



REPORT

Pathways to Relinquishment Workshop

7th Annual Mine Rehabilitation Conference,
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1. INTRODUCTION

A three hour workshop was held on Friday 31 March 2017 at the Muswellbrook RSL club as part of the Tom Farrell Institute (Newcastle University) rehabilitation conference. The workshop was facilitated by independent consultants Donna Pershke and Peter Elliott. The workshop was attended by a participants representing a broad range of interests including State and Local Government (planning and regulatory functions), mining industry, consultants, academia and community.

This report captures the outputs from the workshop (Appendix A to Appendix E) and summarises the key themes arising during discussions (Section 2). Some brief concluding remarks are provided in Section 3.

Workshop Goal

The workshop's goal was to identify, through multiple stakeholders, the opportunities, barriers, enablers and responsibilities for establishing pathways to:

- More productive end land uses post mining
- Enabling miners to successfully relinquish their responsibility for their mine lease
- Assisting the transition to the next landholder

Workshop Process

To set the scene, the facilitators provided a presentation that outlined:

- The potential opportunities for alternative land uses (including examples)
- Some potential challenges in achieving alternative land uses and smooth transition to the next land owner
- A high level summary of the strategic planning context for Muswellbrook

The introductory presentation is provided as Appendix A.

Participants were broken into small groups and a series of questions were posed:

1. Who are the stakeholders?
 - What does each stakeholder want?
 - What is the role of each stakeholder in transitioning to a new land use?
2. What are the opportunities for transitioning to a productive post-mining land use?
 - What is currently working well – can we make it work better?
 - What are the barriers that we need to overcome?
3. Why have only a few mine sites relinquished their lease tenements in NSW?
 - How does the relinquishment process facilitate or hinder transition to a new productive land use?
4. What changes would participants recommend to achieve better outcomes?
 - Who is responsible for making the change?

Each group reported on the outcomes of their discussions prior to moving to the next topic. Sections 2.1 to 2.4 provide a summary of the key themes identified by participants in relation to each question.

2. SUMMARY OF WORKSHOP OUTCOMES

2.1. WHO ARE THE STAKEHOLDERS?

There are several stakeholders that need to be involved to a greater or lesser extent in the decision making required to identify and realise an alternative productive end land use for mine lands (Table 1). These stakeholders have identifiable desires that need to be considered in the process to determine an alternative land use (see below).

Stakeholder Requirements

This session allowed the groups to identify who the stakeholders for mine closure are, and what each stakeholder wants in making the transition to an alternative land use or in relinquishing a mine. Table 1 synthesises participants' opinions on what different stakeholder groups want from mine closure. It shows that there is a degree of alignment between many of the stakeholders on certain themes (e.g. minimal post-closure risk / liability). The workshop ran this session as a brainstorming activity in several small groups. It is possible that even greater alignment would be identified if participants had been asked to rate each stakeholder's interest in the various themes identified in Table 1.

While there may be alignment of many of the stakeholders' desires, there are a number of barriers to relinquishment and transition to a productive land use which are discussed further in Sections 2.2 and 2.3.

