

Submission to the Productivity Commission Re: Circular Economy Interim Report – Section 7 (Mining)

Submitted by: enviroMETS (Qld) Limited

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Executive Summary

enviroMETS is an independent, industry-led Not-for-Profit company working across both **Big 'P' Policy** (formal legislative and regulatory frameworks) and **little 'p' policy** (operational, procedural, and strategic guidelines). This dual engagement allows us to influence systemic reform while also driving practical innovation and stakeholder-led solutions on the ground. Our submission reflects this dual focus—advocating for structural changes to FPS and ERC frameworks, while also offering implementation tools through initiatives like the Lighthouse Projects and Transformation Readiness Framework.

enviroMETS Qld welcomes the opportunity to respond to the Productivity Commission's Interim Report on the Circular Economy, particularly Reform Direction 7.1 and Information Requests 7.1 and 7.2. We are a Queensland-based industry cluster dedicated to transforming mining-impacted land into productive, sustainable assets for regional communities. Our Lighthouse Projects (LHP) strategy offers a practical, globally informed, and locally grounded framework to operationalise the circular economy in mining through innovative Transformative Post-Mining Land Uses (T-PMLU), critical minerals recovery, and social value creation. Transformation is an essential concept that directs attention to the positive productive and higher value impact on economic, social, environmental, and cultural / indigenous / heritage outcomes, rather than PMLU which currently defaults to return to past use.

We support the Commission's focus on reducing regulatory barriers and enabling market-driven solutions for reprocessing mining waste and repurposing mine sites. This submission draws on Australian and international experience to propose targeted reforms to Queensland's Financial Provisioning Scheme (FPS), Estimated Rehabilitation Cost (ERC) framework, and land use regulations. It also recommends actionable steps for governments to facilitate high-value outcomes for communities, ecosystems, and the economy.

1. Response to Reform Direction 7.1:

a) Reducing Regulatory Barriers to Mining Waste Reprocessing

- **Issue:** Current ERC and FPS frameworks penalise proponents who seek to reprocess tailings or legacy waste, even when projects reduce environmental risk.

- **Recommendation:** Introduce a "Resource Recovery Rehabilitation Pathway" to enable proportionate ERC assessments and staged rehabilitation linked to circular economy outcomes.

b) Multi-Operator Models

- **Issue:** Existing tenure and regulatory systems hinder concurrent land uses and multiple operators on mine sites.
- **Recommendation:** Establish flexible post-mining leases or shared custodianship agreements that enable diverse activities, including reprocessing, renewable energy, and social enterprise.

c) Infrastructure Retention for Productive Reuse

- **Issue:** Closure conditions requiring infrastructure removal reduce potential for productive T-PMLU.
- **Recommendation:** Create regulatory exemptions that permit infrastructure retention if aligned with a Net Best Value outcome.

d) ERC Reform for Tailings Exploration

- **Issue:** Re-disturbance of capped TSFs to assess critical minerals triggers ERC obligations that disincentivise resource recovery.
- **Recommendation:** Develop a risk-weighted ERC model that recognises the latent value of critical minerals and incentivises feasibility studies.

e) Liability Transfer and Good Samaritan Models

- **Issue:** Absence of safe harbor provisions deters third-party remediation.
- **Recommendation:** Introduce a Queensland "Voluntary Remediation Permit" inspired by the US Good Samaritan Act, offering liability protections for approved third-party rehabilitators.

2. Response to Information Request 7.1:

a) Examples of Regulatory Barriers

- **Mt Carbine (QLD):** ERC and FPS frameworks delayed investment in critical mineral reprocessing.
- **Mount Morgan (QLD):** Tailings reprocessing required bespoke financing due to lack of streamlined provisions.

b) Solutions

- Create a dedicated ERC/FPS stream for tailings and legacy waste projects.

