# Submission to the Hume Coal Project Environmental Impact Statement

WINGECARRIBEE SHIRE COUNCIL

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Policy Position

1. Wingecarribee Shire Council (Council) has been concerned about the prospects of a new coal mine in the Wingecarribee Shire (the Shire) since 2010. Council has adopted a policy of opposition to any new coal mining because of the concerns it has over potential impacts on groundwater, water catchments, agricultural land and tourism. Council has adopted many resolutions since this time that reflect this long held position. Most recently in the 2016, the current Council reaffirmed this position, declaring the Shire as a Coal Mine Free Shire and placing signage with this declaration at the Shire's entry points.

Background and Local Introduction

2. There are places in the EIS where it is felt our region, our economy, our social conditions, and our future has been misrepresented. It is imperative for all assessing agencies to understand some of the important and strategic aspects of this region, to help put the impacts from this proposal in proper context.

3. The Shire is a peri-urban area located in the Southern Highlands of NSW, covering an area of 2700 square kilometres. The LGA comprises rural, semi-rural and urban areas including historic towns and villages. It also contains many natural areas including National Parks and State Forests.

4. The Shire is considered to be a biodiversity hotspot and is one of the most diverse regions in Australia. It supports over 472 species of native fauna (56 of which are endangered) and over 2057 species of native flora (128 of which are endangered). 15 endangered ecological communities occur within in the Shire.

Regional Significance

5. The Shire is located on Sydney's doorstep in the Sydney to Canberra corridor. Much of the Shire's current growth and opportunity are being driven because of these regional influences, and the Shire is not in the need of a growth stimulator such as the mine proposed by Hume Coal in this EIS. Rather the impacts from a new coal mine put some of these regional opportunities at risk.

6. The draft South East and Tablelands Regional Plan identifies certain key Goals and reflects state policy and priorities with regard to development within the Shire. It is therefore relevant to consider those Goals and Directions within the Draft Plan which are impacted, directly or indirectly, by the Hume Coal proposal. The goals include:

   - Protect and Enhance the Region's Natural Environment (Goal 2)
   - Strengthen the Economic Opportunities of the Region (Goal 3)
   - Support and Promote the Growth of the Tourism Industry (Direction 3.1)
   - Enhance the productivity of primary industries (Direction 3.2)

7. The majority of the Shire falls within the Sydney Drinking Water Catchment area, and the integrity of this catchment is critically important to the residents and economy of greater Sydney and NSW.

8. Protection of the region's water assets is fundamental for the agricultural industry, and these are the foundation of our future growth and economic opportunities.

9. The Shire is ideally located for agricultural business in terms of transport routes to markets in Sydney, Wollongong and Canberra, with fresh produce easily moved to all three locations. This in turn provides opportunities for expansion into international markets.

10. Increasingly, local markets are emerging as visitors take advantage of local produce while visiting the area.

Natural, Heritage and Cultural Landscape

11. The Southern Highlands is known for its beauty. The concentration of historic villages and surrounding highly scenic rural and natural landscapes combine to create a cultural landscape which is rare in NSW. This is highly valued by visitors from all over Australia.

12. One of the significant aspects of the area is its strong sense of history with its identifiable early settlement patterns and the concentration of historic sites and landscapes.

13. The intact historic landscape around the project area is very significant and is recognised both by the National Trust and the 1991 Wingecarribee Heritage Study. The EIS claims the project will only have a minimal impact on this landscape, however Council disagrees with this conclusion. The conclusion appears to be based on the ratio of land area affected, with little consideration of neither the qualitative aspects of the impact, nor the importance for the area's identity.

14. Berrima, located approximately 2km from the Project Area, is one of the best-conserved towns from the colonial period in Australia. It has a significant collection of State Heritage Register listed properties concentrated in a small area. The surrounding landscape and rural setting is integral to its attraction as a tourist destination. The uniqueness of this village attracts over 200,000 visitors a year. The EIS does not adequately consider the potential impacts on this locality.

Mining History put in context

15. The EIS mentions in a number of places about the mining heritage of the region which may give the wrong impression about the character and nature of the Wingecarribee Shire. Council refutes any implied justification or normalisation of any new coal mine in the Shire. Yes, there was a history of some small mines in the Shire which featured in a historically economic benefit to the Shire. Rather the Shire is now living with the environmental legacy left from these mines.