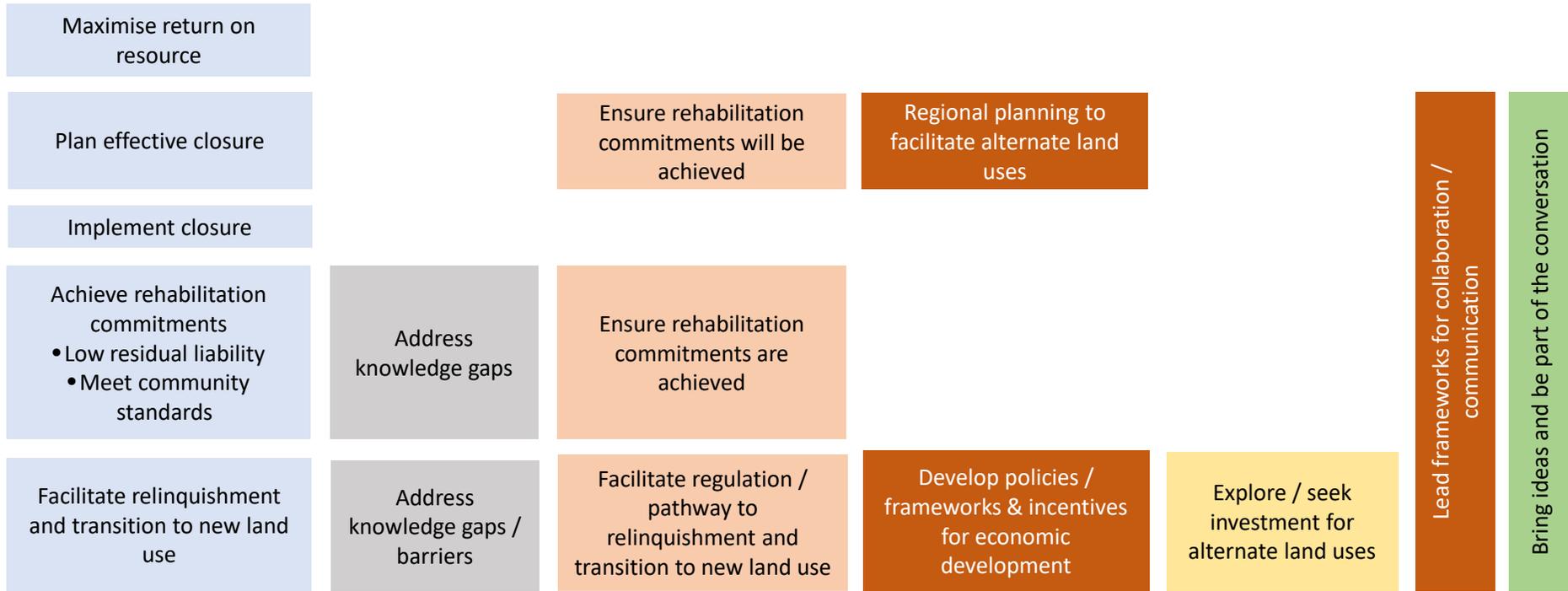
Roles of Stakeholders

Participants were asked to provide their perceptions of the role of each stakeholder group in mine closure and transitioning to a new land use. A synthesis of the participants' perceptions of the roles of each stakeholder is depicted in Figure 1. This shows that there are a number of areas of shared responsibility for achieving effective mine closure that facilitates transition to a new productive land use.

Table 1 Synthesis of participants' responses to the question 'what do stakeholders want?'

Answers to question 'what do stakeholders want?'	Mining Industry & Investors			Government			Existing local Industry & landowners				Future Industries		Community			Other Special Interest		
	Shareholders	Mining companies	State Government	NSW Dept. Planning & Environment	NSW Dept. Resources & Energy	Local Government	Farmers	Landholders	Local industries	Service providers (private & government)	Future industries	Entrepreneurs	Neighbours	Mining Company Employees	General	Research organisations	Utilities services	Transport services
Return on investment																		
No / limited exposure to risk / future liability																		
Certainty in planning & regulation (incl. land use planning which integrates with the Local Environment Plan)																		
Cost efficient rehabilitation																		
Clear and efficient relinquishment process / transition to new land owner																		
Quick return of bond																		
Social licence to operate																		
Productive land suitable for agriculture / more food production																		
Rehabilitation commitments in approvals																		
Achievement of rehabilitation commitments																		
Progressive rehabilitation																		
Sustainable land use outcomes																		
Maximise opportunity for post-mining land use / future investment / business / jobs																		
To be engaged in mining / closure planning process																		
Improved amenity																		
Continued lifestyle and community spirit																		
Preservation of asset value																		
Opportunities for research projects																		

Figure 1 Participants' perceptions of the role of each stakeholder



KEY TO STAKEHOLDERS RESPONSIBLE FOR EACH ROLE



2.2. OPPORTUNITIES FOR TRANSITIONING TO A PRODUCTIVE LAND USE

The participants identified a number of prospective investment opportunities for alternative land use in the Hunter Valley that could be pursued by mining companies which include (refer to Appendix C for full list):

- Intensive and large scale agriculture
- Alternative energy provision through renewables
- Tourism support through more attractive land use of mining infrastructure and landscape
- Conservation initiatives and creation of biodiversity corridors

Enablers – What is Currently Working Well?

To realise these opportunities, several enablers were identified. These include:

- Willingness of mining companies to fund the change to alternative land use
- The proximity of the Hunter Valley to markets and services and enabling infrastructure, including Newcastle and Sydney and ports
- The existing cooperation and collaboration in the community to help facilitate the changes that might be necessary e.g. Upper Hunter Mining Dialogue
- The existing enabling infrastructure within the Hunter Valley e.g. rail, power and water
- The existence of a skilled workforce within the Hunter Valley
- The support of existing service providers and research communities to create innovative solutions

Barriers

The groups also identified a number of barriers to, and questions that need to be resolved in, achieving alternative land use outcomes:

- Over-reliance on the closure planning process to deliver the desired outcomes. There is a need for a whole of government approach to land use determination and more clarity in the regulatory processes needed to implement changes.
- The inertia of all parties to instigate the changes in approach that are needed. This may be due to:
 - The perceived lack of vision for what a post mining landscape could look like
 - Land use conflict
 - A requirement to obtain changes to past regulatory approvals or consent conditions
 - Risk aversion driven by going beyond core business for mining companies, or perceived narrow focus driven by compliance with existing regulation.
- The lack of knowledge sharing between all parties involved in making post mining land use decisions. This requires cooperation and collaboration between companies as well as the companies, community, government and future landholders.

