

Submission
No 42

**INQUIRY INTO BENEFICIAL AND PRODUCTIVE POST-
MINING LAND USE**

Name: Name suppressed

Date Received: 25 June 2024

Partially
Confidential

The following brief comments are respectfully (and in haste) submitted for consideration by the LEGISLATIVE COUNCIL STANDING COMMITTEE ON STATE DEVELOPMENT regarding beneficial and productive post-mining land use

Regarding terms of reference items –

(d) opportunities to encourage innovative post-mining land uses including:

(iii) the compatibility of post mining land sites with commercial projects

There is a sector book on post-mining successive land uses (101 Things to Do with a Hole in the Ground, Georgina Pearman, Post-Mining Alliance, Cornwall, 2009) describing wonderful examples in the world like Shanghai's eco-friendly 'Deep Pit Hotel'. It is important to note, the book is being re-published in a few days on the 11th July to describe 102 post-mining options from updated research. In this time frame a significant active and post-mining technique has been applied as a foundation for ecosystem restoration at 'holes in the ground'. It has been applied to mine sites in several locations including New South Wales like at Maules Creek and at the Hunter Valley.

This geomorphic reclamation option was described in 2018 by the Joint Research Centre publication of scientific advice and technical support to the European Commission in a Best Available Techniques (BAT) Reference Document for the Management of Waste from Extractive Industries. Part of their findings are here – “Landscaping and geomorphic reclamation are used to reduce the visual impact, but furthermore they increase the physical stability, provide a natural hydrological function, minimise erosion from storm water and snowmelt run-off, provide a natural landform variety that promotes ecological diversity for vegetation and wildlife communities, and minimise construction and short- and long-term maintenance and repair costs.”

[<https://ec.europa.eu/environment/pdf/waste/mining/MWEI%20BREF.pdf>, see page 397 at 4.3.2.1.4 Landscaping and geomorphic reclamation].

No matter which transformational "Net Best Value" further land use is placed as an option to returning sites to their natural habitat as is currently required, the role of geomorphic reclamation can underpin post mine land changes as the opportunity for shaping a durable development that will significantly foster climate resistance, economic stability and serve local communities. Geomorphic reclamation provides an enduring landscape to enhance mine closure terrain into parity with the revitalisation of multiple successive land uses.

(g) the need to develop a robust independent regulatory framework to maintain and advance best practice in this area

There is a strong need to develop a regulatory framework for this area. Developments sit in ecological ecosystems and are impacted by climate. This agenda is the economic pillar of the three foundations of sustainable development with intent to replace existing post-mining commitments to ecological restoration of destroyed terrain. Management of this development area requires regulatory reform in tandem with the pillars of environmental and social practises which influence and interact with sustainable development. A regulatory framework is needed to ensure any post mining terrains not returned to pre-mining conditions meet criteria for climate resilience and the needs of future generations along with the planned economic gains.

One example of a gap is the Community Consultative Committee 2023 guideline for State significant projects describes how to appoint community or stakeholder representatives (dpie.nsw.gov.au). It does not provide guidance on how consultative committees consider the stakes of future generations of residents, workers, or landowners affected by the project, nor mention any consideration of a vacant stakeholder representation.

Strategic resilience and sustainability planning requires an overarching and modern framework to ensure these innovative and progressive developments are consistently adopted to create positive change of collective impacts and trade-offs by the mechanism of good governance, transparency and accountability.

Some other references –

Maules Creek Coal Mine – Landform Modification Report Whitehaven Coal, November 2020

BHP Mt Arthur Coal ANNUAL REVIEW FY23, https://www.bhp.com/-/media/bhp/regulatory-information-media/coal/nswec/mt-arthur-coal/annual-reviews/mt-arthur-coal-annual-review-fy23_optimized-awaiting-endorsement.pdf

Worden et al, (2024). Regional post-mining land use assessment: An interdisciplinary and multi-stakeholder approach in Resources Policy, Volume 89, 104680

STRONGLY SUSTAINABLE SOCIETIES - Organising Human Activities on a Hot and Full Earth, Edited by Bonnedahl & Heikkurinen (2019)