

Submission from New Zealand Minerals Council to Radio Spectrum Management Assignment of radio spectrum for private mobile networks August 2026

Introduction

1. New Zealand Minerals Council is the industry association representing the New Zealand minerals and mining sector. Our membership is comprised of mining companies, explorers, researchers, service providers, and support companies.
2. Thank you for the opportunity to make this submission on the discussion document, [Assignment of the 3340-3460 MHz Radio Spectrum](#).
3. The document considers the proposal to make the 3340-3460 MHz frequency band available for regional broadband/fixed wireless access, private mobile networks and mobile systems.
4. We support reserving dedicated spectrum for site-based private mobile networks. Such networks are used widely by mining companies in other countries, and the New Zealand mining sector could benefit from them.

Submission

5. The mining sector in New Zealand is expanding driven by growing global demand for minerals used for high tech industries. The Government has a target to double the value of the mining sector by 2035 which is on track to being achieved well ahead of time.
6. The sector is increasingly using state-of-the-art technology in its operations, much of which could capitalise on private mobile networks.
7. New Zealand mining tends to be in outlying, rural areas. Mining sites are often remote, large, environments where Wi-Fi and public cellular networks may struggle to provide continuous coverage.
8. Private networks provide wider coverage, mobility support, lower latency and stronger reliability than traditional wi-fi systems. This could benefit mining operations by supporting safe, productive and technologically advanced sites.
9. They also allow operational independence, cybersecurity control, service-level control and resilience during outages.

Mining and private mobile networks

10. A private mobile network would be more than just an alternative to two-way radio, which is currently widespread on mine sites. It is more like a platform that can provide voice plus data, video, automation, sensors, and applications.
11. For example, overseas mining companies deploying their own networks use them at mine sites, processing plants, rail spurs and port facilities to connect:
 - Worker communication devices
 - Cameras and CCTV worker tracking and safety
 - Autonomous haul trucks and mobile equipment
 - Drones
 - Real-time environmental monitoring and environmental monitoring sensors
 - Video surveillance
 - Remote operation of excavators/drills and other remote-controlled machinery
 - Predictive maintenance systems
 - Mine fleet management
 - AI-enabled operational optimisation
 - Emergency communications
 - Asset tracking systems
12. The same could be done in New Zealand mines with private mobile networks.

Enhancing mine safety

13. Private mobile networks are not simply a productivity tool but a worker safety enabler as well. Mines are high-hazard workplaces with a range of hazards, which can cause fatalities. To mitigate this, mine operations require careful management which can be facilitated by mobile technology.
14. Private networks at mine sites can enhance worker safety by supporting:
 - Personnel tracking
 - Geofencing
 - Collision avoidance
 - Lone-worker monitoring
 - Emergency alerts
 - Remote operation of hazardous equipment

Conclusion

15. New Zealand's growing mining and minerals sector could benefit from access to dedicated private mobile network spectrum to support safe, productive and technologically advanced operations.
16. The 3340-3460 MHz band represents the best opportunity to establish a long-term industrial wireless framework comparable with international mining jurisdictions where such networks are in wide use.
17. The New Zealand Minerals Council therefore supports reserving dedicated spectrum for site-based private mobile networks, available through local licensing arrangements and not solely through national mobile network operators.
18. This approach will support worker safety, automation, environmental management, productivity growth and the successful delivery of fast-track resource projects.