- Lack of funding for initiatives.
 - Who does fund initiatives - is the mining company expected to provide the funding?
 - How much funding is enough?
- Capacity to instigate the change. Land use planning is not core business for mining companies and additional skills need to be brought to the table to facilitate the changes needed.
 - How is this catered for in the mine closure process?
 - Is there a stronger role for local government in the closure planning process?

2.3. RELINQUISHMENT IN NSW

This session asked the workshop attendees to identify why few mine sites have relinquished their tenements in NSW. It also asked how the relinquishment process facilitates or hinders transition to a new productive land use.

Why Few Mine Sites have Relinquished their Tenements

Participants' views on why few mine sites have relinquished their tenements are as follows:

- There is a poor understanding of the relinquishment process.
- Mining companies are aware that there is often additional coal resource to be mined and do not wish to relinquish tenements until all resources have been exploited. These resources may be at depth and may be something that becomes commercial to mine in the future.
- Buffers / mined out areas may not be relinquished as the mining companies do not want their use of land to be in conflict with that of an adjacent land user.
- A fear of liability – who will be responsible for residual liability has sometimes prevented a dialogue with government on what rehabilitated land use can realistically be achieved post mining.
 - Questions on how to deal with residual risk need to be resolved.
- Some mining companies have struggled to achieve successful rehabilitation. There is a poor evidence base on some older rehabilitated sites. Companies need to have the proper level of rehabilitation monitoring in place, and be very clear on closure objectives and criteria.

What Facilitates or Hinders Transition to a New Productive Land Use

Participant's views on what facilitates or hinders transition to a new productive land use were:

- There needs to be adequate funding for alternative productive land use initiatives. This is an area that some miners find difficult as it may go beyond mining's core business. New players may be needed such as entrepreneurs who take on liability and develop the land.
- Community expectations change over time. Mining companies need early certainty of final land uses (to the extent that they affect final landform and rehabilitation) so that they can factor this into operational decision-making and progressive rehabilitation.
- Setting performance / completion criteria for an alternative final land use is complicated by a lack of understanding of who the next / final landholder may be.

- Proper dialogue with stakeholders is required:
 - Sometimes the traditional owner requirements are not well understood.
 - There is a lack of understanding about how stakeholders can be involved.
- There needs to be a ‘customer’ for a final land use. For example, specific issues were cited with Heritage listed sites:
 - Who is ready to receive these?
 - Can the local town afford the ongoing maintenance?

2.4. RECOMMENDATIONS

This session asked the workshop attendees to identify:

- What needs to change to progress the transition to a new land use or relinquishment?
- Who is responsible for making the change?

2.4.1. What Needs to Change?

The following key areas emerged as being important in terms of progressing the transition of closed mine sites to a new land use or relinquishment.

Planning

Government Process

- There is a need for a simple regulatory framework that works across government at all levels to enable planning and regulation to support the transition to alternative land use.
- Regulation needs to:
 - Drive outcomes and provide an appropriate balance between certainty and flexibility.
 - Provide clarity and transparency.
- There is a need to clearly identify the various roles, responsibilities and authorities of different stakeholders for closure.
 - This could take the form of guidelines which clearly articulate the mine closure planning / relinquishment / transition process and identify who is responsible for each step.
- There is a need for a whole of government approach to land use determination and planning for transition to a new land use (involving both State and Local Government land planning functions). This could include:
 - A new strategic plan for the Hunter Valley and incentives to deliver on operational aspects of the plan and the transition process.
 - Elimination of restrictions on development options for varied land use.
- Long term planning needs to find a balance between changing community expectations and providing certainty for mining companies to enable them to plan their final landforms and rehabilitation outcomes.
 - Miners would achieve much better outcomes if there was certainty in the post mining land use – particularly where a native ecosystem is hard to achieve.

Mining Company Process

- Mining companies need to develop closure plans from the outset of the life of mine.
 - Closure design should be considered in mine planning, and barriers to development should be designed out during this process (e.g. high walls).
 - Plans need to be updated regularly in consultation with stakeholders.
 - Incorporating mine closure planning into local community planning would assist this outcome.
 - Objectives and criteria should be agreed with the future landholder and bond-holder.
- In considering options for mine closure, mining companies should place more value on environments (environmental economics) and consider restoration of the whole environment.
- Companies should not defer expenditure on closure and rehabilitation unless a better outcome can be achieved by the deferral of expenditure.

Incentives

Participants made the following observations on incentives:

- Introduce incentives for early relinquishment.
- Create positive incentives for a company if it creates benefits post mining.
- Provide incentives for investors to support opportunities that would encourage further investment and innovation in new land uses.
- Mechanisms for transferring rehabilitation costs or residual liability may facilitate relinquishment and transition to a new land use.
- Miners are interested in protecting their reputations and credit rating.

Collaboration

- Involve the social / people aspect in decision making for alternate land use, this should include an acknowledgement of loss of land / value in some instances (e.g. voids).

