

INQUIRY INTO BENEFICIAL AND PRODUCTIVE POST- MINING LAND USE

Organisation: Singleton Council

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Standing Committee on State Development
6 Macquarie Street
SYDNEY NSW 2000

Dear Hon Emily Suvaal

SINGLETON COUNCIL – SUBMISSION TO THE INQUIRY INTO BENEFICIAL AND PRODUCTIVE POST-MINING LAND USE

Thank you for the opportunity to make a submission into the Inquiry into Beneficial and Productive Post Mining Land Use referred to the Standing Committee on State Development on the 14 May 2024.

The Singleton local government area has experienced a long history of open cut and underground coal mining and is experiencing a period of rapid transition planning for a future that is both diversified and innovative. Singleton is focussed on leading a sustainable post mining transition that includes diverse development outcomes and the efficient and effective reuse of rehabilitated mining land.

Council has prepared a Post Mining Land Use Framework that recognises the gap in knowledge and practical implementation of post mining land use outcomes. It provides a methodology to determine sites with the greatest post mining land use opportunities based on a series of questions in a staged assessment process. It recognises the significant challenge for all levels of government, industry, the broader development industry, researchers and the community as well as the importance of collaboration to deliver consistent, transparent and sustainable outcomes that provide certainty and create future job opportunities.

Singleton Council's submission is focussed on recognising the importance of understanding opportunities and constraints, stakeholder engagement and planning before identifying land use options and the skills required to deliver these. As well as responding to the Terms of Reference, our submission provides context to the Singleton situation, identifies the need for change, describes the importance of language used, provides an example of the complex regulatory environment, provides the current post mining land use policies applicable in Singleton, and provides a summary of our Post Mining Land Use Framework.

If you have any further enquiries, please do not hesitate to contact

Acting General Manager

PARLIAMENTARY INQUIRY – BENEFICIAL AND PRODUCTIVE POST-MINING LAND USE
RESPONSE TO THE TERMS OF REFERENCE

(a) The benefits of having multiple successive land uses including the positive benefits for local communities and economy, business, industry and the broader State

Mining generates more than \$35 billion of economic benefit to the Hunter region and is the largest employer in Singleton with 6,900 jobs which represents 37.9% of total jobs. There are few single industries with the ability to replicate such economic benefit. As such, the primary benefit of multiple successive land uses is economic diversity built around a long-term sustainable industry base.

Diversification is not as simple as industry replacement. Singleton Council has recognised the importance of a holistic approach to a sustainable future. Singleton Council has prepared an Invest Singleton prospectus. This prospectus identifies the following eight foundations to attract investment into the local government area:

1. Well established infrastructure investment
2. Developable land supply and investment
3. Long term local global and local industry
4. A highly skilled, adaptable workforce
5. Investment in social infrastructure
6. Access to city convenience
7. The space to breathe and grow
8. Connectivity and easy access

In addition, Invest Singleton includes several future growth industries such as renewable energy and electricity transmission, advanced manufacturing and processing, circular economy, online/digital business and data storage, agriculture, professional/scientific/technical services, training/education, visitor economy and tourism and transport/wholesale trade. These industries are all permissible on post mining landscapes in Singleton, without the need for rezoning. Additionally, these industries will provide a diverse employment base and create housing for a broad range of workers.

However, the scope of land uses should not be limited by what is currently considered feasible, and any changes in land use need to be adaptive, flexible and supportive of future industries.

(b) Changes in land use potential and demand in established or traditional mining areas, particularly those generated by the decarbonised economy, renewable technology, manufacturing, defence, skills and training.

The challenge for post mining land use outcomes is one of land use planning. Post mining land needs to be zoned to allow for highest and best future land uses to take place. Land use planning has a long-term horizon, often looking decades ahead. These long-term

strategies for post mined land are required to hold sufficient flexibility to respond to changing community expectations as mines progress through their life and deliver land use planning outcomes that are consistent with the broader land use planning objectives for the Region.

Making decisions that affect the use of rehabilitated mining land and of mining buffer land that is no longer subject to impacts from mining, can be complex and subject to varying degrees of risk. As such, it is important to have in place a process that will address the risk aversion of industry, minimise complexity and to allow for best outcomes to be achieved for the whole LGA.

Land use is established by the permissible uses set out in the definitions of the Standard Instrument Local Environmental Plan. Permissible uses depend on the zone and the land use objectives that have been established to support the development of land across the State. Most mining operations within the Singleton Local Government Areas are located within land zoned RU1.

The extent to which renewable technology, decarbonized industries, manufacturing, defence, skills and training can be undertaken on land formerly used for mining will be dependent upon the permissible uses within the zone as well as the outcomes of strategic planning that creates a Place Strategy supported by community feedback, stakeholder engagement, government policy, market drivers, land availability and affordability.

These industries are not defined terms within the Standard Instrument Local Environmental Plan, and may not need to be for Singleton, as current land uses in the RU1 zone may in fact cater for these outcomes. Permissibility is the first hurdle, constraints regarding infrastructure, biodiversity, flooding, bushfire, contamination, water, servicing (such as telecommunications, electricity, access) will further refine where, when and how future uses may be undertaken. This analysis will also determine who is ultimately responsible for addressing any constraints – government, industry or future land users.

In the event the final land use is not permissible in the zone, the land will require rezoning and an amendment to the respective Local Environmental Plan. This is not a process that can be side-stepped through Part 4 of the EP&A Act. Rezoning requires consistency with Ministerial Directions set under section 9.1 of the EPA Act. These directions include assessment of, amongst other things, the strategic context and need for the development (in terms of its long-term feasibility and viability), sustainability, suitability and, importantly, whether the proposed change in use can be delivered.

(c) Opportunities for investment and growth in training and skills in established or traditional mining areas, including:

a. The need to reskill and/or retrain current workforces

Over 48% of Singleton's workforce is industrial with highly experienced trades, technicians and operators whose skills are relevant now and transferable to the future. Worker growth supports service industry skills in retail, hospitality, tourism, health and social services.

However, any transition requires assessment of the skills needed to support the transition. With expected growth in the construction, housing, renewable, manufacturing and retail to culminate in significant worker demand between 2025 and 2030, skills development is needed now.

TAFE skills centres, university placements and apprenticeships and traineeships must pivot towards supporting construction, housing, electrical and mechanical trades, as well as professional services in environmental assessment, engineering and digital technologies in regional centres. To assist, there is a need to increase funding towards incentivizing apprentice and traineeship uptake in regional mining areas, where the current base pay is below the cost of living.

