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Content:

As Convenor of the Southern Highlands Greens Sub-committee on coal, I am submitting this submission on behalf of the Southern Highlands Greens.

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Submission: Online Submission from company Southern Highlands  
Greens (org\_comments)

[https://majorprojects.accelo.com/?  
action=view\\_activity&id=214153](https://majorprojects.accelo.com/?action=view_activity&id=214153)

Submission for Job: #7172 Hume Coal Project

[https://majorprojects.accelo.com/?action=view\\_job&id=7172](https://majorprojects.accelo.com/?action=view_job&id=7172)

Site: #3137 Hume Coal Mine

[https://majorprojects.accelo.com/?action=view\\_site&id=3137](https://majorprojects.accelo.com/?action=view_site&id=3137)



## **Southern Highlands Greens Submission on the Hume Coal EIS**

The Southern Highlands Greens strongly object to the Hume Coal Project – SSD7172

### **The Basis of the PAC's Authority to Receive Submissions**

The Minister for Planning is the consent authority for State Significant Development applications. In the case of Hume Coal, the department's recommendation to the Minister will be referred to an independent Planning and Assessment Commission (PAC).

The DOP website for State Significant Developments ([www.planning.nsw.gov.au](http://www.planning.nsw.gov.au) › ... › [Development Assessment › Systems](#)) requires the PAC to take into account local government policies and planning rules:

SSD applications are assessed by the Department of Planning and Environment. The Department considers the following when assessing SSD applications:

- ***existing strategic plans and policies (including State, regional and local)***
- feedback and comments from the relevant local council(s)
- specialised and technical input and advice received from Federal and State Government agencies
- ***public submissions received during the exhibition***

The Southern Highlands Greens support the submission from Wingecarribee Shire Council on the Hume Coal EIS (passed by Council on 28 June 2017). The deep concern expressed on behalf of the community of the Shire in that submission is an accurate representation of the concern of the community. We ask that the PAC give great weight to the detailed scientific and heritage studies prepared by local organisations and individuals opposed to the proposed mine. These submissions reflect the extent and depth of the community opposition, as well as providing strong technical grounds for rejecting the proposed mine.

The Hume Coal EIS, on the other hand, is lengthy but with little to commend it. It ignores many serious technical risks, as well as blithely assuming away issues that need to be addressed before proceeding further (such as the extent of the water licences the company needs and can draw on). Deep flaws also exist in their analysis of the mining and industrial history of the area affected, effectively denying the blatantly obvious rural and historic nature of the landscape. The area's high heritage significance is effectively denied, as well as the likely impact the mine and its infrastructure will have on that significance.

Our community is shocked and traumatized by the prospect of the mine. As the sheer scale of the proposed undertaking becomes apparent this will only increase. To put the amount of material to be extracted in some sort of conceptual framework, the volume will be equivalent to the volume of Uluru. For Hume Coal to assert that the impacts will be negligible and the

risks minimal defies belief. In short, the Hume Coal EIS is not believable. Set out below are the detailed reasons for our assertion that this is so.

## **(1) Social Impact**

There are various levels and manifestations of the negative social impact arising from the coal mine project.

First, there are the negative impacts experienced to date. The uncertainty relating to the financial value of the land directly affected has given rise to stress on the part of the landowners. Then there is the uncertainty and consequential stress experienced by those in the community who are aware of the likely negative impact on the environment and their enjoyment of it.

Secondly, there is the enormous trauma suffered by those who have been made victims of Hume Coal's aggressive approach to its survey and preparatory work. This is exemplified by the legal action taken against the landowners who refused entry onto their property. Hume Coal sought and obtained costs against the landowners, which threatened to bankrupt them. It was only the concerted efforts of community fund-raisers that ensured that the judgment debt regarding costs would be met. We understand that Hume Coal has now issued letters of demand for hundreds of thousands of dollars to two prominent community activists in the battle against Hume, further evidence of the personal nature of their tactics.

Thirdly, there is the perceived impact on freedom of speech. The local newspaper, Southern Highlands News, in the name of a "right of reply" by Hume Coal, has given what is perceived to be limited coverage of the case against Hume Coal. There is a feeling that this is because of the large sums spent by Hume Coal on advertisements in the newspaper.

Fourthly, there is the negative social impact if the mine is approved. Dozens of businesses reliant on the attractiveness of the rural landscape will be negatively impacted, and the social consequences of the loss of income will be considerable. Those in the community who are concerned with a clean environment and protection of our heritage will be devastated if the mine is approved. Recent community involvement in the preparation of the local planning strategy and community strategic plan indicates that the majority of those surveyed placed great emphasis on protecting our environment and heritage. To witness these being severely compromised will give rise to widespread community distress.

## **(2) Climate Change**

Climate change is relevant to the EIS on 3 fronts:

### **a. Wingecarribee Shire Council policy**

As indicated above, the PAC is required to take into account Council strategic plans and policies. Wingecarribee Shire Council has made it clear that it does not want the coal mine. Its draft community strategic plan (adopted by Council on 14 June 2017) addressed climate change on page 27:

#### ***4.4 Wingecarribee addresses, adapts, and builds resilience to climate change***

(<http://www.yoursaywingecarribee.com.au/26652/documents/54843>)

The mine output is expected to consist of 45% thermal coal. This will contribute unnecessarily to climate change. It is estimated that the thermal coal to be extracted will of itself lead to an additional discharge of 54.35 million tonnes of CO<sub>2</sub> into the atmosphere. The remaining 55% of output that is metallurgical coal will produce a slightly diminished percentage, but still significant volume, of additional CO<sub>2</sub> into the atmosphere.

#### b. Finance and Commercial Risk

In the past Hume Coal has placed great emphasis on the fact that the mine will produce metallurgical coal. However, it is now clear that the mine output will consist of only 55% metallurgical coal, with the remaining 45% of output being thermal coal.

In light of the recent Westpac decision not to offer finance for the Adani mine in Queensland, because of its impact on climate change, a serious financial risk arises in respect of the source of financing for the Hume Coal mine.

#### c. Social and Environmental Responsibility

It is Greens policy to oppose new coal mines. This is particularly so with respect to coal destined for power generation, because of the proven impact on climate change of the increased release of CO<sub>2</sub> into the atmosphere. This proposed mine, if it proceeds, will inevitably add CO<sub>2</sub> to the atmosphere, both through its operation and much more so through the thermal coal it produces.

### **(3) Water**

Until 2012 groundwater protection was governed by the 1998 NSW Groundwater Quality Protection Policy.

([www.water.nsw.gov.au/\\_\\_data/assets/.../nsw\\_state\\_groundwater\\_quality\\_policy.pdf](http://www.water.nsw.gov.au/__data/assets/.../nsw_state_groundwater_quality_policy.pdf))

In 2012 the NSW government promulgated its Aquifer Interference Policy.

([www.water.nsw.gov.au](http://www.water.nsw.gov.au) › Water management › Law and policy › Key policies).

The wording of the Aquifer Interference Policy indicates that the licence requirements cover not only water extracted from the aquifer, but also water put back in. Hume Coal is proposing the return of water as a mitigating factor, whereas the opposite is the case, with the two volumes being cumulative (see below).

The relevant wording is:

***A water licence is required under the Water Management Act 2000 (unless an exemption applies or water is being taken under a basic landholder right) where any act by a person carrying out an aquifer interference activity causes:***

- ***the removal of water from a water source; or***
- ***the movement of water from one part of an aquifer to another part of an aquifer; or***
- ***the movement of water from one water source to another water source, such as:***
  - from an aquifer to an adjacent aquifer; or***

*- from an aquifer to a river/lake; or*

*- from a river/lake to an aquifer.*

***A water licence is required whether water is taken for consumptive use or whether it is taken incidentally by the aquifer interference activity. For example, dewatering of groundwater during building construction and groundwater filling and evaporating from a void post-activity requires a water licence (unless an exemption applies) even where that water is not being used consumptively as part of the activity's operation.***

The calculation of the volume of these two different types of interference is cumulative. In other words, the water pumped back in (moved from one part of the aquifer to another part of an aquifer) is added to the water initially extracted as dewatering from the aquifer above the coal. Hume Coal does not have sufficient licences to cover this amount of water.

The Hume Coal EIS also indicates that the company will mix water extracted from the aquifer with wastes from the cleaning process (see next paragraph), and pump this toxic mix back into the voids created by the proposed pine feather technique for coal extraction. These voids are to be sealed with concrete as a means of avoiding contamination of the aquifer. However, this is an unproven technique, and therefore carries a high risk of leakage. If this experimental technique fails, there will be massive environmental damage in perpetuity.

In addition, the area, geologically, has many fault lines crossing the coal seam and the aquifer, which add to the risk of leakages and contamination of the aquifer. The geology of the area concerned is far more complicated than the Hume Coal EIS appears to admit.

In a recent paper prepared and presented by 2 Hume Coal geologists at a Wollongong University forum ([ro.uow.edu.au/cgi/viewcontent.cgi?article=2301&context=coal](http://ro.uow.edu.au/cgi/viewcontent.cgi?article=2301&context=coal)), they state that the drill holes do not give a complete picture, because of the court case supporting landowners rights to exclude the company from their land i.e. the company was not able to complete its exploration:

Coal Operators Conference The University of Wollongong (8-10 February 2017)

#### *EXPLORATION ACTIVITIES AND RESULTS*

*There are 167 historic holes drilled in the A349 area. These holes were drilled in the 1970's. In addition Hume Coal has drilled 179 exploration and water piezometer holes. This combines to a total of 346 holes, in an area of about 89 square km. On average this represents about 4 holes per square kilometre or holes with a radius of influence of about 300 m, in other words a reasonably well drilled out resource on a well-known coal seam. However, some areas have a lack of holes and others are drilled at closer spacing than the above. **This tends to reflect the difficulty in obtaining land access with current landowners.***

The difficulty in obtaining land access reflects the strong opposition from the landowners who will be directly affected by the mine, as well as the broader community who rallied together to pay the legal fees to defend suits brought by Hume Coal to obtain access

We understand that Hume proposes extracting saline water from the aquifer below the coal seam to wash the coal. It is salty water mixed with toxic rubbish from the washing process that will be pumped back into the voids. The level of contamination if the voids leak is, therefore, very high.

The extent of the risk is indicated by the closed Medway coal mine, where remediation has been found to be impossible. As a result, toxic waste flowing into the river and unsustainable drainage of the aquifer is now a problem in perpetuity. This is borne out by the Wingecarribee Shire Council's submission, which notes that the aquifer is now no longer sustainable in the long term, because the continuing outflows from the closed mine tip the balance against sustainability. This continuing contamination and unsustainable draining of the aquifer has a direct and negative impact on Sydney's water supply through the river system as well on the emergency supplies contained in the aquifer. Hume Coal's proposal to pump toxic waste into the aquifer to fill the voids increases the risk of contamination of Sydney's water supply even further.

#### **(4) Noise and Dust**

##### Noise

The head of the mine, together with the 117 hectares of land used for handling, storage, and shipping of the coal is located within the vicinity of Koala habitat, as well as habitat for a wide range of native animals. This proximity is exacerbated by the direction of the prevailing winds, that will carry the noise in the direction of the river and large tracts of pristine bushland.

The operation of the mine and the processing plants will be 24 hours a day, seven days a week.

In addition to the native species affected, local inhabitants will be disturbed, especially the heritage village of Berrima. Berrima is a heritage village of recognised State and national significance, which draws a disproportionate percentage of tourists to the Highlands, as well as tourists from within the Highlands. The noise will diminish the amenity of the village, and have a consequential economic impact on the village and, as a result, on the Shire.

As well as the noise from the above ground operations, there will also be noise rising up from the underground operations. Hume's assumption that noise is only a factor above ground also ignores the distance that noise and vibration carry underground. Thus, properties which are a considerable distance from the underground activities will still suffer from the noise and vibrations emanating underground. This will have a significant impact on the amenity of the dwellings at ground level.

Of particular concern is the impact of noise on the notable equestrian activities and events held regularly in close proximity to the proposed Hume Coal industrial site. These events bring many high revenue visitors to the Shire. This is also a major training centre for Australia's Olympic Equestrian Team. These equestrian facilities were recognised as "significant improvements" to the land in the access suits brought by Hume Coal against the landowners.

