HUNTER VALLEY
WINE AND TOURISM ASSOCIATION

Monash Coal Exploration Lease Renewal Submission

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Monash Coal
Exploration Lease Renewal
Submission

Prepared for Hunter Valley Wine & Tourism Association
By

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Recommendations

1. The NSW Government does not renew EL6123 and EL7579 because to do so would be contrary to the Strategic Statement on Coal Exploration and Mining in NSW released in 2020.
2. The NSW Government redraw the boundaries of the Critical Industry Cluster for Viticulture to revert to the boundaries in the published Upper Hunter Strategic Land Use Plan in 2012.
3. The Pokolbin State Forest be declared a National Park.

The Hunter Valley Wine Country is characterised by the rising of the Brokenback Range from the valley floors of Black Creek. Remnant forest along the roadsides provides a reminder of woodland and grasslands which were once abundant across the district. The range is a constant element in the landscape and forms the backdrop to the entirety of Wine Country.

The NSW Government are considering the renewal of two Exploration Leases which combine to be known as the Monash Coal Exploration Leases. They are located between the two wine growing regions of Pokolbin and Broke – Fordwich and extend from the western boundary of De Iuliis Winery in Pokolbin to the Bees Nest Ridge southeast of Broke. The larger of the two ELs (6123) is entirely over part of the Pokolbin State Forest and the other one (EL7579), which is smaller is on land owned by the Department of Defence and is part of the Singleton Military Area in the upper reaches of the valley of Monkey Place Creek. The larger of the two ELs was originally granted in September 2003 and this covered part of the Pokolbin State Forest. The smaller one was granted in July 2010 and this covered land owned by the Department of Defence. EL 7579 expired on 22 July, 2019 and EL6123 expired on 3 September, 2019. An application was made to renew both of the ELs on 15 July, 2019 and this is currently being assessed by the NSW Government. The Monash Coal EL is now owned by Yancoal.

The land covered by the ELs is an important part of the Wonnarua Aboriginal Nation's history and storytelling. In fact, the entire Brokenback range is seen as possessing cultural values to the Wonnarua people. They people have maintained a strong sense of their own cultural identity and links with the land despite the impact of European contact on their traditional lands and culture. Through this sustained identity, they are today continuing to reinvigorate their traditional culture.

The granting of a new coal EL contravenes the Strategic Statement on Coal Exploration and Mining in NSW. This was released by the Government in 2020 and sets out how the Government is approaching the global transition to a low carbon future as well as planning to manage the impact for coal-reliant communities. It notes that the presence of coal mining can lead to uncertainty in a local community and states that *"… the NSW Government will clearly identify areas where higher priority land uses mean that coal exploration and mining cannot occur"* The statement notes that there is a map "*that shows a number of areas that will be ruled out for further coal exploration or coal mining"*. The Monash Mine proposal is not identified as a potential area for release under the Strategic Release Framework and so is not identified by the NSW Government as an area to be released for coal mining. The document also states that "*No proactive releases for coal exploration under the strategic Release Framework. New coal exploration can only occur adjacent to an existing coal title*". Both EL's have lapsed in 2019 and consequently, they must be dealt with as new EL's and that would be clearly contrary to the Strategic Statement. They are not adjacent to any titles with the closest one being Bulga which is 4km to the northwest of the EL's. Therefore, it is against the Government's most recent coal policy to approve these ELs.

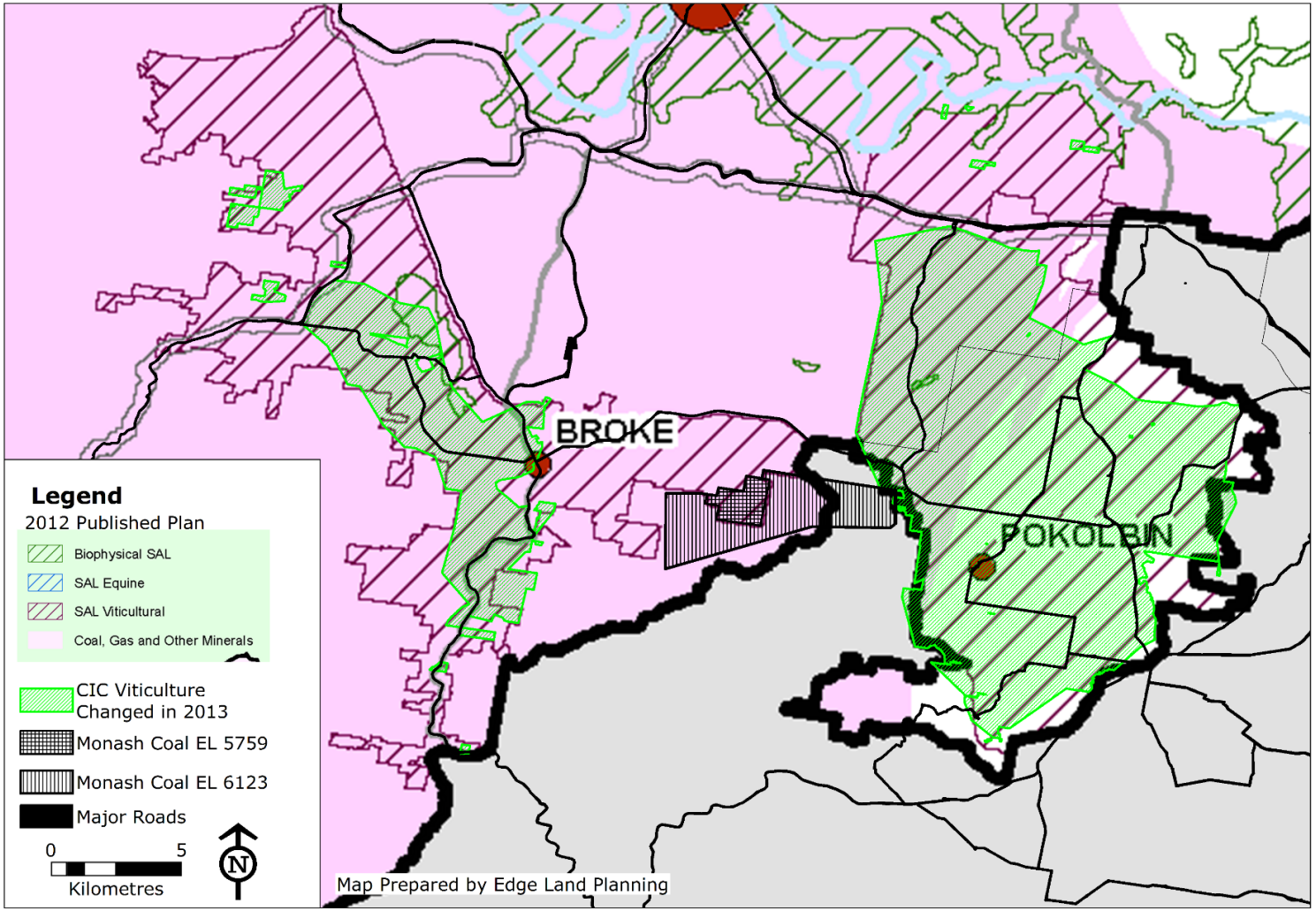
The NSW Government released its Upper Hunter Strategic Regional Land Use Plan in September 2012. It comprises multiple initiatives to address land use conflict in regional areas, with a particular focus on managing coal mining and coal seam gas issues. The Plan provides a strategic framework for the Upper Hunter, delivering the necessary context for Government investment priorities, servicing strategies and local environmental plan making. The map that was released with the UHSRLUP showed the CIC for Viticulture extending from Broke to

Pokolbin with the Broke Rd / Cessnock Rd as the northern boundary. This was the plan that was exhibited as well as being in the published plan released in September 2012. Then in 2013, an amendment was made to the SEPP Mining and Petroleum Industries which included a new set of maps which reduced the area of the CICs dramatically. There is no published reason given for this change. The map has been overlaid with the 2013 revision and is shown below.

The Cessnock Council's Local Strategic Planning Statement sets a vision for the planning direction of the Cessnock Local Government Area (LGA) to 2040. It notes the decline of the coal mining industry and the successful growth of the wine tourism industry. It has a number of planning priorities relating to the protection and retention of the agricultural land, wine tourism industry, biodiversity, rural landscapes, vineyards district, Aboriginal cultural heritage, heritage-based tourism and nature based recreational tourism. It is significant to note that there are not planning priorities relating to the coal sector.

The Hunter Valley wine tourism sector produces $631 million in annual and indirect regional output. This comprises $336 million in annual direct and indirect regional value added and $122 million in annual direct and indirect household income. One aspect of the wine tourism industry is that although it was heavily impacted by the recent drought and bushfires as well as the shutdown from the COVID-19 pandemic, it quickly bounced back when the travel restrictions were lifted. All operators have said that they have made twelve months of revenue in the last six months of 2020. Detailed analysis of the ABC census of Population and Housing shows that there is a total of 2,679 direct jobs in the wine tourism sector in the Pokolbin and Broke – Fordwich areas. This is comprised of 28.5% working in accommodation businesses, 34.8% in the wine sector and 36.7% in food and tourism businesses. This accounts for 62.9% of Cessnock's total employment in these sectors, which shows how significant the wine tourism sector is to the local economy. It should be noted that in 2020 the last remaining coal mine in Cessnock closed and so there is very minimal employment in that sector in the Cessnock LGA anymore.

The wine tourism sector is very significant to the local economy. Location quotient is an economic development tool that is a ratio used to compare the dominance or specialisation of a particular industry in the local economy. A Location Quotient of 1 indicates the same level of importance and specialisation and generally, a ratio of greater than 1.5 indicates that there is a degree of specialisation in that particular industry within the LGA and the higher the ratio, the more important it is to the LGA. The analysis for the Wine Country shows that the highest quotients compared to the LGA as a whole are Accommodation and Food Services (5.1), Manufacturing (wine making) 2.6 and agriculture (grape growing) 2.4 These are also the highest for all of the industry sectors in the LGA. The detailed Location Quotients for the specific industries that comprise the wine tourism sector show that wine making has a quotient of 39.6, grape growing 22.3 and accommodation 6.7 which are the top three, showing how significant the wine tourism sector is to the local area.



Changed Critical Industry Cluster Viticulture

Source: Upper Hunter SRLUP & CIC GIS Layers

There are many threats and impacts on wine tourism from coal mining. There have been many millions of dollars of investment in the wine tourism sector over the past ten years alone and the construction of a coal mine will put this very significant investment at risk. The Hunter Valley has built an enviable brand in the region and this is shown by it being one of the top tourist destinations in Australia for domestic and international tourists. If a coal mine is allowed to be established between the two parts of Wine Country there is the very real risk that people will not travel to the Hunter Valley because there is a coal mine. There is the potential for a coal mine to have a detrimental impact on the landscape of Wine Country which is one of the major drawcards for the tourists. The construction of a coal mine would have a detrimental impact on visitation to the area. The wine tourism sector has large direct employment and many more indirect jobs flow from that. The employment in the Wine Tourism sector comprises 62% of all of the jobs in these sectors in the Cessnock LGA. The coal sector does not have such an impact on the Cessnock LGA economy. The potential introduction of a coal mine in the middle of Hunter Valley Wine Country will have an impact on the certainty of the future of the entire wine tourism sector. The uncertainty and potential conflict between the wine tourism and mining industries leads to a negative impact on new investment in the wine tourism industry. There are a number of projects being planned which will bring many millions of dollars in investment and future jobs. This new investment will not occur if there is a coal mine constructed in the Brokenback Range.

There are a number of impacts on the local environment of a coal mine should it be approved. This includes subsidence impacts on the Brokenback Range, impacts of viticulture, biodiversity, aboriginal cultural sites and bushfires. There is the potential for noise and air quality impact on the surrounding land uses as well as impact on local water quality and groundwater from a coal mine being constructed. The surface facilities from a coal mine have the potential to impact on the landscape quality of the western side of the Brokenback Range south east of Broke. There is also the potential for traffic as well as social and economic impacts on the local community of a coal mine being built in the area between the Pokolbin and Broke – Fordwich wine regions.

The Hunter Valley Wine Tourism Association does not oppose coal mining but new coal mining operations should only be developed in areas where they will not impact on exiting industries and have minimal environmental impact. It is the Association's position that it does not support the re granting of either EL and that the current Bulga Coal Mine should be the southern extent coal mining and that there should not be any new mines in the area under the Pokolbin State Forest and in particular, the Brokenback Range. From the experience of mining in the Upper Hunter, the Association knows that the construction of a coal mine under the Brokenback range will lead to the further destruction of the wine tourism sector in NSW.

It needs to be pointed out that NSW lacks the proper protection of Wine Tourism areas and as such this needs to be recognised &rectified to bring in line with regions like the Margret River, the Barossa Valley and other vineyard regions around the World.

The proposed Monash EL is located very close to the intersection of Broke and Hermitage Roads and this is one of the key gateways to Hunter Valley Wine Country. Broke Road provides the link between Pokolbin and Broke – Fordwich and the presence of any mining infrastructure along this road will destroy the ambience of the landscape and the amenity for tourists as they traverse between the two wine areas. The NSW Government have invested heavily in the Hunter Expressway and Hermitage Road and the construction of a coal mine in this location will put this public investment at risk as well as the significant private investment in the wine tourism sector. It will destroy the tourist experience and the overall rural character of the region as well as the 200 years of winemaking and will decimate the $632 million that Wine Tourism sector contributes to the local economy.

Chapter 1: Introduction

Insite Planning Services and Edge Land Planning have been engaged by the Hunter Valley Wine Tourism Association (HVWTA) to review proposed Exploration Licences 6123 and 7579 lodged by Monash Coal Pty Ltd, which are located generally between Broke and Pokolbin, and provide Planning advice as to the compatibility of potential mining operations within these EL areas with the interests of the HVWTA. On this, our advice is that mining operations are clearly not compatible with the wine tourism industry, and in particular the Hunter Valley 'wine brand' which the HVWTA seeks to promote as its marketing of the area as a tourist destination, and as an area that produces premium wines.

The planning term used to describe incompatible land uses is '*land use conflict*', and it is a fundamental premise of any competent planning framework that landuse conflict is avoided. This is clearly enunciated via the Environmental Planning and Assessment Act 1979 (the Act) which seeks to regulate landuse planning in NSW. The objects of the Act are as follows:

> *(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
>
> *(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
>
> *(c) to promote the orderly and economic use and development of land,*
>
> *(d) to promote the delivery and maintenance of affordable housing,*
>
> *(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*
>
> *(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),*
>
> *(g) to promote good design and amenity of the built environment,*
>
> *(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*
>
> *(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,*
>
> *(j) to provide increased opportunity for community participation in environmental planning and assessment.*

Any Planning Framework within the State is then guided by these overriding objectives. Those of particular relevance to this exercise are highlighted above. Avoiding landuse conflict between two strategically important industries is critical to the economic and social welfare of local communities, and in respect to the coal and wine tourism industries in the Hunter Valley, these considerations bring on significance of State-wide importance due to their economic contribution to the State.

The primary basis of this submission is to highlight the need to avoid landuse conflict between the coal and wine tourism industries in the Hunter Valley. Exploration Licences (EL) 6123 and 7579 are located in the middle of what is deemed "Hunter Valley Wine Country", and it is an undeniable fact that the operation of a coal mine within the middle of such a strategically significant tourism industry cluster would bring about potential for significant landuse conflict that would have detrimental consequences on the tourism industry

in this area and could 'kill the goose that laid the golden egg'. For that reason, it is critical that the Planning framework operate in such a manner so as to protect both of these strategically important industries. The rejection by the State Government of the renewal of the ELs is the only way to ensure that the wine tourism industry can remain.

1.1. About the Author's

The principals of Insite Planning Services and Edge Land Planning are Stephen Leathley and Ian Sinclair who have successfully worked on a number of projects over the past 25 years where their respective skills complement each other. Ian is a Life Fellow and Stephen is a Fellow of the Planning Institute Australia.

Ian has operated for past twenty plus years as both a consultant and an academic teaching rural and regional planning out of the UNSW. Ian's consultancy has specialised in strategic planning for rural Councils and he has prepared more than 30 strategies for Councils in NSW and Queensland. More recently Ian has decided to focus on his consultancy while he completes a PhD looking at the impact of development on the fresh vegetable sector in peri-urban areas. Ian represents the Planning Institute of Australia on the NSW Government Intensive Agriculture Consultative Committee.

Stephen's skill set is in both planning assessment and strategic planning. He has been appointed as an expert planner by the NSW government and sits on various local and regional planning panels determining development applications. Stephen has worked for the past twenty-three years in the Hunter Valley as a consultant planner and Local Government planner. He has also worked for both the wine tourism and coal/ resource industries.

Of specific relevance, both consultants worked on a project at Muswellbrook where the primary focus was on the recommending of a planning framework that would ensure a transition away from the coal mining and electricity generating industry as the various operations reach their respective end of life over the next twenty years. This project was awarded a commendation by the Planning Institute Australia and formed the basis of the recently adopted Muswellbrook Strategic Planning Statement. From that project they developed a great insight not only into the coal mining industry, but also other industries within the Hunter Region and what is needed to ensure the regional economy remains stable and robust.

1.2. Hunter Valley Wine and Tourism Association

The Hunter Valley Tourism Association is self-described as follows:

> "*The **Hunter Valley Wine and Tourism Association (HVWTA)** is a 'not-for-profit' membership-based wine and tourism incorporated body, dedicated to ensuring the Hunter Valley is the most visited wine and tourism destination and that our wines are recognised and valued, domestically and internationally.*
>
> *The HVWTA is responsible for destination and wine marketing, advocacy, technical and business support for all facets of the Hunter Valley wine and tourism industries from viticulture through to winemaking and tourism and wine promotion.*
>
> *Our Mission is to be the focus of excellence within Australian wine quality and wine related tourism. The Association is committed to working with our corporate, strategic and industry partners to market the destination, its unique features and its quality wines*."

The HVWTA is interested in not only promoting the wine tourism industry in a marketing context, but also in advocating the interests of the operational facets including advocacy. Exploration Licences 6123 and 7579 are located in the heart of the wine tourism industry cluster and pose a threat to the operation of this

industry. While coal mining is an important part of the economic contribution to the Hunter and the State, and it is an important part of the history and social fabric of the region, it is an industry that is in decline due to numerous factors that are out of the control of Governments such as the international price of coal, reduction in the use of coal for electricity generation amongst others.

The wine tourism industry which the HVWTA represents, is on the incline in terms of economic contribution. Further, it is a broad-based industry that will exist well into the future on a sustainable basis, and this submission will set out the case in regard to both of these points. The proximity of the region to both Sydney and Newcastle metropolitan areas gives it a unique locational advantage that is envied by other wine regions around Australia as this provides the bulk of the visitors to the sector along with the international travellers.

Consequently, the HVWTA advocates a position that while the coal industry continues to operate in the Hunter region, it operates in areas where it does not conflict with other industries, and in this case the wine tourism industry. This is the basis for the objection to the renewal of these two ELs.

1.3. Location and Study Area

The study area for this project is the two Critical Industry Clusters known as Strategic Agricultural Land (SAL) Viticulture which contain the Pokolbin and Broke – Fordwich Wine Regions, which combine to comprise Hunter Valley Wine Country. The study area is shown on map 1.1, highlighting the Monash Coal ELs sitting between the two Critical Industry Clusters.

The Pokolbin wine region is within the Cessnock LGA and Broke – Fordwich is in the Singleton LGA. The Cessnock LGA has the most wine tourism uses. The LGA boundaries are shown on map 1.1.

Hunter Valley Wine Country is characterised by the rising of the Brokenback Range from the valley floors of Black Creek. Remnant forest along the roadsides provides a reminder of woodland and grasslands which were once abundant across the district. The range is a constant element in the landscape and forms the backdrop to Wine Country. Photo 1.1 shows the Brokenback Range from Pokolbin and Photo 1.2 shows the Brokenback Range with vineyards in the foreground. This is a view that is glimpsed from many of the roads travelled on by tourists and locals alike. Photo 1.3 shows the Monash Coal ELs interpolated onto an aerial photo of the Brokenback Range and part of the Pokolbin Wine Region as well as the Bulga and Mount Thorley open cut coal mines.

Similarly, some remaining species of rainforest trees which grow along the banks of Black Creek are reminders of the likely rainforest habitat which existed at the time of European Settlement. The Central Lowlands, of which Wine Country forms part, was inhabited by Aboriginal people from at least 20,000 years ago, and there is considerable evidence of occupation from 3,000 years ago. (R. James and W. Brennan, 1997, Preliminary Archaeological Investigations of the Proposed Rothbury Country Resort Development).

The two Exploration Leases, which combine to be known as the Monash Coal Exploration Leases are located between Pokolbin and Broke – Fordwich and extends from the western boundary of De Iuliis Winery in Pokolbin to the Bees Nest Ridge southeast of Broke. The larger of the two ELs is entirely over part of the Pokolbin State Forest and the other one which is smaller is on land owned by the Department of Defence and is part of the Singleton Military Area in in the upper reaches of the valley of Monkey Place Creek.

The topography of the study area is also important, particularly to show the Brokenback Range which is a backdrop to the entirety of Hunter Valley Wine Country for both of the wine regions. Map 1.2 shows the topography and how the EL affects the Brokenback Range.

Photo 1.1: Brokenback Range and Wine Country
Date of Photo: December 2020

Photo 1.2: Vineyards and the Brokenback Range
Date of Photo: December 2020

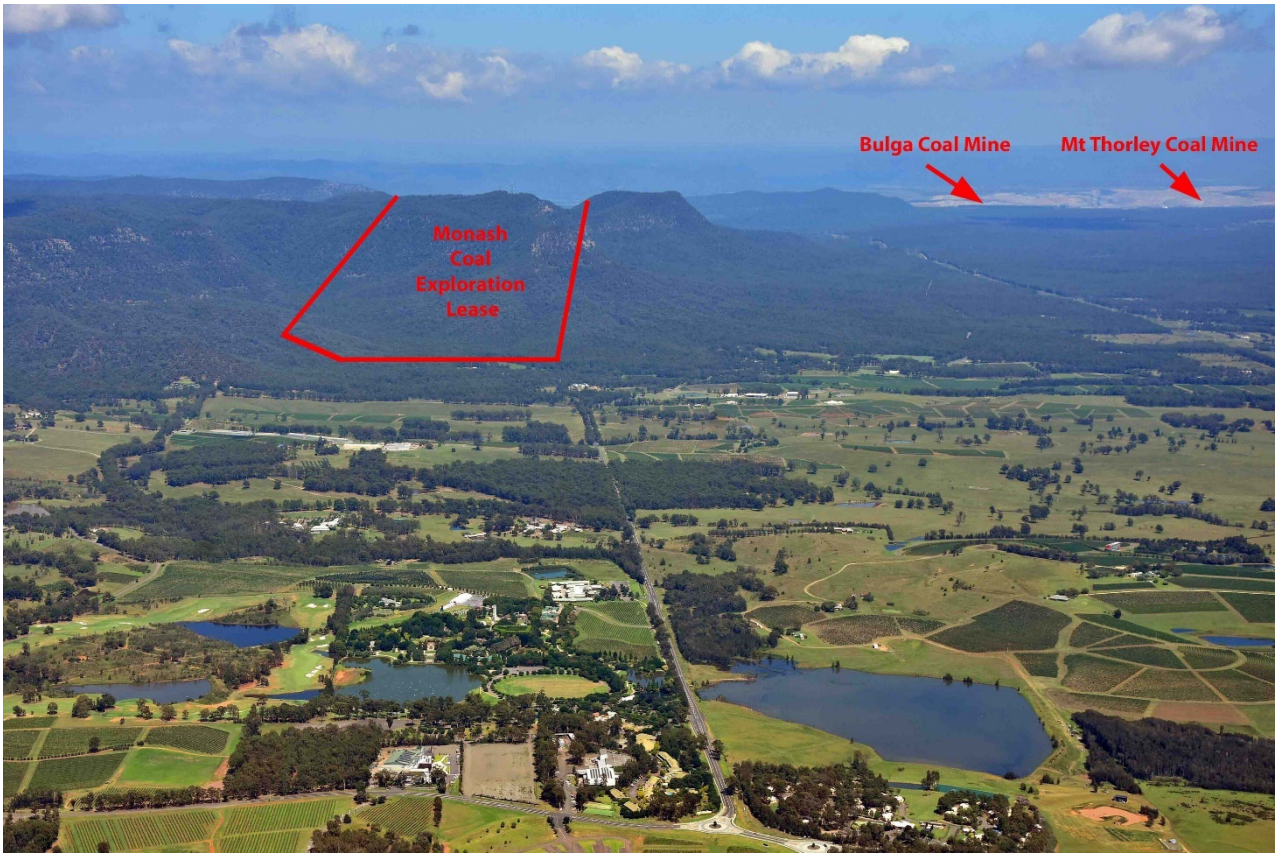


Photo 1.3: Monash EL and the Brokenback Range and Open Cut Mines
Date of Photo: December 2020