(d) The impact and effectiveness of existing and new education, training and skills providers for mining communities

To achieve sustainable workforce outcomes, there needs to be an understanding of the timeframe for closure within each region, which will vary by operation and location. Noting that in Singleton, mine closure of individual operations has already commenced without these considerations in place. Closure activities will continue from now until 2045. Without proper and transparent workforce planning and skills development that considers the following requirements, our transition to a sustainable future will be significantly impeded. Importantly, a regional strategy, consisting of individual site requirements, must be developed to include:

- a. Quantify the timeframe for the completion of post mining rehabilitation and mine closure works;
- b. Identify and quantify the skills, human resources and equipment required to effectively complete rehabilitation and transition to an agreed/approved post mining land use, by domain;
- c. Undertake an assessment of, and implement, actions that will be undertaken to minimise the adverse socio-economic effects associated with mine closure;
- d. Create and implement employment and community development pathways for the completion of rehabilitation works and post mining transition;
- e. Develop reportable measures to minimise the adverse socio-economic effects associated with mine closure and report on these;
- f. Quantify and publicly report on the reduction in local employment levels leading into the rehabilitation and closure planning phase of operations;
- g. Collaborate with Singleton Council and Muswellbrook Shire Council on the post mining adverse socio-economic effects leading into the rehabilitation and closure planning phase of operations; and

- h. Periodically (at frequency no greater than 3 years), review the strategy.
- i. Government to provide funding to support retraining requirements.

(e) Opportunities to encourage innovative post mining land uses including:

a. The planning and implementation of essential supporting infrastructure for future site use

To understand sustainable post mining land use outcomes, an infrastructure constraints and opportunities assessment is required. Infrastructure considerations are complex, particularly in established mining communities and include:

1. Existing on site infrastructure – what uses can it support?
2. Proximity of future land uses to external and/or 3rd party infrastructure such as electricity, NBN, rail/transport, potable water, sewer
3. Infrastructure ownership – private and/or public, now and in the future
4. Proximity to broader local and regional services including transport, accommodation, community
5. Enabling infrastructure requirements for new development types and the lead time and benefits of providing infrastructure (holistically or in an isolated environment)

Without an understanding of the existing infrastructure landscape, it will be difficult to plan appropriately for future infrastructure needs, to ensure infrastructure is appropriate, scaled and suitably located to support sustainable outcomes.

The constraint analysis could be supported by a multi-criteria analysis that considers whether a mining site would meet the needs of future land use on the site. This could include:

1. Does the site contain and/or support approved existing infrastructure, including sealed/unsealed roads, buildings, structures and services?
2. Does the site contain or is it immediately adjacent to enabling infrastructure, such as rail corridors, public utilities, informal access roads and/or research facilities that can facilitate/support a reasonable final land use whilst providing community connections?
3. Does the mining site occur at a neighbourhood scale (home within 15 minutes) to an existing town centre or strategic growth area identified within a local strategic planning statement or regional plan?
4. Does the mining site provide an opportunity for local investment of active land uses?
5. Does existing land zoning provide land use permissibility for future active use potential that will offer alternative post mining land uses over default land uses as per the Regional NSW Practical Guide: Post mining land use (2023)?

To enable effective assessment requires data and documentation available publicly through sites such as MinView and the NSW Major Projects Planning Portal and the Mine Rehabilitation Portal. Access to mine closure plans, rehabilitation plans and other plans

of management required as conditions of consent is necessary to inform land use planning decisions, however these documents (as noted above) are duplicative leading to inconsistency and complexity.

- b. The development of solar farms, pumped hydro and other clean energy industries***
- c. The compatibility of post mining land sites with commercial projects***
- d. The potential of unlocking surrounding land for residential dwellings, amenities, environmental and educational facilities***
- e. Potential exploration of former and legacy mining sites with modern mining technology to explore deposits in tailings and closed sites***
- f. The development of sites for use for advanced manufacturing, commercial and industrial use***

Response to items b through f are combined.

Whilst land zoning is a significant limitation to post mining land use outcomes, before a new land use can be determined on an individual mine site, there is a need to establish the appropriateness of the final landform and its design. This includes:

- Assessment of the suitability, permissibility and sustainability of the final land use(s) proposed, including actual feasibility and economic viability, as well as linkage between final landform and final land use(s) (that is, will the landform proposed actually provide for the uses identified);
- Viability of the proposed final land uses, including where on the lease or buffer areas these uses could be applied, the relationship between the proposed final land uses and final landform, the integration of these uses with other existing and proposed land uses in the region, including the compatibility and viability of potentially competing uses;
- Potential areas of the mining lease (or mine owned land) where alternative post mining land uses could be applied;
- Relationship between the proposed final land uses and the final landform;
- The integration of these uses with other existing and proposed land uses in the region, including the compatibility and viability of potentially competing uses;
- Final void management actions that will be taken to ensure highwall stability during and post mining, including contingencies for final landform design and rehabilitation outcomes should the highwall de-stabilise during and/or post mining;
- Final void land uses compatible with the expected timeframe to reach equilibrium and expected final depth;
- Analysis of the climate changing risks (temperature, rainfall, fire) on the success of rehabilitation, including the contingency measures that would be implemented in the event rehabilitation fails;
- The consequences of the final land use options, including the final use of the void, on the principles of ecologically sustainable development, in particular, inter-generational equity;

- safety, stability, pollution potential and sustainability of the proposed final land uses in the context of the final landform; and
- Whether any or all of these options will be safe, stable, non-polluting and sustainable in the context of the final landform.

As such, the extent to which any of these post mining land uses identified at (b) to (f) cannot be determined without the work needed to establish the suitability of the site for an outcome that can support any future land use, including renewables, commercial projects, residential, amenities, environmental/educational facilities, exploration and advanced manufacturing/ commercial/industrial developments.

(f) How to ensure the benefit from innovative post mine land uses are shared between the community and mine operators

(g) The expectations of mining communities in relation to post-mine land use, and how to balance this with innovative reuse of existing infrastructure

Response to item (f) and (g) are combined.

Benefit sharing in this context has multiple meanings. If the question is how industry benefits from changes to land use, the answer is commercially through reduced time to lease relinquishment and reduced long-term holding costs for land that cannot be used for an alternative purpose until certain criteria are met. That is, for a commercial mining operation, the question needs to be whether holding costs to meet safe and stable outcomes exceed the costs of transition to an alternative post mining land use.