##### Dust

The Hume Coal proposal assumes that the prevailing wind will have minimal impact on dust levels around the mine and its storage and processing areas. However, the wind measurements used in support of this position are defective, in so far as they are averages and do not measure the carrying capacity of the winds when they are at their maximum levels.

Also, the measurements have been taken in the mornings, when wind speeds generally are at their lowest.

The monitors used to measure the dust levels (particulate matter, “pm”) rely to a large extent on the dust monitors at the Boral Cement Works. These, however, only measure pm10, not the smaller more dangerous pm2.5. The latter are far more carcinogenic, as they penetrate the lungs far more deeply.

It should be noted that the prevailing winds are from the South and Southwest. As noted at the time of the approvals for the Boral cement kilns, this sends any emissions in a plume toward Moss Vale, Burradoo and Bowral. According to the Hume Coal EIS there will be multiple separate stockpiles for the differing grades of coal and spoil from the mine, as well as conveyor transport over a long distance for these materials. With Boral, there was testing of emissions by a company employed by Boral and as it turned out that company manipulated the figures to pass the ‘standards’. With the rosy gloss put on the measurements cited in the Hume Coal EIS, doubts must be raised as to their accuracy and relevance.

Hume Coal assures our community that the wagons will be covered:

*2.3.4 Covering rail wagons: Rail wagons to transport product coal will be covered, thereby reducing the potential for dust emissions during transport. Hume Coal will be the first coal mining company in Australia to do this. (Hume Coal EIS Volume 1, page 17)*

The reason Hume Coal will be the first to do this is because it is very expensive, and given the low coal recovery rate and the high costs of production for this proposed mine, it is another reason for concluding that the mine will be uneconomic. The statements in the Hume Coal EIS are vague assurances and are not backed up by measures to ensure that these assurances will be met.

The reliance on trust raised by the EIS is highly questionable and our community has little confidence or trust in Hume Coal because of their aggressive tactics against opponents and POSCO’s international reputation for environmental vandalism and steamrolling over local opposition.

## **(5) Biodiversity**

The site will emit considerable noise and dust, notwithstanding the overly optimistic projections of the mining company. These will seriously disturb the native fauna and flora, and as such impose an unacceptable environmental cost. The risk of this is increased when consideration is given to the assumptions made by the company regarding wind velocity. The wind measurements are only on an average basis, and do not provide for maximums. It is the maximums and their frequency that are important when considering the likely impact. This faulty methodology alone substantially increases the environmental risk.

The site of the above ground infrastructure is in a particularly sensitive location, being in close proximity to the Wingecarribee River, the Belanglo State Forest, koala habitat and nearby properties acting as private nature reserves (e.g. Wendy and Mark Alexander’s property on the other side of Medway Road).

The biodiversity study in the Hume Coal EIS is cursory and totally inadequate. This is evidenced by the failure to recognize the importance of the Koala communities in the Shire,

one of which is in close proximity to the infrastructure site. The significance of the local Koala communities is borne out by Wingecarribee Shire Council's Koala Study. The Koala project has received strong volunteer support in the community. The clearing of significant trees increases the risk to Koalas moving through the bushland corridors in the vicinity of the proposed mine infrastructure site.

## **(6) Transport**

Impact of rail: There will be significant delays 8 times a day at railway crossings. This is particularly serious in the event of a medical or other emergency, when emergency vehicles will be unable to cross the railway. Robertson will be particularly impacted in this regard.

Impact of diesel trucks: The use of large numbers of diesel trucks during the construction phase will give rise to noise, dust and toxic pollution, as well as considerable CO<sup>2</sup> emissions. This will continue into the operation phase, as diesel trucks will be used for moving supplies to, from and around the site, as well as for carting limestone to mix with the slurry to fill the voids in the mine. Again this will give rise to noise, dust, and toxic pollution, in addition to considerable CO<sup>2</sup> emissions.

## **(7) Tourism/Economy**

The Highlands are a rural escape for Sydney's population. Its rural landscape is a major attraction, giving rise to demand for retail sales, accommodation and events (weddings etc). Council policy is to maintain the rural landscape. Sutton Forest and Berrima in particular have extremely high heritage significance (see heading 8 below). The industrial complex alongside the freeway and between the freeway and the Old Hume Highway would be the overriding image of the landscape, which is contrary to all the local planning laws. There has never been a coal mine of this magnitude and visibility in the Highlands before.

To expand on the growing importance of the Southern Highlands to Sydney, it should be noted that the NSW Department of Planning forecasts that Sydney will grow to 9.9 million people by 2036 (which is within the expected life of the proposed coal mine).

<http://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-Projections>

A large proportion of this population will need to be housed in apartments, giving rise to a massive demand for green recreational space within a short drive of Sydney. The Southern Highlands is 45 minutes drive from Campbelltown and 1 hour 20 minutes drive from the Sydney City Centre. The economic opportunities made available to the Highlands to meet this demand will far outweigh any short term economic benefit from the coal mine and its touted employment of 300 people. These visitors will be seeking to enjoy the rural landscape, not an industrial complex overshadowing it.

## **(8) Heritage**

A heritage study has been undertaken by Colleen Morris, a nationally recognised heritage expert. This was financed by Battle for Berrima and Sustainable Southern Highlands Inc. The study is extensive and comprehensive, and lists all the heritage properties in the Sutton Forest landscape, which are far in excess of the items listed by the Hume Coal EIS. There are



in fact 21 items listed on the State Heritage Register within the study area. The EIS, on the other hand, states that 8 heritage properties will be affected, but that these are only of “local significance”.

The Hume EIS contains a very cursory section on the heritage impact of the mine. It makes no mention of Berrima at all. It lists a number of listed heritage items in the Sutton Forest landscape, but not all that are listed on the State Register. As noted above, it states that the items listed are only of “local” significance, notwithstanding that they are listed on the State Register and as such are of State significance. This displays an appalling ignorance of the State legislation governing heritage protection. These omissions are predicated on the fact that the heritage items omitted are “outside the project area”, which completely denies that there can be any impact on them. Again, this is a spurious assumption.

The most notable of the missing items is the farm and buildings at “Oldbury”, perhaps the most heritage significant item in the Shire. As indicated above, it appears that the items not listed or discussed were omitted because the underground mine plan skirts around them, as is the case with Oldbury (and, similarly, Nicole Kidman and Keith Urban’s property). This assumes there will be no drawdown of the aquifer unless the underground mine is directly underneath, which is a nonsense assumption. It assumes that the subterranean noise will not be transmitted other than directly vertical, also a nonsense assumption.

In addition to the impact on ground water and of subterranean noise, there will be subsidence, with resulting structural damage to many of the early settlement and convict built farmhouses. The project area is riven with geological faults and the fact that the mine is not directly underneath the heritage item will not avoid earth tremors and other kick-on effects causing structural damage to the items.

The heritage study prepared by Colleen Morris also examines the heritage significance of Berrima, and recognizes it as possibly the most heritage significant village in the State, if not the country. Attached is the Heritage Impact Statement, also prepared by Colleen Morris and based on her heritage study.

Berrima has its original pre-industrial early colonial town plan intact, with all of the Colonial Georgian buildings still in existence.

Between 1829 and 1842 a total of 53 new towns and villages were planned for NSW. Governor Darling determined that if there were to be towns in the interior to serve the rural community they must be planned and their layout controlled.

People had begun moving out of the Sydney area earlier than 1829, but their emphasis had been on obtaining grants of land for farming or raising cattle or sheep. Inns alongside the tracks, particularly at river crossings, were often the nucleus for small communities, but towns were largely limited to the coast, such as Newcastle and Port Macquarie, or heads of river navigation such as Parramatta and Maitland. After consultations a General order was issued on 27 May 1829 that determined what those 53 towns, including Berrima, would look like.

Of the 53 planned towns from that period, all but Berrima have been absorbed into Sydney or become regional cities. Berrima alone has remained a small village that never grew beyond its early colonial nucleus. This makes it a heritage village of State and national significance. It also meets the criteria for UNESCO World Heritage listing, as the village is an excellent example and surviving relic of the successful integration of convicts into the local population (see below). There are presently 11 UNESCO World Heritage Sites in Australia based on the

period of “Convictism”, which formed part of a world-wide phenomenon of forced emigration. None of these to date represent the second stage of Convictism, the successful integration of convicts into the local population, which Berrima represents.

The town plan was prepared by Hoddle, who a few years later prepared the town plan for Melbourne. Its 1839 gaol and 1839 Courthouse (where the colony’s first jury trial took place) are indications of the future proposed for Berrima as the County capital. The fact that its population never grew beyond 500 people in the 19<sup>th</sup> century and has since grown very little (it is now 600) indicates how it became frozen in time.

Its history is heavily embedded with the convict period, regarded by UNESCO as part of a world significant period of forced emigration. The 1841 census has details of the 36 households recorded at the time. 20 of the 36 households included one or more convicts still serving time (on assignment), as well as convicts on tickets of leave or with conditional pardons.

The two churches are of very high heritage significance, with the Anglican Church being the first Blackett designed church to be built. The Catholic Church is the most intact Pugin designed church in Australia. Pugin never came to Australia, but was commissioned by the NSW Catholic archbishop to prepare a number of plans for churches in the colony. Pugin is the “father” of the gothic revival style of architecture (he designed the British House of Parliament interiors), a style admired and taken up by Blackett in Australia. Hence the two churches have an architectural connection as well as an historical link in the village.

To ignore this heritage gem which will be directly impacted by the coal mine and its workings is contemptuous of the people in the village, and of Australia’s cultural heritage.

The Southern Highlands Greens support and endorse the Heritage Study for the Berrima, Sutton Forest and Exeter area cultural landscape, prepared by Colleen Morris, and funded by Battle for Berrima and Sustainable Southern Highlands Inc.

## **(9) Rehabilitation of the Site**

This raises 3 further elements of risk, namely, financial, environmental and heritage.

### **Financial Risk of Rehabilitation**

The EIS states:

*Around 50 million tonnes (Mt) of run-of-mine coal will be extracted from the Wongawilli Seam, resulting in approximately 39 Mt of saleable coal over a project life of 23 years. The product split will be about 55% metallurgical coal and 45% thermal coal.*

Given the protracted period of the mine it is not known what the final impact will be on the site of the surface infrastructure. At present it is significant and productive farmland, that forms part of an historic landscape (dealt with below, Heritage Risk). However, the surface infrastructure is expected to occupy 117 hectares, with a planned stockpile extending 800 metres and 6 storeys high, large reserves of polluted water and extensive handling infrastructure (both rail and road) as well as processing plants, the remediation effort and expense will be enormous.

What is not highlighted in the EIS is the large dump of tailings, that is likely to be enormous, given the delay between extraction and processing of the tailings and pumping them back into the voids as a toxic slurry.

On 11 May 2017, the NSW Auditor General released its *Mining Rehabilitation Security Deposits Report*, a report on the financial risk to the NSW Government of remediation. It concluded that the security deposits were inadequate to protect the government.

This issue, therefore, raises a serious question regarding the financial risk of the project to both the community and the State and local governments.

### Environmental Risk

How can remediation undo the environmental damage done ? If the fauna has fled the nearby habitats and the flora is permanently damaged it is not possible to restore the environment to its earlier undisturbed state.

There is also the issue of the private nature reserves on nearby properties. In 23 years time the people who have invested enormous financial and emotional resources are likely to have given up, died or moved on. Their lifetime commitment to nature conservation may well be undermined. The coal mine will be destructive at so many levels, with a low potential for financial feasibility.

### Risk to the State's Heritage

The site of the surface infrastructure is on the land forming part of the historical property of Mereworth. This farmland is entirely rural at present, and represents an important part of the cultural landscape evocative of the early colonial settlement in the period of convictism in Australia. In contrast to the dismissive statements about Mereworth's heritage significance, the advertisements for the sale of the property (just prior to Hume Coal buying it) emphasize the property's heritage significance. This largely reflects the company's ignorance about cultural landscapes.