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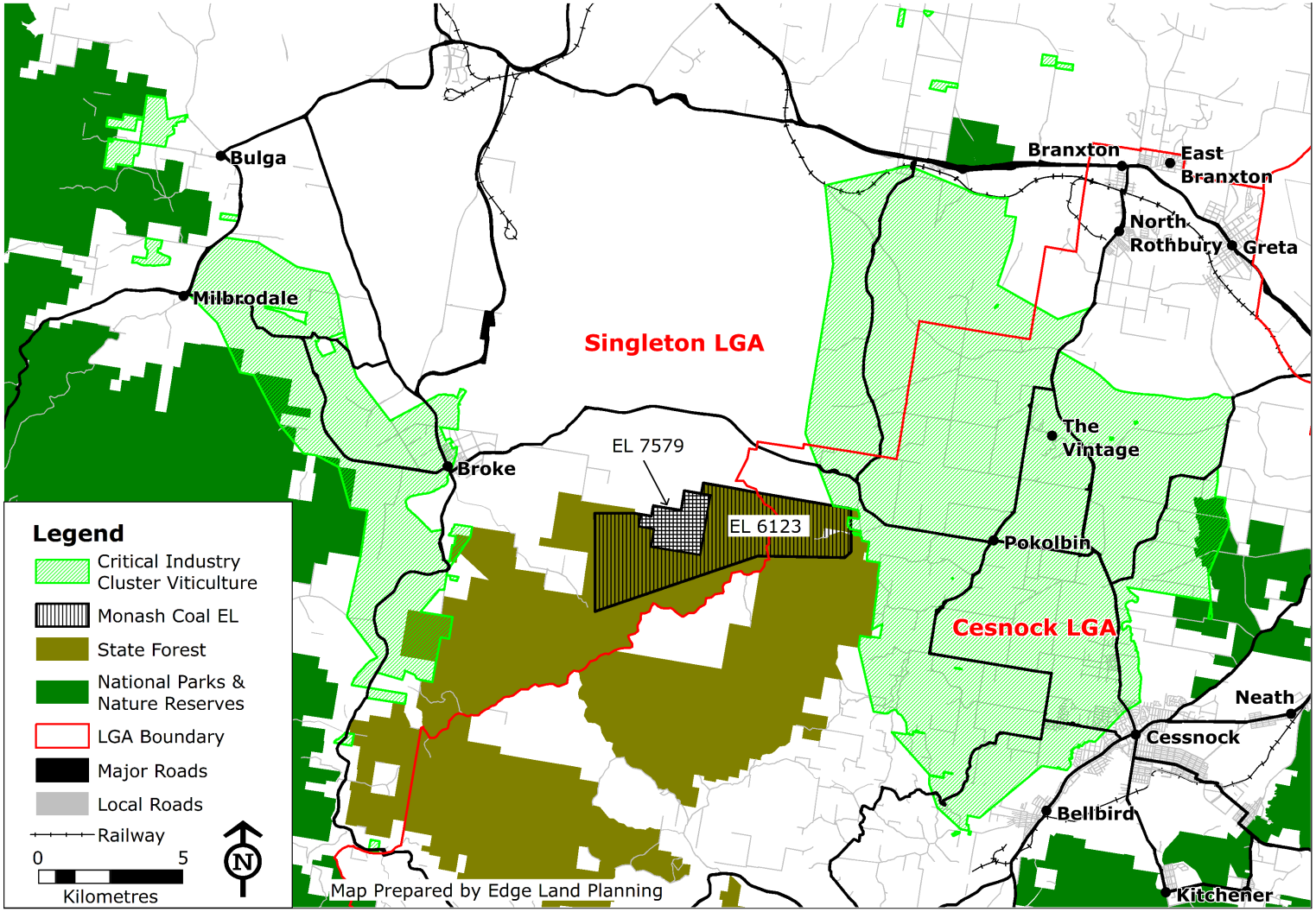
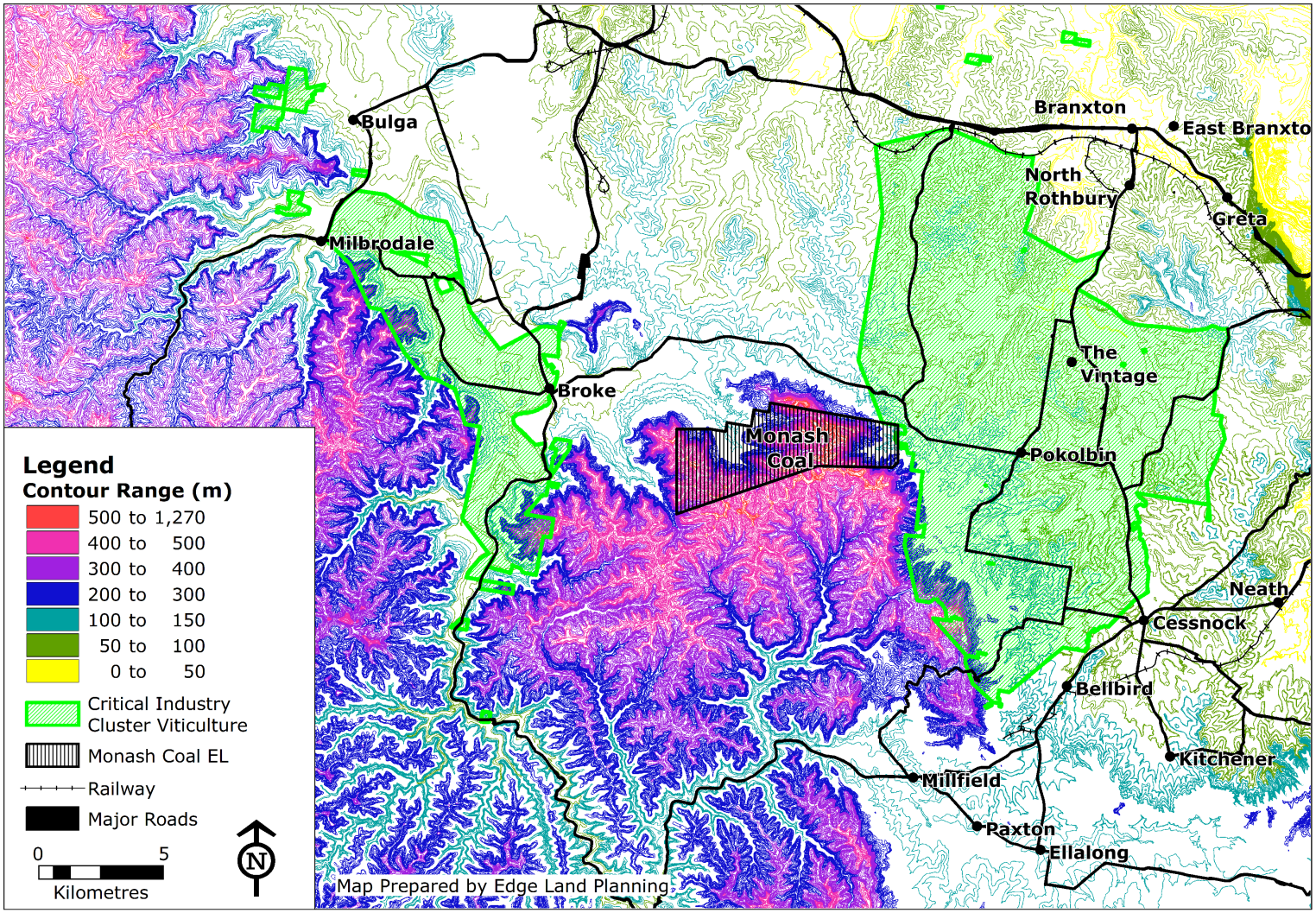


Map 1.1: Study Area



Map 1.2: Topography of the Study Area

1.4. Background

Following is an outline of the historical context of the Monash Coal ELs (6123 & 7579), as well as the aboriginal and European history of the area.

1.4.1. History of EL 6123 & 7579

Following is a summary of what can be publicly discovered regarding the Monash Coal deposits:

- EL 6123 was originally granted to Ellemby Management Pty Limited on 8 September 2003 for a period of three years. The license appears to have been extended on a number of occasions, and more recently expired on 3 September 2019. The original grant covered some 9,020 ha, a much larger reserve than covered by the current EL. (NSW Department of Mineral Resources, 2003)
- Ellemby Management Pty Limited changed its name to Ellemby Resources Pty Ltd on 16 July 2003. (Australian Government, 2021a)Therefore, it appears that Ellemby Management Pty Limited, to whom the lease was granted on 8 September 2003, did not exist at that time of the grant of the lease.
- EL 7579 was granted to Ellemby Resources Pty Ltd on 22 July 2010 for a period of three years. (NSW Department of Mineral Resources, 2010) The license appears to have been extended and expired on 22 July 2019.
- Ellemby Resources Pty Ltd changed name to Monash Coal Pty Ltd on 26 July 2011. (Australian Government, 2021a)
- In 2011, Gloucester Coal acquired the Donaldson Monash Coal Group (including Ellemby Resources Pty Ltd) (Price, 2011).
- Gloucester Coal merged with Yancoal in 2012 (Yancoal Australia, 2021).
- An application to renew Exploration Licences 6123 and 7579 was made by Monash Coal Pty Ltd on the 15 July 2019 (NSW Government, 2019)
- Australian Governments Bioregional Assessments website provides the following summary of the deposits covered by EL 6123 & 7579:

  "The Monash Deposit is 95 km north-west of Newcastle (Gloucester Coal, 2011, p. 11). It is wholly owned by Yancoal Australia Ltd (Yancoal), which has been granted two exploration licenses: EL 6123 and EL 7579 (Gloucester Coal, 2011, p. 20). According to the OZMIN database the total resources for Monash are estimated to be 577 Mt. Two types of coal can be produced from this deposit: metallurgical and thermal coal (Yancoal, 2014, p. 26). The life of a mine at this deposit is estimated to be more than 20 years with a ROM potential of up to 9 Mt/year (Gloucester Coal, 2011, p. 20)." (Australian Government, 2021b)

- The Yancoal website describes the Monash reserve as follows:

  "Monash is a prospective export coking / thermal early stage exploration project strategically located near existing infrastructure in the Hunter Valley, NSW. Monash is 12 kilometres from the main rail line and 95 kilometres from the Port of Newcastle.

  Exploration Titles EL 6123 and EL 7579 cover an area of 22.19 square kilometres and exploration drilling commenced August 2011. The proposed mining method for Monash will be underground longwall mining. Concept studies completed on the Monash project have indicated potential for ROM production

of up to 9Mtpa over life of mine and indicated an illustrative production split for Monash would be 58% coking coal (semi-soft) and 42% thermal coal." (Yancoal Australia, 2021)

1.4.2. Aboriginal history

Archaeological evidence indicates that Aboriginal people were present in the region within at least the past 20,000 years (Kuskie; 2016).

The *Coquon* (Hunter Valley) region was first inhabited by the Wonnarua Aboriginal people, the "people of the hills and plains", part of the larger Kamilaroi Nation. The region of the Darkinjung people also stood close by to the south of today's Pokolbin area, although it is noted that territorial boundaries were never as simply defined as contemporary maps depict them. The Wonnarua have occupied the Hunter region for at least 30,000 years, with their dreaming stories describing that the great spirit Baime created their land:

"Before Baime there was nothing, everything was sleeping. Baime awoke and created everything, the mountains, plains, rivers and every living thing ... Baime also created Kawal (Ka-wal), to watch over the Wonnarua people. The spirit of Kawal is embodied in the wedge tailed eagle, found throughout the Hunter Valley." (Wonnarua Nation Aboriginal Corporation, 2021)

The Wonnarua Nation Aboriginal Corporation provide the following historical context of Wonnarua Country on which these EL's are located:

"According to the Wonnarua dreamtime the Hunter Valley was created by the great spirit, Baime (Byamee). Before Baime there was nothing, everything was sleeping. Baime awoke and created everything, the mountains, plains, rivers and every living thing.

The Wonnarua were part of the land. Renowned historian and Wonnarua descendant, James Miller explains in his book Koori a Will to Win:

"The land held the key to life's secrets. Man was given the knowledge to read the land and for every rock, tree and creek he found an explanation for existence. He did not own the land, the land owned him."

The spirit of Baime is depicted on a cave overlooking the Valley at Milbrodale painted more than 3000 years ago. Baime has his arms stretched open protecting the Valley.

Baime also created Kawal (Ka-wal), to watch over the Wonnarua people. The spirit of Kawal is embodied in the wedge tailed eagle, found throughout the Hunter Valley. When the Wonnarua see the wedge tailed eagle, they know Kawal is looking over them, protecting them.

The recorded history of the Wonnarua begins in the early nineteenth century when the Europeans settled.

Ironically, it is directly above Baime cave where Europeans first viewed the Upper Hunter, led from Sydney by a tracker from the Wonnarua tribe.

James' book, Koori a Will to Win, is a compelling historical account of 200 years of his family and the tribal history of the Wonnarua people.

Currently a map of the Wonnarua Nation is being developed based on historical oral and written records. Once the map is finalised it will be available on this website. More historical information of the Wonnarua will also be regularly added to this website, so that the Wonnarua story can be shared with and known by everyone." (Wonnarua Nation Aboriginal Corporation, 2021)

Photo 1.4 shows Baime Cave which is located south of Milbrodale.

Photo 1.4: Baime Cave Art
Source: *(Wonnarua Nation Aboriginal Corporation, 2021)*

From discussions with representatives of the Wonnarua people, it is understood that the area covered by the Monash Coal ELs is an important part of aboriginal history and storytelling. This is unsurprising given the nature of the Brokenback Range in this area.

It is noted that a *Due Diligence Aboriginal Cultural Heritage Assessment* (Worth, 2013) of EL 6123 undertaken by Suzie Worth dated 13 March 2012 noted:

- OEH AHIMS database search was undertaken identifying 13 recorded Aboriginal sites present within the Brokenback Range.
- Eleven of the sites were open camp sites, and two grinding groove sites.
- Parts of the rock platforms overlooking the valley to the north east are likely to have "significance to those people who believe they are custodians of this part of the ranges".
- There are various rock platforms throughout the area that could have significance.
- There was a mound found that had stones lined across the top of which could be culturally significant landform.

The Worth Due Diligence concludes by stating:

> *"The Brokenback Ranges are seen as possessing cultural values to the Aboriginal people…" (Worth, 2013)*

The Wonnarua people have maintained a strong sense of their own cultural identity and links with the land despite the impact of European contact on their traditional lands and culture. Through this sustained identity, they are today continuing to reinvigorate their traditional culture.

1.4.3. European History

The Hunter region was identified by Lieutenant John Shortland of HMS Reliance on 16th September 1797. Shortland observed coal seams present in the cliff face at the mouth of the Hunter River. The river was named 'Coal River', which was changed to the 'Hunter River' in 1804, in honour of Captain John Hunter, second Governor of New South Wales (University of Newcastle, 2021).

Initial settlement around Wollombi Brook and the Central Lowlands was generally confined to the main valleys, up until the 1830s. From the 1840s to 1870s settlement extended into the hilly terrain (Dean-Jones & Mitchell, 1993). Grazing sheep and cattle were the primary activities, but along the floodplain of Wollombi Brook, maize, potatoes, wheat, barley and later tobacco were cultivated (Dean-Jones and Mitchell 1993:2). The focus of settlement shifted from Wollombi to the Hunter River, after the railway was constructed from the lower Hunter through Singleton and Muswellbrook in the 1850s and 1860s, coinciding with a period of major flooding and hardship at Wollombi Brook in 1857 terrain (Dean-Jones & Mitchell, 1993).

In 1826 two brothers, John and David Campbell, sons of the late Laird of Treesbank in Ayrshire, Scotland, arrived in Sydney as free immigrants. They had inherited from their father a sum of money sufficient for the selection of 2,560 acres of land in New South Wales. David, having not yet attained his majority, invested his share of funds in the land to which his brother was given title, at Black Creek some 16 miles from Maitland. This estate they named Cessnock, after the Scottish castle of their ancestors. When John Campbell died in February 1828, David found that the estate was left not to him but to his eldest brother, George, who had remained in Scotland. (University of Newcastle, 2021).

While much of the estate was divided into large Lots, others near the Great North Road to Wollombi were taken up by buyers wishing to establish businesses and by others desiring smaller blocks of land on which to build cottages. This small settlement grew to become the village of Cessnock.

While grazing and agriculture supplied an income sufficient for slow but steady development of these properties, it was not until development of the South Maitland Coalfields that real prosperity came. The Greta Coal Measures were long known to exist before Welsh-born geologist Tannatt William Edgeworth David identified them in 1886. In 1888 development of the East Greta colliery began at what is now Gillieston Heights. In 1891 the East Greta Coal Mining Company was formed, and by 1893 had completed a railway from West Maitland to its colliery. So began the development of a coalfield which at its peak in 1925 would employ over 10,000 men and produce over 5,000,000 tons of coal of enviable quality and low ash content (William Parkes, Jim Comerford, & Lake, 1979)

The history of European land use in the Vineyards District has resulted in a layering of uses primarily centred on viticulture, agriculture, wine production and the scenic qualities of the region. The imprint of early occupation of the land can still be experienced in the ordered pattern of narrow carriageways, vines and pastures. It is also clearly demonstrated in undulating lands extensively cleared for agricultural and viticultural activities, resulting in significant loss of natural vegetation.

The distinctive contrast between patterned vineyard plantings and wooded slopes and ridge tops of the Brokenback Range are important scenic features of the District as viewed from public roads. The road edges are informal, and built development remains largely inconspicuous.

The built environment has also evolved over time. Early building forms of the early to mid-1800's in the Vineyards District were usually associated with mixed farming. Places which remain from this era are important reminders of early settlement and vineyards and are likely to become of increasing interest to visitors and the community alike. Traditional sets of buildings designed for the manufacture of wine are also important landmark structures throughout the region.

The Vineyards District, however, has changed with contemporary architecture often inspired by European viticultural styles. Increased tourist visitation has attracted smaller scale development such as cellar door sales and boutique wineries, and also large-scale accommodation and recreational developments. These changes, along with new land uses such as golf courses and large water treatment ponds have significantly modified the landscape.

Viticulture in the Hunter Valley is thought to have begun around the 1820's, with 20 acres of vines planted in 1823 in the areas of today's Gresford and Dalwood on the banks of the Hunter River.(Hunter Valley Wine and Tourism Association, 2021) The origin of the Hunter's winemaking success however is attributed to amateur viticulturalist James Busby who, having studied oenology and undertaking an extensive tour of Spanish and French vineyards, arrived in the NSW colony in 1824 with 700 cuttings of European vines(Sydney Morning Herald, 2004). Busby arrived with his parents and also his sister Catherine, who had formed a relationship with fellow passenger William Kelman on the voyage from England. The couple were soon married and received some of the first land grants on the upper Hunter River at Kirkton, near today's Morpeth. James Busby donated half his collection of vines to the newly formed Royal Botanic Gardens in Sydney, and the rest were planted on the Kelman estate.

From this beginning the Hunter wine industry quickly grew, with registered vineyards in the valley exceeding 500 acres by 1840. (Pokolbin Weebly, 2021). The pioneering families of the Hunter Valley Wine industry had begun to work their craft in the Hunter region in the later part of the 19th century, including the Tullochs, Tyrrells, Wilkinsons and Draytons, along with the establishment of a vineyard by Dr Henry Lindeman.

1.5. Site Description of EL's

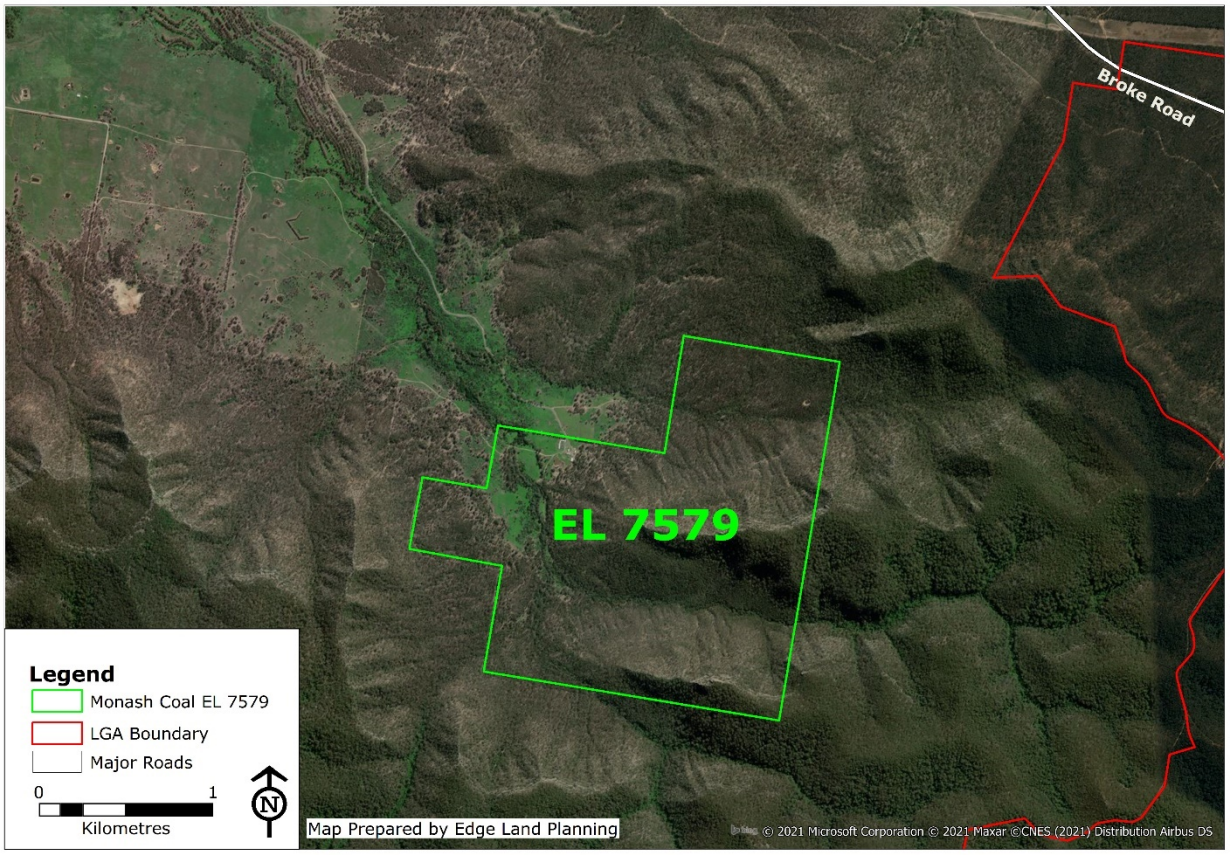
EL 7579 is located entirely within the Singleton Local Government Area and contains that part of the Monash Coal EL holding that is Crown Land within the Singleton Military Area (SMA). It is bounded by the SMA to the north and by the Pokolbin State Forest on the other three sides. The EL was originally part of EL 6123 and was excised and created as its own EL.

The EL contains Peach Tree Creek which flows into Monkey Place Creek in the western section of the EL, which then flows into Wollombi Brook at Broke to the west. The EL also contains Man's Head Point at the western end of the Brokenback escarpment, a well know local landmark on the Brokenback Range.

Access to the EL is via an existing gravel road of rural standard extending through the SMA from Broke Road.

The EL contains the Central Hunter Ironbark – Spotted Gum – Grey Box Forest in the NSW North Coast and Sydney Basin Bioregions, an Endangered Ecological Community and Commonwealth listed migratory Rainbow Bee-eater. EL 7579 has an area of some 333ha.

Map 1.3 shows the location of the EL overlaid with a satellite image which shows the vegetation and terrain of the surrounding land to the north west through which Peach Tree Creek flows.



Map 1.3: EL7579

EL 6123 is located over both the Cessnock and Singleton LGA boundaries and is entirely untitled crown land, administered by the New South Wales Department of Primary Industries (Forests) as the Pokolbin State Forest. The EL is located along the northern tier of Brokenback Range and is traversed by several small tributaries that drain into Monkey Place Creek. Monkey Place Creek then drains into the Wollombi Brook at Broke to the west of the EL.

Significantly, this EL contains the visually significant escarpment of the Brokenback Range. This escarpment is an iconic feature of Hunter Valley Wine Country providing a backdrop to Pokolbin and a landscape feature that can be seen from almost all of the Pokolbin vineyards sub region.

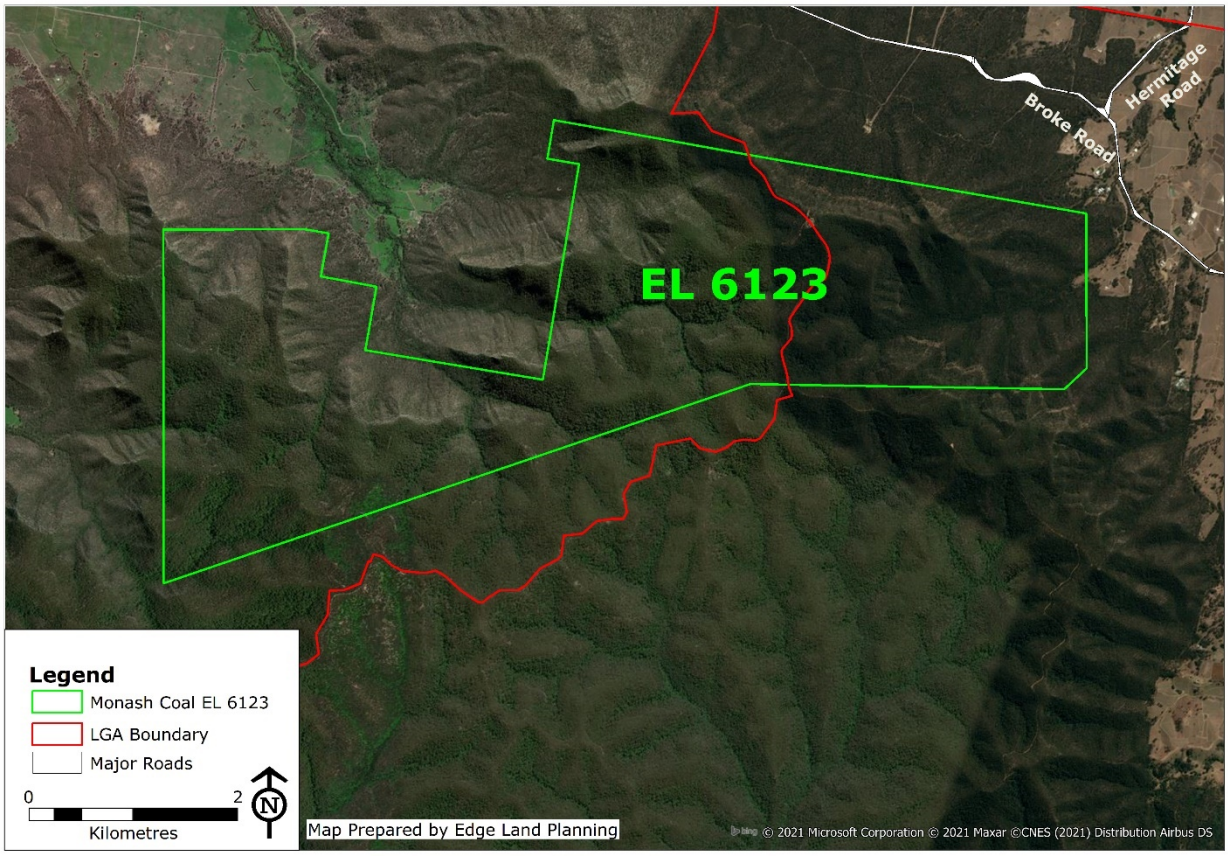
On the eastern end of the EL is located the nationally significant wine tourism area of Pokolbin with the following wineries located adjacent to the EL:

- Oakvale Wines
- De Iulius Wines
- Glandore Estate Wines
- Leogate Estate Wines
- Hunter Distillery
- Thomas Allen Wines
- Tyrrells Wines

On the western end of the EL is the Broke and Milbrodale wine tourism area and the village of Broke and surrounding rural agricultural lands.