16. For example, mining occurred at Berrima Colliery for over 100 years until its operations ceased in 2013. Its production rate was only about one seventh of that proposed by the Hume Coal project. The Berrima Colliery has induced changes to the local groundwater environment. Groundwater intercepted by the mine has resulted in long term abstraction of about 3 million litres a day. The Closure Plan for Berrima Colliery proposes a Free Drainage approach resulting in a continuing groundwater inflow to the mine and discharge to the Wingecarribee River. The proposed Closure Plan says *Fully* or *Partially Sealed* options are not feasible or effective. The groundwater system cannot be effectively sealed up and groundwater would continue seeping around any bulkhead seals either through the coal seam or overlaying Hawkesbury Sandstone. As a result the Closure Plan claims the bulkhead seals would make little difference to the recovery of the groundwater head. Assuming the Closure Plan is approved, it appears this historic mining activity is going to have a continuing, long lasting environmental impact to the locality.

17. The Hume Coal EIS acknowledges the existing groundwater impacts from this heritage. The EIS's groundwater model for the Null case (existing conditions) scenario shows the groundwater system is currently in deficit with a daily discrepancy of -6% or -2.8Ml/day. Contributing to this daily discrepancy are the groundwater inflows into historic mine sites calculated as 3.5 Ml/day. Council is very concerned about the sustainability of this groundwater resource.

18. Whatever historic role mining played in the past, it bears no resemblance to the current and future role this region must now play in providing essential peri–urban functions to Sydney and the corridor to Canberra. Locating a new coal mine in the region now has a much greater consequence compared to putting a mine in the region 100 years ago. This region is strategically important to Sydney and NSW and will become increasingly important in the years ahead. Any implied normalisation of a new coal mine through any historic relationship needs to be rejected.

Visual Impacts

19. The Southern Highlands is renowned for natural and rural beauty. The combination of natural landforms, highly scenic rural landscapes, and extensive historical features, are key elements of the Southern Highlands Tourism brand.

20. The aesthetic significance of the cultural landscape is an important aspect of the identity of the Southern Highlands today.

21. The proposed mine and rail infrastructures are very large and visually prominent and these will impact views both public and private. Council believes the visible impact from both the mine and rail infrastructure will be very significant, and disagrees with the EIS assessment and conclusions.

22. Even the assumption of a low visual impact on travellers using the Motorway or other through roads is incorrect. Even glimpses of views of mining infrastructure and activity that have negative connotations impact on the perceived aesthetic qualities of the landscape.

23. Protecting visual amenity from a project of this scale cannot be achieved by any amount of conditions of consent. Even tree plantings will not remove this impact. The undulating nature of this Shire will mean that the mine will be visible at numerous vantage points across the landscape.

Impact on Tourism

24. Tourism is well-established and is one of the key economic drivers for Wingecarribee Shire. Tourism currently provides some 2,500 jobs across the Shire and generates an estimated $250 million each year, 10% of the entire Wingecarribee economy. Along with the natural, rural and heritage appeal of the region, our tourism identity also includes a growing food and wine sector and niche market appeals such as the identity as a wedding destination.

25. The EIS misrepresents the importance of the tourism industry and all but dismisses its significance in the Economic Impact Assessment. This indicates serious flaws in this process. The EIS only identified 3 “Tourism establishments, rooms and accommodation” in the proximity of the mine, and 20 in the Shire. A simple search on the internet via a site such as Air B’n’B, reveals no fewer than 300 accommodation venues listed on that one website alone.

26. As mentioned previously, the Southern Highlands is known for its beauty. The combination of natural landforms, highly scenic rural landscapes, and extensive historical features, is a key element of the Southern Highland’s tourism brand.

27. It can be argued that one of the Southern Highlands’ key tourist attractions is the historic village of Berrima.

28. The importance of Berrima to the tourism industry is largely overlooked in the EIS. In general, there are very few references to Berrima at all in the EIS. Berrima is located

approximately 2km from the Project Area. It is one of the closest villages to the surface impacts of the proposed mine. Some of the infrastructure would in the in the range of 2-3km from Berrima, yet this is never described in the EIS. Rather the EIS usually describes the mine in relation to its proximity to Moss Vale, being 7km away from the surface infrastructure and 4.5 km from the mine project area. Interestingly, the EIS references the Green Valley Sand Quarry as being 28km SW of Berrima, but doesn't reference the location of Berrima to its proximity to the Hume Coal Project. The proposed coal mine and associated railway would be highly visible to Berrima and Southern Highlands' visitors entering and leaving by the Hume Highway (as well as potential visitors driving through on the Hume Highway). It is foreseeable for the area to become associated with 'the mine' and lose its appeal.

