CMA review will be out for public consultation in late 2019, once the Strategy has been finalised.

Future actions

'No New Mines on Conservation Land' objective

On November 8 2017, the Government announced that there would be no new mines on conservation land. The details on this policy are being considered. A discussion document is expected to be released in the coming months that will seek feedback from the minerals and petroleum sector, iwi, local government, environmental and community groups, and the wider public on the details of the policy.

Changes to the CMA will be required to implement this policy.

Action Area 2:

Securing affordable resources to meet our mineral and energy needs

New Zealand's reserves of minerals, oil and gas are valuable national assets offering unique opportunities for economic growth and securing our supply of affordable energy. Our understanding of the complete stock of our resources is, however, incomplete. It is important that we build this knowledge base as it informs many of the choices we will confront in the future. An understanding of the complete stock of New Zealand's resources will enable better nationwide spatial planning, so mining of available deposits can occur where it has minimal negative impact. In particular understanding New Zealand's potential of clean tech minerals is valuable as they are essential to support a transition to a low emissions economy. Looking ahead, New Zealand's resource needs will change. We need to understand whether these needs can be met from our own resource base, can be met by recycling resources, or whether we need to provide for these needs in alternative ways.

What we aim to achieve?

- Understand the stock of strategic resources in New Zealand
- Understand New Zealand's potential for clean tech minerals;
- Be able to more accurately value our resource base; and
- Understand the current and future market for our resource, both domestically and internationally
- Ensure a secure and affordable supply of resources such as aggregate.

Completed actions

- Mineral Potential Studies (lithium, rare earth elements, and nickel-cobalt).
- Studies into the lithium potential of the Taupo Volcanic Zone.

Current actions

- Regional aeromagnetic and large scale geochemical soil sampling.
- Field reviews focusing on our gas reserves.
- Making our geoscience data more accessible.

Future actions

- [list of future actions will be informed by public consultation]

Completed actions

Mineral Potential Studies (lithium, rare earth elements, and nickel-cobalt)

In mid-2018, an MBIE commissioned minerals potential study was completed by GNS Science. It revealed lithium potential in the central North Island and the Hohonu Range on the West Coast of the South Island, nickel-cobalt potential in Nelson-Tasman-Marlborough and Southland regions while rare earth element potential exists on the West Coast.

Understanding our stock of these minerals is crucial: clean technology is going to be become more important both in New Zealand and globally, and we need to understand whether we have the minerals needed to capitalise on these technologies. This study is a first step.

Studies into the lithium potential of the Taupo Volcanic Zone

GNS Science (commissioned by MBIE) is currently undertaking a study of the Taupo Volcanic Zone (TVZ). Results so far suggest that there may be economic grades of lithium in the TVZ, particularly around Ohaaki.

Current actions

Regional aeromagnetic and large scale geochemical soil sampling

In Budget 2014, the Government invested \$8 million into a resource data acquisition and management programme. As part of this work, significant parts of New Zealand have been surveyed using aeromagnetic and geochemical soil sampling techniques. These areas include significant areas of the South Island and

Northland. 75% of this programme is already complete.

This information helps us to better understand the potential minerals endowment in these regions. Aeromagnetic data also provides benefits for geological mapping, forestry, agriculture and horticulture, ground water resources, geological hazard assessment, and engineering and construction investigations.

Field reviews focusing on our gas reserves

Field reviews involve working with gas field operators, and auditing their accounts to understand how they are managing their fields. Through these engagements, we get a better understanding of:

- Operators' baseline production information, and
- Remaining gas reserves.

This information helps us understand our gas supply. These reviews also help to improve the value of these operations as NZP&M help assist operators in implementing international best practice. By increasing the productivity of these ventures, the Crown also maximises the royalties it receives from these gas operations.

