

# Submitter information

The Ministry of Business, Innovation and Employment (MBIE) would appreciate if you would provide some information about yourself. If you choose to provide information in the "About you" section below it will be used to help MBIE understand the impact of our proposals on different occupational groups. Any information you provide will be stored securely.

## A. About you

Name:

Warren Batt

Email address:

Privacy of natural persons

## B. Are you happy for MBIE to contact you if we have questions about your submission?

Yes

No

## C. Are you making this submission on behalf of a business or organisation?

Yes

No

If yes, please tell us the title of your company/organisation:

Waikaia Gold Ltd

## D. The best way to describe your role is:

Academic/researcher/research institute

Independent expert (please specify below)

Community group (please specify below)

Business owner (please specify below)

Consultant (please specify below)

Environmental NGO (please specify below)

Tradesperson (please specify below)

Student (please specify below)

Industry group (please specify below)

Other (please specify below)

Industry participant (please specify below)

Prefer not to say

Please specify here:

Managing Director / substantial shareholder of 2 private alluvial mining companies.

Exploration geologist with over 50 years' experience in Australasia in search for base metals, gold and uranium.

Co-founding shareholder and director of Matakanui Gold (now a wholly owned subsidiary of Santana Minerals) .

Former director of 3 ASX listed mining and exploration companies.

Directly involved in discovery and/or development of hard rock and alluvial gold projects and mines in NZ with production and reserves/resources in excess of 12Moz gold.

**E. Privacy information**

- The Privacy Act 2020 applies to submissions. Please check the box if you do not wish your name or other personal information to be included in any information about submissions that MBIE may publish.
- MBIE may upload submissions, or a summary of submissions, received to MBIE's website at [www.mbie.govt.nz](http://www.mbie.govt.nz). If you do not want your submission or a summary of your submission to be placed on our website, please check the box and type an explanation below:

*I do not want my submission placed on MBIE's website because... [insert reasoning here]*

**F. Confidential information**

- I would like my submission (or identifiable parts of my submission) to be kept confidential and have stated my reasons and ground under section 9 of the Official Information Act that I believe apply, for consideration by MBIE.

If you have checked this box, please tell us what parts of your submission are to be kept confidential.

# A Draft Critical Minerals List for New Zealand

MBIE is developing a critical minerals list for New Zealand to identify the minerals that are:

- essential to New Zealand’s economy, national security, and technology needs, including renewable energy technologies and components to support our transition to a low emissions future; and/or
- in demand by New Zealand’s international partners to enable us to benefit from international economic opportunities, contribute to the diversification of global mineral supply chains and improve the pipeline of the end-use products for which these minerals are essential; and
- susceptible to supply disruptions domestically and internationally. In some instances, we rely on domestic sources of minerals, but the supply of these minerals can be constrained, for example by regulatory factors and social licence. Internationally, supply chain disruptions could arise due to geopolitical risks and external market forces.

Minerals play an essential role in New Zealand’s economic growth through high-paying jobs, Crown royalties, direct positive impact in the regions where mining takes place, and through export revenues. Minerals are also critical inputs into products that are necessary for other sectors to thrive, including the use of aggregates in construction and infrastructure.

Minerals are also essential to modern economies as they are needed to manufacture advanced technologies such as semi-conductors, defence applications and medical equipment. Minerals are also critical for a clean energy transition as low emission technologies requires more mineral inputs than those fuelled by fossil fuels.

The extraction and processing of the minerals essential to New Zealand and our international partners are concentrated in a few countries. Any disruption that interrupts operations at a large facility or group of facilities can have a major impact on supply availability, and therefore on prices. The greater the concentration of production the larger the affect a disruption can have.

In addition, New Zealand does not manufacture a wide range of technologies, we are generally an end consumer of many products produced internationally and rely on the functioning of international supply chains and their access to resilient supplies of minerals.

The development of a critical minerals list is one of the key actions identified in the draft Minerals Strategy that was publicly consulted on from 23 May – 31 July 2024. Due to the technical nature of the list, MBIE engaged a consultancy with specialist expertise, Wood Mackenzie, to support the development of the list.

We are seeking feedback on the content of the draft list that has been developed by Wood Mackenzie for New Zealand. It identifies the minerals that are critical to New Zealand and summarises the reason for their inclusion in the list. Once the list is finalised, actions could be identified to help us reduce the ‘criticality’ of those minerals, i.e., secure better access to them.

Please see the draft Critical Minerals List attached below for more information.

## Questions for the consultation

### 1. Have we missed the inclusion of any mineral(s) on the draft Critical Minerals List?

Yes, (please provide more details below)  No, the list is okay.  Not sure/no preference  
Is there anything you would like to tell us about the reason(s) for your choice?

The draft Critical Minerals List for New Zealand outlines minerals that are essential to the country's economy, national security, and technology needs. It includes minerals that are crucial for renewable energy technologies and components necessary for transitioning to a low emissions future. Additionally, the list identifies minerals that are in demand by international partners, which can help New Zealand benefit from global economic opportunities and diversify global supply chains. The list also considers minerals that are susceptible to supply disruptions due to domestic regulatory constraints, global supply shortages, or geopolitical risks.