To the north of EL 6123 is the SMA and Broke Road which links the two areas of the Hunter Valley Wine Country: Pokolbin and Broke – Fordwich.

Map 1.4 shows the location of the EL overlaid with a satellite image which shows the vegetation and terrain of the land and the surrounding land.



Map 1.4: EL6123

1.6. Monash Mine – What is Known

An offer document for the "*Acquisition of Donaldson Coal and Monash Group*"(Gloucester Coal, 2011a) dated May 2011 described the Monash Mine proposal under the heading "*Monash Provides Potential Large Scale Development Opportunity*" as follows:

- *Potentially large semi-soft and thermal coal resource*
- *Located approximately 12km from Xstrata's Bulga mine*
- *JORC Resource of 287Mt. Further potential exploration upside exists*
- *Expected majority semi-soft coking coal*

- *Coal seams in area are "well understood"*
- *Potential large scale underground operation (up to 7Mtpa)*
- *Located close to rail and port infrastructure relative to (other development projects)*
- *(The mine is located) 12 Km from Rail line*
- *Coal expected to be shipped from Port of Newcastle, 95km away*
- *Situated in region serviced by Hunter Valley rail network*
- *Mining Method – Underground longwall operation*

- *13Mt of Measured and Indicated Resources*
- *287Mt of Measured Indicated and Inferred Resources. (This was then increased to 477Mt in November 2011)*
- *Resource has potential to support mine life of 20+ years*
- *ROM potential : up to 9 Mtpa over life of mine*
- *58 % semi-soft*
- *42% thermal coal*
- *Illustrative FOR Operating Cost – Approx. c.A$40/t*

Table 2.1: Monash Coal Resources in 2011

Seam	Measured (Mt)	Indicated (Mt)	Measured & Indicated (Mt)	Inferred (Mt)
Fassifern		2.83	2.83	13.07
Borehole	3.08	6.94	10.03	50.50
Redbank Creek	2.54	5.72	8.25	30.64
Wambo	2.44	5.61	8.05	42.59
Whynot	5.08	11.68	16.78	78.55
Blakefield	2.30	5.48	7.78	40.96
Woodlands Hill	5.58	12.26	17.84	81.89
Arrowfield	5.15	11.61	16.76	81.61
Bowfield	3.52	8.10	11.62	57.46
All Seams	**29.69**	**70.23**	**99.92**	**477.27**

Source: (Gloucester Coal, 2011b)

In relation to coal resources at Monash; a Yancoal March 20, 2020 ASX release states coal reserves as being an underground operation with 17Mt of indicated Coal Resources and 80Mt of inferred Coal Resources. This is somewhat less than what was quoted above and although we are certainly not mine experts, there is a major difference in the estimated quantities of coal which must make the mine operation a questionable venture.

The Strategy and Timeline outlined in the 2011 Offer Document proposed:

- *Target to submit development application in late 2013, with approvals planned by end of 2014*
- *Commence construction of surface facilities in 2015*
- *Target first coal in 2016 from an underground operation*

It is known that in June 2012 an application was made to "Drill Boreholes" as part of an exploration process. Since that time there appears to have been no action on commencing the coal mine as per the program outlined above.

Significantly, the Offer Document outlines a number of ***risks*** to the Monash Coal Mine as follows:

- *The Monash Assets, are at an early stage exploration or development stage. Coal exploration and mine development generally involves a high degree of risk and is subject to hazards and risks including unusual and unexpected geological formations, seismic activity, flooding and other conditions involved in the drilling and removal of material, any of which could result in damage to, or destruction of, any facilities, damage to life or property, environmental damage and possible legal liability. There is a risk that unforeseen geological difficulties will be encountered in Gloucester's mining operations. This may cause a loss of revenue due to lower production than expected and/or higher operations*

and maintenance costs and/or ongoing unplanned capital expenditure in order to meet production cost targets.

- *The successful development of the Monash Assets depends on Gloucester being able to obtain all necessary regulatory approvals, including any approvals arising under applicable mining laws, environmental regulations and other laws. There can be no guarantee that all such approvals will be obtained, either at all or on terms or in time to enable Gloucester to successfully develop those assets.*
- *As Monash is an early stage development project, there is a risk that the production rates, product mix, capital and operating costs differ from those currently expected.*
- *Rail access rights to the main Hunter Valley rail corridor for the development of the Monash Assets may require the consent of competing coal producers. Alternative access routes to the main Hunter Valley rail corridor may require the consent of the Commonwealth Government. There is a risk that these third parties may refuse access to the relevant rail line or land, which may impact the development of the Monash Assets*. (Gloucester Coal, 2011a) p68

1.7. Summary of Monash Coal Mine

The timeline from information we have been able to obtain relating to the mine:

Date	Event
16 July, 2003	Ellemby Management Pty Limited became Ellemby Resources Pty Ltd
8 September, 2003	Then Minister for Mineral Resources in NSW, Kerry Hickey, executed an Exploration License to Ellemby Management Pty Ltd
22 July, 2010	EL 7579 was granted to Ellemby Resources Pty Ltd
26 July, 2011	Ellemby Resources became Monash Coal Pty Ltd
2011	Gloucester Coal acquired the Donaldson Monash Coal Group (including Ellemby Resources Pty Ltd).
2012	Gloucester Coal merged with Yancoal
15 July, 2019	An application to renew Exploration Licences 6123 and 7579 was made by Monash Coal Pty Ltd

Chapter 2: Strategic Planning Framework

This section tests the granting of EL 7579 and EL 6123 against the strategic planning framework that we operate within NSW. Specifically, it covers the following plans:

- NSW 2021 (The 'State Plan')
- Future of Coal Statement (Strategic Statement on Coal Exploration and Mining in NSW)
- Upper Hunter Strategic Landuse Plan
- Strategic Agricultural Land Viticulture Critical Industry Cluster
- Hunter Region Plan 2036
- Greater Newcastle Metropolitan Plan 2036
- Relevant State Environmental Planning Policies
- Cessnock Strategic Planning Statement
- Singleton Strategic Planning Statement

2.1. NSW 2021: A Plan to make NSW number one

The State Plan is set out in this document, and given we find ourselves in the year 2021, it has come to the end of its effective life. The plan seeks to provides the direction for the public sector between the period 2011 and 2021.

A range of policy documents released by the NSW Government over the last decade, has outlined their vision for the future growth in industry and regions throughout NSW. The key policy document underpinning this future growth is NSW 2021.

The NSW 2021 document outlines a 10-year plan that aims to rebuild the NSW economy by providing quality services, renovating infrastructure, restoring government accountability and the strengthening of local environment and communities.

The goals, targets and actions in the plan were intended to assist the government in "setting the priorities for funding, guiding decisions and focusing the day-to-day work of the public sector."

The goals in this plan are described as 'aspirational'.

> *"NSW 2021 is a plan to make NSW number one. It is a 10-year plan to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen our local environment and communities. It replaces the State plan as the NSW Government's strategic business plan, setting priorities for action and guiding resource allocation."(NSW Government, 2011)*

NSW 2021 is based around five strategies:

1. Rebuild The economy— restore economic growth and establish NSW as the 'first place in Australia to do business'
2. Return Quality services— provide the best transport, health, education, policing, justice and family services, with a focus on the customer
3. Renovate Infrastructure— build the infrastructure that makes a difference to both our economy and people's lives
4. Strengthen our Local Environment and Communities— improve people's lives by protecting natural environments and building a strong sense of community
5. Restore Accountability to Government— talk honestly with the community, return planning powers to the community and give people a say on decisions that affect them.

The Plan then has 32 goals. The key goals are related to economic growth in regional NSW through the investment in critical enabling infrastructure, to increase the population in regional NSW so as to balance population growth across the State, invigorating regional economies and relieving congestion pressures within Sydney and to maximise opportunities to decentralise government services and work strategically including with local government, to support regional economic development objectives.

As set out in section 3 of this report, both the Tourism and Mining industries within the Hunter are significant contributors to the State's economy. However, from a landuse planning perspective, they are conflicting industries in that coal mining operations are not compatible with tourist and visitor expectations which the wine tourism industry seeks to provide. We also say that the wine tourism industry is a sustainable industry, and the mining industry is simply not a sustainable industry on any measure. The Wine Tourism Industry has a long-term future as part of the State's economy, the Mining Industry has a limited future notwithstanding the reputation that the Hunter coal resource has as being some of the best quality coal on the planet. On that basis, it is the government's responsibility to minimise landuse conflict, and ensure that coal mining operations do not potentially conflict with the individual operators within the wine tourism industry.

Specifically, protection of the wine tourism industry will assist the government meet the following targets:

REBUILD THE ECONOMY		
GOAL 1 the performance of the NSW economy		
Target	**Sub target/ Priority Actions**	**Wine Tourism Industry Response**
Grow business investment by an average of 4% per year to 2020	NIL	
Grow GSP per capita by an average 1.5% per year to 2020 with specific industry growth targets	• Increase tourism in NSW with double the visitor expenditure by 2020; • Increase the value of primary industries by 30% by 2020; • Grow exports from NSW	
Grow employment by an average of 1.25% per year to 2020	• Increase the proportion of young people in employment; • Increase the proportion of people over 55 participating in employment	Employment growth in the Wine Tourism sector has increased
GOA L 3 Drive Economic Growth in Regional NSW		
Increase the share of jobs in regional NSW		
Protect strategic agricultural land and improve agricultural productivity	• Improved productivity on NSW farms	

	• Map strategic agricultural lands and develop agricultural industry sector strategic plans	
STRENGTHEN OUR LOCAL ENVIRONMENT AND COMMUNITIES		
Minimise impacts of climate change in local communities		While it is not this submissions position that all coal mining should stop, an important consideration for any new coal mining project MUST be the impact on climate change. This is an issue that has been taken up in the assessment and refusal of a number of coal mines over the last five years.
Improve our sense of community		Projects such as the Monash coal mine divide communities, and this was seen during controversial projects such as the South Drayton project. Mining is an important part of the history of the Hunter Valley and its communities and there are significant numbers of people employed directly and indirectly in the industry. Likewise, the wine tourism industry has significant heritage and a future in the Hunter Valley. On this basis there is a need to establish a plan for where mining can occur, and that must be well outside areas where the wine tourism industry operates. That would mean areas such as EL 7579 and EL 6123 must be excluded from mining operations.
Enhance the cultural and natural heritage in NSW		The HVWTA is in the process of having Hunter Valley Wine Country, including the Pokolbin State Forest, Brokenback Range (areas generally covered by EL 7579 and EL 6123) declared not only a State significant heritage conservation area, but also a UNESCO World Heritage area. Operating Coal mines in the area would be at complete odds with that vision. Such an outcome would undoubtedly enhance the cultural and natural heritage of NSW and provide the area with improve tourism exposure making it an international destination.

2.2. Strategic Statement on Coal Exploration and Mining in NSW

> *"This statement sets out how the NSW Government is taking a responsible approach to the global transition to a low carbon future, consistent with Australia's ambition under the Paris Agreement, and is planning to manage the impact for coal-reliant communities." (NSW Department of Regional NSW, 2020)*

The Statement sets out a plan of action that has four components:

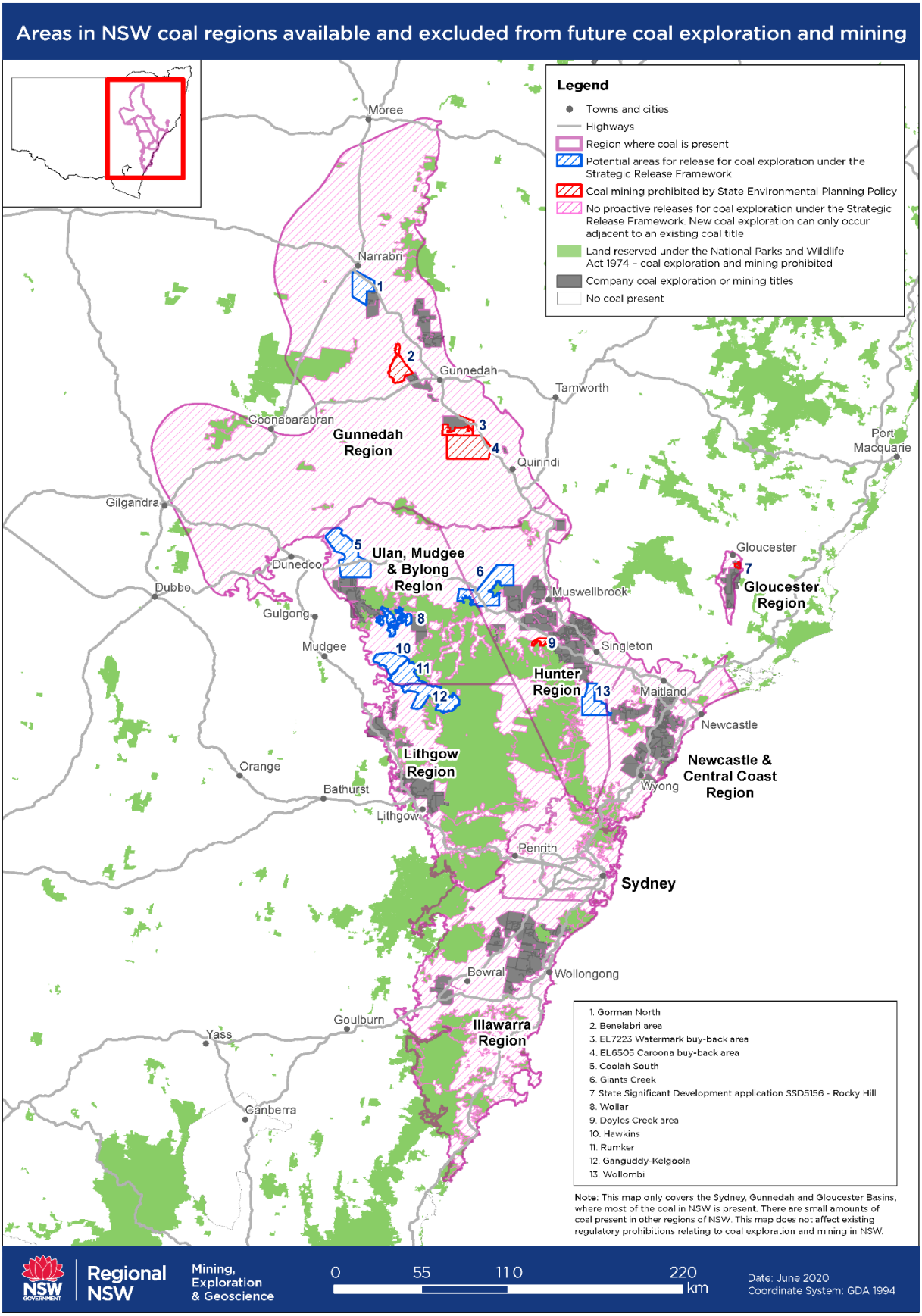
1. Improving certainty about where coal mining should not occur. The statement notes that the potential for future coal mining to take place can create uncertainty for the local community. The document states that in order to address this uncertainty, *"… the NSW Government will clearly identify areas where higher priority land uses mean that coal exploration and mining cannot occur"* (ibid p8) It notes that there is a map "*that shows that shows a number of areas that will be ruled out for further coal exploration or coal mining" (ibid p8)*. The Monash Mine proposal is not identified as a potential area for release under the Strategic Release Framework and so is not identified by the NSW Government as an area to be released for coal mining. This is shown as map 2.1. The map highlights a large part of the NSW coalfield and in this area "*No proactive releases for coal exploration under the strategic Release Framework. New coal exploration can only occur adjacent to an existing coal title*". Both EL's have lapsed in July and September 2019 and consequently, they must be dealt with as new EL's and that would be clearly contrary to the Strategic Statement. They are not adjacent to any titles with the closest one being Bulga which is 4km to the northwest of the EL's. This can be seen from Map 2.2 which shows the mines and ELs in the vicinity of the Monas Coal proposal. The EL which is owned by the Secretary of the Department of Regional NSW expired in 2018 and the Saxonvale Coal EL also expired in 2018.

2. Supporting responsible coal production in areas deemed suitable for mining. This includes an objective to "*consider releasing a limited number of new areas for coal exploration. These will be areas where there are minimal conflicting land uses, where social and environmental impacts can be managed, and where there is significant coal production potential" (ibid p8)*. The Monash mine proposal must fail on these threshold tests as outlined in section 5 of this submission. Further, the Wollombi resource that has been identified on this map is also considered to have significant impact on the local community and should be ruled out.

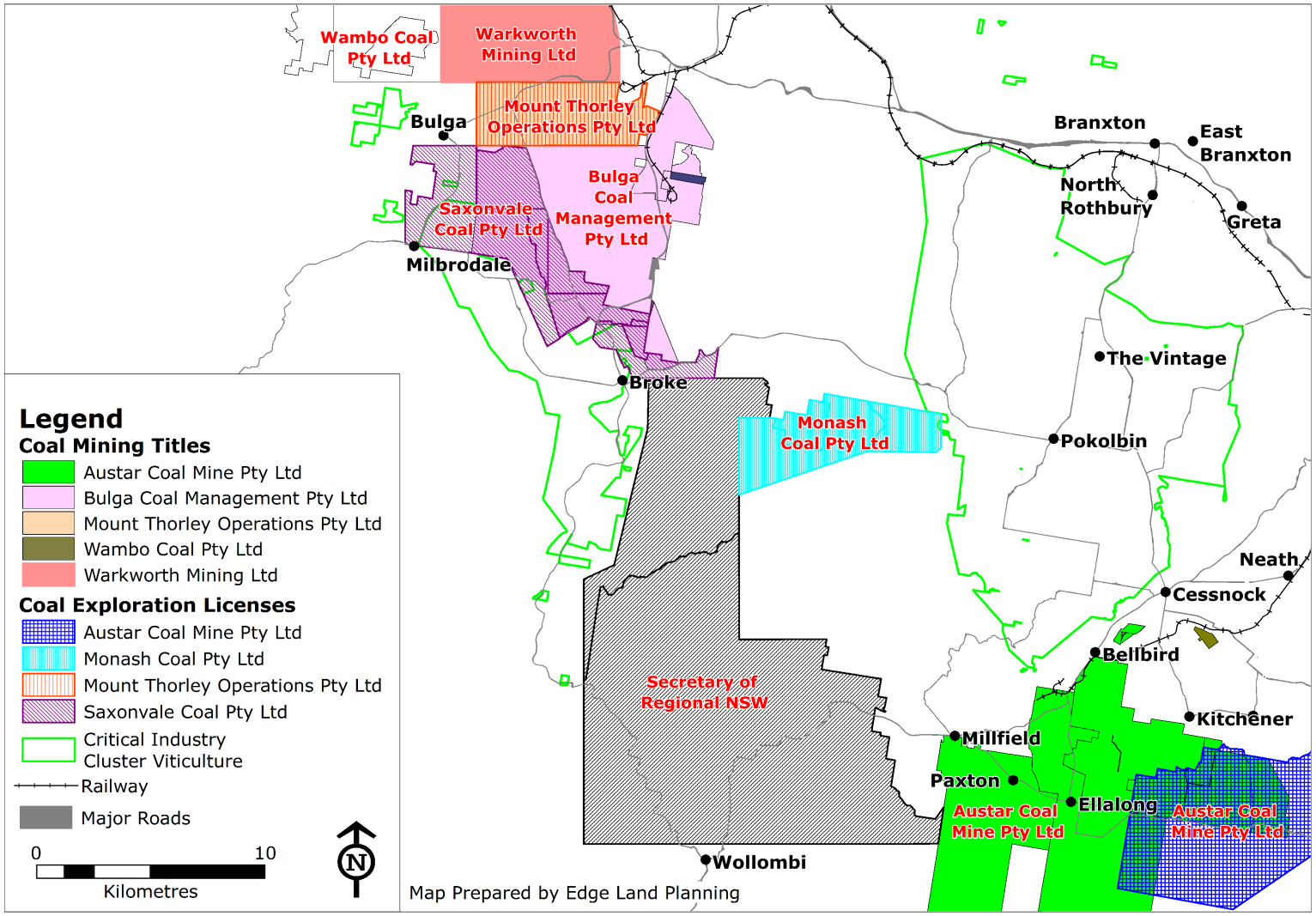
3. Addressing community concerns about the impacts of coal mining. This submission is being driven by the communities concerns regarding the impacts of coal mining under these two EL's and the Wollombi resource proposal. Those potential impacts are addressed in section 5 of this submission.

4. Supporting diversification of coal reliant reginal economies to assist with the phase out of thermal coal mining. "*The NSW Government will continue to work to strengthen regional economies, including the development and implementation of location-specific plans to diversify those heavily dependent on coal mining*." (ibid p9) The wine tourism industry is already providing a stable growing industry capable of assisting the Hunter Valley to transition away from the significant coal industry, and on this basis should not be doing anything, such as progressing the Monash Mine EL's, that would jeopardise the wine tourism industry in the Hunter. On the contrary, the government needs to be taking actions that strengthen and grow the wine tourism industry.

In summary, the Monash Mine proposal is at odds with the Future of Coal Statement and on that basis alone the EL renewal should be rejected.



Map 2.1: NSW Coal Mining Release and Exclusion Areas



Map 2.2: Monash Coal Proposal and nearby mines

2.3. Strategic Regional Land Use Plan – Upper Hunter

On 11 September 2012, the NSW Government released Upper Hunter Strategic Regional Land Use Plan (UHSRLUP). The UHSRLUP represents one component of the NSW Government's broader Strategic Regional Land Use Policy, which comprises multiple initiatives to address land use conflict in regional areas, with a particular focus on managing coal mining and coal seam gas issues. The Plan provides a strategic framework for the Upper Hunter, delivering the necessary context for Government investment priorities, servicing strategies and local environmental plan making.

The UHSRLUP covered an area of 2.18 million hectares and included the five local government areas (LGAs) of Singleton, Muswellbrook, Dungog, Upper Hunter and Gloucester.

The UHSRLUP outlines following key actions and initiatives, including:

- Introduction of a new decision-making framework - "Gateway process" for mining and coal seam gas development.
- Establishment of an Independent Mining and Coal Seam Gas Gateway Panel.
- Identification and mapping of Biophysical Strategic Agricultural Land and Critical Industry Clusters.
- Introduction of an Agricultural Impact Statement.
- Preparation of a fully costed Upper Hunter Regional Infrastructure Plan.
- Development of the Upper Hunter Strategic Biodiversity Assessment.
- Preparation of a Regional Workforce Plan for Upper Hunter.
- Development of Upper Hunter Urban Development Program.
- Development of a cumulative impact assessment methodology
- Compilation of a biodiversity offsets database
- Preparation of Aboriginal cultural heritage assessment guidelines and completion of mapping.

This plan was introduced by the NSW State government amid ongoing conflict between Coal Seam Gas (CSG) proposals and the local agriculture industries and local communities.

> *"The NSW Government is committed to balancing strong economic growth in regional NSW with the protection of our most valuable agricultural land and sustainable management of our natural resources. In the Upper Hunter region, it is particularly important to minimise land use conflicts arising from the rapid growth of coal mining activities and the recent emergence of the coal seam gas industry.*
>
> *The Upper Hunter Strategic Regional Land Use Plan represents one component of the Government's broader Strategic Regional Land Use Policy which comprises multiple initiatives being staged over time to address land use conflict in regional areas, particularly focused on managing coal and coal seam gas issues. The plan provides a clear strategic framework for the Upper Hunter, delivering the necessary context for Government investment priorities, servicing strategies and local environmental plan making."(NSW Department of Planning and Infrastructure, 2012)*

The Hunter Valley Wine Industry Association (now the HVWTA) was part of a 'Stakeholder Reference Group' involved in putting this plan together.

This plan highlights the need to find a balance and co-existence between agriculture and resource development.

The plan discusses the various policy response including the need to identify Critical Industry Clusters. The plan states that such clusters must meet the following criteria:

CIC Criteria	Pokolbin State Forest/ Brokenback Range Response
- there is a concentration of enterprises that provides clear development and marketing advantages and is based on an agricultural product;	There are concentrations of wine tourism industry enterprises at both Broke-Fordwich and Pokolbin that are interrelated. It is part of the one area in terms of Hunter Wine Country tourism branding and the Broke Road / Cessnock Road provides the important link connecting the area as a whole. The Brokenback Range and Pokolbin State Forest then provide the scenic backdrop.
- the productive industries are interrelated;	The wine industry, which is the agricultural part of the sector, and the tourism industry enjoy a symbiotic relationship with one not being able to exist without the other. A significant part of the visitor experience is the scenic quality of the area, and the Brokenback Range certainly 'rims' the southern end of Pokolbin and is a significant vista for the Broke-Fordwich area.
- it consists of a unique combination of factors such as location, infrastructure, heritage and natural resources;	From a tourism perspective the location is critical being within a convenient distance to both Newcastle and Sydney, the two primary markets for the area. The area has invested over the last 150 years significantly in infrastructure that supports both the wine and tourism industries including the relevantly recent Hunter Expressway which has dramatically improved access into the area. Pokolbin is the oldest wine growing area in Australia so consequently is of significant heritage importance.
- it is of national and/or international importance;	Pokolbin is the oldest wine growing area in Australia and is of national and international significance.
- it is an iconic industry that contributes to the region's identity; and	The Wine Tourism Industry is identified throughout the strategic planning framework as being significant to the State and Nation. It certainly is regarded as 'iconic'.
- it is potentially substantially impacted by coal seam gas or mining proposals	The Monash Mine proposal sits in the middle of Hunter Valley Wine Country and has potential to significantly impact on this area.

The table above prosecutes a case that the Pokolbin State Forest and Brokenback Range, which is impacted by EL 7579 and EL 6123 (Monash Mine proposal), passes the threshold tests to be included into the CIC for a single CIC covering the entirety of Hunter Valley Wine Country.

> *"The viticulture cluster includes a highly integrated concentration of vineyards and associated wineries and tourism infrastructure in a rural landscape. The region's unique terrain and climate, its heritage vines and diversity of soil types all contribute to the specific quality and characteristics of grapes produced in the area, especially Hunter semillon and shiraz. Also of importance is the Hunter Valley wine tourism branding based on its natural environment and visual landscape attributes and its proximity to metropolitan areas."(NSW Department of Planning and Infrastructure, 2012)(pg 22)*

The reference above to the regions unique terrain in the context of the wine tourism industry is a reference to the Pokolbin State Forest and the Brokenback Range.