Improving our systems to make geoscience data more accessible

[text to come]

Future actions

- [list of future actions will be informed by public consultation]

Action Area 3:

Improving Treaty Partnership

Kaitiakitanga underpins the Māori relationship to the natural world: it denotes the ancestral obligation Māori have collectively to sustain, guard, maintain, protect and enhance mauri (the life giving force of an ecosystem). If Māori are to fulfil this obligation, they must be able to voice their concerns, and be enabled to take an active role in the management of their land as mana whenua. This is particularly important in the minerals and petroleum sector due to the potential impacts mining activities can have.

Improving the Māori-Crown partnership is a key step towards safeguarding Māori interests in their rohe (tribal area). As a signatory to the Treaty of Waitangi, the Crown owes a duty to Māori to honour that partnership, and the Crown is committed to improving that partnership.

What do we aim to achieve?

- Clarity within the minerals and petroleum sector regarding the role of Māori, the Industry, and the Crown's obligation as a Treaty partner;
- Early and proactive engagement with Treaty partners, in line with Te Arawhiti's frameworks and guideline; and
- Consideration of Māori interests in decision-making processes.

Completed actions

- Strengthened iwi engagement conditions for Block Offer petroleum exploration permit holders.
- Improving communication when site visits occur.

Current actions

- Supporting iwi engagement with Government on minerals permitting decisions.
- Identifying ways to improve engagement between iwi and permit holders.
- Reviewing iwi engagement as part of the CMA review.

Future actions

- [list of future actions will be informed by public consultation]

Completed actions

Strengthened iwi engagement conditions for Block Offer petroleum exploration permit holders

The iwi engagement conditions of petroleum exploration permits have been strengthened compared to past years. Previously, permit holders were only obliged to notify iwi. As part of the conditions of Block Offer 2018, permit holders are now obligated to engage with iwi and hapū on an ongoing basis and in a positive, fair and constructive manner, with a strong preference for kanohi ki te kanohi (face to face interactions). There is also a specific requirement to engage iwi 20 working days prior to permit holders undertaking activities within 200 meters of significant sites such as wāhi tapu.

Improved communication when site visits occur

As part of ensuring compliance with the regulatory system, NZP&M undertakes random site visits of permit holders around the country. Recognising the status of iwi/hapū as mana whenua, NZP&M now reports the results of these visits when they occur in their rohe. Any particular issues which may be of interest to iwi/hapū are highlighted in these reports.

Current actions

Supporting iwi engagement with Government on minerals permitting decisions

Iwi and hapū can find it difficult to engage with the full range of issues that come to them from local and central government.

Accordingly, we are thinking about ways to support iwi in meeting these engagement demands.

The Minerals Programme (issued under the CMA) details the Crown's obligations towards Maori in respect to minerals permits. Depending upon the type of permit or change application, the Programme sets between 20 - 40 work days for iwi and hapū to comment on permits that affect their rohe.

Identifying ways to improve engagement between iwi and permit holders

Given the ongoing impact permit holders may have, it is important that they engage effectively with affected iwi and hapū. Effective engagement by a permit holder can improve their reputation within the local community. It can also benefit the permit holder through access to 'on the ground' knowledge that iwi and hapū have accumulated over generations of living on the land.

Reviewing iwi engagement as part of the CMA review

[text to come]

Future actions

- [list of future actions will be informed by public consultation]

Action Area 4:

Improving Community and Stakeholder Engagement

Effective and genuine engagement of stakeholders and our wider communities is key to building the minerals and petroleum sectors social licence to operate. We need to explore ways to improve genuine engagement, so that communities can better input into decisions and policies that impact them. We also need to inform our communities about the CMA and the wider regulatory frameworks so that they can more effectively contribute their views. More can be done to improve the public's understanding of the negative impacts, and the value of mining in New Zealand. Through a more engaged and informed public, communities can better input into the decisions that affect them, and the sector can better understand community attitudes, which helps to build socially responsible minerals and petroleum sectors.

What do we aim to achieve?

- Increased awareness of the value (positive and negative) that mining brings to our communities, and New Zealand as a whole;
- Our communities better understand the regulatory process governing mining;
- Trust that mining in New Zealand is occurring responsibly; and
- Better understanding of community values towards the development of our minerals and petroleum resources.