Culture

- A change is required to a closed mindset / attitude. The focus should be on solutions not just problems.

Create alternatives

- Alternate options for land use post closure need to be identified and evaluated (e.g. wave pool, green corridors). This is a shared responsibility.

2.4.2. Responsibility for Making the Change

The key stakeholders identified by the participants as responsible for making the changes required are captured in Table 2.

Table 2 Key stakeholders responsible for making the change

Stakeholder	Responsibility
Federal, State and Local Governments	Provide: <ul style="list-style-type: none"> • Guidance • Right incentives • Planning framework Ensure companies provide closure plan at the outset of mining
Mining companies	<ul style="list-style-type: none"> • Compliance with Development Applications (DA) and mining lease requirements. • Consider future use earlier in project (PFS, FS) and: <ul style="list-style-type: none"> - Provide self-education on the possible options. - Regularly review closure options. - Make options clearer at planning stage. • Meet completion criteria • Communicate with stakeholders and be transparent about closure plans.
New land owner / community	Improved communication

3. CONCLUDING REMARKS

The workshop indicated that there is a degree of alignment between many of the stakeholders on certain themes associated with mine closure and a transition to a new productive land use. It also identified a number of enablers which may facilitate the Hunter Valley in transitioning to new land uses including:

- Existing infrastructure.
- Mining companies' willingness to be engaged in the process and to help fund change.
- The existing cooperation and collaboration in the community to help facilitate the changes that might be necessary e.g. Upper Hunter Mining Dialogue.

However, the relinquishment of closed mines and transition to a productive post closure land use is a 'wicked problem' in that:

- No one stakeholder can achieve the transition on its own. The responsibility is shared between many different stakeholders with slightly different drivers. For example, within government, the departments responsible for regulation of mine closure have a different mandate to those departments responsible for planning and economic development. The mandate of those responsible for regulating mine closure is to deliver a closed mine with no / minimal post closure risk which is not necessarily designed to drive an economic development outcome.
- The drivers for mine closure and end land use are interconnected and sometimes conflict. For example:
 - While mining companies might be supportive of creating a productive land use post closure, they do not wish to relinquish tenements that may still contain a viable resource, and do not want their use of land to be in conflict with that of a land user on adjacent relinquished land (e.g. through dust or noise).
 - Mining companies are required to take community expectations into account in defining post-closure land uses and associated closure and rehabilitation designs. However, these expectations change over time. Mining companies need early certainty of final land uses (to the extent that they affect final landform and rehabilitation) so they can factor this into operational decision-making and progressive rehabilitation.

A change will take concerted effort by multiple stakeholders. However, the workshop commenced the process of mapping the various roles and responsibilities of different stakeholders and made a number of recommendations for change.

Further exploration of stakeholder roles and areas of shared responsibility could provide the basis for:

- Identifying linkages:
 - Across government departments
 - Between different government policies and regulatory frameworks
 - Between different stakeholder groups

- Allocating responsibilities for:
 - Considering / implementing some of the recommendations made by the workshop participants
 - Identifying solutions to areas of potential conflict

Specific, targeted workshops may also be helpful in refining recommendations and finding potential solutions to areas of potential conflict.

4. DISCLAIMER

This report captures the views of participants presented in a workshop forum. The views expressed in this report do not necessarily:

- Reflect the views of the authors.
- The views of all of the workshop participants. Views of individuals were captured, and there was no attempt to reach a consensus on these views.

While every attempt has been made to reproduce the workshop outputs from the notes made on flip chart paper and post-it notes, the authors assume no liability for any inaccuracies or omissions.