- Publish transparent FPS risk assessment criteria.
- Allow partial surety waivers for circular projects delivering Net Best Value.

c) Questions for Further Investigation

- How might shared tenure frameworks enable concurrent rehabilitation, reprocessing, and repurposing?
- What role could regional planning instruments play in enabling higher-value T-PMLUs?

d) Potential Uptake

- EnviroMETS estimates that regulatory reform could unlock 20–40 viable PMLU and reprocessing projects across Queensland within 5 years, supporting regional economic diversification and job creation.

3. Response to Information Request 7.2:

a) Role of Government in Enabling Circular Economy Outcomes

- **Regional Planning:** Embed T-PMLU objectives in Regional Plans and State Development Areas.
- **Finance Innovation:** Expand FPS to accept international sureties and pilot blended finance for high-value T-PMLU.
- **Social Enterprise:** Include PMLU ventures in the Social Entrepreneurs Fund.
- **PMLU Innovation Zones:** Establish regulatory sandboxes to support pilot projects aligned with LHP methodology.

b) Global Inspiration

- **UK Land Trust & Social Value Act:** Embed measurable social and environmental value in funding criteria.
- **US Good Samaritan Act:** Enable liability relief for voluntary rehabilitators.
- **WA Mining Rehabilitation Fund:** Consider pooled funding for legacy site transformation.

4. The enviroMETS LHP Strategy: A Scalable Circular Economy Framework

enviroMETS's Lighthouse Projects framework delivers circular economy impact through:

- **Stage 1:** Regulatory reform and supportive planning.
- **Stage 2:** Quantified, multi-criteria business cases.

- **Stage 3:** Demonstration pilots and scalable models.
- **Stage 4:** Regional impact, METS sector growth, and international knowledge leadership.

Our approach is informed by global best practice (UK, US, Canada, EU) and grounded in Queensland's regional needs.

5. Enabling Regional Transformation: Partnering with Local Government and Communities

enviroMETS strongly supports the Commission's recognition that post-mining land use and waste reprocessing must be situated within broader strategies for regional transformation. In Queensland, this imperative is now reflected in formal motions passed by the Local Government Association of Queensland (LGAQ) and led by Isaac Regional Council (IRC) and Mount Isa City Council (MICC). These motions call for:

- The creation of a Regional Transformation Authority to coordinate planning, economic diversification, and community resilience in transitioning mining regions.
- The establishment of a royalty-backed Transition Fund to ensure equitable, locally-driven pathways beyond mine closure.

As a neutral, government-supported, not-for-profit with deep expertise in mine lifecycle management and post-mining land use, enviroMETS proposes to partner with state and local governments to support delivery of these objectives.

Proposed Role of enviroMETS:

- Coordinate cross-sectoral stakeholder engagement through regional roundtables.
- Deliver tools and frameworks including a Transition Readiness Framework, Mine Futures Lab, and a T-PMLU Toolkit for councils.
- Support the design and administration of a Royalties for Transition Fund pilot.
- Establish monitoring tools such as a Transition Impact Dashboard to track economic, social, and environmental progress.

Alignment with the Circular Economy Agenda:

This initiative represents a living model of circular economy principles in practice. It seeks to:

- Repurpose mine-impacted land into higher-value, socially beneficial uses.
- Retain and redirect economic value from mining royalties into transition infrastructure.
- Create diversified regional economies through innovation, training, and investment attraction.

By embedding T-PMLU within a broader transformation agenda, enviroMETS ensures that post-mining landscapes are not only rehabilitated, but activated as platforms for future prosperity.

6. Additional Considerations and Commentary

enviroMETS offers the following observations to strengthen the Productivity Commission's understanding of structural and strategic enablers for a circular economy in mining:

6.1 DETSI-Driven Barriers

Some elements of DETSI's policy and procedural culture may act as inhibitors to transformative PMLU by reinforcing risk-averse practices that prioritise remediation over regenerative land use. For example, inflexible interpretations of the Environmental Protection Act 1994 constrain opportunities to activate post-mining land for new enterprise.