The map that was released with the UHSRLUP showed the CIC for Viticulture extending from Broke to Pokolbin with the Broke Rd / Cessnock Rd as the northern boundary. This was the plan that was exhibited as well as being in the published plan released in September 2012. Then in 2013, an amendment was made to the SEPP Mining and Petroleum Industries which included a new set of maps which reduced the area of the

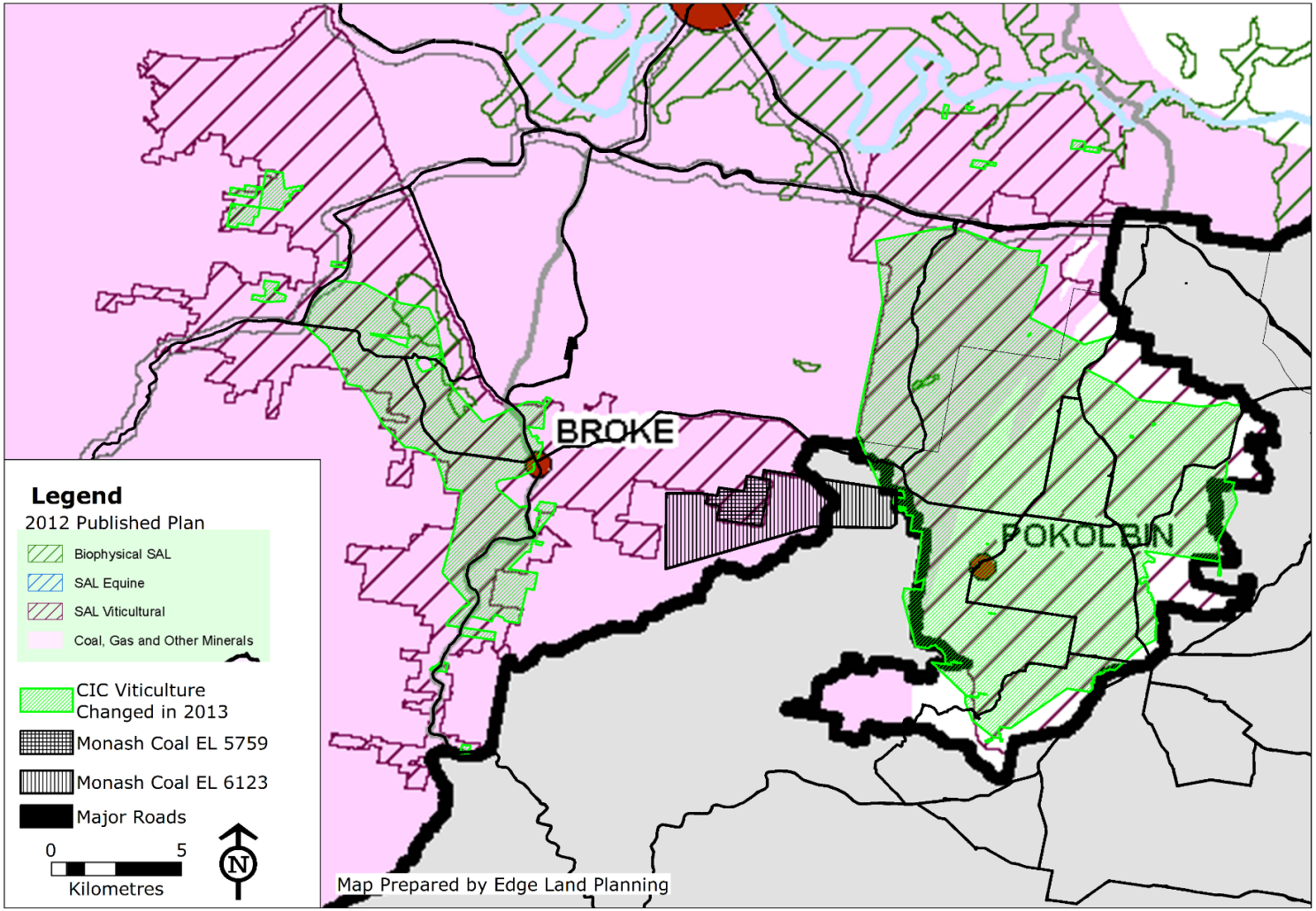
CICs dramatically. There is no published reason given for this change. The changed CIC boundaries in 2013 have been overlaid with the original map that was released in 2012 and this is shown as map 2.3.

The point to be made by the plan is that the *Upper Hunter Strategic Regional Landuse Plan* had Broke-Fordwich and Pokolbin linked via the areas outside the Pokolbin State Forest (so including EL 7579) as being within the one CIC. It is noted that this is also the area covered by the Broke – Fordwich Geographical Indication and the Pokolbin Geographical (Wine Australia, 2021) Indication to the north east of the Monash Els. An amendment to the Mining SEPP in 2013 substantially reduced the area of both the Pokolbin and Broke Fordwich CICs. This submission seeks to revert the area of the CIC to that which was published in the *Upper Hunter Strategic Land Use Plan.* Whilst it is noted that there are not any wineries in this area and that it is a mixture of forested and open grazing land, it provides the landscape link between Pokolbin and Broke Fordwich and this linkage is strategically significant to the Hunter Valley Wine Country as a whole as it ensures that the ten-minute drive is one of a mixture of natural and rural landscape, and not a mining landscape.

2.4. Strategic Agricultural Land Viticulture Critical Industry Cluster

> *"The Department (of Planning, Industry & Environment) has identified a concentration of equine (horse) and viticulture (wine) industries in the Upper Hunter and mapped these locations as 'Critical Industry Clusters' (CICs).*
>
> *CICs are concentrations of highly productive industries within a region that are related to each other, contribute to the identity of that region and provide significant employment opportunities.*
>
> *The creation of these industry clusters aims to protect this high-quality agricultural land from the impacts of coal seam gas (CSG) and mining activities.*
>
> *In January 2014, the NSW Government finalised the CIC maps and introduced a ban on new CSG activity within the mapped areas.*
>
> *In July 2014, an additional 19 wine-growing properties were added to the viticulture CIC as a result of the alignment of the CIC boundary with the boundary for the Upper Hunter region (see FAQ below).*
>
> *Proposals for State significant mining projects within the mapped areas are also examined via the Gateway process – an independent, upfront scientific assessment of the land and water impacts of the proposal.*
>
> *The CICs were introduced via an amendment to the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP)." (NSW Department of Planning Industry and Environment, 2021)*

This submission is seeking in part to extend the CIC so as to link the Broke-Fordwich and Pokolbin CIC's generally along Broke Road south taking in the Pokolbin State Forest and adjoining private lands south to Wollombi as outlined in Map 6 of the *Upper Hunter Strategic Landuse Plan*. This area then should be excluded from mining and CSG operations.



Map 2.3: Changed Critical Industry Cluster Viticulture

Source: Upper Hunter SRLUP & CIC GIS Layers

2.5. Upper Hunter Industry Scenarios Report 2016

In early 2016, the NSW Government initiated the *Upper Hunter Industry Scenarios Project*, aiming to develop a common understanding of the region's needs for long-term industry transition in the context of a changing industry environment (particularly in mining and power generation), and emerging global trends in agribusiness. Key drivers in the industry transition picture for the region were seen as including:

- Restructuring of operations and job losses in the Upper Hunter coal mining sector resulting from an ongoing downturn in global thermal coal prices;
- The NSW Government's sale of key power generation assets, and plans from new owners AGL to wind down operations at Liddell Power Station by 2022 and Bayswater Power Station by 2035;
- Emerging opportunities for agribusiness development for regional NSW, as one of five key industry sectors providing Australia's strongest prospects for sustainable economic growth based on predicted global demand; and
- Current water security planning in the Hunter, which seeks to identify long term industry usage patterns and develop costed options to ensure long term drought reliance and security of supply
- A major issue for the future is that with the adoption of new processes, technologies and business models, industries are becoming less employment intensive, and this has implications for the replacement of jobs lost in mining and in power generation. The report states that there are a range of potential scenarios for the long-term development of the key sectors including agribusiness, mining and power generation in the Upper Hunter Region. Future development will be influenced by:
- Global and domestic market factors; climate change and responses; water availability, quality, cost and water security;
- The transition to a new power generation future; land availability and land use; industry investment and funding; and
- Industry research and development and its application.

The need for a Diversified Regional Economy is emphasised - which is based upon the transition in power generation and coal mining and creates new opportunities based on competitive advantages.

The report also states that diversification potential and industry development will also be shaped by the policy environment and regulation at national, state and local levels. Industry plans for sectors (eg. dairy) at a state and national level will also be important in driving opportunities at a regional level.

The following were concluded as indicative of potential medium/long term scenarios, with water security being a key dimension of the industry futures.

2.5.1. Smart Specialisation Strategy - A strategy for innovation-driven growth

An overarching issue is that the three of the industries focussed on agriculture, power generation, and mining were, at the time of finalising this report, seeing declines in direct employment in the region through either industry downturn or increasing efficiencies technology or business practices. In agribusiness new processing operations and protected cropping are the two areas which would increase employment in the region significantly. With changes in technologies, processes and the employment intensity of industries, there will be limited growth in overall employment levels, even under the growth scenarios. Other sectors that may grow (e.g., tourism/hospitality) have a casualised workforce and can have a very seasonal demand.

An economy which applies knowledge and innovation to production processes and is delivering to national and international markets was concluded as having potential in the Upper Hunter – being in a strong position because of its resources, industry base, and its research, services and logistics links through Newcastle. There is also a need to facilitate investment and to develop infrastructure.

A series of "strategic themes" and high-level priorities emerged via the research and consultations undertaken through the Upper Hunter Industry Scenarios project. These provided the guiding principles and directions for the next stages of joint government and industry action.

Development of the Upper Hunter will require the active involvement of industry in shaping plans for the region and investing in current businesses and new enterprises. The scale of development will also require the attraction of new businesses into the region, including processing plants.

Investment will need to be underpinned by greater certainty in land use planning and in water availability. Much of the investment needed will come from outside the region, and industry and government will need to work together on investment attraction and facilitation.

2.5.2. Strategic Theme 1 – Driving Land Use Certainty

The future of government-industry collaboration for economic development and jobs growth in the region will be underpinned by planning frameworks delivering greater certainty of land use and managing land use conflicts. There is an opportunity to explore the development of mechanisms to provide non-statutory guidance to the types of land uses considered most appropriate, suitable or sympathetic with existing land uses in the Upper Hunter. This would aim to deliver certainty based on a fine- grained appreciation of the inherent characteristics of land, differing land use types and their impacts, without binding land developers and industry to predetermined outcomes. This work could capture current and future uses for mining offset lands; alternate uses of mine voids and rehabilitation sites; and industries seeking to develop alternative productive uses for mine buffer lands.

There is a need to identify sites and infrastructure requirements for new activities. Traditionally the frameworks determining the permissible mix and distribution of land uses is delivered through the NSW Planning System, through land use zones in LEPs and through local and state- level planning assessment processes in the EP&A Act 1979. Therefore, any such exercise would need to adhere to permissible and prohibited uses provided through local planning instruments and directions in the HRP.

What this highlights in respect to the Monash Mine proposal is that where there is potential fr conflict, the planning framework should be amended so as to avoid any conflict from occurring.

2.5.3. Strategic Theme 2 –Encouraging New Industry Investment

A focus on certainty of land use and improved access to land in turn fosters a climate of enhanced certainty for industry investment. A key finding of the Industry Leaders Forums and through consultations was to promote greater certainty through:

- planning assessment outcomes at the state and local level;
- a renewed focus on up-front strategic planning; and
- development of a costed and sequenced infrastructure pipeline (e.g., power, gas, water, roads) for the Upper Hunter region.

If there is potential for landuse conflict, as the HVWTA states there is, then this will result in increased uncertainty, and where there is uncertainty, investment risk is introduced and then there is a reduction in investment. This can have compounding impacts on the tourism industry which requires ongoing investment in not only new tourist infrastructure, but also in maintenance of existing infrastructure. If the market perceives that there is a coal mine operating in the middle of Hunter Valley Wine Country, this will result in reduced visitation and tourists coming to the area along with an undermining of attempts to have the area UNESCO listed. These will all have negative consequences for investment.

2.5.4. Strategic Theme 3 –Developing New Market Opportunities

New and expanded export offerings from the Upper Hunter that leverage off competitive advantages in agribusiness and infrastructure advantages present opportunities for joint government and industry action. This includes: the export of technical services and innovation in mining equipment; emerging opportunities through the Upper Hunter Energy Innovation Hub; and agribusiness exports.

Existing supply chain infrastructure and capacities may also be repurposed to facilitate export growth in new commodities. In agribusiness, the NSW Agriculture Industry Action Plan sets a policy framework to support future development in the State and is designed to provide a roadmap for industry and government working together on medium- and long-term outcomes.

The plan addresses a number of issues that were raised in the Upper Hunter industry consultations including: developing new market and growth opportunities across the supply chain; workforce and skills development; education; trust in production systems; research and development; cutting red- tape to make it easier to expand exports and attract investment.

The Scenarios Report emphasised the management of land use conflict in assessing potential regional investment opportunities.

2.6. Hunter Region Plan 2036

> *"The leading regional economy in Australia with a vibrant new metropolitan city at its heart."(NSW Department of Planning and Environment, 2016)*

The Hunter Region Plan 2036 (HRP) is a highly aspirational plan seeking to make the Hunter Region the leading regional economy in Australia. At present, the coal industry is a major driver of the regional economy, and as outlined in the Future of Coal Statement above, it will be in decline over the period to 2036. Consequently, it is the growth of other industries within the region and the diversification of the regional economy that will enable the Hunter to reach this lofty goal.

As an assessment of the Monash Mine proposal against the relevant provisions of the regional plan, the following assessment is provided:

Goal	Direction	Wine Tourism Industry Response
GOAL 1: The leading regional economy in Australia	Direction 5: Transform the productivity of the Upper Hunter "*The Upper Hunter is undergoing a transition with ….. growth opportunities in agriculture and changes in the mining sector.* *This part of the region has natural features and resources that sustain some of the most mature, diverse and successful rural and resource industries in Australia. The Upper Hunter is*	The Monash Mine site is located on the Upper Hunter/ Newcastle Metropolitan area. In terms of *global and national energy demands and policies influencing demand for coal*, we know that demand will be decreasing (refer to the Future of Coal Statement). The Monash Coal project is to be located over the Pokolbin State Forest and the significant scenic backdrop to Hunter Valley Wine Country, the Brokenback Range supporting the regional Plan statement that the wine tourism industry *will continue to benefit*

	*recognised as a major supplier of coal, energy, **wine** and thoroughbred horses **to national and global markets**. These industries have driven investment in transport and energy infrastructure, and will **continue to underpin the growth and diversification of the Hunter's economy and employment base**.* *In the coming decades, the growth and diversification of the Hunter's mining ….industries will be influenced by global and national energy demands and policies. Identifying land and infrastructure requirements that can support the future development of the region's coal and alternative energy resources will enable the Upper Hunter to respond to new and emerging opportunities.* *The Upper Hunter is recognised for its agricultural diversity and there is growing demand for its …. agricultural products. These industries, together with the **viticulture** and equine sectors, will continue to benefit from the quality of the region's natural features and systems and the competitive advantages of the Upper Hunter. They will also be able to capitalise on new and emerging opportunities in both the domestic and Asian markets.* *There is capacity to export …. agricultural knowledge, especially in the … viticulture industries.* *Protecting the Upper Hunter's landscape and leveraging its established agricultural industries will help to increase its appeal as a tourist destination.*	*from the quality of the region's natural features and systems; Protecting the Upper Hunter's landscape and leveraging its established agricultural industries will help to increase its appeal as a tourist destination;"* the Monash Mine proposal will compromise these observations related to the economic growth of the region. The Monash Plan will threaten the wine tourism industry of the Hunter and consequently it is clearly contradictory to a number of the Actions outlined in this objective of the plan, namely: ***Action 5.1:** Prepare for the diversification and innovation of the economy in response to long term industry restructuring in coal ….. and the growth in new high-technology primary industry and associated specialist knowledge-based industries and **rural tourism**.* ***Action 5.4:** Protect the availability and quality of resources to sustain agricultural industries in the region.* ***Action 5.5:** Improve land use certainty and enable innovation by reviewing and amending planning frameworks.* The Monash Mine EL's were largely unknown to the wine industry, and now that it is common knowledge, it is going to create significant uncertainty. The Future of Coal Statement provides some certainty, and on that basis the EL's must be treated as new applications and refused on the basis that they are inconsistent with that plan.

	Direction 9: Grow tourism in the region *"There is huge potential for the Hunter to increase the number of nights visitors spend in the region from an annual 8.8 million.* ***Protecting the Hunter's pristine natural areas will keep them attractive to visitors**. …..* ***Increasing the appeal of the Hunter Valley's vineyards and cellar doors will support a range of complementary tourism activities.*** ***Maintaining the scenic rural landscape of the Pokolbin and Broke Fordwich wine-growing areas will encourage growth in tourism and agricultural production.*** *The region can also capitalise on the growth in food-based or gastronomic tourism throughout …. Hunter Valley to support growers of products such as …… There is potential to align growth of the international centre of excellence for thoroughbreds in the Upper Hunter with growth in food-based and **wine tourism**.*	The HRP highlights the need to protect the wine tourism industry from incompatible landuses so as to protect the natural assets to enable the region to grow its tourism industry. A coal mine within the scenic backdrop to Hunter Valley Wine Country clearly does not correlate with this Direction of the HRP. It will not protect it and be contrary to the direction to "Increase the appeal of the Hunter Valley vineyard's". The Monash proposal would also be clearly contrary to the need to maintain the scenic rural landscape of the Pokolbin and Broke Fordwich wine-growing areas so as to encourage growth in tourism and agricultural production. If the tourism market has a perception of a coal mine operating in the heart of wine country, it will have, we believe, devastating consequences. The image of a coal mine operating in the middle of what the industry seeks to create as an international standard heritage area through a UNESCO listing will be completely contrary to this direction.
	Direction 10: Protect and enhance agricultural productivity	If the EL for the Monash Mine continues, this will lead to uncertainty in the wine tourism industry. This in turn will lead to a lack of investment confidence and a degrading of that industry.
	Direction 11: Manage the ongoing use of natural resources	The achievement of this Direction is set out in the State Governments recently released "Future of Coal" Statement as referenced in section 2.2 above. In short, the Monash EL's are contrary to this coal plan.

	Direction 13: Plan for greater land use compatibility	***Action 13.1:*** *Identify and protect important agricultural land, including intensive agricultural clusters, in local plans to avoid land use conflicts….* ***Action 13.3*** *Amend planning controls to deliver greater certainty of land use.* ***Action13.4*** *Provide non-statutory guidance on the types of land uses that would be considered most appropriate, suitable or sympathetic to existing land uses in the Upper Hunter and other areas where land use conflicts occur.* Coal mining activities and wine tourism are clearly conflicting landuses. Consequently, this submission advocates that the Critical Industry Cluster that currently protects the Broke-Fordwich area and Pokolbin be joined so as that it becomes one area taking in the Pokolbin State Forest and Brokenback Range. This is justified on the basis that this area is an extremely significant and sensitive scenic landscape resource of vital importance to the Hunter Wine Tourism Industry.
GOAL 2: A biodiversity-rich natural environment	**Direction 14:** Protect and connect natural areas	***Action 14.2*** *Identify and strengthen biodiversity corridors….* ***Action 14.5*** *Secure the long-term protection of regionally significant biodiversity corridors* EL 7579 and EL 6123 is heavily vegetated land that provides a link between the Yango and Wollemi National Parks, and the floodplains of the Hunter River. It must be considered part of a 'regionally significant biodiversity corridor.' Any mining activity that was to compromise this vegetation would therefore be contrary to this Direction.
	Direction 15: Sustain water quality and security	Water security is a vitally important issue for any agricultural industry, and the wine tourism industry is no different. There is real concern within the community that if the Monash Mine were to proceed that it would have a detrimental impact on the delicate ground water system within the Pokolbin vineyards area.

GOAL 3: Thriving Communities	**Direction 19:** Identify and protect the region's heritage	The HVWTA has begun a process of having Hunter Valley Wine Country, including the Pokolbin State Forest and Brokenback Ranges, declared a UNESCO World Heritage area. Mining within such an area would be then clearly inconsistent with heritage conservation principles.
Local Government Narratives	Regional Priorities • Support the visitor and agricultural economies by conducting a land use assessment across the Viticulture Critical Industry Cluster.	This is another item within the HRP highlighting the significance of the Viticulture Critical Industry Cluster. Our submissions is that when this review is undertaken it should examine joining the Broke-Fordwich CIC and the Pokolbin CIC into one Viticultural CIC taking in the Pokolbin State Forest and the Brokenback Range.

The Monash Coal mine project currently identified by the two EL's which are the subject of renewal applications are contrary to the vision, goals and directions espoused by the HRP. While the coal industry is significant to the region, it is an industry on the wane. The wine tourism industry on the other hand is a growing, sustainable industry that will be significant to the region into the distant future.

2.7. Greater Newcastle Metropolitan Plan 2036

The *Greater Newcastle Metropolitan Plan* (the Plan) sets out strategies and actions that will drive sustainable growth across the Newcastle metropolitan area which includes the LGA of Cessnock. Consequently, it applies to part of EL 6123. The aim of the Plan is to also provide planning strategies to achieve the vision set in the Hunter Regional Plan 2036 – *for the Hunter to be the leading regional economy in Australia with a vibrant new metropolitan city at its heart*.

Relevant sections of the Plan that recognise the strategic significance of the wine tourism industry to the Hunter Region are as follows:

One of five elements identified to *shape Greater Newcastle into a dynamic and entrepreneurial city with a globally competitive economy and a great lifestyle, framed by* ***wineries*** *to the waterfront*.

> *"Home to nationally and internationally significant tourism destinations and events, a visit to Greater Newcastle leaves lasting memories of the area's amenity, natural environment, heritage and lifestyle. Visitors, residents and students are attracted to Greater Newcastle's diverse sporting and event venues, such as Surfest and Supercars with a ribbon of surf beaches, unique waterways and world heritage listed national parks.* ***The cluster of vineyards and wineries add to Greater Newcastle's tourism appeal and make it an important economic and lifestyle city****."(NSW Department of Planning and Environment, 2018)*

Strategy 6 *Promote tourism, major events and sporting teams on the national and international stage*

> *Existing iconic tourism destinations, such as Newcastle City Centre, the internationally renowned vineyards and wineries around Cessnock,*

Strategy 13 *Protect rural amenity outside urban areas*

> *Rural areas in Greater Newcastle have a wide range of environmental, social and economic values. These rural areas need to be carefully planned for the future to provide a secure long-term future for productive and sustainable agriculture.*
>
> *Agricultural production will continue to be integral to the supply of Greater Newcastle's fresh food, including ….. intensive farming at Cessnock. Other farming can expand its export focus, including* ***grapes and wine from the Pokolbin area****.*

Local Government Narratives: Cessnock

> *The Cessnock Local Government Area is the* ***focal point for the region's wine industry and a significant tourism and entertainment destination****. Opportunities exist to* ***increase its appeal as a major wine and food tourist destination with a national and international reputation****. ……..*
>
> *Pokolbin, Wollombi Valley and National Parks are tourism destinations for entertainment and tourism activity.*
>
> *Recreation opportunities such as the Great North Walk, Richmond Vale Rail Trail, Baddeley Park sports fields and lookouts in the Watagan and Yengo National Parks are important assets for residents and tourists, and form part of the Blue and Green Grid.*

In summary, the *Greater Newcastle Metropolitan Plan* recognises the significance of Pokolbin as a wine tourist destination, also important for entertainment with the significant concert events the area hosts on a regular basis. The Plan highlights the need to protect the areas scenic resources and ensure all actions governed by the planning framework do not compromise the attainment of the vision for the Hunter. This submission highlights the need for that goal to be achieved to ensure that coal mining activities are removed from areas significant to the wine tourism industry, and that includes the Pokolbin State Forest and the Brokenback Ranges.

The Monash Coal EL's 7579 and 6123 are within the Pokolbin State Forest, an area that connects to the World Heritage areas to the south around the Blue Mountains as well as the Yengo National Park and other areas rich in biodiversity. It is an important link between these areas to the south, and the flood plains of the Hunter River to the north. The State Forest has very rugged terrain and it would be reasonable to assume that the biodiversity values would be similar to the nearby Yengo National Park to the west. That combined with the landscape contribution to the Brokenback Range makes it more suitable as a National Park than a State Forest. The topography and significance of the biodiversity would suggest that it is not likely to ever be used as a forestry resource.

2.8. Destination Management Plan: Sydney Surrounds North

The primary responsibility of the Destination Sydney Surrounds North (DSSN) is to drive the growth of the Visitor Economy in the region to help achieve the NSW Government's goal of doubling overnight visitor expenditure for the state between 2009 and 2020. The DSSN footprint is an important region to the New South Wales Visitor Economy generating $4.07billion (TRA 2017) annually equating to 12.3% of the State's $33.2billion Visitor Economy.

> *"The Hunter Valley encompasses both the Cessnock (C) and Singleton (S) LGAs. It is Australia's oldest and most visited surviving commercial wine region, located in the heart of the Hunter region and surrounded by World Heritage National Parks, rich heritage and colonial, indigenous and industrial history. The area also boasts superior accommodation and golf courses, and has a reputation as a quality short break destination." (Destination Sydney Surroungs North, 2018)(pg. 13)*

The Hunter Valley is the most significant economic contributor to the DSSN and has the most visitors. The DSSN highlights the significance of the wine tourism industry to the State.

2.9. SEPP (Mining, Petroleum Production and Extractive Industries) 2007

The aim of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (the Mining SEPP) is to provide "*a policy framework to govern the assessment and development of the State's mineral and energy resources through the planning system. It serves as a tool to regulate the permissibility of mining, petroleum production and extractive industries across the state and provides consent authorities with a framework of matters that must be considered in the assessment process. This includes issues such as considering the impact of a development on existing land uses and whether environmental impacts and biodiversity offsets have been adequately addressed*." (DPIE 2015)

It is this framework that seeks to ensure not only that the consent authority addresses all matters relevant to a proposed development, but which also seeks to address land use conflicts and ensure a more balanced assessment of a proposed development.