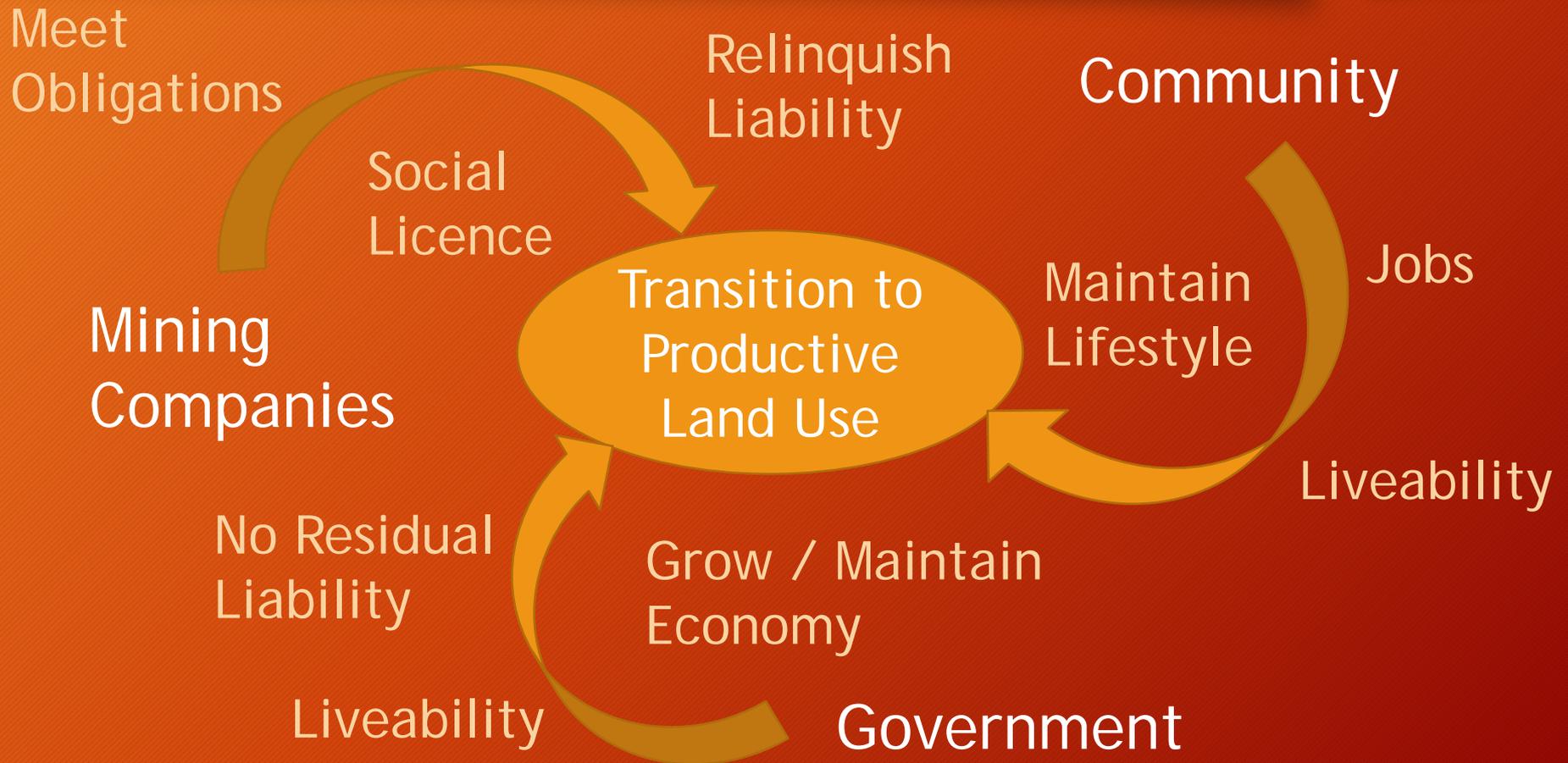
APPENDIX A INTRODUCTORY PRESENTATION

Pathways to Relinquishment

Opportunities to transition to productive
alternate land uses

Workshop

A Win-Win-Win Opportunity



Workshop Objectives

- Identify barriers (real or perceived)
- Identify enablers
- Identify who is responsible for what
- Make recommendations for pathways for:
 - Overcoming barriers
 - Maximising use of enablers

Agenda

- Identify:
 - Local context & key stakeholders
 - Barriers / enablers
 - What needs to change
 - How things could be changed