For example, a mining operation that proposes to retain a final void at the end of its life must, before it can satisfy the Mining Act requirement for rehabilitation, ensure that the void is safe and stable. Void stability is achieved when the void reaches equilibrium. In some cases, void equilibrium can be 100s of years into the future¹. The question becomes – is the holding cost associated with achieving equilibrium greater or less than the cost of transitioning a final void to an alternative post mining land use? This is not a question for government policy, however, should be part of the economic impact assessment requirements for new development applications.

If the question is one of community benefit, the answer is more complex. Community benefits are likely to take many forms and will include social and environmental considerations. These matters need to be investigated in collaboration with the community to ensure any post mining land use does not create a greater impact to communities that are already affected.

In Singleton, a transitioning economy to diversified land uses will have flow on positive consequences and risks for housing (including access and affordability), locally provided infrastructure (such as potable water and sewer), road networks, waste services, health

¹ *The Hole Truth: the mess coal companies plan to leave in NSW*, Energy Resource Insights Submission to the Parliamentary Inquiry on Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities, June 2016.

services, community facilities, as well as environmental consequences related to climate change, biodiversity, heritage, surface and groundwater, soil carbon, land capability and land productivity. Community dynamics and the social structures that underpin this will also be affected.

To ensure both risks and benefits are known, understood and transparent, a benefit sharing approach at a strategic scale is required, noting that the EP&A Act provides for financial contributions at both the strategic planning and development application stage through Division 7.1 of the Act.

Defining the nature and scale of benefits (for both industry and the community), establishing clear and measurable outcomes to report progress against and creating flexibility as and when community expectations change is adaptive management. Adaptive management considers both the planning needs for a changing landscape and the stakeholder engagement responses to these needs. Identifying the objectives and values that are important to stakeholders will ensure outcomes are based upon an agreed understanding of risks, costs, benefits, consequences and resilience.

(h) The need to develop a robust independent regulatory framework to maintain and advance best practice in this area; and

The current regulatory framework for mining is complex. Council does not see the need for increasing complexity, rather post mining land use should be integrated within the existing regulatory framework under Part 3 of the EP&A Act. Council's Post Mining Land Use Framework sits within the strategic land use planning requirements set out in Division 3.1 and Division 3.1 of the Act. The challenge, as part of the Framework, is to investigate and understand what, if any, regulatory impediments exist to prevent planning for future land uses. This includes a need to understand what, if any, impediments the Mining Act imposes to land use outcomes.

(i) Any other related matters.

Council has identified the following items that require consideration as part of this Inquiry, and any future recommendations:

- Current government policy lacks clarity on mitigation measures to manage climate change and climate adaptation measures. Further adaptive measures should be identified and planned for to ensure post mining land use outcomes can be achieved.
- Seek discussion with First Nations peoples to determine their desired involvement in post mining land use planning.
- Consideration of mining lease expiration dates to ensure adequate preparation for transition, including overlap of any mining closure plans and strategies that may be developed as part of exit strategies.

- A review of the robustness of the rehabilitation security deposit process and how this is affected by a changing post mining land use outcome.
- The timeframes to plan, achieve and deliver land use and infrastructure requirements and who is responsible for these, in both the short and long term. Will these create their own legacy issues for future owners/users?
- Understanding industry concerns regarding sovereign risks and residual risk (once ownership is transferred), especially the inter-relationship between the Environmental Planning and Assessment Act and the Mining Act.

SINGLETON IN CONTEXT

The Singleton Local Government Area comprises over 92,000 hectares of coal mining lease and exploration land, making it one of the largest mining areas in New South Wales. The area of land attributable to mining related activities accounts for almost 40% of the total area of available land in the LGA (excluding National Parks and State Conservation Areas). Singleton is the 3rd largest economy in Australia's largest regional economy, the Hunter. Singleton's economy contributes over \$13B to the State of NSW and employs over 18,400 people, with over 50% travelling into the LGA for work every day from other parts of the Hunter region, including the lower Hunter.

As such, any reforms related to how land will be used post mining is important to the future economy of the Hunter Region.

In terms of mining rehabilitation and post mining land use, Singleton Council primarily plays an advocacy role in relation to achieving sustainable rehabilitation outcomes and a responsive role in terms of managing land use on and around rehabilitated mining land. In addition to being safe and stable, community feedback is that rehabilitated mining land should be used for productive and beneficial purposes. To support community feedback, Council has made numerous submissions on NSW Department of Planning, Housing and Infrastructure/Resource Regulator reforms, State significant development applications, mining operation rehabilitation management plans, rehabilitation strategies and rehabilitation objectives, outlining the need to ensure final landforms are designed with an identified and achievable end use in mind.

THE NEED FOR CHANGE

In 1999, the NSW Government prepared a regional strategy on mined land rehabilitation, commonly referred to as the Synoptic Plan. This Plan provided a broad overview of how rehabilitated landforms following mining could be integrated and rehabilitated consistently to provide for a seamless landscape post closure. The Synoptic Plan was not embedded in legislation, however, formed the foundation for current landform design across the Singleton LGA.

Since the Synoptic Plan, community sentiment towards post mining land use has shifted from the historical grazing/agricultural and biodiversity outcomes to the provision of land uses that are productive, beneficial, sustainable and, most importantly, achievable.

As mining is a temporary land use, it leaves behind a legacy of changing expectations for the subsequent re-use of land post mining. Activities associated with mining can generate impacts that limit the post mining use of land, including site access, water quality, soil stability, soil fertility, contamination, spontaneous combustion and safety.

Singleton Council has seen a shift in community sentiment towards the use of land post mining, especially through the last two Community Strategic Plan consultation programs with a desire in our community to do something to secure a diverse and sustainable

future. Our community wants to know the future is bright, well planned and considerate of both the current impacts and benefits of mining, and the future uncertainties that long lead times towards the end of mining can be factored into our planning approach.

The Hunter Regional Plan has identified former mining as regionally significant growth areas, creating collaboration opportunities with Federal, State and local government, and other stakeholders in the housing and employment sectors.

Our Local Strategic Planning Statement identifies post mining land use as a critical planning priority for the future of Singleton. With over 40,000 hectares of land currently excluded from strategic land use planning frameworks locally and regionally, there is a significant opportunity for improvement.

The current approval process for mining projects creates a disconnect between local land use planning outcomes and community expectations for post mining land use. The needs of the community for certainty in how our LGA is planned has been reflected in our Advocacy Agenda, which we have used to raise these issues with Government ministers, members of Parliament, the Minerals Council of Australia, industry, the Independent Planning Commission, the Department of Planning, Housing and Infrastructure, the Resource Regulator and Regional NSW.