It is questionable as to whether this intact rural landscape could ever be returned to its undisturbed heritage significant state. It will certainly not be the case for the land between the freeway and the Old Hume Highway, as it is highly unlikely that the industrial scale bridge over the Old Hume Highway will be removed. This is also likely to be the case for the very long and high embankment on either side of the bridge.

## **STATEMENT OF HERITAGE IMPACT**

**For**

**Berrima, Sutton Forest and Exeter Cultural Landscape**

**of**

**Hume Coal Proposal for an underground coal mine**

**and**

**Berrima–Rail line extension**

Prepared by

Colleen Morris M. Herit. Cons. M. ICOMOS

June 2017

## **1.0 Introduction**

The Berrima Residents Association commissioned the Berrima, Sutton Forest and Exeter Cultural Landscape Assessment study, which was funded by two community groups, the Battle for Berrima and Sustainable Southern Highlands Inc. The aims of the study were to:

- Prepare a cultural landscape assessment; describe the built, landscape and cultural heritage values of the Berrima, Sutton Forest and Exeter areas in the Southern Highlands of NSW. The study area includes some of the southern environs of Moss Vale.
- Assess the significance of the identified heritage items and landscape taken as a whole.
- Prepare a draft Statement of Heritage Impact: based on the cultural landscape assessment, provide a draft assessment of the potential impact of Hume Coal's proposed underground coal mine, as outlined in Hume Coal's preliminary documents, on the area's built heritage and cultural landscape values.

Following the preparation of the draft Statement of Heritage Impact, the Hume Coal Environmental Impact Statement (EIS) and the Berrima Rail Project Environmental Impact Statement was released. These two EIS raised sufficient concern for the consultant to update the draft Statement of Heritage Impact for the Berrima Residents Association on a voluntary basis.

This report draws on documents:

- Hume Coal Project, Environmental Impact Statement from the Hume Coal project that was submitted to the NSW Department of Planning and placed on Exhibition on 31 March 2017, and in particular Appendix T, Statement of Heritage Impact prepared for Hume Coal Pty Limited' by EMM, 23 February 2017
- Berrima Rail Project Environmental Impact Statement prepared by EMM for Hume Coal March 2017
- Cultural Landscape Assessment, Berrima, Sutton Forest, Exeter Area, Colleen Morris in association with Christine Hay, Final Report May 2017
- Hume Coal Preliminary Environmental Assessment prepared by EMM July 2015
- Wingecarribee Shire Council, LEP 2010
- Wingecarribee Shire Council, Rural Lands Development Control Plan, as at 13 May 2015
- Heritage Study of Wingecarribee Shire prepared by JRC Planning, 1991.
- IESC 2017-083 Hume Coal Project (EPBS 2105/7526)- New Development (IESC - Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development)

The Cultural Landscape Assessment, Berrima, Sutton Forest, Exeter Area should be appended to this Statement of Heritage Impact.

## 1.1 Authorship

Landscape heritage consultant Colleen Morris wrote this report. Colleen Morris has had over twenty years of experience in the assessment of cultural landscapes and conservation management, is a member of the Heritage Council State Heritage Register Committee and has experience as an expert witness in the NSW Land and Environment Court.

## 1.2 Background to the Issues

Hume Coal is a subsidiary of POSCO Australia, which is owned by the Korean company POSCO. Hume Coal acquired exploration authorisation 349 (A349) in 2010.

Hume Coal plans to mine coking and industrial coal from the Wongawilli seam 70m to 180m below ground. The proposal is to use untried methods to preserve the long-term stability of the landscape at ground level.

Hume Coal owns the property Mereworth, one of the early land grants of the area, which is heritage listed in its entirety as an item under Schedule 5 of the Wingecarribee LEP 2010, upon which it proposes to establish surface infrastructure for the project, stock-piling of the coal and a new rail loop.

Although mining has been part of the Southern Highlands history for over one hundred years, as the 1991 Heritage Study of Wingecarribee Shire noted 'mining does not lie easily with the public image of the Southern Highlands.' Historically in general the mining operations have been relatively small. The Medway Mine is several orders of magnitude smaller than the Hume proposal ; opening in 1867, it was not mechanised until 1968. Production at Medway has been in the order of 0.2 to 0.25 million tonnes/year compared to the proposed 3.5 million tonnes. The proposed mine is larger than any previously in the Southern Highlands and the location of the above surface infrastructure for this project will be more publicly visible than activities at the nearby Boral Medway Colliery (leased by Delta SBD Ltd in 2009), now 'mothballed'.

There is support for the project from some members of the community but overall there is opposition and Wingecarribee Shire Council is opposed to the project. A Battle for Berrima survey indicated the opposition to the project. From the contacted and surveyed households, 90.3 per cent of Berrima households and 86.1 per cent of Medway households supported a coal-free community.

Hume Coal has purchased a number of properties in the study area including Mereworth and Rosedale, heritage listed items under the Wingecarribee Shire Council LEP. Hume Coal's total landholding within and adjacent to the project area is approximately 1,765ha. The extent of the current project area is shown

in Figure 1. It should be noted that the A349 area extends much further than the current project area. This implies that an extension to the mining area could be sought in the future.

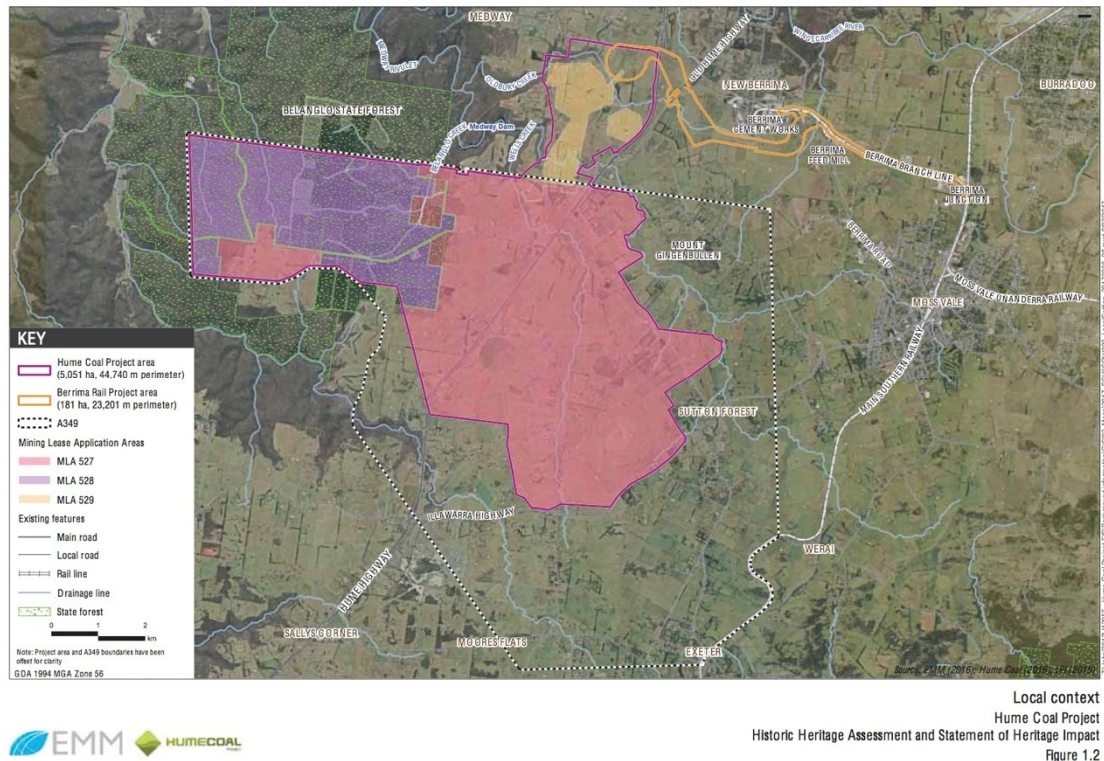


Figure 1: The local context map of the project taken from the Environmental Assessment prepared by EMM February 2017.

## 2.0 The Hume Coal Proposal

The proposal is to develop and operate an underground coalmine over approximately 22 years. Hume Coal has claimed that the mining methods will have negligible subsidence impacts.

The EIS states that **‘the key aspects of the project are summarised below.**

- Ongoing resource definition activities, along with geotechnical and engineering testing and other fieldwork to enable detailed design.
- Establishment of temporary construction offices and a temporary construction accommodation village.
- Development and operation of an underground coal mine, involving approximately two years of construction and 19 years of mining, followed by closure and rehabilitation occupying up to two years, leading to a total project life of 23 years. Some coal extraction will commence during the second year of construction and hence there will be some overlap between the construction and operational phases.

- Extraction of approximately 50 Mt of run-of-mine (ROM) coal from the Wongawilli Seam, at a rate of up to 3.5 million tonnes per annum (Mtpa). Low impact mining methods will be used resulting in negligible subsidence impacts.
- Following processing of ROM coal in the coal preparation plant (CPP), production of up to 3 Mtpa of metallurgical and thermal coal for sale to international and domestic markets.
- Construction and operation of associated mine infrastructure, mostly on cleared land, including:
  - one personnel and materials drift access and one conveyor drift access from the surface to the coal seam;
  - ventilation shafts, comprising one upcast ventilation shaft and fans, and up to two downcast shafts installed over the life of the mine, depending on ventilation requirements as the mine progresses;
  - a surface infrastructure area, including administration, bathhouse, washdown and workshop facilities, fuel and lubrication storage, warehouses, laydown areas, and other facilities. The surface infrastructure area will also include the CPP and ROM and product coal stockpiles, and coal reject handling infrastructure and a temporary (emergency) reject stockpile;
  - surface and groundwater management and treatment facilities, including storages, pipelines, pumps and associated infrastructure;
  - overland conveyors;
  - rail load-out facilities;
  - a small explosives magazine;
  - ancillary facilities, including fences, access roads, car parking areas, helipad and communications infrastructure; and
  - environmental management and monitoring equipment.
- Establishment of site access from Mereworth Road, and construction of minor internal roads.
- Relocation of some existing utilities.
- Coal reject emplacement underground in the mined-out voids.
- Peak workforces of approximately 414 full-time equivalent employees



during construction and approximately 300 full-time equivalent employees during operations.

- Decommissioning of mine infrastructure and rehabilitating the area once mining is complete, so that it can support land uses similar to current ones.

Three separate approvals will be required under the EP&A Act for the Hume Coal mine to operate. Hume Coal is therefore seeking:

- development consent for the mine and associated facilities (SSD 7172, the project the subject of this EIS) under Part 4, Division 4.1 of the EP&A Act;
- development consent for the construction and use of a new rail spur and loop (the Berrima Rail Project, the subject of a separate development application (SSD 7171). Separate development consent is being sought for the Hume Coal Project and the Berrima Rail Project because the rail infrastructure will be used by others in addition to Hume Coal. The Rail Project includes:

- construction and operation of a railway bridge over Berrima Road;
- construction and operation of a new rail connection into the Berrima Cement Works from the railway bridge, including realignment of various tracks inside the works to suit the new connection;
- decommissioning of the existing rail connection into the Berrima Cement Works including the Berrima Road level crossing;
- construction and operation of a new rail spur line from the Berrima Branch Line connection to the Hume Coal Project coal loading facility;
- construction of a grade separated crossing (railway bridge) over the Old Hume Highway;
- construction and operation of maintenance sidings, a passing loop and basic provisioning facilities on the western side of the Old Hume Highway, including an associated access road, carparking and buildings;
- construction and operation of the Hume Coal rail loop adjacent to Medway Road; and
- construction and operation of associated signalling, services (including water and sewerage), access tracks, power and other ancillary infrastructure.

Despite the Rail Project being a separate development application to the Hume Coal Project, it cannot be considered in isolation when assessing the heritage impacts of the combined proposals. The cumulative effects of the developments on the cultural landscape are substantial.