The Possibilities - Some Examples



Picture Credit Wikimedia Commons // BY3.0

Dalhalla Concert Venue
Sweden

Iron Mountain Data
Centre Pennsylvania



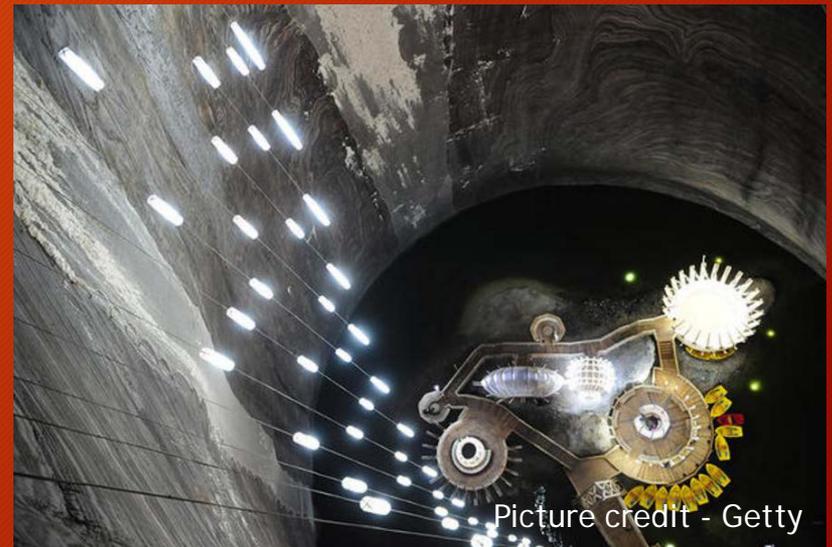
The Possibilities - Some Examples



Picture credit - Michael Turtle

Zollverein Coal Mine
Germany

Underground Theme Park Transylvania



Picture credit - Getty

The Possibilities - Some Examples



Kidston Solar Power &
Pumped Storage Hydro
Queensland



The Possibilities - Some Examples



Picture Credit ABC

Ngalang Boodja Enterprise
Marron Farm
Western Australia

Mount Kembla Memorial
Pathway & Housing
Development
New South Wales



Picture Credit Illawarra Mercury

Some Challenges

- Responsibility for residual liability if a future land use fails
- No one party can achieve this alone:
 - Mining companies
 - Government
 - Community
 - Post mining users /investors
- Funding

Some More Challenges

- Current regulatory and land tenure frameworks or their interpretation
- Conflicting government department drivers
 - Economic development
 - Risk mitigation

Local Context – Regulatory Framework

- Hunter Regional Plan
- Synoptic Plan (out of date)
- Strategic Assessment (biodiversity corridors)
- Upper Hunter Mining Dialogue
- Rehabilitation regulatory reform project (focus on rehabilitation)
- Few applications for Relinquishment

Local Context – Economic Drivers

- NSW:
 - Aspiration to double food production by 2050
 - Gas shortage
 - Government solar power initiative
 - Tourism initiative
- Upper Hunter:
 - 40% thoroughbred horse blood stock in Australia
 - Largest dairy industry in Hunter
 - 40% of viticulture in Hunter

APPENDIX B INFORMATION CAPTURED IN SESSION 1

Questions Posed

- Identify stakeholders and what do they want?
- Role of each stakeholder in transitioning to an alternative productive land use?

Who are the Stakeholders and What do They Want?

Who are the stakeholders?	What do they want?
Mining companies and investors	
Mining companies	<ul style="list-style-type: none"> • Bond return. • Certainty in planning and regulation with a faster approval cycle. • To be able to exit when economics demand - sale, coal price or corporate direction. • Protect assets and achieve rehabilitation at the lowest cost possible. • The next mine. • Social Licence to operate. • Confidence, risk minimisation, transparent process, formal multi-stakeholder process and the ability to relinquish.
Mining companies' shareholders	<ul style="list-style-type: none"> • Less risk. • Maximum return on investment (from land), no liabilities.
Government / regulators - Federal, State and Local	
State Government	<ul style="list-style-type: none"> • Efficient and safe relinquishment of land without residual liabilities to the State. • Productive future land use compatible with community expectations. • Clearer pathways through transition of land ownership and responsibilities. • More food production.
DPE / DRE	<ul style="list-style-type: none"> • Rehabilitation commitments in EISs & development consents. • Mining commitments to be achieved. • Sustainable land use outcomes. • Progressive rehabilitation to be undertaken. • No liability for the State (crown lands) including residual risks post mining. • Maximise opportunity for post mining land use.

Who are the stakeholders?	What do they want?
Local Government	<ul style="list-style-type: none"> To be more fully engaged in the mining / planning process. Opportunity to plan for whole community including mining lands. Clear land use planning process for mines which integrate with Local Environment Plan.
Community	
Employees	<ul style="list-style-type: none"> Jobs.
Neighbours	<ul style="list-style-type: none"> Improved amenity – aesthetic appeal for tourism and locals. Continued lifestyle and community spirit.
Traditional owners / Indigenous people	<ul style="list-style-type: none"> Connection to country, care for country.
Next generation	
Existing local industry & landowners	
Other industry	<ul style="list-style-type: none"> Certainty – co existence. Opportunities. Security. Diversification.
<ul style="list-style-type: none"> Existing landholders 	<ul style="list-style-type: none"> Preservation of asset value. Understanding, knowledge, confidence and comfort.
Secondary industries – social support (schools, health, police)	<ul style="list-style-type: none"> Continued business.
Farmers	<ul style="list-style-type: none"> No mines. Protection of existing land uses. Productive land capable of fit for purpose agriculture e.g. grazing or poultry or glasshouse.
Mine supply chains	
Service providers	<ul style="list-style-type: none"> Continued business.