Our Advocacy Agenda includes the need to resource and develop transparent land use-based policies that align with local strategic land use planning outcomes, master planning to determine the next highest and best use options for individual sites as well as the whole landscape and ensure this is done so without putting at risk approved mining operations. The need for commitment to resourcing land use planning outcomes and highest and best use of mining lands is a key pillar of this agenda.

Our community (both local and broader) demands a response. Through the work completed in 2023 by Hunter Renewal, we can see a local demand for a holistic and transparent planning process. The Hunter Jobs Alliance and Upper Hunter Mining Dialogue are important advocates for supporting change.

Mining activities are regulated through both the Environmental Planning and Assessment Act 1979 and the Mining Act 1992. Development consent is required to undertake mining and a mining lease is required for extraction. Development consents include objectives and plans for the management of mining operations, including closure. Mining lease conditions include requirements for rehabilitation.

This regulatory approach has created confusion and complexity which have compounded over time. The issue is either a mining issue or a land use issue – it should not be both. Setting potentially different and/or competing expectations through different legislative frameworks allows industry to meet bare minimum requirements for planning for end of life, whilst not really planning at all.

THE IMPACT OF LANGUAGE

The *Mining Act 1992* defines rehabilitation as the treatment or management of disturbed land or water to establish a safe and stable environment. This definition of rehabilitation is in fact the only legal definition for a post mining land use outcome in NSW.

There is no statutory definition of mine closure in NSW but requirements for closure planning live within conditions of consent. The *Mine closure leading practice sustainable development program for the mining industry* (sept 2016) does not provide a definition for mine closure. The International Council of Mining and Metallurgy Integrated Mine Closure: Good Practice Guide, states that *integrated mine closure is a dynamic and iterative process that takes into account environmental, social and economic considerations at an early stage of mine development. Fundamental to this process is the need to consider closure as an integral part of the mine operations core business.* Defining a closure vision, setting clear objectives and undertaking detailed and comprehensive engagement is required *prior to* the commencement of mining operations. Importantly, the Good Practice Guide states that *where the use of the land after mining can be defined, this greatly aids closure planning. A defined post closure land use, or range of possible land uses and required land capabilities, will inform all aspects of the closure plan* [our emphasis].

Final land use is defined in the Mining Regulation 2016 as *the final landform and land uses to be achieved for the mining area*. The Regulation sets out the ways in which the final land use can be defined and includes where a condition of development consent requires a final land use.

In general terms, final land use means the zoning that will be applicable on the land after the rehabilitation has been completed and the change of land use application has been finally approved. In NSW, mining operators are required to consider final land use at the development consent stage. In support of this, the Resources and Energy SEPP includes matters for consideration in Part 2.1 at clause 2.17 regarding compatibility of the mine with other land uses (including whether the development is likely to have a significant impact on surrounding land uses), and clause 2.19 regarding compatibility of other developments with mining. The SEPP includes, at clause 2.23, consent authority considerations in relation to rehabilitation outcomes but falls short of defining these in terms of safe, stable and non-polluting landform outcomes.

Rehabilitation (being a safe, stable and non-polluting landform) does not provide an avenue to develop or determine post mining land uses and lies within the Mining Act, and mine closure/final land use are not defined within the EP&A Act, but the function of planning for such outcomes lies within a development assessment process, meaning the relationship between rehabilitation and land use outcomes is complex. We provide an example of this complexity below.

In addition to this, a range of technical terms for post mining outcomes are used in scientific and common media sources and include:

- Restoration is assisting the recovery of an ecosystem that has been degraded, damaged or destroyed.
- Reclamation is modifying land that has been mined to ecologically functional or economically usable state. It includes the removal of unwanted structures, equipment used during operation and stabilization of landforms.

Language is important, in that it creates both a frame of reference and can draw different stakeholders together under the same paradigm. But we speak a different language. Until we use language that is meaningful and consistent, we are not chasing the same paradigm.

On the one hand we have an industry that is legally obligated to do one thing – create a safe, stable and non-polluting landform. On the other hand, we have communities and governments that want to see the land used in a functional way that contributes back to the economy without impacting the current suite of benefits provided.

A COMPLEX REGULATORY LANDSCAPE

As an example of the complex interplay between Part 4 of the Environmental Planning and Assessment Act and the Mining Act is a recent coal mining modification application that proposed to extend mining operations for a further period of two (2) years. This follows a previous modification which sought an 18-month extension to allow continuation of mining operations whilst the Applicant sought a new State significant development for a further 20 years of mining.

There are existing conditions of consent that required the Applicant to prepare (amongst other things) a Final Void Management Plan and Mine Closure Plan. The timing for preparation of these documents was not defined in the conditions of consent. These documented requirements appear to have been incorporated into an approved Mining Operations Plan, a requirement under the conditions of title imposed under the Mining Act 1992.

A review of the adopted Mining Operations Plan however stated that, in accordance with the conditions of consent, *a Final Void Management Plan will be prepared as part of the mine closure planning process*. The Mining Operations Plan states that while the mining operation *is within five years of the current approved mine life ... DPIE are currently assessing an application for the [extension project] which will seek approval to extend open cut mining operations ... Should the [extension project] not be approved, [the mining operation] would commence detailed closure planning*.

The detailed mine closure plan will (amongst other things) be developed at least two years prior to the anticipated mine closure date which is yet to be determined.

In addition to these documents, the mining operation was also required to prepare a Rehabilitation Strategy and a Rehabilitation and Offset Management Plan as well as

complete regulated rehabilitation reporting requirements. This overlay of strategies, plans and reports creates a complex inter-relationship of actions that are difficult to follow.

Closure planning requirements are required by both the EP& A Act and the Mining Act, which are documented in a suite of strategies and plans creating a complex and confusing array of intertwined management actions and outcomes that oftentimes appear contradictory. It is difficult to navigate these complex interactions, and the process of closure planning needs to be simplified.

It is unlikely from the history within this example that there is no plan for closure of this mining operation, despite conditions of consent to do so. Council's concerns regarding this complex interrelationship, and the closure planning status of other mining operations, have been well documented within the public arena.

What is missing is the step before a development application – the strategic land use landscape that provides the direction needed to determine how the development assessment process (as it relates to post mining land uses) is undertaken. If this step in the process were complete, the development assessment process, post approval conditions and reporting requirements could be streamlined.