The aims of the Mining SEPP are, in recognition of the importance to New South Wales of mining, petroleum production and extractive industries:

> *a. To provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State, and*
> *b. To facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources, and to promote the development of significant mineral resources, and*
> *c. To establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of mineral, petroleum and extractive material resources, and*
> *d. To establish a gateway assessment process for certain mining and petroleum (oil and gas) development:*
>
> > *i. To recognise the importance of agricultural resources, and*
> > *ii. To ensure protection of strategic agricultural land and water resources, and*
> > *iii. To ensure a balanced use of land by potentially competing industries, and*
> > *iv. To provide for the sustainable growth of mining, petroleum and agricultural industries (NSW Government, 2007)*

The Mining SEPP identified the CIC for Viticulture as illustrated at Figure 4 of this report. This area does not include the Monash Mine EL's which were identified in the Upper Hunter Strategic Landuse Plan in 2012.

Provisions of the Mining SEPP expressly require consideration of:

- the compatibility of a proposed mine with other existing and approved land uses;
- impacts on water resources, threatened species and biodiversity; and
- the greenhouse gas emissions of a project,

Between 2013 and 2015, economic benefits of mining had preferential consideration via clause 12AA of the SEPP. However, the provision has been repealed and amendment to the Mining SEPP reset the balance between environmental, social and economic considerations in the assessment process, with resource

significance remaining as a relevant consideration under the Mining SEPP albeit no longer the principal consideration.

2.10.Cessnock Local Strategic Planning Statement

The *Cessnock Local Strategic Planning Statement* (CLSPS) sets a vision for the planning direction of the Cessnock Local Government Area (LGA) to 2040. The planning priorities outlined within the CLSPS reflect the future land use directions of the Cessnock LGA based on the themes: liveable, productive, sustainable and unique.

The document notes that the Austar mine near Paxton has been put into care and maintenance and has thus ceased current operations. Whilst observing the decline of the coal mining sector in the LGA, it has noted in contrast the success of the Hunter Region's wine industry. It makes the following observations about the wine tourism sector:

> *"With over 150 wineries, the region is home to more cellar doors than any other wine region in Australia. The viticultural industry gives rise to a thriving tourism industry that includes restaurants, accommodation, events, galleries and specialty shops." (Cessnock City Council, 2020)*

Relevant commentary and policies as follows.

> *Planning Priority 8: Our rural land is protected from incompatible development.*
>
> - *Effective buffers are maintained to protect rural lands from further encroachment by non-agricultural development.*
> - *The agricultural production value of the Vineyards District is protected from incompatible uses.*
> - *The impacts of higher risk, non-agricultural land-uses are appropriately managed to mitigate impacts on the rural, environmental and scenic values of the LGA.*

These priorities highlight again a strategic planning framework which seeks to encourage a separation of conflicting landuses and in particular ensure activities such as coal mining, do not impinge on the vineyard areas of the Cessnock LGA.

> *Planning Priority 9: Our wine tourism industry is supported and enhanced.*
>
> *The Cessnock Vineyards District contains a diverse range of tourism development which supports the wine industry, including cellar doors, accommodation, restaurants and a variety of cultural and recreation facilities and events. For landowners, the supporting wine tourism industry provides important opportunities to reinforce and diversify product offering and income.*
>
> *The wine industry in the Hunter Valley accounts for a significant share of the regional economy, delivering an annual economic contribution of over half a billion dollars. The industry supports approximately 2,800 direct and indirect jobs across the Hunter Valley and accounts for 15 percent of total visitation to the Hunter Valley and 20 percent of overnight stay visitors. For Cessnock, this equates to 279,000 overnight visitors each year.*
>
> *The wine and tourism industries in Cessnock are significantly co-dependent. Tourist and other non-agricultural development are an important component of the Vineyards District and help sustain the economic viability of viticulture. However, if not carefully managed, non-agricultural development in the Vineyards District may have a negative cumulative impact on the rural, viticultural and heritage significance of the landscape, result in amenity impacts and undermine agricultural productivity and the scenic viticultural landscape that is fundamental to the overall appeal of the Vineyards District. For*

this reason, it is important development in the Vineyards District is managed carefully to ensure the ongoing viability of both the wine and tourism industries.

The tourism industry will continue to thrive in the Vineyards District. Opportunities to expand the range of compatible forms of tourism development will be encouraged, enabling landowners to diversify their income and use of the land. Rural trails and cycleways throughout the Vineyards District will provide new ways to move around the area and the established town centres will be positioned to take advantage of tourism generated by the Vineyards District.

The economic value of wine tourism to the local and regional economy will be reflected in Council's landuse policies to protect local employment opportunities and encourage growth in wine tourism spending, investment and regional visitation. Council will work collaboratively with representatives from the community and the wine and tourism industry to develop land-use policy for the Vineyards District.

Collaborative planning ensures local knowledge is captured, that policy remains relevant and effective and that non-agricultural development is sympathetic and contributory to the scenic rural and viticultural amenity of the area.

Non-agricultural development in the Vineyards District is sympathetic and contributory to the scenic rural character of the area.

These comments and priorities in the plan confirm the economic significance of the Hunter Valley Wine Country and the need to protect it from incompatible development.

Planning Priority 18: Our areas of biodiversity and biodiversity corridors are enhanced and protected.

Planning Priority 22: Our rural landscape is retained and enhanced.

Cessnock's landscape is characterised by scenic ranges, internationally significant national parks and vineyards, and extensive areas of rural landscape. These rural areas, mountain ranges and environmental lands are distinctive features and integral to the identity of the area.

- *Scenic view corridors of the region are protected and enhanced.*
- *The rural character and amenity of the land is preserved and enhanced.*
- *The scenic rural landscape of the Vineyards District is preserved.*
- *Dwellings located in rural areas and areas of high environmental value*

Planning Priority 23: The scenic and rural landscape of our Vineyards District is preserved.

The Vineyards District is characterised by gently undulating hills surrounding central and northern Pokolbin to the more elevated and rugged terrain of the Brokenback Range.

The scenic rural character of the Vineyards District contributes significantly to the success of the tourism industry and is an important component of the overall experience sought after by tourists. However, the balance between supporting the growth of the tourism industry and preserving the scenic rural landscape qualities that underpin the attraction for tourism remains a significant and ongoing planning challenge.

In the future, the natural scenic amenity and rural character of the Vineyards District may need to be protected and, in some areas, restored to sustain the Hunter Valley Vineyard experience and support the tourism industry. Encroachment of urban and non-agricultural development will need to be carefully

managed to ensure the scenic rural landscape that underpins tourism, is preserved for future generations.

- The rural character and scenic amenity of the land is preserved and, where possible, enhanced.
- Development in the Vineyards District is consistent with the findings of the Vineyards District Project.
- Visually significant views and tree-lined local road corridors will be preserved.

The above Planning Priorities and accompanying commentary highlight the significance of the Brokenback Range and adjoining Pokolbin State Forest as the scenic rim of Hunter Valley Wine Country. These scenic features are highly significant to the future of the tourism industry and cannot be compromised. A coal mine, as proposed via the Monash Mine and EL's 7579 and 6123, are not compatible with these strategic directions.

Planning Priority 24: Our Aboriginal cultural heritage is protected and celebrated.

We have consulted with representatives of the Wonnarua aboriginal community who have advised that what we refer to as the Brokenback Range has significance for aboriginal culture.

Planning Priority 25: Heritage-based tourism is facilitated and promoted.

Planning Priority 26: Nature-based and recreational tourism is facilitated and promoted.

Cessnock is home to significant mountain ranges, National Parks, expansive bushland, vast rural landscapes and quality recreational facilities. These assets provide a range of tourist opportunities. Nature and recreational tourism also have the added benefit of improved health and wellbeing, both for residents and visitors.

- *Environmental values and the scenic rural landscapes are maintained.*

Summary: The CLSPS identifies the scenic resources of the LGA, which includes the Brokenback Range, as significant and warranting protection. It does not have any planning priorities dealing with the coal mining sector.

2.11.Singleton Local Strategic Planning Statement

In a similar vein to the Cessnock LSPS, the *Singleton Local Strategic Planning Statement* (SLSPS) sets a vision for the planning direction of the Singleton Local Government Area (LGA) to 2040. The planning priorities outlined within the SLSPS reflect the future land use directions of the Singleton LGA based on the themes: Our People, Our Places, Our Environment and Our Economy.

Relevant commentary and policies as follows.

OPPORTUNITIES FOR GROWTH+ INNOVATION: Areas where there are ideal opportunities for Singleton to grow and innovate include:

Diversifying the mix of industries in the LGA, such as:

- *Innovative energy and renewables industries*
- *The agricultural sector*
- *Professional, scientific and technical services*
- *Manufacturing and processing*
- *Aged care, health care and social assistance*
- *Training and education*

Protecting, conserving and better utilisation of the natural, historic and cultural landscapes of the LGA in a manner that is sustainable and respectful and does not detract from significance and meaning associated with the landscapes. (Singleton Shire Council, 2020)

VISION 2041: *By the year 2041, Singleton will be internationally recognised as a mining centre of excellence, and its transition to a more diversified and innovative economy. This transition has capitalised on connections established across local government boundaries, through to the Port of Newcastle and to the Newcastle airport.*

Underpinning Singleton's appointment as a leader in sustainable post-mining transition, has been its focus on diverse post-mining development outcomes, protection and enhancement of agricultural productivity, growth of professional support services, and the efficient and effective re-use of rehabilitated mining land.

The Singleton LGA sees its major challenge in being to diversify away from a coal mining dominated economy. It sees the agricultural sector as having a major role in that transition and that there is a need to develop and foster the growth of the agricultural sector.

The SLSPS also notes that the LGA contains significant natural, cultural and historic landscapes and that there need conserving. This includes the Pokolbin State Forest areas which are an important element of the wine tourism industry.

Planning Priority 2.2: The Significance of Heritage and Cultural Identity is Embraced

The Singleton LGA comprises a range of heritage objects and places, including environmental heritage, significant community buildings, historically representative tools and infrastructure, artworks, gathering places and sacred cultural places. Of particular importance in the Singleton LGA is Aboriginal cultural heritage.

Land use and development can adversely impact upon and damage the LGA's heritage. It is important to protect the unique heritage of the LGA….

From consultation with representatives of the Wonnarua community, the area on which EL's 75979 and 6123 are located have cultural significance to aboriginal people.

Planning Priority 3.1 : Biodiversity Is Valued, Protected and Enhanced: Of particular consideration is biodiversity corridors. Such corridors provide vital connections between different natural areas and act as the veins for the broader natural system…

It is important to ensure that biodiversity corridors are identified, protected and maintained…

Planning Priority 4.3: The Rural Sector is Integrated, Valued and Sustainable: Although only small operations at the time, viticulture (cultivation of wine grapes) has occurred in areas of the Singleton LGA since the late 1820's/early 1830's. Since that time, viticulture has continued to grow into a booming industry within the LGA and broader Hunter Region. Viticulture in the Singleton LGA contributes approximately $4 million dollars annually to the NSW economy. With around 855 hectares of fruit bearing vines and 58 growers, it is a major land use in the LGA and forms a significant part of the LGA's overall industry mix.

The Hunter regions' internationally recognised status and reputation as a quality wine-making region, draws visitors from around the globe. The tourism industry promotes this status and provides the

infrastructure needed to accommodate such visitors. The economic contributions of rural tourism also helps offset the growing production costs of viticulture and wine-making.

- *…. adverse visual amenity impacts and the encroachment of incompatible land uses on existing viticultural areas will be discouraged.*
- *Wherever practicable, the potential for land use conflict with existing nearby industries will be avoided or where impacts cannot be practically avoided, measures such as design controls, will be put in place to mitigate the impacts.*

This priority highlights that the viticulture and wine tourism industries are significant to the future of the Singleton LGA and that there is a need to avoid landuse conflict with industries such as the coal mining industry. This is a stance that is consistent to that taken by Cessnock Council.

> *Planning Priority 4.4: The Mineral Resource Industry is Productive, Accountable and Considerate of Surrounding Land Uses: There is a balance to be achieved between mining development and local development and diversification of industries away from dependency on coal mining in the LGA.*

The focus on coal mining is understandable having regard to the fact that 39.2% (ABS, 2021)of the total Singleton Workforce works in the mining sector, which signifies that it is a very significant part of the local economy.

2.12.Summary of Strategic Context

There is a clear line of sight through extending the strategic planning framework from the NSW State Plan to the Singleton and Cessnock LSPS which all highlight the need to protect sustainable industries, diversify the economy and avoid landuse conflict.

The primary items to highlight from the foregoing analysis of the strategic framework apply to the area and issues is as follows:

- We highlighted that both the Tourism and Mining industries within the Hunter are significant contributors to the State's economy. However, from a landuse planning perspective, they are conflicting industries in that coal mining operations are not compatible with tourist and visitor expectations which the wine tourism industry seeks to provide. The wine tourism industry is a sustainable industry, and the mining industry is simply not a sustainable industry on any measure.
- The Wine Tourism Industry has a long-term future as part of the State's economy, the Mining Industry has a limited future notwithstanding the reputation that the Hunter coal resource has as being some of the best quality coal on the planet. On that basis, it is the government's responsibility to minimise landuse conflict, and ensure that coal mining operations do not potentially conflict with the individual operators within the wine tourism industry.
- The *Strategic Statement on Coal Exploration and Mining in NSW* (SSCEM)identifies both EL 7579 and EL 6132 as being *ruled out for further coal exploration or coal mining*. This conclusion is reached on the basis that both EL's expired in July 2019 and consequently would need to be issued as new EL's.
- There is another large area to the south of these EL's known as the Wollombi reserve covering the southern areas of the Pokolbin State Forest. This is identified in the SSCEM and is not supported.
- The *Upper Hunter Strategic Landuse Plan* had the Broke-Fordwich and Pokolbin areas linked via private and Crown land outside the Pokolbin State Forest (so including EL 7579) as being within the one CIC. However, when that was transferred to the Mining SEPP, the area was excluded.
- The Monash Coal mine project is contrary to the vision, goals and directions espoused by the *Hunter Region Plan*. While the coal industry is significant to the region, it is an industry in decline while the wine

tourism industry is a growing, sustainable industry that will be significant to the region into the distant future.

- The Monash Coal ELs are within the northern part of the Pokolbin State Forest, which would have similar biodiversity values to the nearby Yengo National Park. It is recommended that the Pokolbin State Forest becomes a National Park.
- Both the Cessnock and Singleton *Local Strategic Planning Statements* highlight the economic significance of the viticulture and wine tourism industries and that they are significant to the future of the respective LGA's. Both plans also highlight the importance of avoiding landuse conflict with activities such as coal mining.

Chapter 3: Hunter Valley Wine Country Economy

3.1 Introduction

The economy of the Hunter Valley wine tourism sector is comprised of three interlinked components as follows:

1. Wine making and grape growing;
2. Food and tourism;
3. Accommodation

All three of these are dependent on each other to survive and prosper. These three also have strong relationships to other sectors of the economy. This includes the businesses that supply the goods and services the area needs to grow grapes, make wine, sell food, provide beds and other components of the tourism sector. This also includes the goods and services that are consumed by the employees of the businesses.

The contribution of the wine tourism sector to the local economy of the Cessnock LGA as well as the wider Hunter Valley is greater than merely the direct impacts. "It is the greater contribution of the combined elements of the local wine sector that is worth noting. Tourism, winemaking and grape production are inexorably linked in this region" (Gillespie Economics, 2020)

The purpose of this chapter is to outline the economic value of Hunter Valley Wine Country and to highlight the importance it has for the Cessnock and Singletons LGAs as well as the wider Hunter Valley.

3.2 Value of Hunter Valley Wine Country

The value of the Hunter Valley Wine Country has four components as follows:

1 Grapes
2 Winemaking
3 Food and Tourism activities
4 Accommodation

The direct value of these sectors is as follows:

1. The gross value of wine grape sales for the Hunter Valley Wine Country is $11.2m with 156 direct jobs. (Gillespie Economics, 2020).
2. There are more than 150 wineries with a total sales value of $256.8m and employing 634 direct jobs.
3. The wine tourism sector is estimated to have $360m of domestic visitor expenditure and $9.7m from international guests.

The direct and indirect impacts of the wine sector have been estimated by Gillespie Economics who have prepared an Input Output Table and the annual contribution of each of the three sectors is set out in Table 3.1.

Table 3.1: Economic Impact of the Hunter Valley Wine and Tourism Sectors

Impact	Grape Growing ($ million)	Wine Making	Tourism
Annual and indirect reginal output or business turnover	22	345	390
Annual direct and indirect reginal value added	7	193	201
Annual direct and indirect household income	4	48	89
Direct and indirect jobs	184	991	1,787

Source: (Gillespie Economics, 2020)

The total direct and indirect economic impact of the wine industry for the Hunter Valley includes a number of interconnections and so it is not merely possible to simply add the figures in Table 3.1 to gain an appreciation of the economic impact. The estimates of the total direct and indirect impact of the wine tourism sector are as follows:

- $631 million in annual and indirect regional output or business turnover;
- $336 million in annual direct and indirect regional value added;
- $122 million in annual direct and indirect household income;
- 2,481 direct and indirect jobs.

The Gross Regional Product of the Cessnock LGA is estimated to be $2,248 million (.id Informed Decisions, 2021) and the estimated indirect regional output of $631 million represents 27.6% of the total Gross Regional Product of the LGA. Whilst it is acknowledged that some of the wine tourism businesses are in Singleton LGA, the bulk of the impact of the Wine Country is on Cessnock LGA.

There are a number of other industry sectors that are impacted by the wine tourism sector and they include the following:

- Retail Trade
- Grape growing
- Employment, travel agency and other administrative services
- Wholesale trade
- Road transport
- Food and beverage services
- Non-residential property operations and real estate services
- Professional, scientific and technical services.

In 2020, there were three shocks to the local economy: drought, bushfires and the COVID-19 pandemic. These had an impact on the wine tourism sector and the most severe was from the travel restrictions put in place to contain the pandemic. This impact has been modelled by Gillespie Economics and it was found that the impacts were as follows:

- $246M in annual direct and indirect regional output or business turnover;
- $128M in annual direct and indirect regional value added;
- $52M in annual direct and indirect household income; and
- 1,102 direct and indirect jobs.

The travel restrictions were eased in June 2020 and this meant that there was an influx of tourists from Sydney and Newcastle and other regions. The international and interstate markets had dried up because of the restrictions on international flights and border closures. However, the wineries have been bustling with tourists since and accommodation operators have advised that they have been booked solidly since June. The HVWTA advises that their members report that they have made twelve months of revenue in the last six months of 2020

The economy of Hunter Valley Wine Country provides significant economic contributions to the Cessnock and Singleton LGAs. The larger contribution is to the Cessnock LGA with the wine areas of the Singleton LGA growing.

3.3 Employment in the Wine and Tourism Sector

Detailed analysis has been carried out on the employment in the wine tourism sector using the ABS Census of Population and Housing which is more detailed and comprehensive than the one carried out by Gillespie Economics as outlined in section 3.2. This has used the Greta – Branxton – Pokolbin and Singleton Region SA2 level of data at the one-digit and four-digit levels. The one-digit level is the basic Census data that is published, and the four-digit level has many subcategories that are combined to make up the one-digit level.

The Greta – Branxton – Pokolbin and Singleton Region SA2 boundaries cover the two wine growing areas of Pokolbin and Broke – Fordwich. The Greta – Branxton – Pokolbin SA2 covers the Pokolbin wine region and is in both Cessnock and Singleton LGA, whilst the Broke Fordwich region is only in Singleton LGA. The boundaries can be seen from map 3.1. Both of these wine regions would have more in common with Cessnock for shopping and social connections and so for that reason, the combined SA2 data has been compared to Cessnock to derive the impact of Wine Country on the local economy. The relevant data for the Singleton region SA2 has been combined with the Branxton – Greta – Pokolbin SA2 data to make up what will be referred to as Wine Country data.

There is a total of 2,679 (ABS, 2021) people employed in the wine tourism sector in Hunter Valley Wine Country, which are known as direct jobs. The proportion in each of the three sectors discussed above is shown in figure 3.1. It can be seen that the food and tourism sector have the most employment followed by the wine sector and then the accommodation sector. The wine sector is comprised of the grape growing, cellar door retailing and packaging as well as road freight transport. The food and tourism sector includes food such as cafés restaurants, take away food services, cheese making, catering services, pubs, clubs and specialised tourism services. The Tourism sector includes tour operators, building services, gardening services, musicians and artists, hairdressing and beauty services and other personal services. It is acknowledged that the SA2 includes some services in the towns of Branxton and Greta and the village of Broke and this has been taken into consideration.

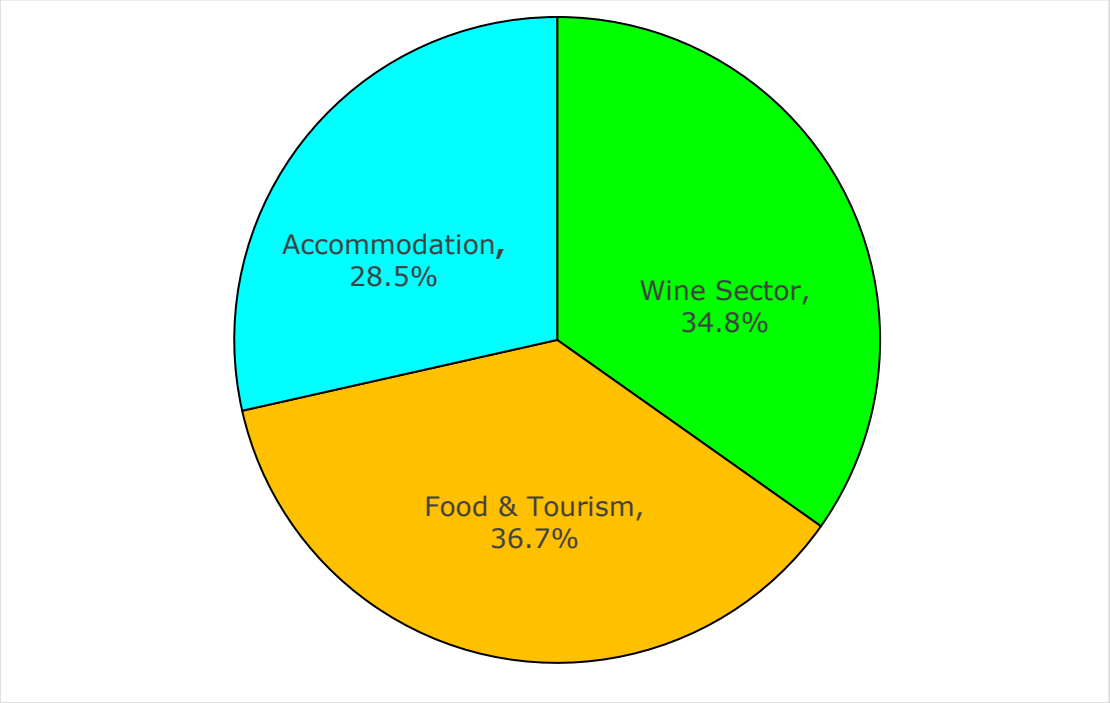


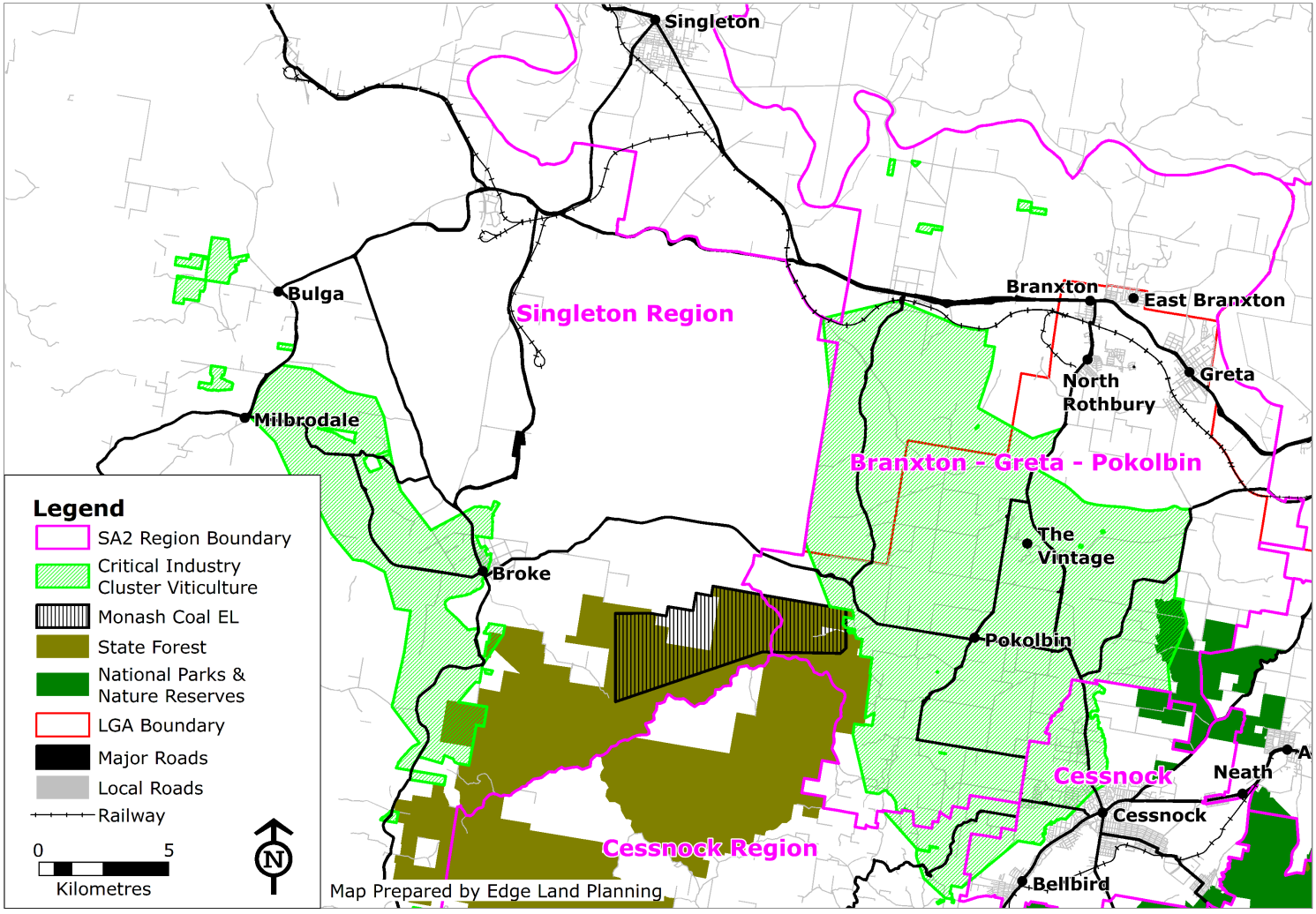
Figure 3.1: Employment in the Wine and Tourism Sectors
Source: (ABS, 2021)

The numbers of people employed in each of the sectors is shown in table 3.2.