Economic Development

29. Council takes the Shire's economic and jobs needs very seriously, and is committed to promoting a sustainable economy and sustainable jobs for our residents. Currently the Shire's unemployment rates are relatively low at 3.1%. The EIS has incorrectly stated that unemployment has an increasing trend although their own data shows the rate decreasing from 3.9% to 3.5% to 3.3% with the current rate at 3.1%. None the less, Council is committed to developing more sustainable employment opportunities in the Shire. Council and the local business community have partnered to develop the "Southern Highlands Development Framework. This framework has identified an economic development pathway that aims to provide the sustainable jobs we need. From our economic development perspective, sustainable new jobs are the overarching units of measure.

30. The reason for Council using sustainable jobs as a measure of success is simple. The Committee for Economic Development Australia (CEDA) in its major research report for 2015, "Australia's Future Workforce?" states there is a high probability that 40% of Australia's workforce, more than five million people, could be replaced by automation within the next 10 to 20 years. In the Southern Highlands that's a potential loss of 8,000 -10,000 jobs.

31. Therefore it has been imperative for our community to work towards replacing or maintaining 8,000-10,000 jobs in the next 15 years. Our Economic Development Framework has been designed to allow for rapid change and still deliver on our community's objectives for 2031 and beyond.

32. Through analysis of the 2031 Wingecarribee Community Strategic Plan (2031 CSP) goals in an economic development framework, Council has identified 10 sectors within our local economy: Water, Food, Shelter, Energy, Transport, Technology, the Arts, Recreation, Business and Learning. Each of the community goals for the 2031 CSP is clustered within one of those 10 sectors, which means our economic development is closely aligned with the 2031 CSP.

33. By engaging with our community, and through our Shire's *Economic Summit* in 2015, a series of projects were developed across each of the 10 sectors. The initiatives identified in Wingecarribee's Economic Development Framework will potentially generate an estimated 8,500 sustainable jobs. Economic projects are now coming to fruition in our community and jobs are already being created. An example of this are the establishment of Southern Highlands Food and Wine Clusters that have brought synergy from businesses in this industry sector working together, and new jobs have already been created.

34. With respect to the Hume Coal Project, there are significant elements of this projects that add risk to this Economic Development Framework. Among these are the risks to our water resources, the Southern Highlands brand of our agriculture, and the Southern Highlands tourism appeal. At risk are numerous sustainable jobs, both now and increasingly into the future. Council feels the EIS has misrepresented the Shire's economy, and has not considered these important elements in its economic and social impact assessments.

Impacts on Water Resources

35. The impact on both surface water and groundwater resources is one of the most contentious parts of the proposal. It was always known that a new mine was going to impact these water resources. The community has been concerned about these impacts from the start of the Hume Coal Project, and this has been a key message of the ongoing public concern. Hume Coal has continually implied that the extent of the community concerns was wrong and the groundwater impacts can be managed and will not be as bad as the community anticipates. An organised community group have commissioned their own groundwater impact studies from reputable scientists and these studies provided information on a range of potential impacts. In response Hume Coal has disputed these studies. Hume Coal's groundwater impact assessments are now published with this EIS.

36. The EIS reports have not silenced the debate on the impact on water. The EIS shows a high level of impact on ground water resources, triggering Aquifer Interference Policy provisions across more than 90 bores and more than 70 landholders. This level of impact, from a relatively small project, is unprecedented. This predicted impact alone is alarming and a strong indicator that this is the wrong region for a new coal mine.

37. Of extra concern to Council is that the scale of groundwater impact is still highly contentious, with some informed predictions indicating groundwater impacts will still be much greater than what is suggested in the EIS. The full range of potential impacts must be considered adequately as these potential impacts cannot be adequately addressed by any amount of consent conditioning.