POST MINING LAND – A STRATEGIC LAND USE PLANNING CONUNDRUM

Post mining land use is a challenge for all levels of government, the mining industry, the broader development industry, researchers and the community, who will all need to work collaboratively together to achieve consistent, transparent and sustainable outcomes that provide certainty and create future job opportunities.

The challenge for post mining land use outcomes is one of land use planning. Post mining land needs to be zoned to allow for highest and best future land uses to take place. Land use planning has a long-term horizon, often looking decades ahead. These long-term strategies for post mined land are required to hold sufficient flexibility to respond to changing community expectations as mines progress through their life and deliver land use planning outcomes that are consistent with the broader land use planning objectives for the Region.

Making decisions that affect the use of rehabilitated mining land and of mining buffer land that is no longer subject to impacts from mining, can be complex and subject to varying degrees of risk. As such, it is important to have in place a process that will address the risk aversion of industry, minimise complexity and to allow for best outcomes to be achieved for the whole LGA.

Land use is established by the permissible uses set out in the definitions of the Standard Instrument Local Environmental Plan. Permissible uses depend on the zone and the land

use objectives that have been established to support the development of land across the State. Most mining operations within the Singleton Local Government Areas are located within land zoned RU1.

This zone provides the following objectives:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.

Permissible land uses include, amongst other things, agriculture; animal boarding or training establishments; camping grounds; caravan parks; community facilities; crematoria; dual occupancies; dwelling houses; environmental facilities; extractive industries; farm stay accommodation; hazardous industries; heavy industrial storage establishments; highway service centres; information and education facilities; intensive livestock agriculture; offensive industries; plant nurseries; recreation areas; recreation facilities (outdoor); rural industries; service stations; truck depots; turf farming. Each of these terms is defined and allows a suite of final land uses permissible without the need for rezoning.

In the event the final land use is not permissible in the zone, the land will require rezoning and an amendment to the respective Local Environmental Plan. This is not a process that can be side-stepped through Part 4 of the EP&A Act. The Resources and Energy SEPP provides the permissibility pathway for mining projects, it does not provide a permissibility pathway for post mining land uses as these are unlikely to be mining or ancillary to mining. As such, it requires strategic planning and rezoning under Part 3 of the EP&A Act.

Rezoning requires consistency with Ministerial Directions set under section 9.1 of the EP&A Act. These directions include assessment of, amongst other things, the strategic context and need for the development (in terms of its long-term feasibility and viability), sustainability, suitability and, importantly, whether the proposed change in use can be delivered.

There is a lack of understanding by industry of the statutory role of strategic land use planning, not just for post mining land uses, but for all land. Strategic land use planning is undertaken through Part 3 of the EPA Act. The familiar approach, seeking development consent, adopts a case-by-case approach to identifying final land uses on an individual site and attempts to use the development application processes to establish uses following completion of mining. In addition, post mining land uses proposed as part of a case-by-case development application may not be permissible in the existing zone. This lack of understanding delays important processes and decisions.

Strategic considerations for feasible, viable, sustainable, suitable and functional land uses must be defined and incorporated into Ministerial Directions and/or SEPP amendments to ensure consistent outcomes across the region.

There is currently no coordinated approach to the development of post mining land use outcomes in the Hunter region. As identified above, both local council and various NSW government departments, as well as research organisations and the development industry, are undertaking work in this space, whilst industry applies a case-by-case approach through the development assessment and mining lease compliance processes, or the adoption of principles identified in documents such as the ICMM Integrated Mine Closure: Good Practice Guide. There is a need to create a single source of truth to support a coordinated approach to the development of place strategy(ies) for post mining land use in the Upper Hunter. Singleton Council has designed a future land use planning project to provide that coordinated outcome.

POST MINING LAND USE LANDSCAPE IN SINGLETON

In July 2020, Singleton Council adopted the Singleton Local Strategic Planning Statement 2041. This Statement leads with a vision to be an internationally recognised mining centre of excellence, leader in sustainable post-mining transition, with diverse post mining development outcomes and an innovative economy.

This statement identified the importance of mining to the local economy, and highlighted the following strategic planning positions:

- Alternative options to returning post-mined land to its pre-mined state should only be considered where comprehensive, detailed and defensible study information demonstrates that the alternative option is appropriate in light of environmental impacts, contextual considerations and relevant Council plans.
- Where they are not intended to be activated, the relinquishment and surrender of mining explorations permits, mineral development licenses and mining leases will be encouraged.
- Where confidence can be given that non-mined mining buffer land will no longer be impacted by mining activities or associated operations into the foreseeable future, consideration will be given to whether the land use planning provisions that apply to that land remain appropriate, on the basis that it is no longer going to be subject to mining impacts.
- Through advocacy and collaboration, we will work with government agencies and industry professionals to achieve rehabilitation outcomes that are sustainable and appropriate for respective sites and locations.

Since the adoption of the LSPS, the following State government documents relevant to post mining land use have been adopted:

1. Strategic Statement on Coal Exploration and Mining in NSW (Regional NSW)
2. Hunter Regional Plan 2041 (Department of Planning and Environment)
3. Hunter Regional Economic Development Strategy – 2023 Update (Department of Regional NSW)
4. Practical Guide: Post Mining Land Use (Mining, Exploration and Geosciences)

These documents set out, from different perspectives, principles, strategies and stages for planning for post mining land uses.