Table 3.2: Employment in the Wine and Tourism Sectors

Commodity	Persons 2016
Grape Growing	140
Wine Making & Cellar Doors	792
Wine Sector Total	*932*
Food & Tourism	983
Accommodation	764
Total Employment	**2,679**

Source: (ABS, 2021)



Map 3.1: Hunter Valley SA2 Regions

The percentage contribution of this employment to the Cessnock LGA is a total of 62.9% which is very significant and shows how much the Cessnock economy relies on Wine Country for its economic prosperity. The individual contribution of the component parts is shown in figure 3.2 which shows that of all the employment in accommodation in the LGA, 95.6% is in the Wine Country area. The food and tourism sector is also significant at 40.3% particularly with the number of food shops in the Cessnock urban area. The total wine sector is 91.6% which comprises grape growing at 100% and wine making and cellar doors at 85.5%.

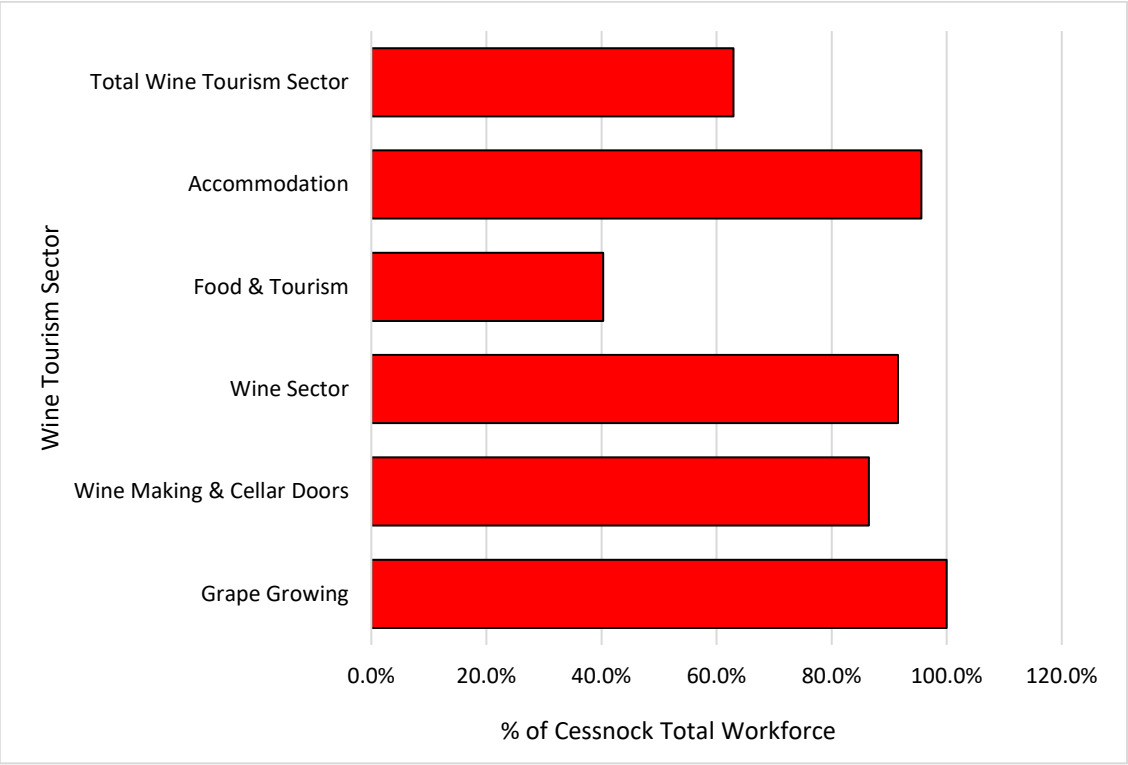


Figure 3.2: Wine and Tourism Sector Employment in Cessnock LGA
Source: (ABS, 2021)

The employment of all industry sectors in the Wine Country area as a proportion of the Cessnock LGA is shown in figure 3.3 and it can be seen that Agriculture (which is mostly grape growing) is the number 1 followed by accommodation and food services and manufacturing (which includes wine making). This also shows the importance of Wine Country to the local Cessnock economy.

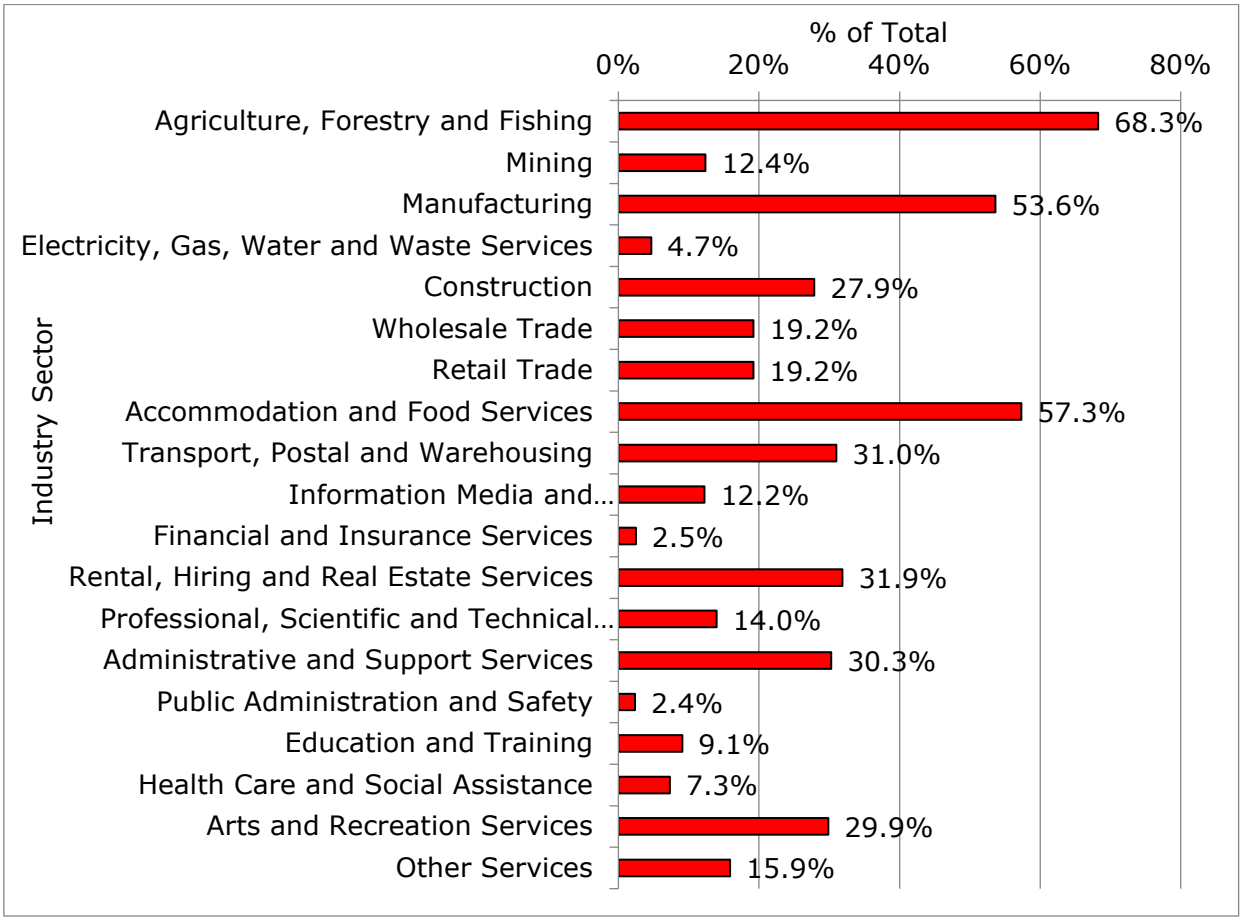


Figure 3.3: Branxton – Greta – Pokolbin Employment
Source: (ABS, 2021)

3.4 Location Quotient

Location quotient is an economic development tool that is a ratio used to compare the dominance or specialisation of a particular industry in the local economy. The ratio compares the importance or specialisation of the industry to the LGA relative to Australia. A Location Quotient of 1 indicates the same level of importance and specialisation and generally, a ratio of greater than 1.5 indicates that there is a degree of specialisation in that particular industry within the LGA. The higher the ratio, the more important it is to the LGA. The location quotient considers the place of work rather than the place of residence because it is measuring the economic activity in the area.

The location quotient has been calculated for the Wine Country area and the LGA and this can be seen from figure 3.4. It shows that Accommodation and Food Services, Manufacturing (wine making) and agriculture (grape growing) have the highest Location Quotients compared to the LGA as a whole, and also the highest for all of the industry sectors.

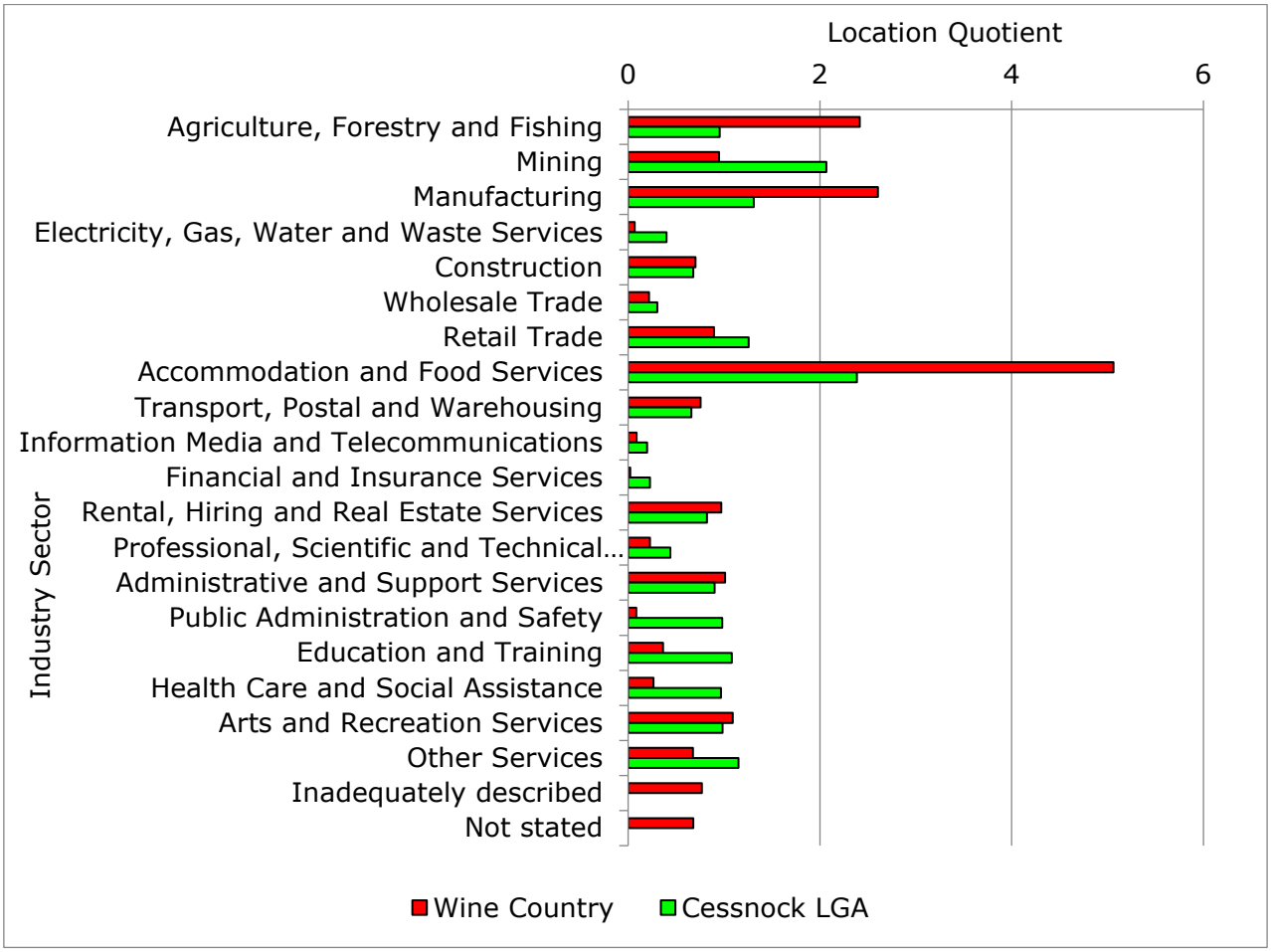


Figure 3.4: Location Quotients for Wine Country and Cessnock LGA
Source: (ABS, 2021)

The change of an industry sector can also be factored into the Location Quotient to see if the industry sectors are increasing or decreasing over the past 5 years.

This is shown in figure 3.5 for Wine Country which shows the Accommodation, Manufacturing (wine making) and Agriculture (grape growing) industry sectors as having high quotients as well as growing.

It is noted that the mining sector had a high growth rate and a Location Quotient of 0.9 in 2016, however as of 2020, there are no operating coal mines in the Cessnock LGA. So, this figure can be discounted and is therefore not included in the graph.

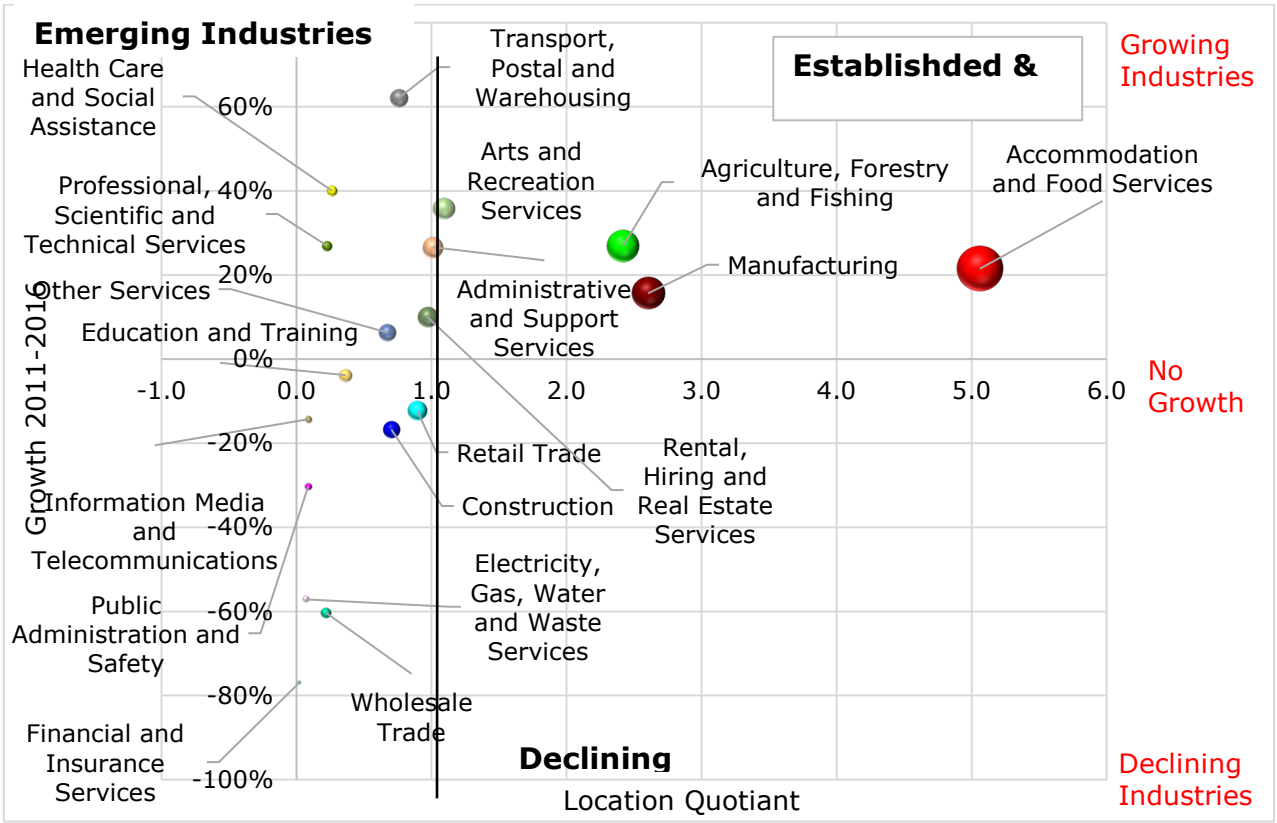


Figure 3.5: Location Quotient Wine Country Change LGA 2011-2016

Source: (ABS, 2021)

A more detailed picture can be painted of the significance of the agriculture sector by looking at the different commodities that contribute to the significance of the sector in the LGA. This is done by examining the 4-digit level of data as opposed to the 1 digit which is that used for figures 3.4 and 3.5 This shows the number of employees in each of the key commodities that make up the wine tourism sectors.

Figure 3.6 shows that Wine and other alcoholic beverages (wine making) have the highest quotient at 39.6 which shows how integral it is to the local economy. This is followed by grape growing at 22.3, accommodation at 6.6 and liquor retailing at 6.4. It can also be seen that the other key components of the wine tourism sector have quotients of greater than 1.5 which shows the significance of them to the local Cessnock economy.

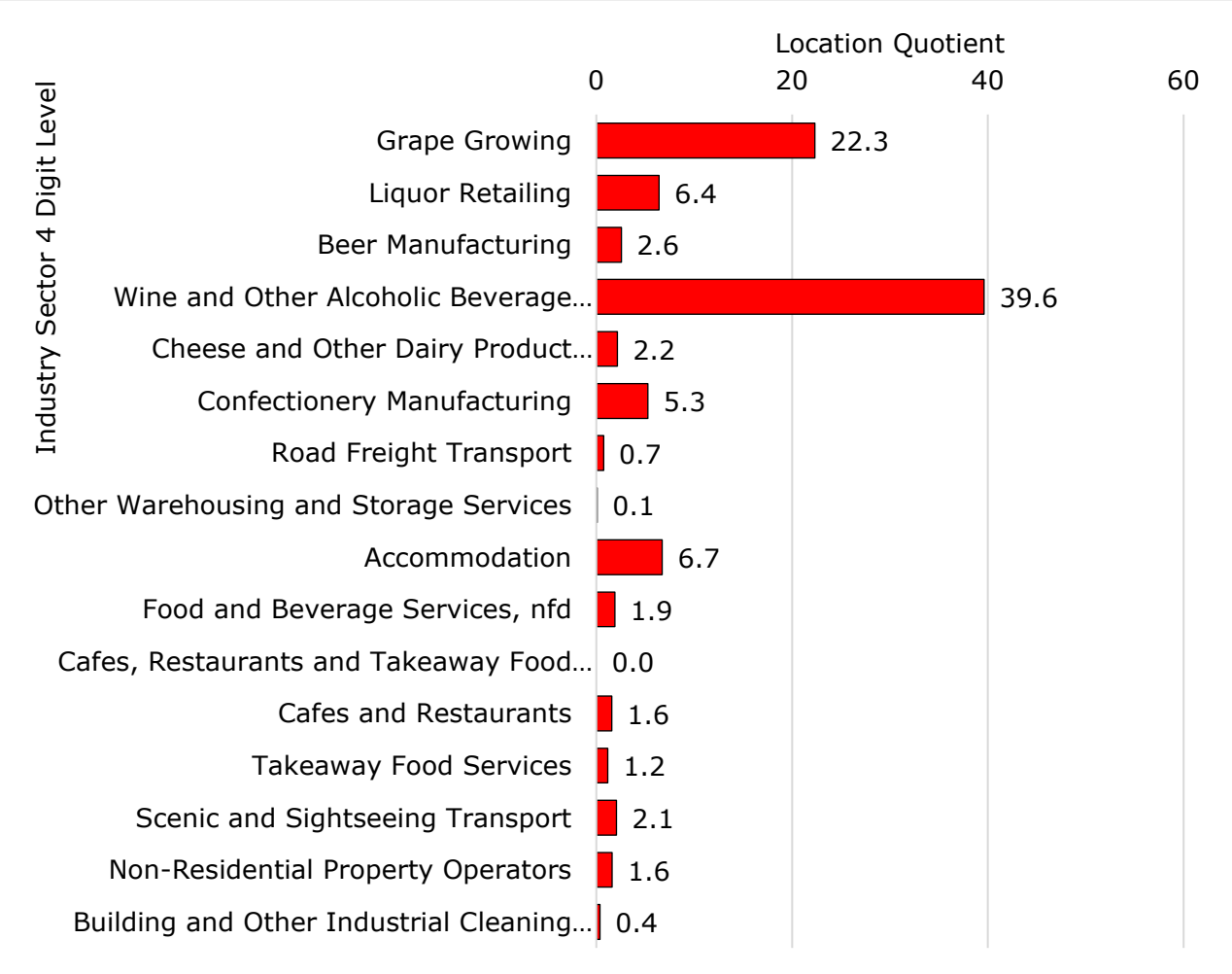


Figure 3.6: Location Quotient Detail
Source: (ABS, 2021)

3.5 Wine Tourism Land Use

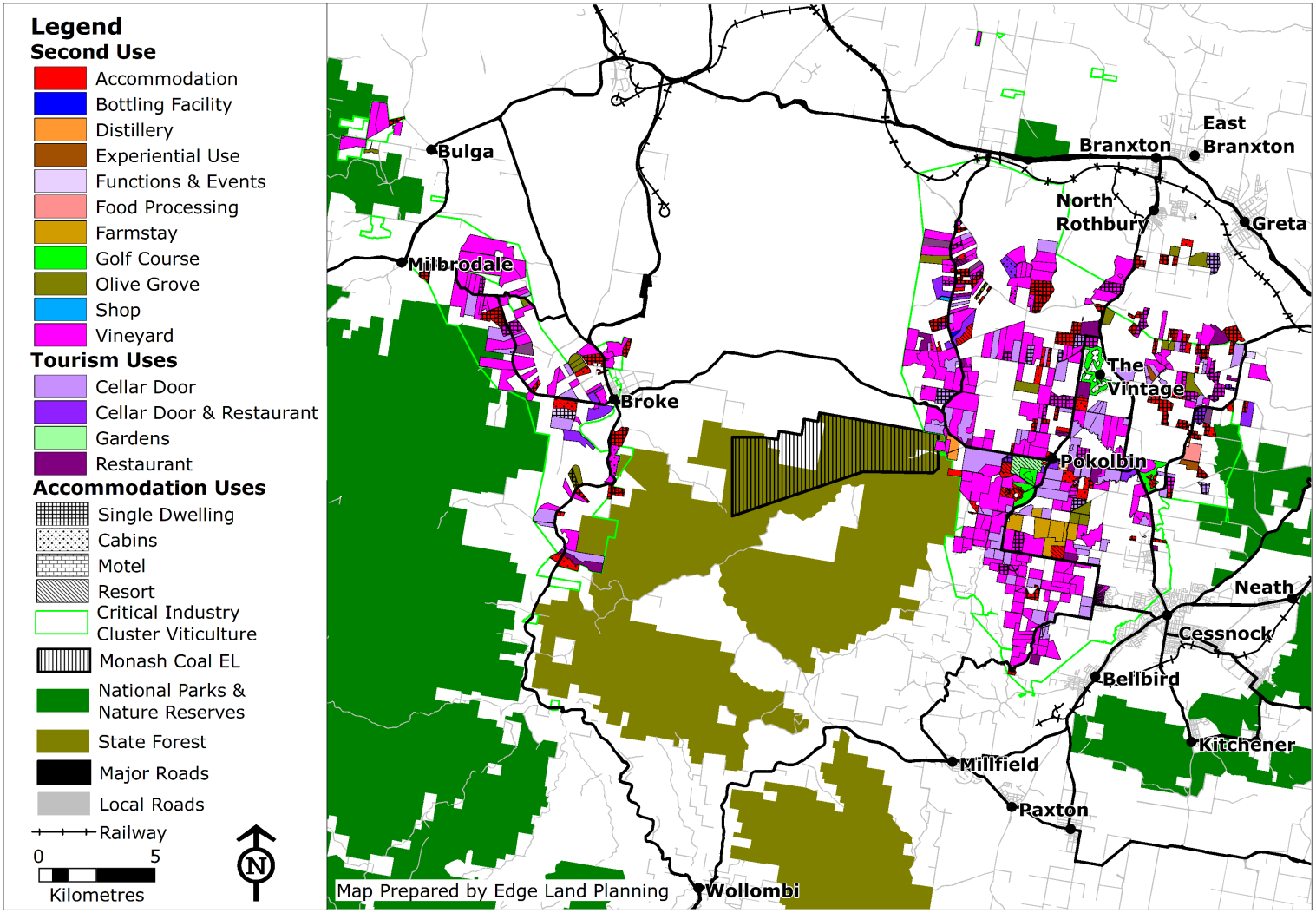
A land use survey has been carried out to show the spatial location of the various components of the wine tourism sector.

The land uses counted include the following:

- Vineyards and cellar doors
- Tourism Uses
- Accommodation uses

It can be seen from map 3.2 that the vineyards are scattered throughout both wine regions as are the accommodation uses. There is a cluster of commercial and cellar doors at the intersection of Broke Rd and McDonalds and this is becoming the central point of the vineyards.

The map also shows how close the Monash Coal EL comes the vineyards in Pokolbin.



Map 3.2: Wine Tourism Land Use

Chapter 4: Threats & Impacts on Wine Tourism from Coal Mining

There are a number of threats to the future of the wine tourism industry from coal mining and in particular to a mine in the middle of the Wine Country.

4.1. Market Perception

The Hunter Valley has built an enviable brand in the region and this is illustrated by the fact that it is the most visited wine region in Australia and the second most visited destination in NSW behind Sydney.