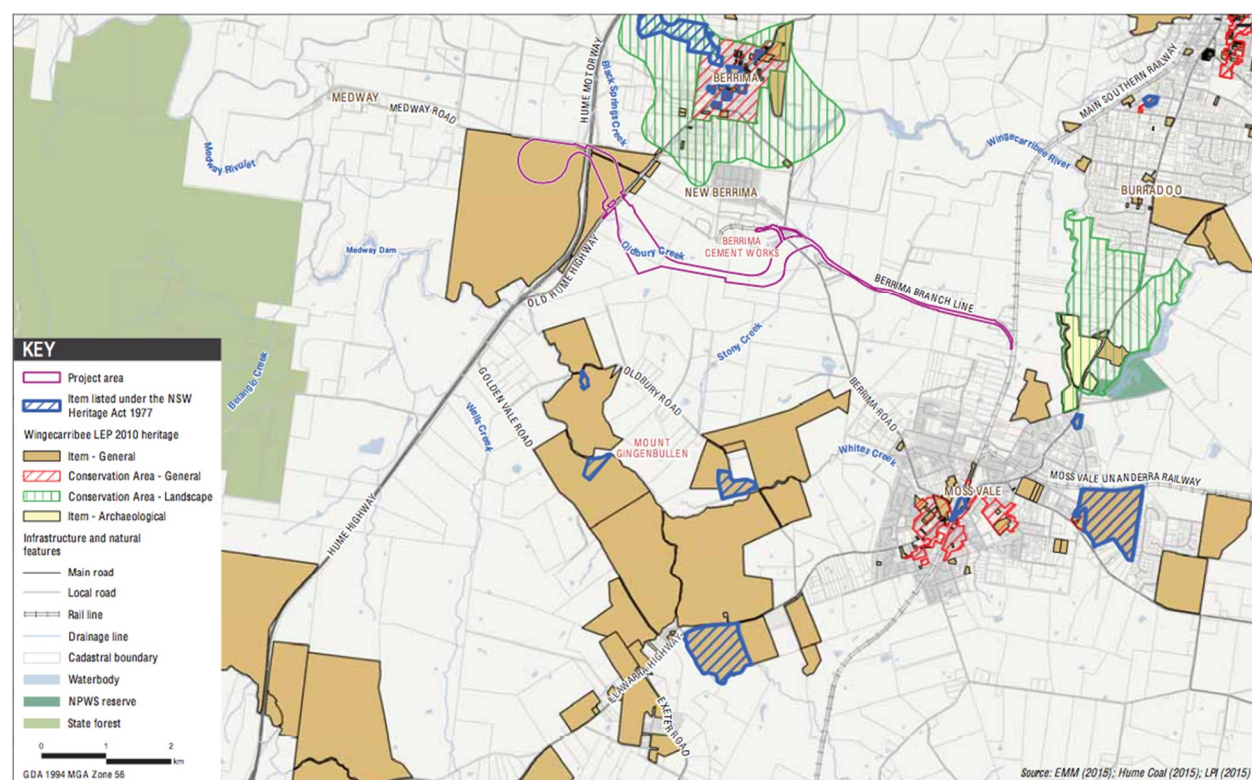
## 2.1 The consideration of the siting of the mine infrastructure.

The Hume Coal Preliminary EIS presented four options that were considered before deciding on the concept chosen. I agree that of the parameters and options presented, the option chosen would likely provide the least intrusive outcome when heritage alone is not considered.



Indicative surface infrastructure layout

Figure 2: Surface infrastructure concept plan (Figure 1.4 from Hume Coal Project Historic Heritage Assessment and Statement of Heritage Impact). NB: The rail line extension and related infrastructure is not included on this plan.



Regional historical heritage context  
Berrima Rail Project  
Environmental impact statement

Figure 3: The area for the Rail Project. Figure 11.2 Berrima Rail Project EIS.

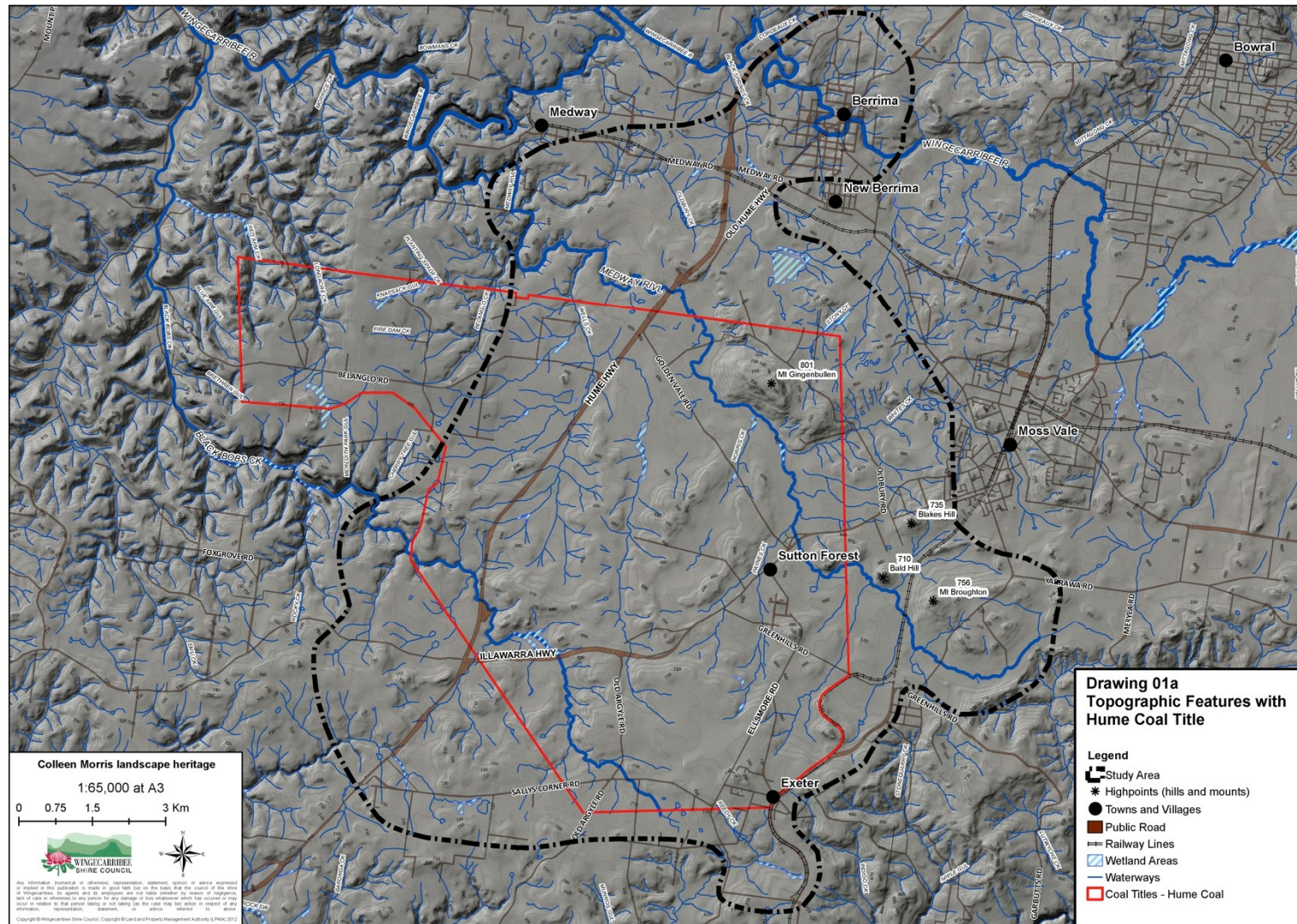
### **3.0 The Berrima, Sutton Forest and Exeter Cultural Landscape Assessment Study Area**

The following map, Drawing 01a, indicates the boundary of the study area in relation with the Hume Coal Title A349. The study area, which includes a substantial part of A349, includes 21 items that are listed as of State significance on the State Heritage Register of NSW. In 1998 the National Trust of Australia (NSW) approved the listing for the Exeter/Sutton Forest Landscape Conservation Area, the boundaries of which were reviewed in February 2017. The National Trust area contains 43 National Trust listed sites. Drawings 08 and 09 from the Berrima, Sutton Forest and Exeter Cultural Landscape Assessment show heritage-listed properties and conservation areas.

It should be noted that there are substantial omissions from Table 2.2 'Listed heritage items in the vicinity of the project area' in the Hume Coal Project Historic Heritage Assessment and Statement of Heritage Impact. A list of statutory heritage items in the Berrima, Sutton Forest and Exeter Cultural Landscape area follows the maps. heritage items in the Berrima, Sutton Forest and Exeter Cultural Landscape area

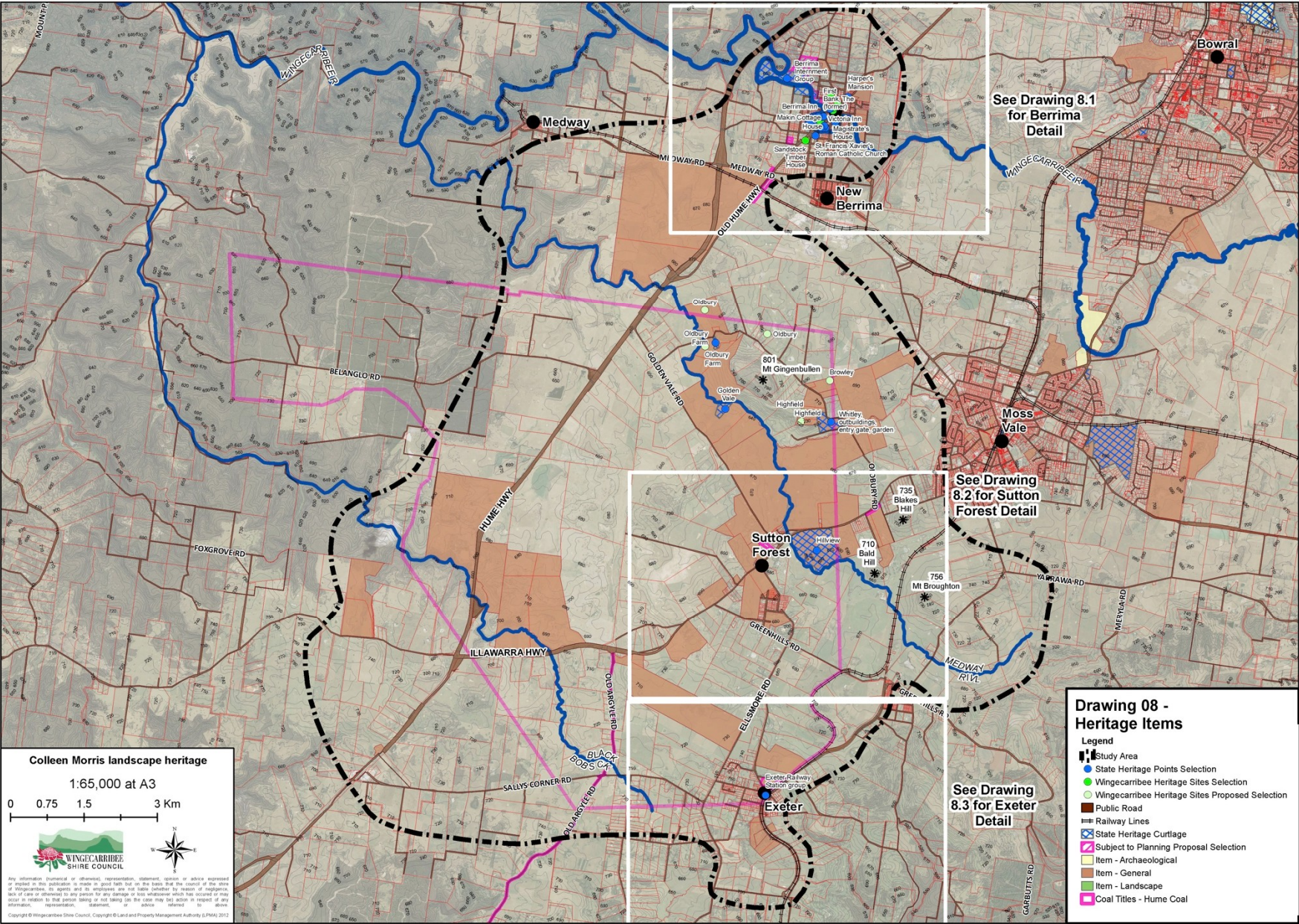
With respect to the Aboriginal history of the area (Hume Coal Appendix S Table 2.3 Point 3), during research for the Berrima, Sutton Forest and Exeter Cultural Landscape Assessment it was found that there is serious doubt as to the claim of a massacre site on Mt Gingenbullen. The claim is based on a publication in which the author selectively uses source material in a debatable manner. Unfortunately this claim detracts from the real value of the history of the site, which was a genuine Aboriginal burial mound, at Mt Gingenbullen.