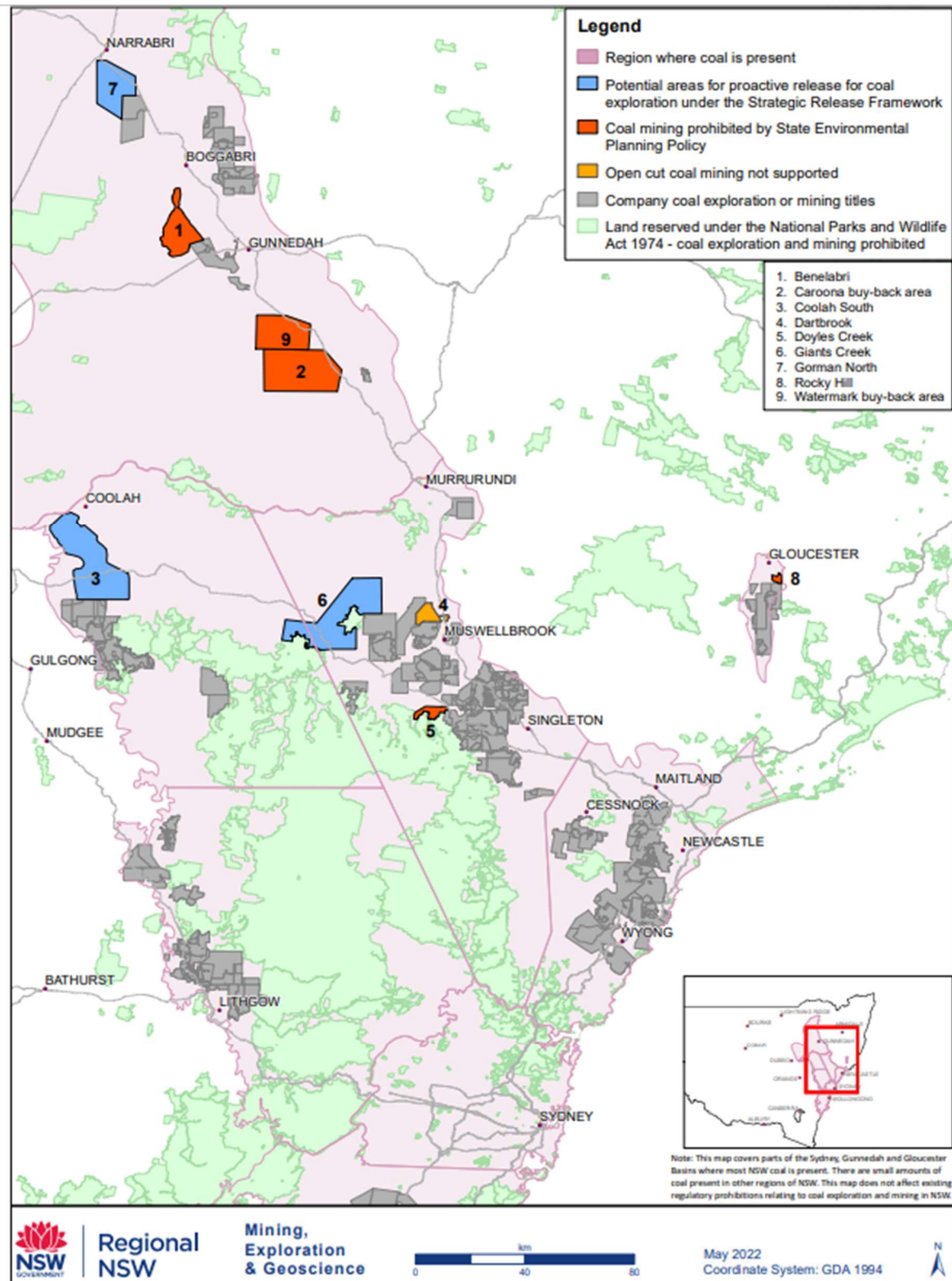
Strategic Statement on Coal Exploration and Mining in NSW

This Statement set out how the NSW Government plans to manage the transition to a low carbon future and manage the impact for coal-reliant communities. The Statement sets out four actions:

1. Improving certainty about where coal mining should not occur.
2. Supporting responsible coal production in areas deemed suitable for mining.
3. Addressing community concerns about the impacts of coal mining.
4. Supporting diversification of coal-reliant regional economies to assist with the phase-out of thermal coal mining.

Specific to land use planning outcomes, the Statement commits the NSW Government to strengthen the regulatory requirements for mine rehabilitation and closure planning, facilitate beneficial uses of coal mining land once mining has ended and develop and implement location specific plans to diversity those regional economies that are heavily dependent on coal mining. Importantly, the Statement identifies the need for a systematic, place-based approach to transition planning, with a focus on the Upper Hunter (given the importance of the coal industry in that region).

The below map was developed to support the Strategic Statement on Coal Exploration and Mining in NSW.



The Hunter Regional Plan 2041

The HRP 2041 sets out the post mining land use performance outcomes will:

- Maximise employment generation or attract visitors to the region

- Make use of voids and/or site infrastructure such as rail loops, hard stand areas, power, water and road access
- Support the growth of adjoining industrial areas or settlement areas
- Enhance corridors within the landscape such as biodiversity corridors or disused infrastructure corridors
- Complement areas with special amenity value such as critical industry clusters, open space, villages and residential areas
- Have considered the existing and likely future uses of adjoining land and avoid land use conflict
- Align with any specific guidance in the district planning priorities set out in the HRP 2041

Where a planning proposal doesn't meet these requirements, any change in zoning needs to demonstrate how the following will be achieved:

1. Power stations and coal mines facilitate diverse job opportunities on their land either during operation or following closure, with land uses responsive to the characteristics of the locality
2. Employment lands provide a variety of employment uses and diversify the employment base
3. Employment lands close to inter-regional links support freight, logistics and industries which benefit from connections to inter-regional or global markets
4. Employment lands close to renewable energy zones support manufacturing related to renewables and energy intensive industries and clustering of businesses which support those activities
5. Circular economy industries and facilities are in appropriate sites
6. New employment lands are serviced, manage biodiversity impacts and are situated to avoid land use conflict
7. Employment lands are retained and safeguarded by limiting the encroachment of sensitive land uses

Additionally, the HRP 2041 identifies specific place strategy outcomes for former mining land:

1. Areas of interest (operational land suited for alternative post-mining land uses that generate employment and includes hard stands, existing infrastructure areas, workshops, stores, treatment plants, rail loops) – intensive employment activities take advantage of screening, utilise existing disturbed areas and leverage repurposed mine infrastructure
2. Operational land (land historically or actively used for mining operations or approved for mining operations that has been directly affected by mining and will require rehabilitation work):
 - a) Ensure employment generating activities complement the constraints associated with these lands, such as slope, stability and visual impacts

- b) Consider tourism or existing rural industries, such as food and fibre production
 - c) Repurpose voids where possible to support renewable energy generation or as a resource that supports employment uses elsewhere on the site
 - d) Promote biodiversity corridors, connecting sites to vegetated areas including those required under rehabilitation requirements of adjoining mines
 - e) Understand and support cultural and scenic values
3. Non-operational land (land managed by mining operations but not part of active or historical mining operations. This land will not require rehabilitation and may be used as a buffer):
- a) Ensure employment generating land uses are appropriate to the surrounds and are undertaken either concurrently or following completion of mining operations
 - b) Use areas with alluvial soils or irrigation for intensive agricultural land uses
 - c) Promote biodiversity corridors and connect them to adjoining vegetated areas including those required under the rehabilitation requirements of adjoining mines
 - d) Buffer or visually screen employment generating uses located elsewhere on the former mine site

Existing and new land uses post operational activities will be required to consider these elements of the HRP 2041.