If a coal mine is allowed to be established between the two parts of Wine Country there is the very real risk that some people will not travel to the Hunter Valley as a result. It is not known where the pit head and other surface facilities would be built, however it is reasonable to assume that it would be in the Monkey Creek or Yellow Rock Creek valleys on the western side of the Brokenback Range. The coal would then have to be transported to the railway at the Bulga Mine or there will be a new railway line built into the mine. All of this infrastructure will have a negative impact on the landscape of the area transforming it from a natural scenic rural landscape of wooded hills and open grassland valleys, to one impacted by the activities of coal mining.

The market perception of Wine Country will be negative if the landscape is transformed from the serene rural landscape to a coal dominated one.

4.2. Wine Tourism

One of the key reasons that draws people to the Hunter Valley is not only the presence of the wineries and other tourist attractions, but the dramatic landscape setting with the rolling hills against the backdrop of the spectacular Brokenback Range.

There is the potential for an underground mine to have a dramatic impact on the wine tourism sector. The value of the sector has been estimated to be $631m and it is a sector that is growing and has the potential to be sustainable into the future.

It has also been noted that the wine tourism sector has the ability to respond to shocks such as the recent triple threat of drought, bushfires and the COVID-19 pandemic. The pandemic had a dramatic impact on the sector in the first half of 2020 but when the travel restrictions were lifted in July, there was a boom in the industry which saw many of the operators being able to make up for the lost revenue in the first six months.

If a coal mine is to be constructed in the middle of Wine Country, it will ‘kill the goose that laid the golden egg’ of wine tourism. It is also noted that the Coal sector is not as quick to respond to the changing marketplace that it exists within.

4.3. Employment

The direct employment in the Wine Tourism sector was 2,676 in 2016. The next census is due to be carried out this year and it is expected that this figure will increase, particularly the food and tourism and accommodation sectors.

Employment in the Wine Tourism sector comprises 62% of all of the jobs in these sectors in the Cessnock LGA. The impact on the local economy has been detailed in chapter 3

The coal sector does not have such an impact on the Cessnock LGA economy.

This employment in the wine tourism sector will be put at risk if a coal mine is to be constructed in the middle of Hunter Valley Wine Country.

4.4. Uncertainty & conflict

The potential introduction of a coal mine in the middle of Hunter Valley Wine Country will have an impact on the certainty of the future of the entire wine tourism sector.

The growth of the sector over the past five to ten years has been continual and this has amounted to more than $10million worth of new projects. However, for the wine tourism sector to grow into the future, it needs certainty, and this will not be there if a coal mine constructed between the two wine growing areas of Pokolbin and Broke – Fordwich. This coal mine has the potential to decimate the scenic landscape character of the Broke Road and will also annihilate the confidence of future investment in the wine tourism sector.

The construction of a new mine between the Pokolbin and Broke – Fordwich wine regions will lead to conflict between the wine tourism and the coal mining sectors. The Wine Tourism sector recognises the importance of the coal mining industry in the Hunter Valley and acknowledges that it is a significant contributor to the local economy, and for this reason supports a framework where the two industries can co-exist in harmony. But the nature of coal mining, as outlined above, is not compatible with the wine tourism industry operations and marketing, and consequently it is of utmost importance that the planning framework separate the two with appropriate buffers. In this instance, if a new coal mine is to be constructed within the EL's as proposed, it will lead undoubtedly lead to conflict where there has been harmony.

4.5. Impact on new investment

The uncertainty and potential conflict between the wine tourism and mining industries results in a negative impact on new investment in the wine tourism industry.

There are a number of projects being planned which will bring many millions of dollars in investment and future jobs. This new investment will not occur if there is a coal mine constructed in the Brokenback Range.

In addition to the private investment, the NSW Government have also made significant investment in the area which also benefits Hunter Valley Wine Country. The introduction of the Hunter Expressway as well as the $20 million upgrade to Hermitage Road have both made it easier to access the region and have made Hermitage Rd one of the key access roads to Wine Country.

4.6. Impact on the Broke – Fordwich Area

The Broke Fordwich area has been growing wine for about 100 years. It also has olive groves and tourist uses scattered between the vineyards. Over the past thirty to forty years there has been the expansion of the Warkworth, Mount Thorley and Bulga open cut and underground coal mines. This has had an impact on the landscape, and also the vineyards through dust, noise and subsidence. Dust and noise impact lead to a loss of amenity and also have a potential impact on the visitation to the area because they can have a negative impact on the tourism experience. It also contrasts to the Pokolbin region which does not have these impact.

The impact of the current open cut coal mines on the unique and significant landscape can be seen from photo 4.1 which shows the proximity of the vineyards to the coal mines.

The Association does not oppose coal mining but believes that they should only be developed in areas where it does not impact on exiting successful industries and has minimal environmental impact. It is the Association's position that it does not support this EL and that the current Bulga Coal Mine should be the southern extent coal mining and that there should not be any new mines (open cut or underground) in the

area under the Brokenback Range. This position conforms to the Government's Strategic Statement on Coal Exploration and Mining in NSW.

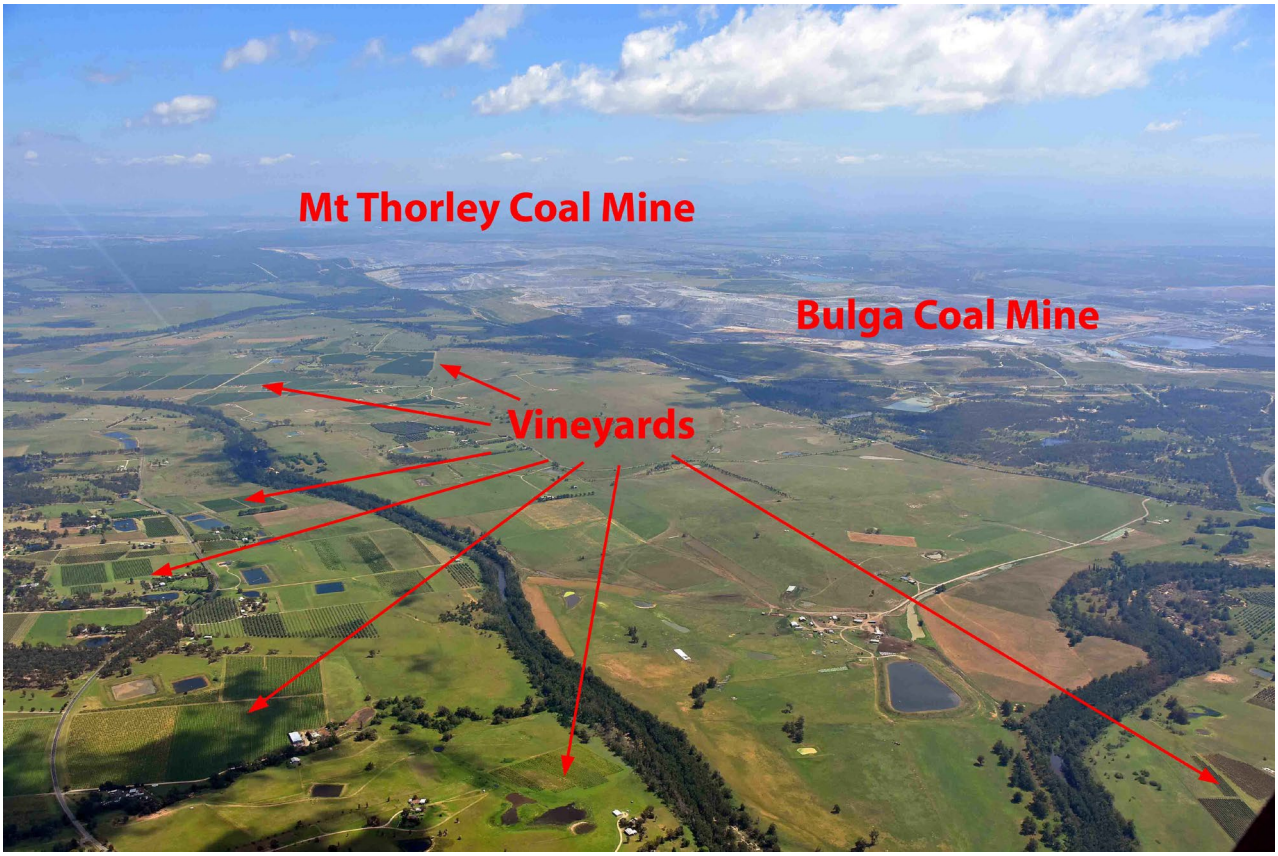


Photo 4.1: Broke Fordwich Vineyards and Coal Mines
Date of Photo: December 2020

Chapter 5: Case Studies of other Mining Projects

This section of the report will provide insight into some of the other mining proposals in the area. It will present the grounds on which some refusals were based, as well as the effects of some approved mines.

5.1. Refused - Drayton South

The Drayton South Proposal was refused on the following grounds:

> *"In its advisory report to the NSW Government, the Independent Planning Assessment Commission (PAC) determined:*
>
> *The potential impacts of the proposed mine on the CICs are significant because the potential impacts on Coolmore and Woodlands horse studs and Arrowfield Estate vineyard and winery are significant and these are core businesses within each CIC;*
>
> *Open-cut coal mining as proposed at Drayton South and thoroughbred horse studs of the nature and scale of Coolmore and Woodlands (Darley), and importance to the sustainability of the Upper Hunter equine CIC, are incompatible land uses that cannot co-exist in close proximity to each other.*
>
> *Mitigation measures currently proposed by the proponent are unlikely to be adequately effective in controlling impacts on the CICs.*
>
> *Even if unlikely to occur, the consequences to the CICs of these potential impacts are so great that, in the Panel's opinion, these risks to the Upper Hunter Equine and Viticulture CICs should be avoided." (NSW Planning Assessment Commission, 2017)*

The above determination outlines how the perceived risks to the CICs were significant enough that the proposal was refused. Endangering the CICs, even if any consequences were unlikely to occur, with impacts so great should be avoided. The construction of any mining developments which may impact any of the Agricultural or Viticultural CICs in the Hunter Valley should also be avoided – these CICs provide employment for many people within the Hunter Valley. Additionally, the Hunter Valley has established a strong tourism market based around the viticultural industry in particular. Any development which may impact three industries so crucial to the Hunter Valley Economy, no matter how unlikely the perceived risk of negative impacts may be, should be avoided and refused.

The PAC recognised that the mining industry delivers significant economic benefits in its own right and flow-on benefits to a number of associated industries but also commented that the South Drayton project was not unique or the primary contributor to the wider coal industry in the Hunter Valley.

The mining operations would have been within approximately 1 kilometre of two globally recognised thoroughbred operations (Coolmore and Godolphin) also recognised as central to the ongoing development and international success of the Hunter Valley equine Critical Industry Cluster (CIC).

While recognising that generalised policy should not be generated by one such decision, this PAC determination does have some very significant policy implications and precedents:

1. The concluded adverse impacts particularly in terms of air quality, blast noise and reputation of the project on two globally recognized thoroughbred operations which are also recognised as central to the ongoing development and international success of the Hunter Valley equine CIC;
2. The foundation of the determination on the equine CIC as identified in the Upper Hunter Strategic Regional Land Use Plan 2012 (UHSRLUP) being a highly integrated centre for thoroughbred horse

breeding and support services and the conclusion that approval of the project would be contrary to regional and local strategic policies for co- existence and diversification;

3. The PAC determined that there would be broader consequential adverse effects on local economic wellbeing, employment and sustainability of the equine industry in the locality.
4. The PAC also concluded that there is a fine balance between current open cut coal mining and equine operations at present and that approval of the South Drayton project would "tip this relationship out of balance to the detriment and ultimate decline of the internationally renowned Hunter Valley equine CIC".

5.2. Refused Rocky Hill, Gloucester

> *"The NSW Land and Environment Court (Court) has refused development consent for the Rocky Hill Coal Project in the Gloucester Valley, citing the mine's likely contribution to climate change as a key reason." (Coors Chambers Westgarth, 2019b)*

The New South Wales Land and Environment Court turned down an appeal by mining company Gloucester Resources, which had sought to overturn a previous government decision against establishing a coal mine near Gloucester.

It was the first time a new coal mine has been rejected in Australia, the world's leading coal exporter, because of the potential contribution to global warming.

In his ruling, chief judge Brian Preston said the project should be refused because "*the greenhouse-gas emissions (GHGs) of the coal mine and its product will increase global total concentrations of GHGs at a time when what is now urgently needed, in order to meet generally agreed climate targets, is a rapid and deep decrease in GHG emissions*."

While it is recognised that mining plays a large role in providing employment within the Hunter Region and cannot simply be shut down, there is a need to have a plan as the industry life comes to an end. As such, the construction of any new mining developments outside the existing mining footprint within the Hunter Valley should be prohibited, with greater emphasis placed on ensuring that current mine operations achieve their full potential. As existing mines come to the end of their life, there must be a plan that allows mine workers to reskill and find new employment.

Furthermore, the Hunter Valley tourism industry maintains a strong market-base in Sydney. A large reason for this is the Hunter Valleys appeal as a 'Green' destination. Increasing mining production in the area, particularly when the effects of global warming are becoming increasingly prevalent, will likely reduce the appeal of the Hunter Valley to this large sector of the tourism market. Any development which may detract from the strong wine tourism brand of the Hunter Valley should be avoided and refused.

5.3. IPC Refusal – Bylong Refusal Decision Upheld by Land & Environment Court

> *"The IPC cited long-lasting environmental, agricultural and heritage impacts as the main reasons for refusal. In a statement that referred extensively to the Land and Environment Court's judgment in Gloucester Resources Ltd v Minister for Planning [2019] NSWLEC 7 (Rocky Hill), the IPC stated that the proponent had not done enough to minimise greenhouse gas (GHG) emissions associated with the Project.." (Coors Chambers Westgarth, 2019a)*

The IPC refused development consent for the Project for a number of reasons, including:

- incompatibility with land use objectives;
- unacceptable groundwater impacts;
- impacts to BSAL;

- long-term impacts on aesthetic, scenic, heritage and natural values of the current landscape;
- unacceptable indirect impacts on the heritage values of the Tarwyn Park property and the broader landscape values of the Bylong Valley;
- a lack of evidence regarding Aboriginal heritage impacts;
- a failure to minimise scope 1, 2 and 3 GHG emissions to the 'greatest extent practicable', having regard to clause 14(1)(c) of the Mining SEPP;
- a failure to propose any measures to offset the impacts of GHG emissions;
- the fact that, when considered cumulatively along with the climate change impacts due to GHG emissions, the environmental, social and economic impacts of the Project justified refusal;
- the fact that the Project would result in the inequitable distribution of costs and benefits over time (in that the economic benefits would accrue to current generations, and the environmental, agricultural and heritage costs would be borne by future generations);
- a 'reasonable level of uncertainty' in the proponent's estimation of economic benefits; and
- inconsistency with Environmental Planning and Assessment Act 1979 objectives relating to social and economic welfare of the community, ecologically sustainable development (**ESD**) and heritage management.

"The IPC concluded that the Project would not be in the public interest as it was contrary to the principles of ESD, particularly the principle of intergenerational equity."(Coors Chambers Westgarth, 2019a)

"The NSW Land and Environment Court has upheld a decision by the state's Independent Planning Commission to reject (the proposed Bylong) coal mine planned for rich farmland north-west of Sydney."(Hannam, 2020)

This project was shown to have adverse environmental, social and economic impacts. Both the Rocky Hill decision and the IPC and L&E Court refusal of the Project highlight the challenges involved with having new mines approved in areas of particular scenic, cultural and heritage significance. This refusal was based primarily on the impacts of the Coal mine on the lifestyles of local residents. The proposed mine threatened the viability of much of their employment sector, removing agricultural land, potentially disturbing the groundwater supplies they depended on, and detracting from the amenity of the area. The proposal was refused as the development was considered not to be in the interest of the public. Any development with such obvious impacts on the lifestyles of so many residents in an area should obviously be avoided and refused if at all possible.

It is considered that there are direct parallels between the Rocky Hill, Bylong and Pokolbin State Forest (Monash) mining proposals.

5.4. Bengalla – An Abuse of the Planning System to obtain approval?

"The almost $400 million-project was a joint venture of Peabody Resources, Wesfarmers, government-owned Taiwan Power and other Korean and Japanese investors.

The NSW government first advertised for expressions of interest in 1990.

From 1990 to 1996, a complex tug of war ensued between the Oatley wine family, who owned Rosemount Wines and vineyards close by, mine management and the NSW government, spearheaded by planning minister Craig Knowles.

In 1994 the government announced a commission of inquiry into the development that recommended approval.

The Oatley's launched a legal challenge.

They claimed their vineyards at Roxburgh and Edinglassie would be ruined by dust and that the mine was too close to residents.

In January 1995 the NSW Land and Environment Court upheld the Oatley's' challenge.

The court criticised the NSW planning process and ordered the Oatleys' costs to be paid by the planning minister and Bengalla.

A second public inquiry started in April 1995.

In August, the government approved the project, three days after gazetting state environmental planning policy (SEPP) 45, which overpowered the council's local environmental plans.

The Oatleys challenged, again in the Land and Environment Court, which found the SEPP45 "unreasonable".

The government appealed but before the Court of Appeal reached a decision, it enacted the State Environmental (Permissible Mining) Act, which validated the SEPP.

The stakes were high.

If Bengalla was not approved by the end of June 1996, the consortium stood to lose $30 million in investment allowances from the federal government.

The ALP state government said it intervened to bring jobs and growth and to avoid a dent in the state's mining reputation

In an editorial of August, 15, 1996, the Newcastle Herald said: "What is a worry is the readiness of the government to pass legislation that denied a group of NSW citizens their right to have the judicial system determine whether they had been given justice."(Thompson, 2013)

Chapter 6: Potential for Environmental Impacts

Evidence regarding both EL's is that the Monash Mine would be an underground proposal. To establish the mine would either require a new mine site to be established, we assume at the western, or Broke end of the EL. Alternatively, underground access via an existing mine site to the north west of the area. The underground access would undoubtedly have the least impact; however, our enquiries indicate that for such an operation to be viable it would either require to operate as an extension to other mining operations including the Wollombi reserve, or have access to large reserves of coal such that the infrastructure costs could be amortised across the life of the mine. Either way, it is considered a risky option and probably why the EL has been 'parked' as an EAL by Yancoal.

The other option is establishing a new mine site and entrance as noted above. That would require an approximate 12km extension to the rail line that currently services the Bulga mine to the north west of the EL's. As noted in section 1.3 of this report, "*Rail access rights to the main Hunter Valley rail corridor for the development of the Monash Assets may require the consent of competing coal producers. Alternative access routes to the main Hunter Valley rail corridor may require the consent of the Commonwealth Government. There is a risk that these third parties may refuse access to the relevant rail line or land, which may impact the development of the Monash Assets*."

Mine related impacts would ultimately be dealt with via an Environmental Impact Statement (EIS) and would depend on a range of factors including, but not limited to:

- Annual production rate
- Mine life
- Total resource to be mined.
- Coal handling and preparation methods
- Management of reject material
- Development of an underground MEA and associated facilities that support the underground mining activities and provide for personnel and materials access to the underground mine.
- Development of infrastructure for power supply, ventilation and gas management for the underground mine.
- Transport of product coal to market or to the Port of Newcastle for export
- Transport and services corridor
- On-site water management system, including recycling of water on-site; storage of water on-site (including in voids);water treatment; irrigation; and sharing of water with other users.
- Waste management
- Underground mining operations
- Workforce management
- Management of dangerous goods
- Rehabilitation and remediation
- etc

6.1. Subsidence Impacts

Mine subsidence includes the vertical and horizontal movement of the land and its surface as a result of the extraction of underlying coal. Land surface movements are generally referred to as subsidence impacts. Different types of subsidence effects generally include systematic subsidence movements, far-field horizontal movements and sub-strata movements.

The subsidence impacts that would potentially occur include surface cracking, changes in drainage line gradients, changes in topographic depressions, slope instability, increased erosion potential and sub-surface fracturing.

Of particular concern is mine subsidence impacts on the Brokenback Range escarpment and ridge peaks.

A major rock fall occurred in the Nattai area which was the result of underground mining from the Nattai North mine. This left a massive landslide on the shores of Lake Burragorang which can be seen from photo 6.1 which was taken in January 2021.

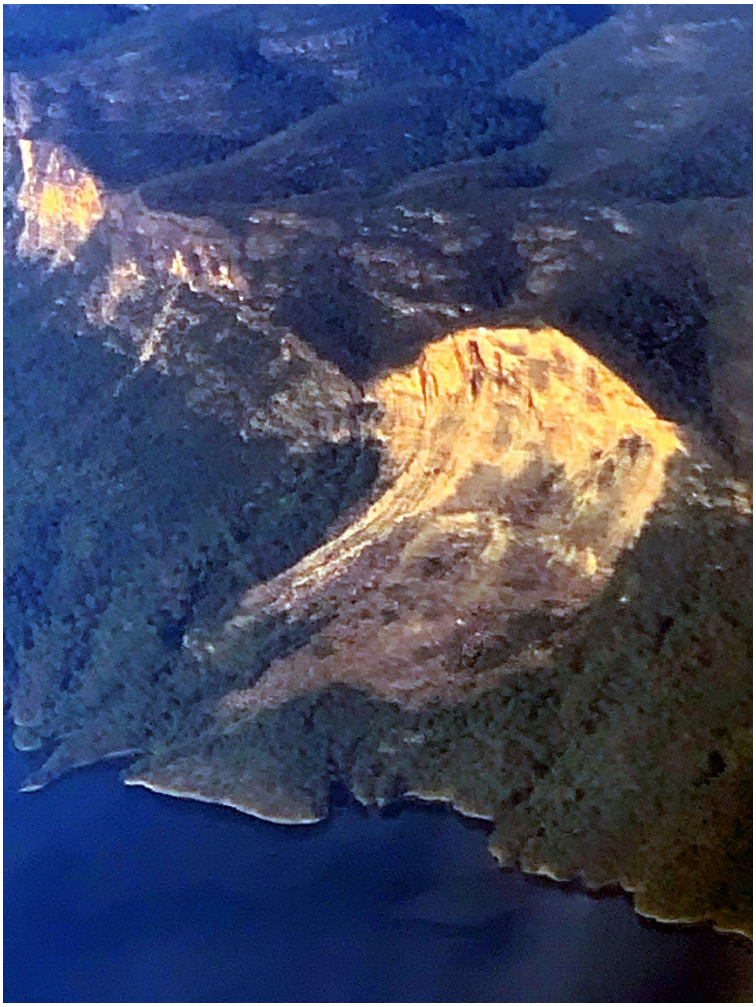


Photo 6.1: Mine Subsidence Impact on an Escarpment
Date of Photo: January, 2021

> *"A large section of Sugarloaf State Conservation Area in the lower Hunter has been destroyed by massive subsidence from Glencore's West Wallsend Colliery.*
>
> *A Fairfax Media investigation has uncovered cliff faces crumbled or collapsed, a waterway destroyed, large cracks opened in the earth and a huge collapse of a hillside.*
>
> *Damage was tracked over more than two kilometres within the ecologically sensitive conservation area adjacent to the mine's Longwall 41.*
>
> *In one area a cliff face fall of more than 20 metres was discovered.*

Damage was caused by unplanned subsidence from longwall mining by West Wallsend Colliery that is mining beneath 23 per cent of the conservation area." (SMH; August 28, 2013)

"In 1931 the 200m high cliff at Dogface Rock in Katoomba collapsed, depositing about 100,000cubic metres of rock in the valley below. In late1965 a cliff of similar height started to topple and collapse at Nattai North, and by 1985 about 14million cubic metres of rock had tumbled down towards the edge of Warragamba Dam. Both were due to subsidence impacts associated with under-ground coal mining…."(Pells, Young, & Turner, 2014)

This is one of the major concerns of mining in this area, that an underground mine will cause subsidence, resulting in the escarpment of the Brokenback Range to collapse resulting in a significant visual impact to this iconic feature of Hunter Valley Wine Country. Photo 6.2 shows the mine subsidence impact at Mt Sugarloaf in 2013.

Photo 6.2: Mine Subsidence Impact at Mt Sugarloaf
Source: Newcastle Herald, 2013

6.2. Viticultural Impacts

There is significant land use conflict caused by mixing mining developments with existing agricultural & viticultural developments.

Dust production, noise production, increased traffic associated with heavy vehicles, sedimentation, chemical runoff and earth vibration during the operation of coal mines can all negatively impact viticultural and agricultural land uses in the vicinity.

An article titled *The Impact of Underground Longwall Mining on Prime Agricultural Land: A Review and Research Agenda (Lechner, Baumgartl, Matthew, & Glenn, 2016)*, the impacts of underground mining on agriculture are outlined as follows:

- *"… underground coal extraction techniques (including longwall mining) cause subsidence of agricultural land and loss of productivity.*
- *subsidence affects soil properties, hydrology and topography. The main impacts on agriculture are altered soil and groundwater hydrology, modified topography associated with increased erosion or*

waterlogging risk, and zones of compaction or cracking that cause soil physical and chemical changes.

- *Agricultural productivity is reduced through altering the types of farming practices that are suited to subsided non-uniform landscapes, decreasing farming efficiency through increasing paddock heterogeneity and decreasing ease of workability. There is a need to consider these multiple impacts under local conditions, with particular regard to the interaction of mine subsidence-associated disturbances with farming practices."*

The primary concern for viticultural operations is impacts on groundwater.