38. Apart from the added impact on the groundwater resource, any degree of increased leakage into the mine is going to have large scale flow on impacts on water treatment and storage capabilities, potential discharges to water ways, and additional requirements to 'Make Good' for impacts to groundwater users.

39. The EIS shines a light on the current condition on the groundwater resource in this region, and Council is concerned about the long term sustainability of this resource, even without the influence of a new Coal Mine. The Null Case Scenario Model (business as usual without the Hume Coal Project) shows the impact that current groundwater pumping and historic mines are having on this resource. The EIS shows that the groundwater reserve is currently in deficit with a discrepancy of -2.8Ml/ day or -6%. Inflow to historic closed down mines are calculated as being 3.5Ml/day, which already has an impact on the sustainability on this groundwater resource. The result of this "discrepancy" is shown spatially in the EIS's "Total Water Table Drawdown" maps in Appendix M. This is indicating significant drawdown of groundwater across a vast area of the model area, even without the added impact of a new mine. Council is very concerned that this resource appears to be under stress. The last thing that should be done now is to add a new coal mine that will take another 2.6Ml/day out of the system, and treat it as a mine by- product. The Shire's economy is heavily dependent on water resources and this anomaly needs to be fixed rather than exacerbated.

40. Council is concerned that the mining method proposed to reduce the impact of the mine is largely new and untested in Australia.

41. Council has read the Berrima Colliery proposed Closure Plan, and the comments that are made about the effectiveness of bulkhead sealing of groundwater in that scenario. While not suggesting the two mine conditions are completely similar, Council is very wary of the consequences of what could happen with the regions groundwater resources and urges a precautionary approach.

42. Council is concerned that leakage from the Medway Dam is possible. A certain level of leakage has been calculated, but Council is concerned about whether the predicted amount

can be accurately relied upon and the range of impacts that might be possible. Unfortunately the dam won't have any Make Good capabilities if the figures are greater than what is shown by Hume Coal.

43. The EIS proposes the construction of the Construction Accommodation Village (CAV) that will house 400 people during the construction phases. At stages of this development, the EIS suggests they will tanker sewage offsite to a local sewerage treatment plant. Council warns that it is not easy to find disposal of an extra 400EP at its STP's, as some facilities are close to capacity. This process would have to be carefully modelled and negotiated.

Biodiversity Impacts

44. The mine will have impacts on biodiversity which Hume Coal are proposing to offset.

45. Potential impacts are predicted for some groundwater dependent ecosystems, but the EIS states these impacts would only happen if there are periods of drought, and therefore has not included any offset for these communities. Council argues that the 'no drought' dependency cannot be relied upon and offsets for these communities needs to be included for the project.

46. The EIS does not consider the cumulative impact in its assessment of impacts on groundwater dependent ecosystems. Council argues that impacts on groundwater dependent ecosystems should be assessed using the cumulative or total groundwater drawdown predictions. The cumulative impact from all the stresses on the groundwater system, both existing and that caused by the Hume Coal mine should be considered.

Social Impact

47. The social impact from the proposal is a major concern for Council. The Hume Coal project is already having a significant negative social impact to residents of the Shire, and Council strongly disagrees with the Social Impact Assessment (SIA) conclusions put forward by the EIS.

48. Over the last seven years, the threat of a new coal mine has caused considerable distress to some members of our community. This concern has extended well beyond the hundreds of property owners in the A349 exploration authorisation area, but also to residents and businesses across the Shire. Residents have been well informed and well organised in campaigning against the proposal because of the potential impacts from a new mine. The community have organised campaigns, rallies, public meetings, information sessions, public 'gate post' signage campaigns, and petitions throughout this seven years. Considerable fear and anxiety exists in some of our community over the impacts that a coal mine would have on their environment, their properties, their farms, their livelihoods, their health, and their way of life.

49. Many in this locality have already had poor personal experiences with Hume Coal. This has ranged from having their properties earmarked for exploration, the miner wanting access to their properties and bores, forced arbitrations, property blockades and even court cases. This community are not radical activists; rather it includes farmers, business people, property owners, parents, grandparents, families, locals (both short term and long term), and people who love this area and who want to protect it. Their concerns are genuine and well-grounded and relate to impacts on the region's important groundwater resources, agriculture, businesses, tourism, biodiversity and character.