The Hunter Regional Plan 2041 identifies the following operational mines within the Upper Hunter as the Regionally Significant Growth Area.

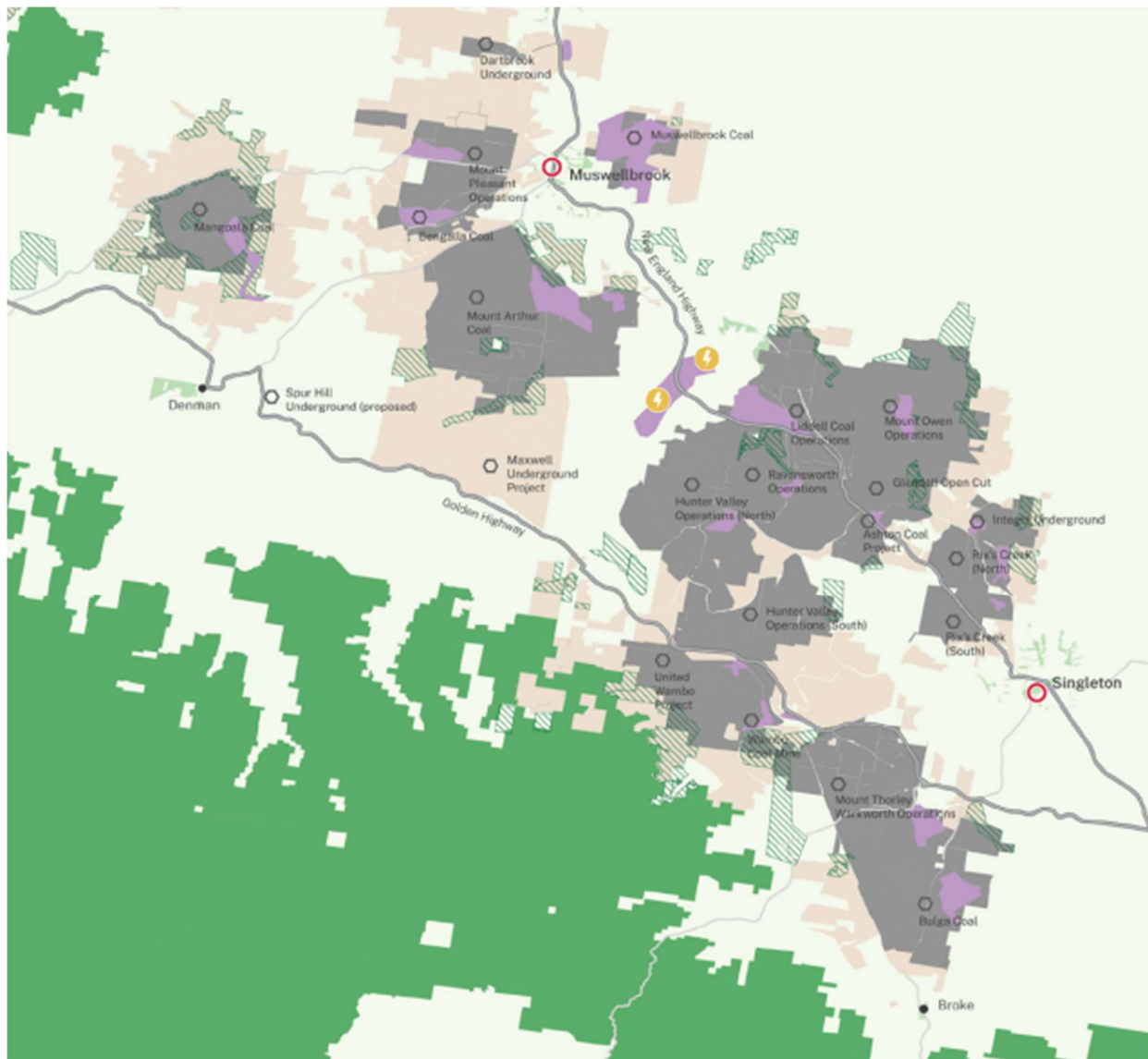


Figure 23: Post Mining regionally significant growth area



Hunter Regional Economic Development Strategy – 2023 Update

The Hunter REDs identifies the following strategies as key enablers of economic growth:

1. Improve inter and intra connectivity of the region to boost business opportunities in the ‘engine’ industries of agriculture, mining, manufacturing and tourism.

2. Diversify the region's economy to build resilience while leveraging opportunities presented by transformative change in the mining and energy sectors.
3. Improve infrastructure, services and amenities to fully realise and sustain the region's growth potential.
4. Invest in development of the region's local workforce capability and capacity.

Consideration of these strategic drivers will be required for new land uses post completion of mining operations. The Hunter REDS aligns strategy 1 and 2 with the framework set out in the Hunter Regional Plan 2041 through delivery of place-based planning outcomes.

Practice Guide – Post Mining Land Use

The guide aligns with the NSW Government Strategic Statement on Coal Exploration and Mining in NSW (Future of Coal Statement), as discussed above.

Identification of a post mining land use is a requirement of the Mining Act 1992 as all land disturbed must be rehabilitated back to a state that is safe and stable.

PMLU planning should take place at all stages of a mining life cycle. The guide encourages mining operators to implement alternative PMLU which enables compliance with rehabilitation obligations whilst supporting economic opportunities in regional communities.