Who are the stakeholders?	What do they want?
Future industries	
Future land users / industries – Tourism, Energy, Agriculture, Biodiversity	<ul style="list-style-type: none"> • Productive post mining land use / service. • Profitable / funding opportunities. • Diversification. • Co-operation. • Due diligence, knowledge of contamination, stability, medium-long term modelling, residual risks. • Certainty in land use to reduce land use conflict and increase confidence in investment.
Entrepreneurs	<ul style="list-style-type: none"> • Investment certainty, commercial return.
Investors	<ul style="list-style-type: none"> • Attractive Investment / certainty. • Return on investment at acceptable risk. • Clarity of process and potential. • Opening of opportunities. • Access to suitable land. • Work with miners i.e. concurrent operations. • Freedom to operate. • Communication.
Other special interest groups	
Universities / Research organisations	<ul style="list-style-type: none"> • Collaboration / partnerships. • Opportunity to innovate and test. • Government to fund research which informs evidenced based government policy. • Minerals Council to prioritise community and environmental aspects of mining.
NGO's – conservation groups heritage and natural	<ul style="list-style-type: none"> • Energy security
Utilities	<ul style="list-style-type: none"> • Security and source for power generation.
Transport	<ul style="list-style-type: none"> • Free up the use of rail including for passenger services. • Continued and expanded business opportunities.
Local and national communities, employees, schools, hospitals (future and current)	

Roles and responsibilities of stakeholders

Miners – Maximise return from resource with responsibility for well -planned and implemented decommissioning with no future liability to the State or next landholder. To create a safe mine environment to facilitate relinquishment. Responsibility to meet community standards. Bring the skills, people and equipment.

Shareholders – Hold company accountable for its actions.

DPE / DRE - Ensure rehabilitation commitments are achieved.

Local Council / DPE - Undertake regional land use planning to facilitate opportunity for a diversity of final land uses. Encourage employment and economic development opportunities, including large scale industries to replace large job losses.

Entrepreneurs - Identify and explore / seek investment for land uses.

Community – Voice their ideas and being part of the conversation.

Government (various departments State and Federal) – Encourage / fund development of innovative industries and concepts / provide frameworks and incentives. Facilitate the pathway of regulation and legislation. Lead – establish collaborative frameworks that enable interested parties to work together – need to flexible. Driver of economic growth, energy security.

Existing Landholders – Provide / share local knowledge and history.

Neighbours – Don't be a roadblock.

Research organisations – Address key knowledge gaps / barriers to innovation as well as benchmark other case studies world-wide. Make research practical.

Service Providers (private and Government) – Support transition and reskilling of workforce.

Investors- Inject and arrange investment.

APPENDIX C INFORMATION CAPTURED IN SESSION 2

Questions Posed

- Identify the opportunities for transitioning to a productive post-mining land use
- Identify enablers including what is working well – can it be made to work better?
- Identify barriers and what needs to be overcome?

Opportunities for Transitioning to a Productive Post Mining Land Use

- Landscape:
 - Create a diverse landscape (diversification)
 - Biodiversity, conservation, corridors
- Provide infrastructure and freight routes linking to what is already in place
- New businesses
 - Tourism / ecotourism / recreation - adventure park, water bikes, rock climbing, the arts-music (music bowl)
 - Alternative / renewable energy
 - Heavy industry
 - Waste disposal
 - Research / innovation / test area - undertake large scale experiments, provide a leading example of facilitating opportunities to transition to productive post-closure land uses
 - Square Kilometre Array
 - Heritage tours
 - Water storage
 - Things that need large land holdings
- Intensive and large scale agriculture
 - Poultry
 - Aquaculture
- Re-mining of resources
- Provide connection to country and community
- Make use of existing established zones (buffers)

Enablers

- Location
 - Proximity to Newcastle, Sydney, grain belt, and universities
 - Existing infrastructure (e.g. ports)
 - Existing supply chains (back up industries)
- Existing skilled workforce

- Two-way, open communication / collaboration forums
 - Upper Hunter Mining Dialogue – works well
 - Upper Hunter Air Quality Monitoring Network
 - Include communication of industry successes
- Willingness of mining companies to provide money
 - Big companies have budgets for closure / rehabilitation
- Enthusiasm of mining / science professionals
 - Big views
 - Imagination
- Regulators / government / legislation
 - Transparent agreed framework / process
 - Co-ordination (allocation of responsibility)
 - Process for progressive relinquishment
- Planning
 - Planning – could be done better
 - Good buffer zones
- Research / learning / innovation and entrepreneurship
 - Study other industry / mining closures e.g. steel (Newcastle) car (Adelaide)
 - Global examples / learning
 - Support of Universities
 - Best practice
 - Existing processes applied to other sectors e.g. Kurri Kurri
 - Technology improvements
 - GIS portal
- Community
- Funding
 - Investors and investment (dollars) and (environment)
 - Small business support
 - Incentives
- Big companies are good at managing large sites and make money now – but big companies could transition e.g. BP
- Transferrable
- Conservation movement