50. Community concern has extended throughout the Shire, and Council is aware of various surveys that have consistently shown the majority of respondents are concerned about impacts from any new mine.

51. The Hume Coal Project is already having a physical and mental toll on residents in the Shire. Residents have described their feelings of anxiety, fear, angst, depression, traumatisation, helplessness, uncertainty and stress. These types of social impacts are unlikely to quickly disappear. No amount of tree screenings, barriers, 'making good', offsets, buybacks, or any other conditions of consent are likely to resolve this social impact, nor turn the project into a no impact mine.

52. These social impacts are largely ignored in the EIS. The EIS appears to describe these types of social impacts as "theoretically possible" but not warranting examination in the SIA as the EIS covers amenity impacts and public interest elsewhere. Council argues that the EIS has overlooked some of the most significant and serious social impacts from the proposed mine.

53. The results of the impact assessment exercise contained in section 20.6 of the EIS are disputable and the conclusions should not be relied upon as a complete and accurate indication of the social impacts.

54. While having the appearance of objectivity it can easily be shown that the significance weighting tools used do not always accurately reflect the actual significance of the impact being assessed. One example to demonstrate this is in Table 20.11, where the 'positive' impact of a "small increase in demand in housing by direct employees" (17 employees), has the same level of medium significance as the 'negative' impact of "Create uncertainty about the type, location, timing, and potential impacts of future coal mining on the local area" (over 500 properties directly located in the exploration area, plus wide spread community concern across the Shire).

55. Throughout the Impact Assessment Tables 20.11, 20.12, 20.13, and 20.14, there are at least fifteen impacts (both positive and negative) where the calculated level of significance does not appear to accurately reflect the actual significance of the impact.

56. In addition, there are at least nine impacts (both positive and negative) that appear to be 'insignificant', and do not warrant inclusion in the balance calculation process. An example of this is in Table 20.11 where a 'positive' Population and Demographics impact has been included at the 'site specific' scale from tenants on the Hume Coal properties. This level of impact is insignificant and inaccurately skews the 'positive vs negative' calculation process.

57. There are at least five listed 'positive' impacts that should not be included as they relate to mitigation measures being put in place to reduce a negative impact. For example, screening trees planted to try to lessen the visual impact of the mine do not positively improve the visual amenity of the beautiful Southern Highlands. This has been counted as having a 'medium' level significance at a number of stages of the project. At the same time, the reduced visual amenity impact caused by the mine (and associated infrastructure) itself is not mentioned. Again all this skews the 'positive vs negative' calculation process.

58. There are at least two impacts included that have both positive and negative implications, which haven't been considered.

59. There are at least two impacts included where the benefits are likely to be beyond the "site specific', 'local' or 'regional' scale with little benefit to this community and probably should not have been included in this social impact exercise. An example of this is Labour Market considerations in Table 20.12, where the 414 direct employment opportunities during the construction will largely be filled from outside the region. The local or regional contingent of this labour force is included as a separate item in Table 20.12.

60. There are two impacts that have been included relating to a VPA, where the magnitude is unknown and cannot be calculated at this stage. The degree of significance is unknown.

61. In addition, Council believes there are numerous serious and significant impacts that have not been considered by the SIA and therefore have not been included in any of the positive / negative assessment tables. A number of these have been mentioned earlier in this submission (eg. Issues mentioned in paragraphs 49-51).

62. As a result, Council does not agree with the conclusion reached in section 20.6.5.

63. Some of the key social benefits that have been highlighted and promoted by Hume Coal throughout the EIS and for the last six years have been the creation of long term jobs for locals and the enhancement of the local economy. As mentioned previously in this submission, Council takes these social and economic needs very seriously, and is committed to promoting a sustainable economy and sustainable jobs for our Shire.

64. The Hume Coal EIS rightly acknowledges that demand and prices for commodities such as coal and steel are cyclical, and experiences upturns and downturns largely in response to international economic conditions, and also to some degree natural events such as cyclones and floods which create misfortune to other mines. Reliance on mining would make the economy more vulnerable to these cycles. The realistic scenario for the mine during times of low prices would be placing it into care and maintenance, at which time the mine would only require 12 employees for periods that could last for 8-10 years. However, elsewhere the EIS mentions “better job security” “result(ing) in improved mental wellbeing of workers and their families” as being one of the highest benefits from the mine. The strength of this claim needs to be reconsidered in the context of commodity cycles, and the periods when the coal mine is not operating at peak production.

