

DIG DEEPER
Webinars



POST-MINING LAND USE

FINDINGS FROM A FOUNDATIONAL PROJECT

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The questions

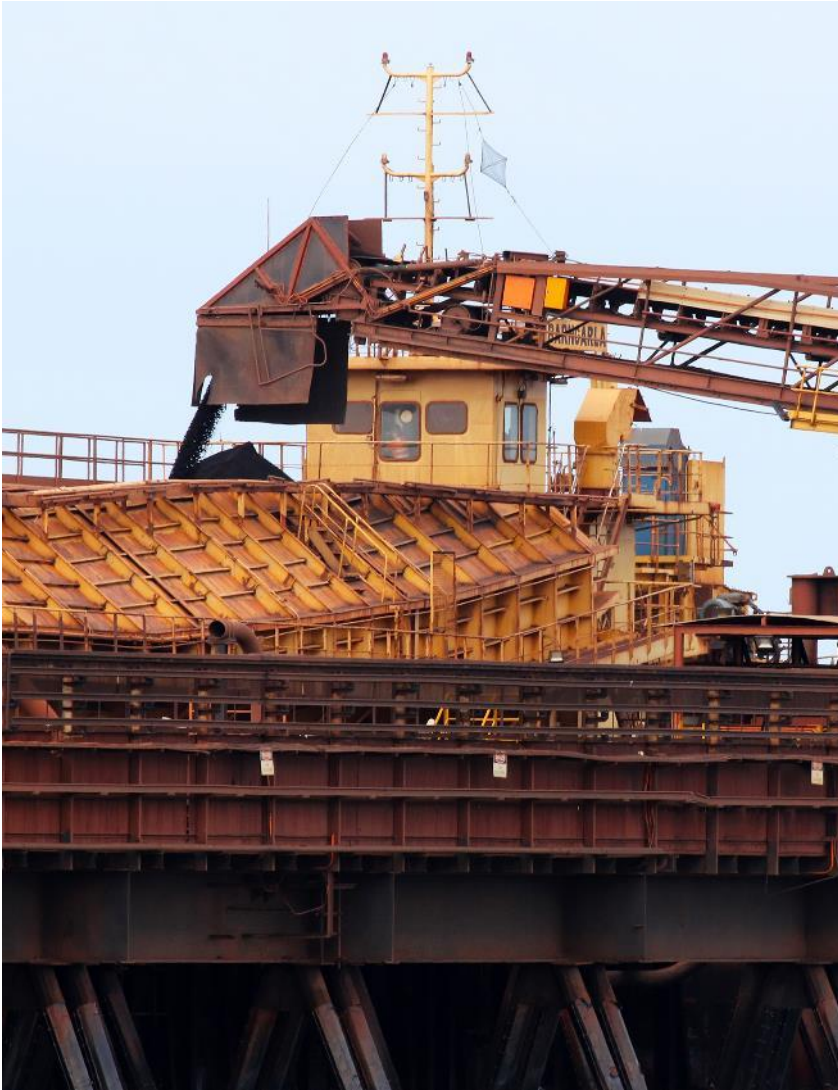
- What can we learn from national and international experience with respect to the re-purposing of mines?
- What are the adverse impacts of current closure planning processes?
- What are the optimal conditions for the re-purposing of sites with respect to location, mine type, engagement with the community and broader regional planning processes?
- How can the re-purposing of mine sites better incorporate long-term community priorities?
- Is repurposing best enacted immediately post mine closure, or is it better placed – and more likely to come to fruition – after a significant period has elapsed?
- What do we understand as current thinking or best practice in this field? and,
- What can we learn from case studies drawn from across Australia?