Gold has erroneously been excluded from the draft Critical Minerals List whilst meeting all the criteria set out. The contribution of gold to New Zealand's economy is significant, and with only a fixed and limited range of locations available for gold extraction across the country, it is essential that gold is recognised as being a critical mineral. Gold meets the criteria set out in the draft Critical Minerals List as follows:

Essential to the economy, national security, and technology needs:

- **Economic Importance:** Gold is a major contributor to the global economy, including New Zealand's. It is a key asset in financial markets and is held by central banks as a reserve asset, providing economic stability. For instance, during times of economic uncertainty, gold prices often rise. This was evident during COVID-19 pandemic, where gold prices surged due to increased demand.
- **Technological Needs:** Gold is crucial in the electronics industry due to its excellent conductivity and resistance to corrosion. It is used in the manufacturing of components for renewable energy technologies, such as solar panels, wind turbines and EV batteries. The World Gold Council reported that gold demand in the technology sector grew by 9% in 2021, highlighting its importance in modern technology<sup>1</sup>.
- **National Security:** Gold's role in financial stability and its use in critical technologies make it a strategic asset for national security. Countries like Russia have used gold to support their economies during geopolitical tensions, demonstrating its importance in maintaining national security<sup>2</sup>.

In demand by international partners:

- **Economic Opportunities:** Gold is highly valued in international markets, creating significant economic opportunities for New Zealand through exports. Central banks around the world, including those in Turkey, Uzbekistan, and India, have been increasing their gold reserves, reflecting its global demand<sup>3</sup>.
- **Diversifying Global Supply Chains:** Including gold in the Critical Minerals List would help diversify global supply chains. Gold is used in various high-tech applications and end-use products, enhancing the resilience of these supply chains
- **Improving Product Pipelines:** Gold's unique properties make it indispensable in the production of many advanced technologies, ensuring a steady pipeline of essential end-use products. For example, gold is used in connectors, switches, and other electronic components that are critical for the functioning of all modern devices.

Susceptible to supply disruptions:

<sup>1</sup> <https://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-full-year-2021/16763>

<sup>2</sup> [https://www.rand.org/pubs/research\\_reports/RRA3230-1.html](https://www.rand.org/pubs/research_reports/RRA3230-1.html)

<sup>3</sup> <https://www.weforum.org/agenda/2022/11/central-banks-gold-market-economy-global/>

- **Domestic Regulatory Constraints:** The gold mining industry in New Zealand faces regulatory challenges that can impact production and supply. Stringent environmental regulations can limit mining activities, affecting the domestic supply of gold.
- **Geopolitical Risks:** Gold extraction and processing are often concentrated in a few countries. Geopolitical instability in these regions can lead to significant supply disruptions, affecting New Zealand's access to this critical mineral. For example, political unrest in major gold-producing countries like South Africa and Russia can impact global supply. Within the Supply Risk Assessment, it was outlined that gold has the highest potential global supply country risk. As such, it is essential that gold can be extracted within New Zealand domestically to mitigate those potential risks.

Given these points, it is clear that gold is a critical mineral that aligns with the criteria set forth in New Zealand's draft Critical Minerals List. Its inclusion would support the country's economic stability, technological advancement, and national security, while also enhancing international economic opportunities and supply chain resilience.

## 2. Have we included any mineral(s) that you think should not be on the list?

Yes, (please provide more details below)  No, the list is okay.  Not sure/no preference  
Is there anything you would like to tell us about the reason(s) for your choice?

The Critical Minerals list seems to be primarily an academic exercise that does not adequately consider New Zealand's geology, prospectivity, and local industry needs. I am concerned if its main purpose is to influence future Crown Minerals policy regarding exploration and access to Crown lands.

For instance, while rare-earth elements (REEs) are essential for modern high-tech applications, the quantities used are minimal compared to metals like aluminium or copper. Additionally, New Zealand's industry does not heavily rely on REE imports. Globally, there is no shortage of carbonatitic complexes that could potentially host REEs. However, it is challenging to justify investment in the exploration, development, and metallurgical recovery of REEs when other countries, such as China, can produce them cheaply, often with little regard for environmental or human impacts.

The inclusion of REEs on various international critical lists is largely due to strategic concerns over dependence on other countries supply for critical domestic industries. If the investment conditions were more favourable, including subsidised production and tax incentives, supply would likely increase to meet demand.

New Zealand is not generally rich in most minerals on the critical list, and the most promising areas for these minerals are within Schedule 4 conservation land. The one mineral New Zealand is relatively well-endowed with is gold, and fortunately, the most highly prospective areas for gold are outside high-value conservation land. Continued access to gold is crucial for New Zealand's emerging mineral industry and helps offset the import of critical minerals that the country lacks or cannot access.

## 3. Do you have any further feedback on the list, or the methodology under which it was developed?

Yes, (please provide more details below)  No, the list is okay.  Not sure/no preference  
Is there anything you would like to tell us about the reason(s) for your choice?

The methodology may not fully capture the dynamic nature of gold's supply risks. For example, geopolitical stability and market volatility, which significantly affect gold, are complex and change rapidly, resulting in an underestimation of gold's criticality. The methodology appears to cater towards minerals critical to current geopolitical strategies, potentially overlooking gold's future criticality due to changing global dynamics.

The global supply concentration metric overlooks the significance of domestic production capabilities. Minerals that New Zealand can produce domestically receive lower criticality scores, despite their importance to the national economy and security. This results in an underestimation of the risks associated with domestic supply disruptions due to regulatory or environmental constraints.

The inclusion of a net import dependence criterion is flawed:

- A mineral with high import dependence but low net import dependence will be undervalued in terms of its criticality, despite its significant role in the economy and technology sectors.
- The net import dependence metric may downplay the challenges associated with domestic production. Even if New Zealand produces a mineral domestically, factors such as regulatory constraints, environmental impacts, and production costs can still pose significant risks. This results in an underestimation of the supply risks for minerals like gold, which face stringent regulatory environments and high production costs.
- Minerals that are both imported and exported could receive a lower criticality score, despite facing substantial supply chain vulnerabilities. This inconsistency can skew the overall assessment, potentially leading to the exclusion of important minerals from the critical list.

## Thank you

Thanks for your feedback, we really appreciate your insight on the development of New Zealand's Critical Minerals List.