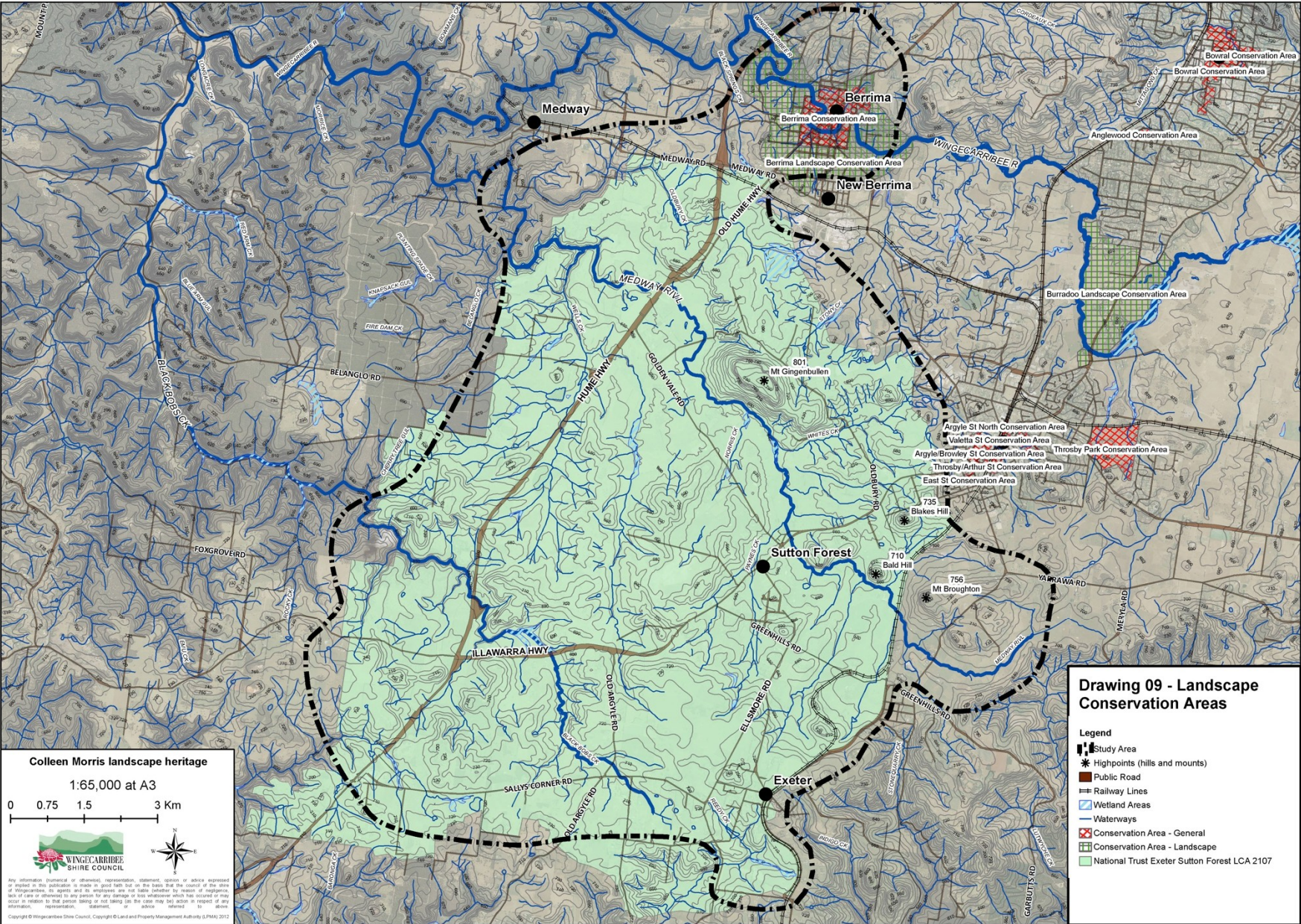


Statement of Heritage Impact of Hume Coal Southern Highlands Proposal on the Berrima, Sutton Forest and Exeter Cultural Landscape





Statement of Heritage Impact of Hume Coal Southern Highlands Proposal on the Berrima, Sutton Forest and Exeter Cultural Landscape





<b>Wingecarribee Local Environmental Plan 2010</b>	Current version for 5 August 2016 to date (accessed 6 December 2016 at 03:47)								
<b>Schedule 5 Environmental heritage</b> (Clause 5.10)									
KEY to TERMS and ACRONYMS In table.	SHI = State heritage Inventory	SoS = Statement of significance	AoS = Assessment of Significance	State = listed on state heritage register.					
<b>Suburb</b>	<b>Item name</b>	<b>Address</b>	<b>Property description</b>	<b>Significance</b>	<b>Item No</b>	<b>SHI Item type</b>	<b>SHI group or collection</b>	<b>SHI category</b>	<b>Comments (relevant to landscape heritage study)</b>
Berrima	Berrima Internment Group	Argyle Street	Part Lots 7026-7028, DP 1026280; Lot 7316, DP 1178372; Part Lot 450, DP 751252; Lot 2, DP 833835	State					Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
Berrima	Superintendent's House	Argyle Street	Lot 7304, DP 1146099	Local	I107				
Berrima	Berrima Correctional Centre (formerly	Corner Argyle and Wilshire Streets	Lot 7304, DP 1146099	State	I109				
					I110				

	Gaol)				I484				
Berrima	Stone Cottage	Corner Argyle and Wilshire Streets	Lot 7304, DP 1146099	Local	I236				
Berrima	Church of the Holy Trinity	5–13 Argyle Street	Lot 10, Sec 3, DP 758098; Lots 101–104, DP 1004483; Part Lot 2, Sec 3, DP 758098	State	I147				
Berrima	Sovereign Cottage	8 Argyle Street	Lot B, DP 181309	Local	I214				
Berrima	Cottage	10 Argyle Street	Lot A, DP 181309	Local	I143				
Berrima	Finlayson Memorial Presbyterian Church	12 Argyle Street (corner Oxley Street and Argyle Street)	Lot 2, Sec 35, DP 758098	Local	I146				
Berrima	Ardleigh Cottage	14 Argyle Street (corner Argyle and Oxley Streets)	Lot 16, Sec 37, DP 758098	Local	I211				
Berrima	Berrima Cemetery	Berrima Road	Lot 312, DP 751252; Lot 311, DP 999883	Local	I122				
Berrima	The First Bank	12 Jellore Street	Lot 1, DP 871727	State	I129				
Berrima	Munday Cottage (former Jellore	16 Jellore Street	Lot 6, Sec 2, DP 758098	State	I237				



	Cottage)								
Berrima	Berrima House	19 Jellore Street	Lot 3, Sec 5, DP 758098	State	I131				
Berrima	Former Victoria Inn	20–22 Jellore Street	Lot 104, DP 717120; Lot 3, Sec 2, DP 758098	State	I128				
Berrima	Riverview Cottage	23 Jellore Street	Lot 6, Sec 5, DP 758098	State	I130				
Berrima	Former Coach and Horses Inn	24 Jellore Street	Lot 1, DP 780565	State	I133				
Berrima	McMahons Inn (former Berrima Inn)	26 Jellore Street	Lot 1, DP 643496	State	I132				
Berrima	Nurse's Cottage	Market Place	Lot B, DP 378459	State	I228				
Berrima	White Horse Inn	3 Market Place	Lot A, DP 378459	State	I123				
Berrima	Magistrate's House	5–7 Market Place	Lot 51, DP 1021473	State	I125				
Berrima	Lennox Bridge stonework	Market Place Reserve	518–30	Local	I474				
Berrima	The Gunyah	Odessa Street	Lot 201, DP 751252	Local	I251				
Berrima	Slab cottage	7–9 Oldbury Street	Lot 1, DP 806686	Local	I230				
Berrima	“The Old Rose Cottage”	3444 Old Hume Highway	Lots 53-54, DP 751252	Local	I1382				Wingecarribee Council's 2015 list in 'Planning

									Proposal to add heritage ITEMS'
Berrima	Remembrance Driveway Trees	Old Hume Highway	Lot 1, DP 225190; Lot 1, DP 399452; Lot 1, DP	Local	I485				Taken from Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
Berrima	Former Crown Inn	Old Hume Highway	402230	Local	I141				
Berrima	Former Levy's Store	Old Hume Highway	Lot 3, DP 1102396; Lot 7017, DP 93056	Local	I137				
Berrima	Former Taylor's Butcher Shop	Old Hume Highway (adjoins Pound Green)	Lot 3, DP 1102396; Lot 7017, DP 93056	Local	I216				
Berrima	Glebe Cottage	Old Hume Highway	Lot 1, DP 875157	Local	I177				
Berrima	"Mereworth" house and garden	Old Hume Highway	Lot 100, DP 839316; Lot 200, DP 839314	Local	I351				
Berrima	Market Place	Old Hume Highway Public Reserve	518-30	Local	I233	Landscape	Parks, Gardens and Trees	Urban Park	a social and recreational facility for visitors and for the local community from the earliest period of settlement

									through to the present. It is significant as surviving evidence of the earliest layout of Berrima. It is also important as a townscape element and the trees and open spaces contribute to the setting of the town as a whole
Berrima	St Francis Xavier Roman Catholic Church	Corner Old Hume Highway and Oldbury Street	Lots 1 and 2, Sec 44, DP 758098	State	I120				
Berrima	Sandstone and timber cottage	Corner Old Hume Highway and Raglan Street)	Lot 7, Sec 40, DP 758098	Local	I239				
Berrima	Bramber Cottage (former Post Office)	7 Old Hume Highway (corner Oxley Street)	Lot 20, DP 552150	Local	I218				
Berrima	Harper's Cottage	8 Old Hume Highway	Lot 1, DP 791464	Local	I134				
Berrima	Woodley Cottage (or Telegraph Office)	12–16 Old Hume Highway	Lot 1, DP 724201; Lot 1, DP 538751	Local	I208				
Berrima	Former Cobb	13 Old Hume	Lot 100, DP	Local	I210				

	and Co timber buildings	Highway (rear of General Store)	805720		I344				
Berrima	Former Bakery	17–19 Old Hume Highway (corner Wingecarribee Street)	Lot 1, DP 568701	Local	I142				
Berrima	Old Breens Inn (former Colonial Inn)	24 Old Hume Highway	Lot 4, Sec 15, DP 758098; Lot 1, DP 741287	Local	I140				
Berrima	Surveyor General Inn	26 Old Hume Highway	Lot 14, Sec 2, DP 758098	Local	I139				
Berrima	Berrima Post Office	30 Old Hume Highway	SP 75992	State	I138				
Berrima	Brick house	35 Old Hume Highway	Lots 3 and 4, Sec 33, DP 758098	Local	I232				
Berrima	Sandstock and timber house	35 Old Hume Highway	Lot 43, Sec 33, DP 758098	Local	I231				
Berrima	Berrima Glen Cottage (former Simon's Cottage)	Old Mandemar Road	Lot 346, DP 751252	Local	I127				
Berrima	Greenwood House (former Taylor's Farmhouse)	Old Mandemar Road	Lot 7, DP 788363	Local	I126				
Berrima	Bellevue House	Oxley Street	Lots 13 and 14,	Local	I118				