Barriers

- Government / legislation / regulation
 - Need clarity in processes and policies
 - Co-ordination between levels of Government – need for a whole of government approach
 - Over reliance on one process (mine closure planning)
 - Political cycle
 - Consent conditions
 - Current approval regulations (e.g. flat tops)
- Lack of vision of what approved post-mining landscape looks like
 - Inability to visualise the future / alternative future of a mine (illustrations of what has been done would be useful)
 - Land use conflict
- Capacity to instigate change
- Disincentives
- Inertia of companies / regulators / community
- Conflict between stakeholders and industries
 - Community opposition
 - Absence of information – anti-mining / community will think the worst
 - Misinformation
 - Hostile media
 - Poor stakeholder identification
- Mining company drivers / processes
 - Short term planning
 - Sterilisation of resources
 - Shareholder dividends / KPI's
 - Commodity value change cycle
 - Lack of knowledge sharing
 - Lack of cooperation and collaboration
 - Narrow mindedness of coal companies
 - Companies focus on core business – not land planners, not social scientists
 - Resources – people and plan (use what you have on the ground)
 - NPV – diminishes future liability
- Liability
- Poor understanding of ecological services
- Lack of infrastructure
- Reskilling of employees / skills shortage
- Change in technology
- Physical barriers to the public seeing the mine

- Risk adverse culture
- Sharing of information and transparency
- Lack of funding
 - Who pays and who says we have enough?
- Siege (NSW)
- Timing

APPENDIX D INFORMATION CAPTURED IN SESSION 3

Questions Posed

- Few sites are relinquishing – why?
- How does the process facilitate or hinder transition to a new productive (labour intensive) land use?

Why Few Mines Have Relinquished Tenements

- Don't understand process – who has access – NGOs, photos – poor media
- More coal at depth, miners don't want to sterilise the resource, may need to go into buffers
- Sterilising via tenancy narrows potential land use options
- Regulators don't understand potential land use (not NSW)
- Ability to achieve successful rehabilitation
- Lack of monitoring
- Lack of objectives and criteria
- No evidence base on older rehabilitated sites
- Lack of resources required to shut a mine

What Facilitates / Hinders Transition to a New Productive Land Use?

- Lack of understanding who the next / final landholder is
- Fear of liability – who will be responsible
- Traditional owner requirements not understood
- Miners would achieve much better outcomes if there was certainty in the post mining land use – particularly where native ecosystem is hard to achieve
- Need for long term planning – accommodating changes in community expectations
- Need certainty of promises without it long term is difficult to plan
- Design out barriers to development at beginning of mine life e.g. high walls
- Entrepreneur takes on liability and develops land
- Queensland – risk (residual) money
- Heritage listed sites – who is ready to receive these – more than local town can afford?
- How to deal with residual risk (NSW)? - need for objectives and criteria, identified future landholder / bond

APPENDIX E INFORMATION CAPTURED IN SESSION 4

Questions Posed

- What changes would participants recommend to achieve better outcomes?
- Who is responsible for making the change?

What needs to change?

- Government regulation / planning system
 - Regulation that drives outcomes (balance between certainty and flexibility)
 - State Planning regulations
 - Local government land planning systems
 - Strategic whole valley (Hunter) plan
 - Eliminate restrictions – options for varied land use (flexibility)
 - Identify framework for future land use planning
 - Provision of certainty – guidelines and clear process identifying who is responsible
 - Commissioner for post-mining land use?
 - Enhance the regulatory framework to facilitate mine relinquishment and productive end land use
 - More flexibility in planning framework (early clarity but....)
- Mining company process
 - Closure plan from outset updated regularly in consultation
 - Fitting mine closure planning into local community planning
 - Responsibility of liability not deferred or driven by dollars
- Change in closed mindset / attitude / culture – focus on solutions not just problems
- Collaboration
 - Involve the social / people aspect in the decision making
 - Acknowledge loss of land (voids)
 - Community involvement
- Provide more value on environments (environmental economics) consider restoration of the whole environment.
- Create alternatives e.g. wave pool, green corridors, pit named after premier (skin in the game)
- Incentives for change
 - Funding models
 - Protecting reputations – credit rating
 - Changed regulation / deregulation
 - Opportunity to transfer rehabilitation costs
 - A simpler process
 - Incentives for early relinquishment – positive incentives if creating benefits
 - Incentives for investors that support opportunities
 - Create positive investment opportunities for mining companies

- Barriers to change
 - Awareness of opportunities
 - Stable government / political process
 - Funding / cost
 - Certainty of outcomes
 - Research can delay things
 - Inertia to change
 - Ownership of liabilities

Who is responsible for making the change?

- Everyone - including whole of government in consultation with everybody
- Federal, State and Local Governments - regulators – provision of guidance Tier 1
- Mining companies / Business / Landholder Tier 2
- New owner / Community – improved communication
- State government providing incentives with local government not necessarily providing funding but with the right attitude and planning
- State government ensuring companies provide closure plan from the outset
- Who owns green corridors? Company, farmers, the Crown, us?
- State government provide interpretation centre – must cover all interests
- Mining companies
 - Compliance with DA and mining lease requirements
 - Consider future use earlier in project (PFS, FS) – US example
 - Meet completion criteria
 - Regularly review closure options
 - Make options clearer at planning stage
 - Communication / transparency with stakeholders
 - Self-education on the possible options
- Whoever made money is responsible (government and industry)