Completed actions

- Participated in One Window pilot.

Current actions

- Consulting with the public on the Resource Strategy and the CMA Review.
- Improving our resource management system.

Future actions

- [list of future actions will be informed by public consultation]

Completed actions

Participated in One Window pilot

As part of MBIE's commitment to regional development NZP&M participated in a pilot workshop, One Window, on the West Coast. This aimed to bring the different regulatory agencies together to engage with the mining community there, to educate on regulatory requirements and to improve the regulatory processes by reducing time and costs for mining permits.

Current actions

Consulting with the public on the Resource Strategy and the CMA Review

The Crown Minerals Act 1991 review and this Resource Strategy will have an effect on the minerals and petroleum sector going into the future. Accordingly, we have been engaging widely with iwi, industry, and the general public because we want to understand what is important to these groups. The feedback from these different groups is key to understanding the issues within the mining context, which in turn helps us devise ways to address and accommodate these concerns.

Improving our resource management system

The Government is currently undertaking a reform of the RMA to support a more productive, sustainable and inclusive economy and be easier for New Zealanders to understand and participate in. This will be a two-step process. The first step will aim to make the RMA less complex, give people more certainty on RMA issues and to increase public participation. The second step will be more fundamental in nature. The key principles guiding this reform include the need for local decision-making and meaningful public participation. Improvements to the RMA should enable more meaningful public participation throughout the RMA process, including during public notification of resource consents for mining activities.

Future actions

- [list of future actions will be informed by public consultation]

Action Area 5:

Improved Industry Compliance

The CMA and associated regulations set the regulatory framework which governs the minerals and petroleum sectors in New Zealand. It sits within a wider regulatory system (Resource Management Act 1991, Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act), and Health and Safety at Work Act 2015 (HSWA)) which manages a range of factors associated with the sector. Ensuring an effective, efficient and transparent compliance regime underpins the objectives and integrity of the regime.

What do we aim to achieve?

- The CMA compliance regime effectively and efficiently supports the three prongs of compliance activity, detection, investigation and incentivising compliance;
- The Crown is paid the revenue and fees that it is owed for the use of its resource, for the benefit of New Zealanders;
- The reputation of New Zealand as a responsible regulator is protected, and non-compliance is quickly detected and efficiently addressed across the entire minerals and petroleum regulatory regime (including the RMA, HSWA and the EEZ Act); and
- The regulatory regime is seen as fair, transparent, and proportional.

Completed actions

- Implemented the Regulators Update newsletter
- Established a dedicated Compliance Team
- Undertook a site visit push

Current actions

- Improved annual reporting tools
- Improving and developing better guidance tools.

Future actions

- [list of future actions will be informed by public consultation]

Completed actions

Implemented The Regulator's Update Newsletter

In March 2019, NZP&M issued its first edition of *The Regulators Update* newsletter. This newsletter makes it easier for permit holders to understand what they need to do to comply with the Crown Minerals Act, regulations and programmes. It provides helpful reminders regarding dates such as when annual summary reports are due, and provides a general update of what is happening in the sector. This newsletter is planned to be issued on a quarterly basis.

Established a dedicated Compliance Team

The need for a greater focus on ongoing compliance activities was identified as part of MBIE's ongoing improvement processes. MBIE restructured to form a dedicated compliance team in 2018 to carry out this work. The Compliance Team is made up of nine auditors, investigators and support staff, led by the National Compliance Manager. This ensures a dedicated resource is available to undertake these activities, and protects the integrity of the Crown Minerals regime.

Undertook a site visit push

To ensure adherence with the Crown Minerals regime, the Compliance Team undertook a push to visit sites across the country in early 2019. 69 site inspections were completed. This has led to a number of compliance actions being undertaken, as well as referrals to other regulators.

Current actions

Improving annual reporting tools

Annually, petroleum permit holders must submit data to NZP&M about their production. We are working to improve our processes around storing and using this information. We have already created a petroleum production database to collate annual summary returns (ASR) information in a searchable format. Making information easier to use provides us with a better understanding of petroleum production, and can also effectively alert us to when there are breaches of permit conditions.