65. The EIS appears to indicate the initial employment base will be about 100 employees with 70% recruited from outside the region. When the mine is operating at peak production, more locals would be recruited, up to the 300 employee figure. It is unclear whether they are referring to the peak production of 3Mtpa or something else. It is noted that average production appears to be in the order of about 2Mtpa. It is unclear how long, or how often, the peak production employee contingent would be employed on the project.

<u>Noise Impacts</u>

66. The EIS acknowledges that noise will impact a certain number of residents who may be entitled to some level of negotiated amelioration.

67. The EIS acknowledges, but downplays the noise impact the project will have on many residents particularly during constructions phase. Over 60 noise locations (which equates to more than 60 residences), will experience calculated noise impacts of 13-18dB above background rating levels. While the EIS describes this impact in relation to guidelines and believe this is acceptable, to the human ear this will feel like a doubling (and more) in the loudness of the noise levels.

<u>Traffic and Transport</u>

**Overview**

68. The EIS traffic impact assessment focuses mostly on site establishment construction related traffic. Consideration of operational traffic appears to be unrealistically minimal in movement numbers.

69. The EIS’s predicted traffic generation is not consistent with experience of traffic generation occurring from mining elsewhere in the State. It is acknowledged that the report states that coal will be transported by rail at an estimated coal production of 3.5 million tonnes per annum (over 19 years). However, RMS has advised 10% of that production would have road

generated impact, based on RMS experience with coal extraction in the NSW Hunter Valley. The RMS explained that production would generate additional road activity not necessarily involved with actual coal movement by road. This advice was given both to Hume Coal's consultant and Council officers at a meeting on 19 April 2016.

70. The EIS does not acknowledge the presence of the Moss Vale Enterprise Corridor (640 ha industrial corridor located adjacent to the Moss Vale town centre in the north- west sector). The EIS, however, utilises the infrastructure that has been provided specifically for the Corridor. There is a significant risk that the spare capacity of key infrastructure is taken up by this project leaving little capacity for the intended use.

71. The EIS bases future network traffic growth on a nominal growth rate of 2% per annum without giving consideration to the Moss Vale Enterprise Corridor traffic projections which are higher.

72. The EIS indicates favourable road network performance at key intersections in the Moss Vale town centre which are not consistent with observations, surveys and the validated and independently audited Moss Vale Town Centre and Surrounds Traffic Micro-simulation Model (Paramics).

73. The assessed ability for the town centre to absorb additional traffic is in practical terms, optimistic. Council has undertaken extensive survey and investigation finding that the future satisfactory operation of the Moss Vale town centre is reliant upon traffic relief. Traffic relief can be provided by Stage 1 of the Moss Vale by-pass and assisting cross movement traffic on Argyle Street, post by-pass (emphasising that signalisation is difficult without the traffic relief provided by the by-pass), through the inclusion of intersection signalisation at a number of intersections between Robertson Road and Yarrawa Street. Significant funds are required to deliver these improvements, which is beyond Council's capacity.

74. The EIS states that rail movements on the Moss Vale to Unanderra line will increase by approximately 50 train movements per week. Existing rail movements are approximately 120 train movements per week. Increased frequency of delays at level crossings should be considered against the improved overall road safety and reduced congestion that would be created should all production coal be transported on road.

75. Council's Traffic Engineer has provided detailed technical advice on many of the impacted intersection, bottlenecks and road segments, which discusses these issues in depth. This technical advice is included as a separate attachment.

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# Traffic and Transport Technical Advice.

## (Attachment to the Submission to the Hume Coal Project Environmental Impact Statement)

WINGECARRIBEE SHIRE COUNCIL

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1. As mentioned in point 75 of Council's Submission to the Hume Coal Project Environmental Impact Statement, Council's Traffic Engineer has provided detailed technical advice on many of the impacted intersection, bottlenecks and road segments, which discusses these issues in depth. This technical advice is listed below as a separate attachment.

**Overview**

2. The EIS traffic impact assessment focuses mostly on site establishment construction related traffic. Consideration of operational traffic appears to be unrealistically minimal in movement numbers.