			Sec 37, DP 758098						
Berrima	Berrima Public School and residence	Oxley Street	Lots 1–3, Sec 31, DP 758098; Lot 1, DP 782713	Local	I114				
Berrima	Parsley Cottage	14 Oxley Street	Lot 150, DP 1022425	Local	I117				
Berrima	Armfield Cottage	22 Oxley Street	Lot 12, Sec 37, DP 758098	Local	I115				
Berrima	“Oaklea” cottage	24 Oxley Street	Lot 11, Sec 37, DP 758098	Local	I250				Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
Berrima	Cottage	31 Oxley Street	Lot 5, Sec 35, DP 758098	Local	I116				
Berrima	The Old Rectory	Corner Quarry and Wingecarribee Streets	Lots 8–12, DP 80581	Local	I105				
Berrima	Makin Cottages	Stockade Street	Lot 4, DP 711365	State	I227				
Berrima	Hillside Cottage	Corner Wilkinson and Oxley Streets	Lots 6, 7 and 11, Sec 36, DP 758098	Local	I209				
Berrima	Harper’s Mansion	9 Wilkinson Street	Lot 5, DP 258420	State	I113				
Berrima	Police Sergeant’s	Wilshire Street	Lot 5, DP 823508	Local	I112				

	Residence								
Berrima	Bull's Head Drinking Fountain	Wilshire Street, on outside wall of Gaol	Lot 7304, DP 1146099	Local	I111				
Berrima	Berrima Court House	Corner Wilshire and Argyle Streets	Lot 18, Sec 35, DP 758098	Local	I108				
Berrima	Former Rectory	5 Wingecarribee Street	Lot 2, DP 600090	Local	I104				
Berrima	Former Warden's Cottage	10 Wingecarribee Street	Lot 1, DP 196369	Local	I220				
Berrima	Pickering Cottage	12 Wingecarribee Street	Lot 34, DP 1063847	Local	I219				
Berrima	Love In The Mist Cottage	15 Wingecarribee Street	Lot 161, DP 525573	Local	I222				
Berrima	German Dam	Wingecarribee River at end of Oxley Street		Local	I179				
Berrima	Lambie's Well	Adjacent to Wingecarribee River at end of Wilshire Street		Local	I234				
Exeter	"Cherrydell" house and garden (formerly	Bundanoon Road	Lot 2, DP 522290	Local	I372				
					I591				

	part of “Invergowrie”)								
Exeter	“Invergowrie” house and garden	Bundanoon Road	Lot 1, DP 522290; Lot 2, Sec 7, DP 58913	Local	I372				
					I591				
Exeter	“Redcourt” house	Bundanoon Road	Lots 6 and 7, DP 3371	Local	I594				
Exeter	Exeter School of Arts Hall	Exeter Road	Pt Lot 4, Sec C, DP 3170	Local	I593				
					I1341				
Exeter	St Aiden’s Church and Memorial Hall	Exeter Road	Lots 9 and 10, Sec 5, DP 3373; Lot 1, DP 952304	Local	I375				
					I376				
Exeter	Badgery Memorial, Exeter Park	16 Exeter Road	Lot 2, DP 1171097	Local	I1229				PROPOSED Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
Exeter	Exeter Public School - 1907 classroom, former residence and trees.	School Lane	Lots 1-2, DP 795381	Local	I1346				Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
Exeter	Exeter Park	16 Exeter Road	Lots 1-2, DP 1171097	Local	I1233				Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'

Exeter	War Memorial Gates, Exeter Park	16 Exeter Road		Local	I1238				Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
Exeter	“Vine Lodge” house, grounds and outbuildings	Exeter Road	Lot 1, DP 596495	Local	I354				
					I204				
					I355				
Exeter	Exeter Railway Station, signal box and cottage	Main Southern Line	Lots 1 and 2, DP 852888	State	I607				
					I610				
Exeter	Romsey Cottage and garden	Ringwood Road	Lot 131, DP 790655	Local	I592				
Moss Vale	“Cardrona” (former Eagleroo) grounds	Corner Argyle Street and Kater Road	Lots 1 and 2, DP 1081472	Local	I352				“
Moss Vale	“Peppers” (former Mt Broughton) house, grounds and outbuildings	Kater Road	Lot 1, DP 236285	Local	I488 I486 I487 I489				
Moss Vale	“Bonheur” house, grounds and outbuildings	Oldbury Road	Lot 5, DP 979138	Local	I049				
Moss Vale	“Browley” house, grounds and outbuildings	Oldbury Road	Lot 4, DP 215782; Lot 10, DP 10658; Lots 1 and 2,	Local	I056				



			DP 1123580; Lot 1, DP 74651; Lot 1, DP 1095023						
Moss Vale	“Highfield” house, grounds and outbuildings	Oldbury Road	Lot 1, DP 58837; Lot 1, DP 59375; Lot 1, DP 59165;	Local	I246 I247 I054				
Moss Vale	“Oldbury” house, grounds and outbuildings	Oldbury Road	Lot 1, DP 98673; Lot 3, DP 1046976; Lot 1, DP 559345; Lot 30, DP 654489; Lots 191 and 192, DP 1010278	State	I353 I057 I164				
Moss Vale	“Whitley” house, grounds and outbuildings	Oldbury Road	Lot 2, DP 123550	State	I361				landmark due to its position on Judge’s Hill contiguous with Mt Gingenbullen, outstanding garden setting with a commanding view of the surrounding countryside.
Sutton Forest	“Eccleston Park” house and outbuildings	Canyonleigh Road	Lots 7 and 9, DP 805624	Local	I017				
Sutton Forest	Charlie Grey’s Cottage	Conflict Street	Lots 9 and 10, Sec 3, DP 758938	Local	I014				

Sutton Forest	“Boscobel” house, grounds and outbuildings	Exeter Road	Lots 1 and 2, Sec 9, DP 758938; Lots 1–19, Sec 8, DP 758938; Lot 1, DP 1094302; Lot 1, DP 63523	Local	I013				
Sutton Forest	Everything Store, former Butcher Shop (A Little Piece of Scotland) and General Store	Corner Exeter Road and Illawarra Highway	Lot 1, DP 722533; Lot 1, DP 984053	Local	I490				
Sutton Forest	“Bunya Hill” house, grounds and outbuildings	Golden Vale Road	Lot 1, DP 995642; Lot 1, DP 130301	Local	I018				
Sutton Forest	“Golden Vale” house, grounds and outbuildings	Golden Vale Road	Lot 1, DP 1118652	State	I003	Landscape	Farming and Grazing	Home stead Complex	Granted 1842, 16.190 ha (40000 acres), approx 200 acres remain, landmark in Mt Gingenbullen landscape setting, associated with early settlement, it was sited between Oldbury and Newbury farms
					I005				
					I001				
					I002				
Sutton Forest	“Montrose” house and grounds	Greenhills Road	Lot 2, DP 620221	Local	I006				

Sutton Forest	Black Bob's Bridge	Black Bob's Creek, Hume Highway	Lot 5, DP 614690	Local	I019				
Sutton Forest	"Black Horse" farm house, grounds and outbuildings (former Black Horse Inn)	Hume Highway	Lot 105, DP 1087612	Local	I020				
Sutton Forest	"Comfort Hill" house, grounds and outbuildings	Hume Highway	Lot 1, DP 744544	Local	I357				
					I356				
					I021				
Sutton Forest	"Eling Forest Winery" house, grounds and outbuildings	Hume Highway	Lot 2, DP 806934	Local	I004				
					I009				
					I010				
Sutton Forest	Remembrance Drive Plantings	Illawarra Highway	Lots A and B, DP 415370	Local	I1691				Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
Sutton Forest	Sutton Forest Public School - 1879 classroom and toilets, and 1912 classroom.	7366 Illawarra Highway	Lot 1, DP 794882	Local	I030				Taken from Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'

Sutton Forest	All Saints Anglican Church, hall and cemetery	Illawarra Highway	Lots 1 and 2, DP 999587	Local	I026				
					I022				
					I025				
					I350				
Sutton Forest	“Clover Hill” house, grounds and outbuildings	Illawarra Highway	Lot 1, DP 56241	Local	I203				
Sutton Forest	Cottage	Illawarra Highway	Lots 8 and 9, DP 32	Local	I028				
Sutton Forest	“Hillview” house, grounds and outbuildings	Illawarra Highway	Lot 12, DP 260417	State	I008				Vice Regal country residence for Governors of NSW between 1882 and 1957. Sixteen Governors used it over a period of 75 years, Grounds: Charles Moore, The residence at the highest point of the 60.4 hectare rural property.
					I007				
					I358				
					I359				
Sutton Forest	“Rosedale” house and grounds	Illawarra Highway	Lot 2, DP 250747; Lot 6, DP 250743; Lots 7 and 8, DP 11147	Local	I031				
Sutton Forest	“Rotherwood”	Illawarra	Lot 1, DP	Local	I033				

	house, grounds and outbuildings	Highway	1068950		I032				
Sutton Forest	“Spring Grove Farm” house, grounds and outbuildings	Illawarra Highway	Lot 2, DP 250746; Lot 2, DP 1127380	Local	I492				
Sutton Forest	St Patrick’s Roman Catholic Church and cemetery	Illawarra Highway	Lot 1, DP 513739	Local	I034				
					I349				
					I023				
Sutton Forest	“Sutton Farm” house, grounds and outbuildings (former Red Cow Inn)	Illawarra Highway	Lot 1, DP 783660	Local	I035				
Sutton Forest	Sutton Forest Inn (former Royal Hotel)	Illawarra Highway	Lot 1, DP 64663	Local	I1187				
Sutton Forest	“The Harp” (former “Bindagundra” house, grounds and outbuildings)	Illawarra Highway	Lot 1, DP 1028147	Local	I027				
Sutton Forest	“The Pines” slab cottage	Illawarra Highway	Lot 1, DP 160149	Local	I029				
Sutton Forest	Former Post Office	Corner Illawarra Highway and Exeter Road	Lot 1, DP 334187; Lot 83, DP 665633	Local	I016				
Sutton Forest	“Summerlees”	219 Illawarra	Lot 1, DP	Local	I362				

	house and grounds	Highway	58843		I037				
Sutton Forest	“Newbury Farm” house, grounds and outbuildings	7300 Illawarra Highway	Lot 1, DP 301672; Lot 1, DP 176414; Lot 32, DP 665400	Local	I202				Three large grants of land were made in the area surveyed by James Meehan as part of the initial settlement of Sutton Forest. One was made to John Nicholson (700 acres to be called Newbury),
					I036				
Sutton Forest	Old Argle Road	Old Argyle Road (from Illawarra Highway, Sutton Forest, to Paddys River Penrose)		Local	1030				Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'
<b>Part 2 Heritage conservation areas</b>									

Suburb	Item name								
Berrima	Berrima Conservation Area	C148							
Berrima	Berrima Landscape Conservation Area	C1843							
<b>Part 3 Archaeological sites</b>									
Suburb	Item name	Address	Property description	Significance	Item No				
Berrima	Berrima Internment Group	Argyle Street	Part Lots 7026-7028, DP 1026280; Lot 7316, DP 1178372; Part Lot 450, DP 751252; Lot 2, DP 833835	State	A1882				Wingecarribee Council's 2015 list in 'Planning Proposal to add heritage ITEMS'

### 3.1 Summary Statement of Significance for the Berrima, Sutton Forest and Exeter Cultural Landscape

*The cultural landscape of Berrima, Sutton Forest and Exeter is of historic significance at a State level as a place of early exploration beyond the limits of the Cumberland Plain in 1798, and of early settlement and pastoralism from 1819 onwards, the evidence of which is legible today.*

*There is a direct relationship between early settlement and the area's natural significance demonstrated by the close connection of the settlement pattern with the terrain of the Wingecarribee River, particularly with the siting of Berrima as the intended country town, and the containment of many early large land holdings within the valleys of its tributary the Medway Rivulet, the focus of which is Mt Gingenbullen with its landmark character. The rural landscapes in the vicinity of Mt Gingenbullen are significant as cultural landscapes, which reflect historic associations and aesthetic qualities that reach back to the first Aboriginal people who lived in the area– the process of European settlement and dispossession documented through Louisa Atkinson's accounts of Aboriginal life on their occupied land.*

*The rich and varied cultural landscape, shaped by associations with early land grants and settlement of the region and its remnant stands of endangered woodlands, is of aesthetic significance at a State level. The evidence of these associations through early grant boundaries and roads, town layouts, remnant woodland, cleared grazing lands and the placement of homesteads, makes a substantial contribution to the overarching spatial arrangements and visual qualities of the cultural landscape. The attachment to the area by the early explorers and settlers, and the valuing of it, particularly for farming and grazing, is still associated with the area. Whilst the scene has changed in detail, the 1798 description of the 'finest prospect' from the top of Mt Gingenbullen can still be appreciated. The early impressions of a rich and beautiful pastoral landscape remain, with mature avenue plantings and gardens signaling the location of country homesteads and their outbuildings.*