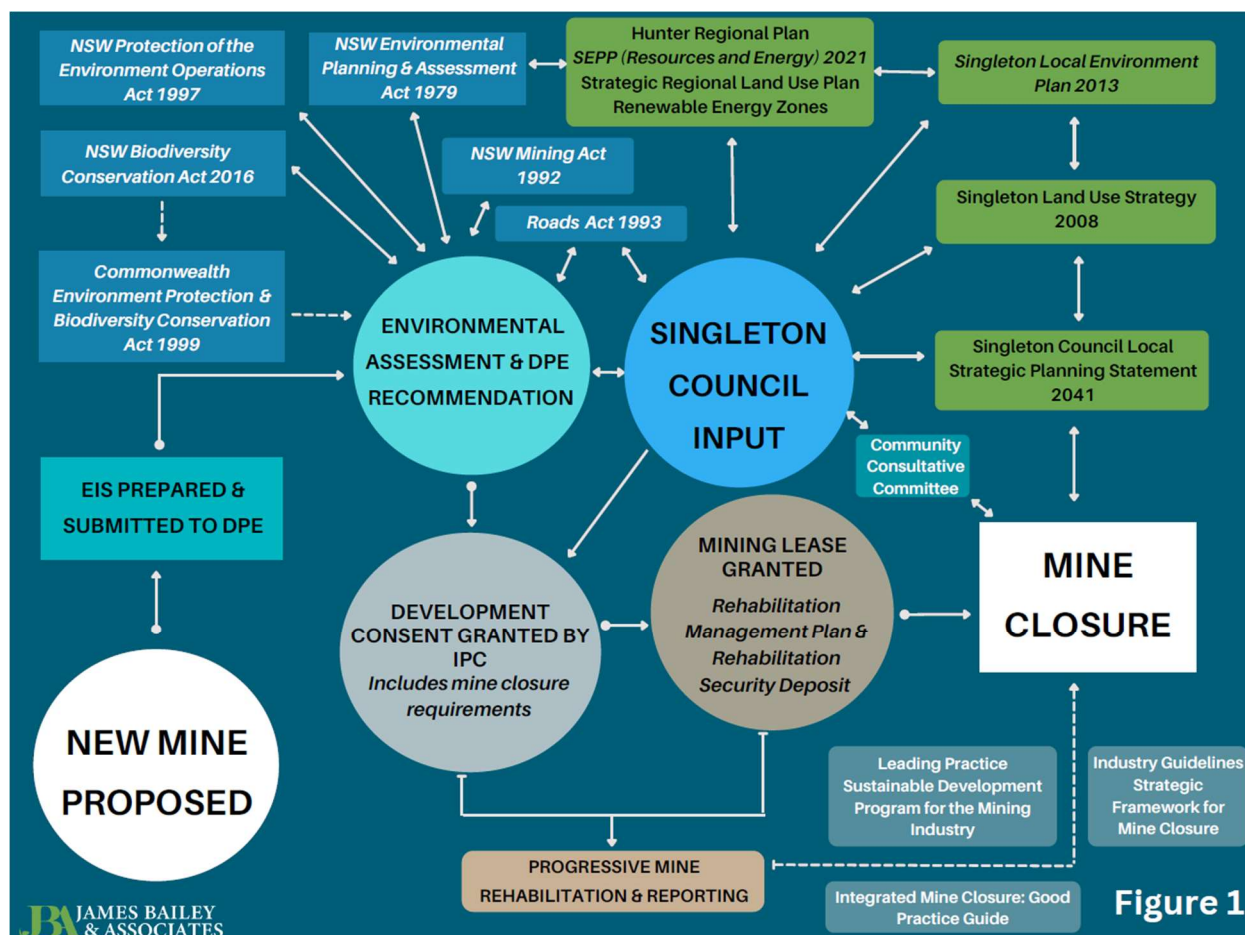
The guide provides examples of how post-industrial land uses have been undertaken across NSW.

Summary

It is clear from the regulatory framework and land use planning strategies at both the local and State level, there is a complex interaction of policy objectives, planning outcomes and regulation that requires a consistent, transparent, whole of government approach to the use of land following completion of mining operations.

BRINGING IT ALL TOGETHER

Singleton Council has been considering a post mining land use future since the development of the Synoptic Plan and, more recently, the adoption of the Local Strategic Planning Statement. In terms of land use planning, council has prepared a Situation Report and Analysis that sets the landscape for current and approved post mining land uses within the LGA. A mind map that sets out the complex inter-relationship of mine closure regulation has been reproduced below.



Council has prepared a Post Mining Land Use Analysis Framework that acknowledges the gap in knowledge and practical implementation of post mining land use outcomes. It provides a methodology to determine sites with the greatest post mining land use opportunities based on a series of questions in a staged assessment process.

Drawing on this background, council has developed a Post Mining Land Use Strategic Plan that recognises the significant challenge for all levels of government, industry, the broader development industry, researchers and the community as well as the importance of collaboration to deliver consistent, transparent and sustainable outcomes that provide certainty and create future job opportunities.

Making decisions that affect the use of rehabilitated mining land and of mining buffer land that is no longer subject to impacts from mining, can be complex and subject to varying degrees of risk. As such, it is important to have in place a process that will address the risk aversion of industry, minimise complexity and to allow for best outcomes to be achieved for the whole LGA.

In parallel and equally importantly, council has developed Invest Singleton which recognises the existing endowments of the Singleton LGA for investment now.

Council recognises the need to create a single source of truth to support a coordinated approach to the development of place strategy(ies) for post mining land use in the Upper

Hunter. Singleton Council has designed a future land use planning project to provide that coordinated outcome.

An overview of the framework is as follows:

Constraints and Opportunities

1. Define the context, develop an understanding of land use and infrastructure opportunities and constraints through:
 - the existing regulatory framework
 - undertaking an audit mine consents to determine the expected life of mine operations
 - identifying current approved obligations for post mining land uses and zoning constraints
 - identification of existing public and private infrastructure assets across the project area
2. Create a vision for post mining land use that takes into consideration local context
3. Undertake legal review of regulatory framework and planning controls

Noting that existing constraints include (but are not limited to) biodiversity, bushfire, flooding, critical industry clusters and buffers, heritage (European and Aboriginal), infrastructure (water, sewer, telecommunications, electricity), public spaces, significant agricultural lands, visual, landscape/character, and employment/economic analysis.

Stakeholder Engagement

1. Initial consultation with key State Government stakeholders to determine the status of the work undertaken by each agency in developing post mining land use outcomes
2. Prepare a stakeholder engagement strategy that includes key stakeholders with an interest in the outcome, including First Nations peoples

Planning

1. Establish the relevant planning directions required
2. Undertake mapping of various domains (Interest areas, operational land, nonoperational land and their component parts) and identify availability of existing spatial land use data from industry and government
3. Investigate opportunities for spatial connectiveness through consistent land use approaches and the opportunity for enhanced biophysical corridors throughout the LGAs
4. Define precincts and planning priorities for each
5. Define infrastructure needed to support precinct development
6. Produce a land use planning strategy

The outcomes will be:

- A series of map layers detailing:
 - environmental and social constraints (biodiversity, bushfire, water, flooding, agriculture, public spaces)
 - Existing infrastructure available at a site level, in context with regional infrastructure
- Analysis of each site against the criteria set out in the Singleton Post Mining Land Use Framework
- Infrastructure needs analysis (including sequencing, timing and funding)
- Proposed future land uses, rezoning requirements and planning principles
- Sequencing plan for both infrastructure and re-zoning based on closure timeframes

Council 's approach provides transparency, structure and measurable outcomes that are needed in parallel with investment and skills opportunities. In summary, an approach that determines the current situation and creates the environment to enable long term investment.