Looking towards the future, we hope to integrate some of our historic information with our new data so as to give us a better understanding of our petroleum assets. We also hope to overlay this data with royalty information. This will further help insure that the Crown is receiving a fair financial return.

Improving and developing better guidance tools

NZP&M has published and refreshed a number of guidance tools on its website, to aid in understanding and fulfilling the requirements of the CMA. There are now 27 guidance items for the minerals sector, including a detailed video tutorial on how to submit an annual summary report online.

We have an ongoing programme of work to ensure there is up to date and relevant guidance available as part of our compliance activities.

Future actions

- [list of future actions will be informed by public consultation]

Action Area 6:

Research and Investment in better mining and resource use

We have an opportunity to research and invest in better mining and resource use practices. Better mining involves adopting practices to minimise the resource intensity of mining operations. It is also about exploring ways to minimise the environmental impact (and maximise rehabilitation potential) of mining. Better resource use is about unlocking higher value uses for our resources (moving up the value chain) and exploring efficiencies in our resource use and reuse. By investing in better mining and resource use we will ultimately minimise the impacts and maximise the value of mining in New Zealand.

What do we aim to achieve?

- Minimise the impacts mining can have on the environment;
- Increase the value we receive from our minerals resources through higher value uses;
- Improve the efficiency of mining; and
- Maximise the proportion of minerals being recycled.

Completed actions

- Established the New Zealand Institute of Minerals and Materials Research (NZIMMR).
- Mine Environment Life Cycle Guides

Current actions

- Plan for a circular economy / ōhanga āmiomio

Future actions

- [list of future actions will be informed by public consultation]

Completed actions

Established the New Zealand Institute of Minerals and Materials Research (NZIMMR)

The NZIMMR is a regional research institute based in Greymouth. It was founded in 2018, and funded by MBIE. Its mission is to research the sustainable use of the rich minerals resources of our lands under the guiding principles of Kaitiakitanga, in a time of cultural and environmental renewal.

The institute will conduct research that will facilitate value addition through minerals being transformed into materials. It is also concerned with minimising the impact on the environment, and all research will be monitored for environmental sustainability.

Mine Environment Life Cycle Guides (MELGs)

The MELGs build on previous minerals sector frameworks, and have been developed to assist the planning of future mine developments in New Zealand. The MELGs provide guidance for companies through operations to post-closure. The guides highlight innovations from New Zealand and abroad and provide guidance on state-of-the-art mine environment management practices. The economics of alternative environmental management options are also assessed. Engagement best practice (particularly with iwi) is also highlighted.

The MELGs were completed in 2018, and funded by the Science and Innovation Group within MBIE. They have been developed for different mine environments including: coal mining, epithermal gold, and mesothermal gold.

Current actions

Plan for a circular economy / ōhanga āmiomio

The circular economy is about a systemic shift away from a 'take, make, dispose' economic model which relies on large quantities of cheap, easily accessible materials and energy (increasingly recognised as unsustainable), to an economy that re-defines growth and focuses on human well-being and positive social and environmental benefits. It is about an economy that maximises the use from its current resources, rather than continuously extracting more from nature.

The idea of a circular economy provides an opportunity for the sector to identify opportunities to repurpose, reuse or recycle waste along the whole value chain. Some of this is already happening – for example waste rock can be used in landscaping or as aggregate in road construction, or sludge from acid rock drainage treatment, which is high in iron, can be sold commercially for use in pigments – but more could be done.

Achieving a circular economy will not happen overnight. It will require changing societal attitudes towards the lifecycle of products, incentivising businesses to innovate and adopt resource efficient processes, and a practical framework and policies to help guide businesses and consumers towards a circular economy.

The Ministry for the Environment, in collaboration with a range of stakeholders and other government agencies, is looking at opportunities for New Zealand to transition to a circular economy.

Future actions

- [list of future actions will be informed by public consultation]