> *"In 2007 a commercial chicken farmer on Barbour Rd, Thirlmere, who relied upon bore water to feed and cool his chickens, lost about 90% of the yield of his bore (Tahmoor Colliery 2008, 2009 and2010). This occurred at the same time as Tahmoor's Longwall 21 passed, not beneath, but close to his property." (Pells et al., 2014)*

6.3. Ecological/Biodiversity significance

There is significant potential for mine related impacts on ecological and biodiversity values of the area from clearing activities required for mine related infrastructure. The NSW Scientific Committee has issued a final determination that "Alteration of habitat following subsidence due to longwall mining is a key threatening process" (NSW Scientific Committee, 2009) In making this determination the Scientific Committee found that:

> *"1. Longwall mining occurs in the Northern, Southern and Western Coalfields of NSW. The Northern Coalfields are centred on the Newcastle-Hunter region. The Southern Coalfield lies principally beneath the Woronora, Nepean and Georges River catchments approximately 80-120 km SSW of Sydney. Coalmines in the Western Coalfield occur along the western margin of the Sydney Basin. Virtually all coal mining in the Southern and Western Coalfields is underground mining.*
>
> *2. Longwall mining involves removing a panel of coal by working a face of up to 300 m in width and up to two km long. Longwall panels are laid side by side with coal pillars, referred to as "chain pillars" separating the adjacent panels. Chain pillars generally vary in width from 20-50 m wide (Holla and Barclay 2000). The roof of the working face is temporarily held up by supports that are repositioned as the mine face advances (Karaman et al. 2001). The roof immediately above the coal seam then collapses into the void (also known as the goaf) and a collapse zone is formed above the extracted area. This zone is highly fractured and permeable and normally extends above the seam to a height of five times the extracted seam thickness (typical extracted seam thickness is approximately 2-3.5 m) (ACARP 2002). Above the collapse zone is a fractured zone where the permeability is increased to a lesser extent than in the collapse zone. The fractured zone extends to a height above the seam of approximately 20 times the seam thickness, though in weaker strata this can be as high as 30 times the seam thickness (ACARP 2002). Above this level, the surface strata will crack as a result of bending strains, with the cracks varying in size according to the level of strain, thickness of the overlying rock stratum and frequency of natural joints or planes of weakness in the strata (Holla and Barclay 2000).*
>
> *3. The principal surface impact of underground coal mining is subsidence (lowering of the surface above areas that are mined) (Booth et al. 1998, Holla and Barclay 2000). The total subsidence of a surface point consists of two components, active and residual. Active subsidence, which forms 90 to 95% of the total subsidence in most cases, follows the advance of the working face and usually occurs immediately. Residual subsidence is time-dependent and is due to readjustment and compaction within the goaf (Holla and Barclay 2000). Trough-shaped subsidence profiles associated with longwall*

mining develop tilt between adjacent points that have subsided different amounts. Maximum ground tilts are developed above the edges of the area of extraction and may be cumulative if more than one seam is worked up to a common boundary. The surface area affected by ground movement is greater than the area worked in the seam (Bell et al. 2000). In the NSW Southern Coalfield, horizontal displacements can extend for more than one kilometre from mine workings (and in extreme cases in excess of three km) (ACARP 2002, 2003), although at these distances, the horizontal movements have little associated tilt or strain. Subsidence at a surface point is due not only to mining in the panel directly below the point, but also to mining in the adjacent panels. It is not uncommon for mining in each panel to take a year or so and therefore a point on the surface may continue to experience residual subsidence for several years (Holla and Barclay 2000).

4. The degree of subsidence resulting from a particular mining activity depends on a number of site-specific factors. Factors that affect subsidence include the design of the mine, the thickness of the coal seam being extracted, the width of the chain pillars, the ratio of the depth of overburden to the longwall panel width and the nature of the overlying strata; sandstones are known to subside less than other substrates such as shales. Subsidence is also dependent on topography, being more evident in hilly terrain than in flat or gently undulating areas (Elsworth and Liu 1995, Holla 1997, Holla and Barclay 2000, ACARP 2001). The extent and width of surface cracking over and within the vicinity of the mined goaf will also decrease with an increased depth of mining (Elsworth and Liu 1995).

5. Longwall mining can accelerate the natural process of 'valley bulging' (ACARP 2001, 2002). This phenomenon is indicated by an irregular upward spike in an otherwise smooth subsidence profile, generally co-inciding with the base of the valley. The spike represents a reduced amount of subsidence, known as 'upsidence', in the base and sides of the valley and is generally coupled with the horizontal closure of the valley sides (ACARP 2001, 2002). In most cases, the upsidence effects extend outside the valley and include the immediate cliff lines and ground beyond them (ACARP 2002).

6. Mining subsidence is frequently associated with cracking of valley floors and creek lines and with subsequent effects on surface and groundwater hydrology (Booth et al. 1998, Holla and Barclay 2000, ACARP 2001, 2002, 2003). Subsidence-induced cracks occurring beneath a stream or other surface water body may result in the loss of water to near-surface groundwater flows. If the water body is located in an area where the coal seam is less than approximately 100-120 m below the surface, longwall mining can cause the water body to lose flow permanently. If the coal seam is deeper than approximately 150 m, the water loss may be temporary unless the area is affected by severe geological disturbances such as strong faulting. In the majority of cases, surface waters lost to the sub-surface re-emerge downstream. The ability of the water body to recover is dependent on the width of the crack, the surface gradient, the substrate composition and the presence of organic matter. An already-reduced flow rate due to drought conditions or an upstream dam or weir will increase the impact of water loss through cracking. The potential for closure of surface cracks is improved at sites with a low surface gradient although even temporary cracking, leading to loss of flow, may have long-term effects on ecological function in localised areas. The steeper the gradient, the more likely that any solids transported by water flow will be moved downstream allowing the void to remain open and the potential loss of flows to the subsurface to continue. A lack of thick alluvium in the streambed may also prolong stream dewatering (by at least 13 years, in one case study in West Virginia, Gill 2000). Impacts on the flows of ephemeral creeks are likely to be greater than those on permanent creeks (Holla and Barclay 2000). Cracking and subsequent water loss can result in permanent changes to riparian community structure and composition.

7. Subsidence can also cause decreased stability of slopes and escarpments, contamination of groundwater by acid drainage, increased sedimentation, bank instability and loss, creation or alteration of riffle and pool sequences, changes to flood behaviour, increased rates of erosion with associated turbidity impacts, and deterioration of water quality due to a reduction in dissolved oxygen and to increased salinity, iron oxides, manganese, and electrical conductivity (Booth et al. 1998, Booth and Bertsch 1999, Sidle et al. 2000, DLWC 2001, Gill 2000, Stout 2003). Displacement of flows may occur where water from mine workings is discharged at a point or seepage zone remote from the stream, and in some cases, into a completely different catchment. Where subsidence cracks allow surface water to mix with subsurface water, the resulting mixture may have altered chemical properties. The occurrence of iron precipitate and iron-oxidising bacteria is particularly evident in rivers where surface cracking has occurred. These bacteria commonly occur in Hawkesbury Sandstone areas, where seepage through the rock is often rich in iron compounds (Jones and Clark 1991) and are able to grow in water lacking dissolved oxygen. Where the bacteria grow as thick mats they reduce interstitial habitat, clog streams and reduce available food (DIPNR 2003). Loss of native plants and animals may occur directly via iron toxicity, or indirectly via smothering. Long-term studies in the United States indicate that reductions in diversity and abundance of aquatic invertebrates occur in streams in the vicinity of longwall mining and these effects may still be evident 12 years after mining (Stout 2003, 2004).

8. The extraction of coal and the subsequent cracking of strata surrounding the goaf may liberate methane, carbon dioxide and other gases. Most of the gas is removed by the ventilation system of the mine but some gas remains within the goaf areas. Gases tend to diffuse upwards through any cracks occurring in the strata and be emitted from the surface (ACARP 2001). Gas emissions can result in localised plant death as anaerobic conditions are created within the soil (Everett et al. 1998).

9. Subsidence due to longwall mining can destabilise cliff-lines and increase the probability of localised rockfalls and cliff collapse (Holla and Barclay 2000, ACARP 2001, 2002). This has occurred in the Western Coalfield and in some areas of the Southern Coalfield (ACARP 2001). These rockfalls have generally occurred within months of the cliff line being undermined but in some cases up to 18 years after surface cracking first became visible following mining (ACARP 2001). Changes to cliff-line topography may result in an alteration to the environment of overhangs and blowouts. These changes may result in the loss of roosts for bats and nest sites for cliff-nesting birds.

10. Damage to some creek systems in the Hunter Valley has been associated with subsidence due to longwall mining. Affected creeks include Eui Creek, Wambo Creek, Bowmans Creek, Fishery Creek and Black Creek (Dept of Sustainable Natural Resources 2003, in lit.). Damage has occurred as a result of loss of stability, with consequent release of sediment into the downstream environment, loss of stream flow, death of fringing vegetation, and release of iron rich and occasionally highly acidic leachate. In the Southern Coalfields substantial surface cracking has occurred in watercourses within the Upper Nepean, Avon, Cordeaux, Cataract, Bargo, Georges and Woronora catchments, including Flying Fox Creek, Wongawilli Creek, Native Dog Creek and Waratah Rivulet. The usual sequence of events has been subsidence-induced cracking within the streambed, followed by significant dewatering of permanent pools and in some cases complete absence of surface flow.

11. The most widely publicised subsidence event in the Southern Coalfields was the cracking of the Cataract riverbed downstream of the Broughtons Pass Weir to the confluence of the Nepean River. Mining in the vicinity began in 1988 with five longwall panels having faces of 110 m that were widened in 1992 to 155 m. In 1994, the river downstream of the longwall mining operations dried up (ACARP 2001, 2002). Water that re-emerged downstream was notably deoxygenated and heavily

contaminated with iron deposits; no aquatic life was found in these areas (Everett et al. 1998). In 1998, a Mining Wardens Court Hearing concluded that 80% of the drying of the Cataract River was due to longwall mining operations, with the balance attributed to reduced flows regulated by Sydney Water. Reduction of the surface river flow was accompanied by release of gas, fish kills, iron bacteria mats, and deterioration of water quality and instream habitat. Periodic drying of the river has continued, with cessation of flow recorded on over 20 occasions between June 1999 and October 2002 (DIPNR 2003). At one site, the 'Bubble Pool", localised water loss up to 4 ML/day has been recorded (DIPNR 2003). Piezometers indicated that there was an unusually high permeability in the sandstone, indicating widespread bedrock fracturing (DIPNR 2003). High gas emissions within and around areas of dead vegetation on the banks of the river have been observed and it is likely that this dieback is related to the generation of anoxic conditions in the soil as the migrating gas is oxidised (Everett et al. 1998). An attempt to rectify the cracking by grouting of the most severe crack in 1999 was only partially successful (AWT 2000). In 2001, water in the Cataract River was still highly coloured, flammable gas was still being released and flow losses of about 50% (3-3.5 ML/day) still occurring (DLWC 2001). Environmental flow releases of 1.75 ML/day in the Cataract River released from Broughtons Pass Weir were not considered enough to keep the river flowing or to maintain acceptable water quality (DIPNR 2003).

12. Subsidence associated with longwall mining has contributed to adverse effects (see below) on upland swamps. These effects have been examined in most detail on the Woronora Plateau (e.g., Young 1982, Gibbins 2003, Sydney Catchment Authority, in lit.), although functionally similar swamps exist in the Blue Mountains and on Newnes Plateau and are likely to be affected by the same processes. These swamps occur in the headwaters of the Woronora River and O'Hares Creek, both major tributaries of the Georges River, as well as major tributaries of the Nepean River, including the Cataract and Cordeaux Rivers. The swamps are exceptionally species rich with up to 70 plant species in 15 m2 (Keith and Myerscough 1993) and are habitats of particular conservation significance for their biota. The swamps occur on sandstone in valleys with slopes usually less than ten degrees in areas of shallow, impervious substrate formed by either the bedrock or clay horizons (Young and Young 1988). The low gradient, low discharge streams cannot effectively flush sediment, so they lack continuous open channels and water is held in a perched water table. The swamps act as water filters, releasing water slowly to downstream creek systems thus acting to regulate water quality and flows from the upper catchment areas (Young and Young 1988).

13. Upland swamps on the Woronora Plateau are characterised by ti-tree thicket, cyperoid heath, sedgeland, restioid heath and Banksia thicket with the primary floristic variation being related to soil moisture and fertility (Young 1986, Keith and Myerscough 1993). Related swamp systems occur in the upper Blue Mountains including the Blue Mountains Sedge Swamps (also known as hanging swamps) which occur on steep valley sides below an outcropping claystone substratum and the Newnes Plateau Shrub Swamps and Coxs River Swamps which are also hydrologically dependent on the continuance of specific topographic and geological conditions (Keith and Benson 1988, Benson and Keith 1990). The swamps are subject to recurring drying and wetting, fires, erosion and partial flushing of the sediments (Young 1982, Keith 1991). The conversion of perched water table flows into subsurface flows through voids, as a result of mining-induced subsidence may significantly affect the water balance of upland swamps (e.g., Young and Wray 2000). The scale of this impact is currently unknown, however, changes in vegetation may not occur immediately. Over time, areas of altered hydrological regime may experience a modification to the vegetation community present, with species being favoured that prefer the new conditions. The timeframe of these changes is likely to be long-term. While subsidence may be detected and monitored within months of a mining operation, displacement

of susceptible species by those suited to altered conditions is likely to extend over years to decades as the vegetation equilibrates to the new hydrological regime (Keith 1991, NPWS 2001). These impacts will be exacerbated in periods of low flow. Mine subsidence may be followed by severe and rapid erosion where warping of the swamp surface results in altered flows and surface cracking creates nick-points (Young 1982). Fire regimes may also be altered, as dried peaty soils become oxidised and potentially flammable (Sydney Catchment Authority, in lit.) (Kodela et al. 2001).

14. The upland swamps of the Woronora Plateau and the hanging swamps of the Blue Mountains provide habitat for a range of fauna including birds, reptiles and frogs. Reliance of fauna on the swamps increases during low rainfall periods. A range of threatened fauna including the Blue Mountains Water Skink, Eulamprus leuraensis, the Giant Dragonfly, Petalura gigantea, the Giant Burrowing Frog, Heleioporus australiacus, the Red-crowned Toadlet, Pseudophryne australis, the Stuttering Frog Mixophyes balbus and Littlejohn's Tree Frog, Litoria littlejohni, are known to use the swamps as habitat. Of these species, the frogs are likely to suffer the greatest impacts as a result of hydrological change in the swamps because of their reliance on the water within these areas either as foraging or breeding habitat. Plant species such as Persoonia acerosa, Pultenaea glabra, P. aristata and Acacia baueri ssp. aspera are often recorded in close proximity to the swamps. Cliff line species such as Epacris hamiltonii and Apatophyllum constablei that rely on surface or subsurface water may also be affected by hydrological impacts on upland swamps, as well as accelerated cliff collapse associated with longwall mining.

15. Flora and fauna may also be affected by activities associated with longwall mining in addition to the direct impacts of subsidence. These activities include clearing of native vegetation and removal of bush rock for surface facilities such as roads and coal wash emplacement and discharge of mine water into swamps and streams. Weed invasion, erosion and siltation may occur following vegetation clearing or enrichment by mine water. Clearing of native vegetation, Bushrock removal, Invasion of native plant communities by exotic perennial grasses and Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands are listed as Key Threatening Processes under the Threatened Species Conservation Act (1995)."(NSW Scientific Committee, 2009)

There is limited information regarding the biodiversity values of the EL's as a whole. Hunter Eco undertook an "Ecology inspection" in relation to an REF for exploratory drills sites over both EL's and is limited in information but does note the following:

"A preliminary desktop investigation of data from the Atlas of NSW Wildlife showed that the following threatened species could be encountered: Eucalyptus castrensis, Eucalyptus fracta, Eucalyptus pumila, Leionema lamprophyllum subsp. obovatum and Lasiopetalum longistamineum. Following inspection of Stage 1 sites in September 2011, the threatened shrub Prostanthera cineolifera has been confirmed by the Sydney Herbarium."(Hunter Eco, 2011)

Given the biodiversity values of land in the Hunter Valley have been severely compromised since European settlement it is reasonable to assume that the Pokolbin State Forest and Brokenback Range will be rich in biodiversity values. Underground mining leads to subsidence which has been found to be a "Key Threatening process" by the NSW Scientific Community. Therefore, there is potential for significant ecological and biodiversity impacts if the mine were to proceed in the future.

6.4. Aboriginal archaeology

As noted at section 1.2.2 of this report, a *Due Diligence Aboriginal Cultural Heritage Assessment* of EL 6123 was undertaken by Suzie Worth dated 13 March 2012, and it noted:

- An OEH AHIMS database search identified 13 recorded Aboriginal sites present within the Brokenback Range.
- Eleven of the sites were open camp sites, and two grinding groove sites.
- Parts of the rock platforms overlooking the valley to the north east are likely to have "*significance to those people who believe they are custodians of this part of the ranges*".
- There are various rock platforms throughout the area that could have significance.
- There was a mound found that had stones lined across the top of which could be culturally significant landform.

The Worth Due Diligence concludes by stating:

> *"The Brokenback Ranges are seen as possessing cultural values to the Aboriginal people…" (Worth, 2013)*

Impacts from underground mining activities come from mine subsidence and surface infrastructure and facilities. While there is no doubt surface related mining infrastructure and facilities can be located so that they do not impact on specific items and areas of aboriginal cultural significance, mine subsidence has potential for more significant impacts. In particular, mine subsidence impact on the Brokenback Range escarpment and headlands which have significance to aboriginal culture in the area.

Consultation with the local aboriginal community has confirmed that the area covered by EL 6123 in particular has significant cultural heritage value to the Wonnarua people and this area should be excluded from any mining activities.

Other potential impacts include:

- Risks associated with noise emissions and cultural practices
- Risks associated with dust emissions and cultural heritage sites
- Risks associated with vibration from underground blasting to potentially impact on cultural heritage sites
- Visual impact of surface infrastructure on the cultural significance of aboriginal sites and places

6.5. Bushfire

The Pokolbin State Forest is relatively remote and not easily accessible. As a consequence, the incidents of fire in the area are relatively low with a fire burning in the area for the first time in over 20 years occurring during the disastrous 2019/20 fire season. The introduction of a new mine to this area and the increased access would certainly increase the risk of fire. This then increases fire risks to the vineyards district of Pokolbin along a front (eastern side of the Brokenback range) which is largely inaccessible. This would place a lot of properties, including tourist accommodation at risk.

6.6. Noise

The source of noise in an underground coal mine operation is from:

- continuous mining machines,
- roof bolters, and
- cars and other vehicles used to transport the workforce and coal.

There is also noise generated from surface operations associated with the mine including:

- traffic using access roads including heavy machinery,
- ventilation shafts,
- ventilation fans,

- water management infrastructure,
- electricity substation,
- service bore holes,
- Surface mine facilities

Assuming a western side mine entrance, there would be potential for noise impacts on sensitive receivers located on the western side of the mine entrance towards the village of Broke. There would also be potential for noise impacts within the Pokolbin CIC. Especially on tourist developments located around the edge of the Brokenback Range.

Mine related noise is akin to industrial noise, and such noise is clearly inconsistent with the quiet and peaceful rural environment provided by Hunter Valley Wine Country. Consequently, any mining activity that generates any level of industrial style noise is clearly incompatible with the operations of a wine tourism area.

6.7. Air quality

Dust from coal mines is a significant risk as it can impact local and regional air quality, adversely affect local amenity, and pose a risk to public health. In the Hunter Valley there is also significant concern around the cumulative impacts of various mining operations in the lower Hunter Valley on regional air quality.

The Monash Mine site is located within the heart of Hunter Valley Wine Country and there is real concern that coal mining operations will generate dust from sources such as wind erosion, vehicles using unsealed roads and blasting, adversely impacting on ambient air quality.

The Hunter Valley community has become increasingly concerned over the potential for health impacts from coal mine dust. In particular, exposure to fine particles can have potential health impacts on the respiratory system. Generally, it is thought that fine particles below 2.5 microns in diameter may be of greater health concern than larger particles as they can reach the air sacs deep in the lungs (NSW Department of Health, 2010). However, coarse particles (PM 2.5 to 10 microns) could also be associated with adverse health impacts. Infants and children, elderly people, people with existing respiratory conditions, heart disease or diabetes may be more susceptible to the health effects from fine and coarse particles. This location is exposed to high wind velocities at certain times of the year, and it would be extremely difficult for any mine to implement dust controls to ensure that people are not affected by the dust they generate.

There is also concern that dust will impact on the general amenity of Hunter Valley Wine Country by “dirtying the air”. This is referred to as “nuisance dust” which usually has a particle size larger than 10 microns. High levels of nuisance dust would reduce visibility and amenity and in particular dust plumes can be expected.

6.8. Visual Impacts – iconic Brokenback Range as backdrop to HVWC

Any mining activity within the Pokolbin State Forest and the Brokenback Range has potential to significantly impact on the scenic landscape qualities of this iconic landscape feature which is a critical part of Hunter Valley Wine Country. There is potential for subsidence induced land slip of the escarpment features of the range, and there is potential for significant die back within the forested areas of the forest from underground mining related impacts.

It is too big a risk to this important backdrop to have a coal mine there.

Photo 6.1 shows the Monkey Place Creek valley which could be impacted if the mine infrastructure is constructed there.

Photo 6.3: Monkey Place Creek Valley
Date of Photo: December, 2020

6.9. Water quality

Underground mining can also potentially impact on the quality of groundwater. This occurs when rock cracking occurs underground, releasing metal contaminants such as iron, magnesium, aluminium, barium and strontium, that can exceed the ANZECC 95% protection of aquatic species trigger values. This contamination of the groundwater then impacts on other users noting that groundwater is used for viticulture and tourism as a water source.

There is also the issue of water having to be pumped from the mine and that water being polluted.

Again, a significant risk factor to the wine tourism industry.

6.10.Ground water

Underground mining is a risk to the water table in that it can cause it to shrink. Water will seep into areas that contain coal, and that water needs to be pumped out of the mine to allow the miners to work. Aside from pollution, the process also causes water loss in the ground.

Noted above was the issue of air quality. To address that impact the mine would have to collect water for use as a dust suppressant, which would put more strain on the local water supply.

Nearby residents who depend on groundwater supplies for their water use will also be potentially impacted. They would need to drill deeper to ensure that they maintain a secure supply. When the water loss from mining is combined with another large source of strain on the supply, such as the recent droughts, it can lead to a shortage, which can contribute to the destruction of ecosystems and agricultural ecosystems.

6.11.Traffic

Locating a mine in the middle of a wine tourist area will also lead to conflict on the roads, and impact on the local road network. The state government has spent considerable money ($20m+) upgrading Hermitage and Broke Roads in Pokolbin to improve the level of road user amenity for tourists who visit the area. Introducing coal mine related traffic onto the road network would impact on the road infrastructure, lead to congestion and impact on the positive perception of Hunter Wine County to the tourist market.

6.12.Social & Economic Impacts

It is important to understand that 44% of Domestic overnight travellers (Destination NSW, 2020) coming from Sydney alone and anecdotal evidence suggests that this sector of the Hunter Valley tourism market is;

- progressive,
- environmentally conscious,
- not particularly sympathetic to mining towns,
- not supportive of coal mining/ anti-coal,
- pro-renewables, or
- any combination of the above

The Hunter Valley Tourism Market generally seeks an experience set within the rural landscape of the Hunter Valley. A key component of this experience is the perceived natural beauty of the area, and the image of society working with and amongst nature (ie; the 'greenscape' of the vineyards producing wines). As outlined throughout this submission, a significant part of that landscape is the Brokenback Range and the greenery of the Pokolbin State Forest.

While the mining history of the area is recognised and celebrated and is still a very large part of the Hunter economy, there is very little evidence of its ongoing operation within Hunter Valley Wine Country. This is essential so as to maintain the image of the area and protect the Hunter Valley Wine Country brand.

Establishment of infrastructure associated with new mining operations alone would bring great volumes of trucks and other industrial machinery through the area, ultimately detracting from the image of the area.

Chapter 7: Conclusion and Recommendations

The NSW Government are considering the renewal of two Exploration Leases which combine to be known as the Monash Coal Exploration Leases which are located between the two wine growing areas of Pokolbin and Broke – Fordwich and extends from the western boundary of De Iuliis Winery in Pokolbin to the Bees Nest Ridge southeast of Broke.

The granting of a new coal EL contravenes the Strategic Statement on Coal Exploration and Mining in NSW. The statement notes that there is a map "*that shows a number of areas that will be ruled out for further coal exploration or coal mining"*. The Monash Mine proposal is not identified as a potential area for release under this Strategic Release Framework and so is not identified by the NSW Government as an area to be released for coal mining.

The Upper Hunter Strategic Regional Land Use Plan identified the Critical Industry Cluster for Viticulture and this was mapped, and the public were given the opportunity to comment on the draft of the Plan which was made with no alterations to the boundary of the cluster. However, in 2013, there was an amendment to the Mining SEPP that reduced the area of the CIC Viticulture. This has not been explained and it is the Hunter Valley Wine & Tourism Associations position that the extent of the CIC Viticulture should be reinstated as there was no public notice of the reasons for it being reduced so dramatically.

The scenic landscape setting of Hunter Valley Wine Country with low rolling hills leading to the dramatic backdrop of the Brokenback Mountain Range is one of the main reasons for the success of the region as a tourism destination. The construction of a coal mine between the two major segments of Hunter Valley Wine Country will destroy that rural landscape character of the Broke Road.

The wine tourism sector has a key role to play in the Cessnock and Singleton economy. It has been estimated that the industry has a value of $631m annually, which is a significant proportion of the local economy. The employment in the wine tourism sector is approximately 2,700 direct jobs with many more indirect jobs. The wine tourism sector has shown that it is resilient to shocks such as the COVID-19 pandemic. The future of investment in the Wine Tourism sector is being put at risk by the proposal for a coal mine between the two wine growing areas of Pokolbin and Broke – Fordwich.

The Hunter Valley Wine and Tourism Association does not object to coal mining, but from the experience of mining in the Upper Hunter the Association knows that the construction of a coal mine under the Brokenback range will lead to the further destruction of the wine tourism sector in NSW.

The Hunter Valley is the oldest vineyard region in Australia, operating for nearly 200 years. It is the most visited wine region in Australia and the second most visited tourism destination in NSW, outside of Sydney.

It needs to be pointed out that NSW lacks the proper protection of Wine Tourism areas and as such this needs to be recognised &rectified to bring in line with regions like the Margret River, the Barossa Valley and other vineyard regions around the World.

The proposed Monash EL is located very close to the interstation of Broke Road and Hermitage Road and this is one of the key entrances to Hunter Valley Wine Country. Broke Road provides the link between Pokolbin and Broke – Fordwich and the presence of any mining infrastructure along this road will destroy the ambience of the landscape and the amenity of tourists as they traverse between the two wine regions. The NSW Government have invested heavily in the Hunter Expressway and Hermitage Road and the construction of a coal mine in this location will put this public investment at risk as well as the significant private investment in the wine tourism sector. It will destroy the tourist experience and the overall rural character of the region as

well as the 200 years of winemaking and will decimate the $632 million that Wine Tourism sector contributes to the local economy.

Recommendations

1. The NSW Government does not renew EL6123 and EL7579 because to do so would be contrary to the Strategic Statement on Coal Exploration and Mining in NSW released in 2020.
2. The NSW Government redraw the boundaries of the Critical Industry Cluster for Viticulture to revert to the boundaries in the published Upper Hunter Strategic Land Use Plan in 2012.
3. The Pokolbin State Forest be declared a National Park.

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