Case studies



- Post-mining land use options (PMLU) in Moranbah Region, Queensland;
- Kidston Clean Energy Hub, Queensland;
- Lake Kepwari: Collie coal mine, Western Australia;
- The FAWNA Inc. Wildlife Hospital and Kaatijnup Biodiversity Park, Capel, Western Australia;
- Hannan's North Tourist Mine, Kalgoorlie, Western Australia;
- Newmont Boddington Gold Mine, Western Australia;
- Hazelwood Lignite Mine, Latrobe Valley, Victoria;
- The Eden Eco-Tourism Redevelopment, Anglesea, Victoria;
- Stawell Underground Physics Laboratory (SUPL), Stawell, Victoria;
- Gove Bauxite Mine, Gove Peninsula, East Arnhem Land, Northern Territory; and,
- Indigenous Interests Directory Pilot.

What's been happening?



Globally there are a significant number of instances where mines have been repurposed across a range of industries, including:

- Active tourism, including mine sites as places for physical activity and adventure tourism;
- Recreation uses and hotel accommodation;
- Office accommodation;
- The processing of waste and other materials in bio-reactors;
- Science precincts;
- Energy generation; and,
- Environmental assets, including wetlands.

What are the key issues?

- The re-use of mine sites has not been considered in a systematic fashion;
- Australia's piecemeal approach to the re-purposing of mines means lost economic opportunities;
- Evidence suggests that each example of mine repurposing has been dealt with as a unique, 'one off' project, with consequent significant implementation costs;
- The reuse of mine sites is made more difficult by regulatory frameworks that focus solely on harm minimisation and the rehabilitation of mine sites;
- Some features of contemporary mining practice make it difficult to plan for repurposing. Staff turnover may result in the loss of corporate knowledge, and the associated failure to implement previously identified plans.



Findings: Hurdles

- The impacts of government regulatory frameworks that prescribe outcomes not compatible with re-use;
- The nature and structure of the mining industry, with volatility in mineral prices adding uncertainty to mine closure decisions and time frames;
- The isolated nature of many mine sites that are often distant from infrastructure and markets;
- The inability to identify a sustainable business opportunity arising out of a mine closure and this often results because mining industry personnel, and others lacking appropriate skill sets and experience, attempt to undertake this task;
- The inherent dangers embedded in mine sites, which may require significant management if the mine is to be used actively;
- The high cost of mining mine repurposing proposals; and,
- Limited understanding of the economic and social potential embedded in former mines.

Findings: Enablers



- Leaders drawn from the community, the mining industry, other parts of the private sector or one of the tiers of government. These organisations and individuals need to act as champions of change and often play the most pivotal role. They also need to be able to articulate an agenda of change and positive outcomes;
- Existing infrastructure that may make possible developments that would not otherwise be possible;
- Collaboration across tiers of government, the private sector and the community; Early planning for post-mining land use; and,
- Access to markets and the ability to monetise the repurposing of a mine sites within a relatively short time frame.

How Can End Users Deploy these Findings?

- For Miners – kick off an internal conversation about re-use and how to bring re-use to life
 - Look at the case studies: business-to-business knowledge transfer
 - A triple bottom line proposition
 - Issues that relate to Corporate Social Responsibility (CSR) and Environmental, Social and (corporate) Governance (ESG)
 - Exploring what is possible through a ‘fail fast’ or skunk works process
 - Bring forward the discussion of end use, note the need for a social licence to operate
 - New business models, new opportunities in a transitioning economy
 - Engage with the community
- For Governments
 - Develop a knowledge base around what is possible
 - Create structures (committees/task forces etc) to explore the issue
 - Review current legislative frameworks and their impacts (see later presentation)
- For communities – First Nations and other communities
 - Reach-out to establish working relationships with government and industry, and do so early
 - RDA Committees, local governments, members of Parliament, consultants etc all key pathways to a positive outcome
 - Initiate a discussion around leadership of change and the possibilities for the future

Recommendations



We recommend that further work be undertaken on four major themes, with each theme potentially calling for multiple lines of activity.

First, there is a need to develop and implement regulatory frameworks for the mining industry that are more open to mine repurposing.

Second, there is a pressing need to better understand how key individuals and organisations make decisions about the end of mine life.

Third, the mining industry as a whole needs to find ways to promote the leadership of change at the end of a mine's life.

Fourth, there is a need to develop assets that are more directive and informative about how to repurpose mines.



THANK YOU

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