*Important early convict built roads and the underlying early European responses to the landscape are remarkably intact with new patterns from the twentieth century subtly accommodated within the pre-existing landscape. The area is significant for its association with convictism, a convict workforce playing a crucial part in quarrying, the construction of early buildings and roads and as part of the workforce on early estates. These include the Old Argyle Road and the new line of the South Road from the 1830s (Old Hume Highway) surveyed by Major Mitchell, and the remains of its David Lennox bridge.*

*Berrima is of exceptional significance as one of the few substantially intact villages, dating from the Georgian period, that demonstrate the characteristics of 19<sup>th</sup> century town development from the period of convict settlement to the end of the Victorian era. Fine buildings of convict-quarried sandstone, especially the courthouse and gaol, churches and residences contribute to its aesthetic importance. Berrima's original town layout and town limits are remarkably intact and legible, the value of which is reinforced by the high landscape quality, in terms of both mature exotic gardens and streetscape features and its remarkable sense of enclosure with indigenous vegetation in undeveloped surrounds, these components, along with the stock of early buildings combine to provide a sense of timelessness that is Berrima's character and appeal.*

*The area has strong links with prominent colonial settlers, individuals and families and, from the latter years of the 19<sup>th</sup> century, a special association with important wealthy Sydney families. For many of these owners farming and grazing were core occupations and equestrian activities, gardening and the landscape have been deep interests. The use of Hillview, Sutton Forest as the governors' summer residence 1882-1957 and the influence of that use still permeate and render the area unique. The physical evidence in the concentration of so many 19<sup>th</sup> century buildings ranging from Oldbury, Kenmore Cottage and Newbury, the Berrima Gaol and Courthouse, the Surveyor General Inn, Harper's Mansion, St Francis Xavier's Church and the humble cottages of Berrima, modest farmhouses such as Bonheur on Oldbury Road through to grander houses and gardens including Golden Vale,*

*Comfort Hill, Summerlees, Whitley and Rotherwood at Sutton Forest imbues the area with a high degree of historical importance. Important 20<sup>th</sup> century houses such as Invergowrie, Rosedale and Mereworth and gardens designed by Paul Sorensen and Claude Crowe added a layer to the already rich cultural landscape. A number of archaeological sites have the potential to contribute to our understanding of the history of the area.*

*There is a strong feeling of continuity, a sense of stewardship of the landscape and also participation in history among the local community and organisations including the Berrima and District Historical Society, the Australian Garden History Society and the National Trust of Australia (NSW). The three historic villages of Berrima, Exeter and Sutton Forest, their churches and cemeteries, the fine gardens and the surrounding rural landscapes - all these combine to create a cultural landscape which is rare in the State of New South Wales and which is highly valued for its historic significance and scenic qualities by visitors from all over Australia.*

#### **4.0 Key Heritage Questions**

- 4.1 The key heritage question is to what extent will the proposal impact on the Cultural Significance of the Berrima, Sutton Forest and Exeter Landscape?
- 4.2 How will it impact the cultural values that enhance the community's way of life and impact on the aesthetic significance of an area that draws thousands of visitors?

#### **5.0 Impact on Landscape Character**

- 5.1 Water underpins the vitality of this landscape, which in turn, contributes to its landscape character. One of the most concerning aspects of the proposal is the extent of the ground water drawdown, the uncertainty about the impact on the aquifer, and ultimately the impact on the character of the cultural landscape. The Report by the Independent Expert Scientific Committee on Coal Seam Gas and large Coal Mining Development IESC 2017-083 Hume Coal Project (EPBS 2015/7526, 8 May 2017) advises that the Hume Coal Modelling presented in the EIS is inadequate to predict impacts on ground and surface water.
- 5.2 The water drawdown will primarily impact the White's Creek Water catchment and the Wingecarribee catchment but may also impinge on the Paddy's River and Shoalhaven River catchments. The potential for a radical change in water flow through the landscape is unknown and an event such as one of the creeks or rivers drying up would have a substantial negative impact on the landscape both in practical and aesthetic terms. Advice from the IESC is that Hume Coal's assertions that the impacts are only minimal cannot be accepted with confidence.
- 5.3 Modelling by Pells Consulting indicates that there could be significant lowering of groundwater levels over a broad area, possibly in excess of 100m. While a decrease in groundwater does not have an immediate heritage impact, it could over time change the viability of the land for agricultural and pastoral use and this, in turn, will have an effect on the character of the cultural landscape. In drought years when mature trees depend on groundwater, there is no certainty that resource will be sufficient to sustain the long-term health of the landscape.

The advice to decision maker on coal mining project IESC 2017-083 Hume Coal Project (EPBS 2105/7526)- New Development (IESC - Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development) notes the key potential impacts on water resources:

- *Drawdown in landholders' bores, largely within the Hawkesbury Sandstone.*

- *Drawdown of the water table resulting in loss of baseflow and subsequent changes to the flow regime and water quality in waterways.*
- *Drawdown of the water table impacting groundwater dependent ecosystems (GDEs), including riverine GDEs, terrestrial vegetation and subsurface ecosystems.*
- *Water quality impacts to Oldbury Creek, Medway Rivulet and the Wingecarribee River, and riparian vegetation in these waterways as a result of discharge from site stormwater basins (SBs).*
- *Water quality impacts to aquifers and groundwater fed surface waters as a result of storing rejects in underground voids.*

What is apparent from the IESC advice is that the risks that the project will have significant impacts on water related resources is real because the modelling presented in the EIS is inadequate. The risks associated with the pollution of ground water from putting coal washing rejects back into mine voids must be adequately assessed for its impact on the whole cultural landscape.

- 5.4 The construction of above ground infrastructure will directly impact the northern and north-western part of the Berrima, Sutton Forest and Exeter cultural landscape. The visual and spatial quality of the landscape will be significantly altered. A substantial area will be transformed from a pastoral landscape into an industrial landscape with buildings, stockpiling of coal, coal-loading, and a railway extension. Here the cultural landscape will be irrevocably changed. Although there was a railway extension through this area previously, the new railway loop will be much larger and a more dominant feature in the relatively open landscape in comparison to the single line that terminated at Medway. What is proposed is for a railway line to pass over the old Hume Highway and for railway sheds and associated workings to be introduced in the land between the old Hume Highway and the freeway.
- 5.5 Under the Wingecarribee LEP 2010 zoning much of the Berrima, Sutton Forest and Exeter Landscape is what Wingecarribee Shire Council has defined as E3 zoned land. The underlying management principles for the E3 zoning is to preserve the rural landscape character of the area and the significant cultural values embodied in the landscape:

*The primary purpose of the E3 zoned land is to protect, manage and restore areas of the Shire with special ecological, scientific, cultural or aesthetic values. Development is permitted, provided it does not have an adverse effect on those values.<sup>1</sup>*

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<sup>1</sup> Wingecarribee LEP 2010 see also Wingecarribee Shire Council 'Rural Lands DCP' p.14. <http://www.wsc.nsw.gov.au/uploads/2674/rural-lands-development-control-plan.pdf>

The Hume Coal Project contravenes the objectives of the Wingecarribee LEP 2010:

- To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.
- To provide for a limited range of development that does not have an adverse impact on those values.
- To encourage the retention of the remaining evidence of significant historic and social values expressed in existing landscape and landuse patterns.
- To minimise the proliferation of buildings and other structures in those sensitive landscapes areas.
- To provide for a restricted range of development and land use activities that provide for rural settlement, sustainable agriculture, other types of economic and employment activity, recreation and community amenity in identified drinking water catchment areas.
- To protect significant agricultural resources (soil, water and vegetation) in recognition of their value to Wingecarribee's longer term economic sustainability.

#### **6.0 Views and Vistas:**

**Including how does the work impact on views to, and from, adjacent heritage items?**

- 6.1 Although the proposal outlines the attempts to site above ground infrastructure with the objective of minimising impact, the structures will be large and will impact views both public and private. It is misleading to assume that because travellers on the Motorway are moving at speeds of up to 110km/hour the impact on views will be low as even glimpsed views that have negative connotations impact on the perceived aesthetic qualities of a landscape.
- 6.2 Views from Medway Road, Old Hume Highway, the Hume Highway (motorway), Mereworth Road, Oldbury Road near Oldbury Estate and properties off Golden Vale Road eg: Roscoe Park will be impacted. As one approaches the Hume Motorway from Golden Vale Road the current view is to the rural landscape of Evandale and this will be greatly altered.
- 6.3 Although new trees have been planted along the boundaries of Hume Coal owned properties, there are three points to consider when assessing the impact of plantings:
- a) The plantings recently undertaken will actually block current public views across the rural landscape. Wingecarribee Shire Council commissioned the dem consultants 'Wingecarribee Views and Vistas Study' (2009). The 2009 study only dealt with recognised tourist roads,

thus omitting some roads that will be impacted by this proposal. New boundary planting is being undertaken along the Old Hume Highway in an area that the study noted as having scenic views. The Rural Lands DCP states:

- *that identified significant views and vistas are maintained throughout the rural areas of the Shire.*

Thus the work to mitigate the impact on views is not in accord with the Rural Lands DCP. The new barrier plantings to screen rail track, train movements and surface infrastructure will destroy the rural views across the Mereworth property from the Old Hume Highway and from Medway Road.

b) Unlike the infrastructure at Tahmoor Colliery, for example, which is located on fairly flat land with no overlooking highpoints, this proposal is located in undulating land overlooked by a number of viewing points across the landscape from hills and highpoints and the Hume Motorway. Views across what is now a rural landscape will be negatively impacted.

c) Plantings around infrastructure may take a considerable number of years to mature sufficiently to ameliorate the negative impact of the proposed structures on views. It should be noted that the impact of Berrima Cement Works was ameliorated through landscaping and tree planting although it can still be seen. However, even during the 1960s when the Cement Works was 25-30 years old, it was still visually very prominent. The Hume Coal proposal is planned to run for 22 years. It is possible that tree planting will only become truly effective towards the end of the project.

- 6.4 The EMM HIS argues that the visual impact on public views across the Mereworth landscape will be low to moderate. This assessment is disingenuous when the proposed layout of both the surface infrastructure of the mine and the railway project is considered. Within the Hume Coal EIS a limited set of viewpoints were included and views from Oldbury Road were not considered. Views from private properties toward the surface infrastructure of the mine were not considered.

The EMM HIS discusses the impact on views from Mereworth house and garden. These will, of course, be adversely impacted.



Figure 6.1 A view from the public road, Oldbury Road, toward the Hume Coal area. Views from this area near the heritage-listed property Oldbury are important as they display the relative intactness of the significant cultural landscape. (See also Figure 3.7 'Cultural Landscape Assessment Berrima, Sutton Forest, Exeter' May 2007) Views over Evandale where surface infrastructure will also be sited are also seen from Oldbury Road and from the junction of Golden Vale Road and the Hume Highway.

- 6.5 The mine infrastructure and the related rail line will need to be lit at night and will impact night views, which will be a negative impact on the rural cultural landscape. Noise attenuation walls will also have a significant impact along Medway Road where residents now enjoy sweeping views across the landscape. The argument that that through tree planting and the introduction of a 4 metre high unbroken noise wall in a sympathetic finish for 950m along the length of Medway Road will render the impact on unencumbered rural views across the landscape to one of moderate impact, rather than high impact, could be considered insensitive to the local residents.<sup>2</sup>
- 6.6 A maintenance shed 6-8m high and of unstated length is proposed between the Old Hume Highway and the Hume Highway- this will have a visual impact. That the Berrima Rail Project Visual Impact Assessment Report concluded that 'the project will not have significant adverse visual

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<sup>2</sup> Viewpoints 1 and 2 in Berrima Rail Project Visual Impact Assessment Report, Appendix M, p.22



impacts on the locality' is misleading. Views of the Rail Project and its infrastructure will be visible from the Old Hume Highway, from the Hume Motorway and views from Medway Road will be dramatically altered. The mitigation measures will destroy the rural views across the landscape toward Mereworth from the Old Hume Highway and from Medway Road.