3. The EIS's predicted traffic generation is not consistent with experience of traffic generation occurring from mining elsewhere in the State. It is acknowledged that the report states that coal will be transported by rail at an estimated coal production of 3.5 million tonnes per annum (over 19 years). However, RMS has advised 10% of that production would have road generated impact, based on RMS experience with coal extraction in the NSW Hunter Valley. The RMS explained that production would generate additional road activity not necessarily involved with actual coal movement by road. This advice was given both to Hume Coal's consultant and Council officers at a meeting on 19 April 2016.

4. The EIS does not acknowledge the presence of the Moss Vale Enterprise Corridor (640 ha industrial corridor located adjacent to the Moss Vale town centre in the north- west sector). The EIS, however, utilises the infrastructure that has been provided specifically for the Corridor. There is a significant risk that the spare capacity of key infrastructure is taken up by this project leaving little capacity for the intended use.

5. The EIS bases future network traffic growth on a nominal growth rate of 2% per annum without giving consideration to the Moss Vale Enterprise Corridor traffic projections which are higher.

6. The EIS indicates favourable road network performance at key intersections in the Moss Vale town centre which are not consistent with observations, surveys and the validated and independently audited Moss Vale Town Centre and Surrounds Traffic Micro-simulation Model (Paramics).

7. The assessed ability for the town centre to absorb additional traffic is in practical terms, optimistic. Council has undertaken extensive survey and investigation finding that the future satisfactory operation of the Moss Vale town centre is reliant upon traffic relief. Traffic relief can be provided by Stage 1 of the Moss Vale by-pass and assisting cross movement traffic on Argyle Street, post by-pass (emphasising that signalisation is difficult without the traffic relief provided by the by-pass), through the inclusion of intersection signalisation at a number of intersections between Robertson Road and Yarrawa Street. Significant funds are required to deliver these improvements, which is beyond Council's capacity.

8. The EIS states that rail movements on the Moss Vale to Unanderra line will increase by approximately 50 train movements per week. Existing rail movements are approximately 120 train movements per week. Increased frequency of delays at level crossings should be considered against the improved overall road safety and reduced congestion that would be created should all production coal be transported on road.

**Discussion with Hume Coal traffic consultants, RMS and Council officers**

9. It is acknowledged that the report states that coal will be transported by rail at an estimated coal production of 3.5 million tonnes per annum (over 19 years). However, RMS has advised 10% of that production would have road generated impact, based on RMS experience with coal extraction in the NSW Hunter Valley. The RMS explained that production would

generate additional road activity not necessarily involved with actual coal movement by road. This advice was given both to Hume Coal's consultant and Council officers at a meeting on 19 April 2016.

*10.* The EIS states that "*The maximum daily heavy vehicle traffic movements* on weekdays *that project operations would generate after the completion of all construction work would be:*

*a. 5 daily heavy vehicle visits (10 daily heavy vehicle movements) for store and bulk goods deliveries;*
*b. 4 daily heavy vehicle visits (8 daily heavy vehicle movements) for maintenance deliveries of equipment and materials; and*
*c. 1 daily heavy vehicle visit (2 daily heavy vehicle movements) for waste removal.*

11. There appears to be a significant difference in what would be expected to be higher traffic generation based on the RMS advice and the modest generation provided in the EIS and as such puts into question the conclusion that the traffic impact on local state roads would be "low impact" as stated in the EIS "7.2 Findings".

12. The EIS assumed traffic growth of the wider network of 2% per annum. This rate does not account for growth in the adjacent Moss Vale Enterprise Corridor (640ha of industrial land located east of the Boral cement works) which is identified as significant employment lands in the NSW Department of Planning "Sydney-Canberra Corridor Regional Strategy 2006-31".

13. Council has given careful consideration to the road infrastructure requirements of the Moss Vale Enterprise Corridor, which has been modelled in both the Illawarra Regional TRACKS model and the Wingecarribee Shire Wide TRACKS model (projected in stages to 2031).

14. Council has identified (tested in TRACKS and analysed in SIDRA) a number of road infrastructure projects required to service the Corridor. The modelling undertaken did not consider the Hume Coal proposal as it was not proposed at the time the modelling or the infrastructure plan was prepared.

15. The Hume Coal EIS has acknowledged the capacity of significant infrastructure such as the Old Hume Highway/Medway Road/Taylor Avenue b-double roundabout. The EIS, however, does not consider the traffic loading from the Enterprise Corridor and places into question the accuracy of the SIDRA analyses provided for this and other intersections evaluated in the EIS.