6.2 Value of the Project Reference Group (PRG)

The cross-agency PRG convened by enviroMETS has proven vital in aligning project objectives with government priorities, identifying approval bottlenecks early, and creating shared understanding across regulators. The PRG is an effective governance model to guide pilot project implementation.

6.3 Revisiting PRCPs Through Multi-Criteria Business Case Methodology

enviroMETS has demonstrated the value of using its T-PMLU business case methodology to revisit Progressive Rehabilitation and Closure Plans (PRCPs), allowing for more dynamic, investable land use decisions informed by changing market, environmental, and community contexts.

6.4 Jurisdictional Awareness

Our work integrates insights from other jurisdictions such as WA's Mining Rehabilitation Fund, Canada's Indigenous-led closure planning frameworks, and the EU Mine Waste Directive—demonstrating that Queensland can lead by blending global standards with regional needs.

6.5 Closing the Gap Risk

Mandated return to pre-mining land use can undermine Indigenous development aspirations, inadvertently widening the gap. This runs counter to Australian Government priorities under the Closing the Gap policy.

6.6 Big 'P' and little 'p' Policy Integration

enviroMETS speaks to both Big 'P' (legislative reform, regulatory frameworks) and little 'p' (guidance documents, approval practices) to create enabling conditions for circular economy outcomes.

6.7 The Concept of Certainty

Certainty is a precondition for investment in PMLU. Regulatory clarity, tenure innovation, and consistent risk evaluation frameworks reduce perceived project risk and attract capital.

6.8 Re-commercialisation Principles

enviroMETS' Re-commercialisation Principles for Abandoned Mines (as submitted to the Department of Resources) propose a performance-based, values-led model to unlock economic, social and environmental benefits from disused sites. They form a vital complement to the T-PMLU framework.

6.9 Tenure Reform and Governance

Current FPS and mine rehabilitation oversight may inadvertently limit innovation. Queensland's Mine Rehabilitation Commissioner must be empowered to support—not just monitor—transformative land use solutions.

6.10 Regional Planning Reform

Regional planning documents should recognise mining as a finite activity and explicitly plan for post-mining transitions, aligning land use pathways with community and industry readiness.

6.11 Cross-Jurisdictional Harmonisation

Lack of harmonisation across regional and state boundaries (e.g., Surat Basin) poses material barriers to resource recovery and asset reprocessing. A harmonisation strategy is needed.

6.12 Reframing "Waste"

Language matters. "Waste" reflects a liability mindset, whereas "Residual Mine Materials" reframes these assets as inputs to a circular economy and post-mining enterprise.

6.13 From Liability to Asset Creation

T-PMLU shifts the paradigm from legacy liability management to future asset development, aligning with ESG performance and decarbonisation imperatives.

6.14 Carbon Footprint of Infill

Infill-based rehabilitation consumes diesel and creates significant carbon emissions with little to no economic return. Where as-mined landforms are redeveloped as technically stable, they should be considered the base case to reduce emissions and enhance value via reshaping for future use.

6.15 Renewables Waste Synergy

End-of-life renewables materials may be processed at repurposed mine sites, offering a new frontier for circular economy integration and metallurgical innovation.

6.16 National Agenda Alignment

T-PMLU supports the Federal Government's "Future Made in Australia" policy by creating the enabling infrastructure for value-adding and regional manufacturing linked to critical minerals.

Conclusion

enviroMETS has a Queensland centric perspective thereby creating and opportunity to lead the world in transforming mining-impacted land into circular economy assets. It also has a very high density of METS (Mining Equipment Technology and Services) companies that can develop and demonstrate new technologies for a significant global PMLU market.

The reforms and approaches outlined in this submission are actionable, investible, and aligned with global principles of sustainability, equity, and innovation.

enviroMETS stands ready to support the Commission's work and looks forward to collaborating with stakeholders across government, industry, and the community to co-create solutions that unlock the value of post-mining landscapes.

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