Figure 6.2: Looking across toward Mereworth from the Old Hume Highway.

- 6.7 The Hume Coal EIS promotes the argument that as the Cement Works is already a prominent structure in the landscape and has a visual impact, it is acceptable to add more large and visually intrusive structures. Because there is one intrusive element in an otherwise scenic rural landscape does not justify adding worse to bad. It also cites examples of other large structures in the designated Moss Vale industrial zone– this is a totally unacceptable approach to managing intrusion in a landscape recognised for its heritage values.

## **7.0 Impact on the Streetscape**

- 7.1 The introduction of approximately 300 full-time equivalent workers and associated vehicles will potentially have an impact on traffic through Berrima. Heavy vehicles could have an impact and if the project is approved, it should be conditioned that heavy vehicle traffic is confined to the Hume Motorway.



- 7.2 There is a potential for a perceived need to upgrade secondary roads. This will impact the rural character of the cultural landscape. Of particular concern is the potential impact on Golden Vale Road, which may become a cross-country thoroughfare for workers to access the administration area. Other roads that may be impacted by similar traffic are Old Argyle Road and Exeter Road.
- 7.3 The proposal will impact Medway and Mereworth Roads and change the character of the streetscape as travellers leave the Hume Freeway to access Berrima.
- 7.4 The Remembrance Driveway plantations have been listed as an item of local significance. The Railway Project will have a significant impact on the way these plantings are seen and appreciated.

## **8.0 Impact on Heritage Items**

- 8.1 Much of the above ground infrastructure, and coal-loading operations will take place on Mereworth, a heritage listed property known for its prominent homestead estate garden, set in a productive rural landscape setting within an early land 'promise' later converted to a grant, which is of historic significance. At the time of the sale of the property the garden was considered to be one of designer Paul Sorensen's most accomplished works of landscape design.

The significance of heritage items goes beyond their built form. The context of a heritage item is an important aspect of its significance. Likewise external and internal views to and from an item contribute to its significance. While it is proposed the house and garden will be retained and conserved, the mine proposal will have a substantial and, in my opinion, an irrevocable negative impact on the setting of Mereworth house and garden.

The EMM HIS (p. E.2) dismisses the Mereworth grant as a whole and states that 'the significant elements on the property are the house and surrounding garden.' This is despite the extensive research into possible archaeological sites of former buildings and activities on the property as a whole. This demonstrates a contradiction within the EMM HIS of the importance of the landscape context as a whole ie: the entire locally listed item, thus conflicting with the argument that the final homestead and formal landscape design is the only item of significance.

- 8.2 Aesthetic value refers to the sensory and perceptual experience of a place—that is, how we respond to visual and non-visual aspects such as sounds, smells and other factors having a strong impact on human thoughts, feelings and attitudes. Aesthetic qualities may include the concept of beauty and formal aesthetic ideals. It can be expressed, in effect, as to how we *feel* about a landscape. The aesthetic qualities of this

cultural landscape will be negatively impacted by the introduction of a new rail corridor, by the noise from rail movements, surface vehicles, coal conveyors and the loading of rail cars. Dust pollution will also impact how people appreciate the landscape.

- 8.3 An aspect of the aesthetic significance of Berrima is its intactness and sense of timelessness. This will be impacted. As the consultants for the Wingecarribee Shire Heritage Study observed, mining does not lie easily with the public image of the Southern Highlands.
- 8.4 As tourists approach Berrima from the south along the freeway, the above ground coal mine operations will be visible. As they exit the freeway to the south of Berrima, the above ground operations will be seen. This is not the experience one would anticipate when visiting one of the most intact Georgian era towns in Australia. In my opinion it will have a significant negative impact on how the visitor will feel about the town and its surrounding rural landscape setting.
- 8.5 Oldbury Estate is of State significance and is listed on the State Heritage Register. The above ground infrastructure may potentially be seen from higher areas of the property and it will be visible from Oldbury Road as one descends the hill to Oldbury.
- 8.6 The attachment to the area by the early explorers and settlers, and valuing of it, particularly for grazing, is still associated with the area. Whilst the scene has changed in detail, the 1798 description of the 'finest prospect' from the top of Mt Gingenbullen can still be appreciated. The early impressions of a rich and beautiful pastoral landscape remain, with mature avenue plantings and gardens signaling the location of country homesteads and their outbuildings. This aspect of the area's significance, which is of great importance to the local community and contributes to the heritage tourism of the area, will be severely impacted.
- 8.7 A number of heritage properties will potentially be impacted by being mined beneath them. The EMM HIS tacitly accepts that the proposed low impact mining system will lead to 'negligible or imperceptible' subsidence impacts. In my opinion, a technique largely untested in local conditions cannot be considered risk free.
- 9.0 Impact on the Conservation of the Cultural Significance of Berrima village and surrounds and the Sutton Forest and Exeter Cultural Landscape**
- 9.1 The mine proposal is for a large-scale industrial enterprise with surface infrastructure on a local heritage item that sits within an important cultural landscape. This proposal threatens the experience of tourists and visitors who come to the Highlands for its heritage and visual enjoyment, upon which the local economy depends. The income generated through heritage tourism makes a large contribution to the conservation of the

historic properties of the area. Light, noise and coal dust pollution and visual impacts will all negatively impact visitor experience and residents' quality of life.

- 9.2 The tangible evidence of the early settlement pattern in the landscape will be disrupted by the proposal. One of the significant aspects of the area is its strong sense of history, its identifiable early settlement patterns and the concentration historic sites in a highly scenic rural landscape. Although providing a list of items in the vicinity, the Hume Coal HIS excludes any heritage items beyond the footprint of the mine proposal, including those in the mine exploration lease area, from its assessment. This gives an unrealistic impression of the number of heritage-listed places that will be impacted.

The EMM HIS concedes that the cultural landscapes identified as significant by both the National Trust and the 1991 Heritage Study 'still exist today.' The EMM HIS reinforces the intactness of the historic landscape in the project area apart from the introduction of the Motorway, thereby reinforcing its significance:

*The earliest available aerial photography dates from 1949 and shows the project area has undergone little development after it was initially cleared...*

*The land surrounding homesteads has largely been subject to repeated ploughing and used for agriculture for the last 150 years. Now much of the land continues to be used for grazing cattle, cultivation of animal fodder and vineyards.<sup>3</sup>*

*Archival research, a review of current aerial photography and field survey support the assertion that the landscape crossing Sutton Forest and Exeter is recognisable and largely intact. Other than the upgrade of the Hume Highway and the introduction of the Hume Motorway at the northern end, the landscapes in this area appear to have undergone little abrupt and significant change. Clearly, change has occurred but at a gradual enough rate that it has been largely unnoticeable to each generation.<sup>4</sup>*

*...Nevertheless, the present landscape is an important aspect of the identity of the Southern Highlands today.<sup>5</sup>*

Despite assessing that the cultural landscape is remarkably intact (my emphasis) and being an important part of the identity of the Southern Highlands, the EMM HIS then asserts that the impact of introducing very large scale mining infrastructure within this intact cultural landscape will

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<sup>3</sup> 'Hume Coal Project EIS Appendix T- Statement of Heritage Impact', p.78

<sup>4</sup> Ibid. p.89.

<sup>5</sup> Hume Coal Project EIS Appendix T- Statement of Heritage Impact' p.89.

be minimal. The method used to come to this conclusion is based on a percentage of landscapes in the proposed infrastructure area and is seriously flawed as it does not into consideration the impacts on the qualitative aspects of the area including the perception of the area as an important rural landscape and the impacts on the 'identity of the Southern Highlands'. It is unclear whether the Rail Project area is included in the percentage estimates, thus raising further questions about its veracity. In my opinion the Hume Coal HIS conclusion that the cultural landscape 'will be minimally impacted' is erroneous.

- 9.3 The description of the location of the mine in the EMM EIS is consistently myopic when it comes to acknowledging its close proximity to Berrima. The reader is led to believe that the industrial area confined to the edge of Moss Vale is one of the most dominating elements of the character of this landscape. Few visitors or tourists travel that route between Moss Vale and Berrima. The proposed railway extension and mine will be only a few kilometres from Berrima and cuts across land proposed to be included in an extension of the Berrima Landscape Conservation Area under the Wingecarribee Local Planning Strategy. Berrima is only 4km to the northeast from the proposed mine surface infrastructure, a fact which the EIS fails to adequately acknowledge.
- 9.4 The EMM HIS is deficient in its assessment of the impact on Berrima, which is one of the best-conserved towns from the colonial period in Australia. Berrima is a significant heritage village that attracts over 200,000 visitors a year. A Landscape Conservation Area, the expansion of which has been proposed, surrounds Berrima. This rural landscape setting is integral to its attraction as a tourist destination.
- 9.5 Berrima has a significant collection of State Heritage Register listed properties concentrated in a small area. Berrima includes 85 items listed on the State Heritage Inventory (SHI), 16 items of which are listed on the SHR. The EMM HIS is misleading in the quantity of listed heritage items and deficient in its approach to assessing to what extent the appreciation of this heritage resource will be impacted.
- 9.6 In my opinion the construction of the mine and rail extension will deter visitation to Berrima, particularly from visitors approaching from the south along the Hume Motorway. Apart from the remnants at Joadja, this is not an area known for its industrial heritage related tourism. The attraction for both residents and visitors stems from its colonial history. A new large-scale coal mine on its southern doorstep will not sit well with the cultural heritage tourism that Berrima relies upon.
- 9.7 The increased industrial activity in the area could be expected to encourage new industrial growth in an area noted for horse breeding and equestrian training, grazing and beef cattle breeding, and the food clusters that are associated with cultural tourism. This would impact on

the desirability of the area for its traditional uses and may precipitate a shift in land use in the historic cultural landscape to large-scale industrial. The impact on the large wedding industry in the area, which has a relationship with the cultural significance of the villages and landscapes, is unknown.

- 9.8 A new industrial landscape imposed on this significant cultural landscape would change the character which is highly prized by the community as reflected in the planning objectives for the area in the LEP and opposition to the mine by Wingecarribee Council, and the 'vision' of the Wingecarribee Shire as reflected in Council's long term strategic document 'Wingecarribee 2031' and Local Planning Strategy, recently endorsed by Council in 2016.

**10. Comments on the Statement of Heritage Impact prepared for Hume Coal Pty Limited' by EMM, 23 February 2017**

- 10.1 In the preparation of a Statement of Heritage Impact for a cultural landscape previously identified as significant it would be usually expected that the advice of a consultant skilled in the conservation of heritage landscapes be sought. This does not seem to have been undertaken for the Hume Coal SHI.
- 10.2 The EMM SHI redresses the history of mining in the area, an aspect of history, which the consultants saw as deficient in some histories of the area. However in doing so they have presented an equally unbalanced history to those they have criticised by overemphasising the small-scale mining at Medway, shale mining that ceased over a century ago and quarrying at Mount Gingenbullen that opened in 1927 but was short lived, the quarry and line falling into disuse until the line was finally dismantled in 1942. Only small-scale shale quarries for clay and cement manufacture are still operating– coal production at Medway ceased in 2013 for environmental reasons.
- 10.3 In page E2 Paragraph 3 the HIS states that a 'historic heritage management plan' will be prepared for Mereworth. This is unacceptable in the context of what is proposed for the Mereworth property. The EIS should explain in detail as to how the heritage issues with respect to the introduction of the above ground infrastructure will be managed and provide clear parameters for the conservation of Mereworth.

## **Conclusion**

The cumulative impacts of the mine proposal and rail project are highly adverse and the project presents unacceptable risks to the heritage values of the area.

In my opinion the proposal will impact on the cultural significance of the rare and substantially intact Berrima, Sutton Forest and Exeter cultural landscape to an unacceptable extent. It will impact on the aesthetic significance of the cultural landscape which to quote the EMM HIS 'is an important aspect of the identity of the Southern Highlands today.'

In my opinion this is not an acceptable place to build a mine and associated above ground infrastructure or the associated Rail Project.



Colleen Morris  
14 June 2017