16. There is significant risk that the Hume Coal project traffic generation will erode the ultimate performance of the road infrastructure and has a significant risk of not being able to adequately cater for the original intended use. This could prove to diminish the suitability of the infrastructure and ultimately adversely impact the performance of the Corridor.

17. Evaluation of both the traffic generated by the Hume Coal project (consistent with RMS advice) plus additional traffic generated by the Moss Vale Enterprise Corridor and other traffic growth in the region is required to ensure that the infrastructure is capable of supporting the activity of both Hume Coal and the Moss Vale Enterprise Corridor.

**Moss Vale Town Centre Road Network**

18. The Illawarra Highway is both a state road (MR260), connecting the Illawarra region, at Dapto, with the Hume Highway at Sutton Forest and a key Moss Vale town centre road. The Illawarra Highway also serves as the towns key distributor road, named Argyle Street through the town, and allows local and regional traffic to cross the Main Southern Railway at the rail underpass in the centre of the town. A minor single lane low head clearance rail subway is located about 250 metres south of the main crossing, however for practical purposes, most traffic must use the main underpass on Argyle Street.

19. The single rail underpass presents regionally significant strategic and capacity limitations (a "bottle neck"). Strategically, transport vehicles rely upon the underpass being fully functional. High loads require a significant detour, breakdowns or blockages require detours for all vehicles. Stage 1 of the Moss Vale by-pass will provide a strategically important alternate route and also significantly reduce congestion on Argyle Street and enable further traffic enhancements to assist cross movement of traffic and pedestrians.

20. The Moss Vale town centre road system is required to function using a two lane (one lane in each direction) system throughout the town and the approaches to the town. Kerb side parking is an essential part of the system which is important for the ongoing viability of the town centre business economy.

21. Congestion is evident during morning and afternoon peak periods, with midday congestion increasing. Reliable vehicle progression is not available along Argyle Street, extending between the approaches to the Argyle Street/Robertson Road roundabout and the southern approaches to the Argyle Street/Yarrawa Street intersection. The EIS reports more favourable operation in this area which not the case.

22. Discussion on performance of key intersections within the Moss Vale town centre (Argyle Street intersections with Waite Street and Lackey Road) understates the delays and queue lengths experienced during normal non-school holiday peak periods. For example, the maximum queue length at the Waite Street intersection is shown in Table 5.8 of the EIS to be 27 metres. Inspections on Friday 7 and 12 May 2017 (3:15pm) found the queues to exceed 220 metres in Waite Street. Significant queueing was also measured on each approach along Argyle Street, with queues extending west to the intersection of Argyle Street and North Street, a distance of approximately 630 metres.

23. The large differences between stated intersection performance and field observations brings the accuracy of this analysis into question. The performance of intersections in the EIS, especially with regard to delays and queueing are considered to be misleading and understate the delays experienced.

24. Council is in discussion with the RMS regarding the existing and future performance of the Moss Vale town centre, noting that the crossing of the railway line provides significant constraint on the network and as such providing few means to ease ongoing and increasing congestion. A second crossing of the railway line at the Spring Street underpass has very limited capacity (one lane width and operates in a contraflow arrangement and has a low head clearance of 2.7 metres).

25. The RMS have prepared a "Draft Illawarra Highway Corridor Strategy" (currently with the Roads Minister for approval) and are currently preparing a "Draft Hume Highway Corridor Strategy". Following recent discussion with the RMS Senior Network and Corridor Planner, it is advised that the Draft Illawarra Highway Corridor Strategy notes the congestion occurring through the Moss Vale town centre and recommends further investigation to identify possible relief options.

26. The infrastructure plan for the Moss Vale Enterprise Corridor includes the Moss Vale by-pass which has been shown in Council's shire wide strategic network model "TRACKS" to significantly ease congestion in the town centre.

27. Additional traffic generated by the Hume Coal proposal must be a fair and accurate assessment and accurately reflect the delays and queuing occurring throughout the network. Due to queued conditions in Argyle Street, the undertaking of isolated intersection analysis is not considered appropriate as queuing from one intersection will impact on a neighbouring intersection.

28. The approach taken in the EIS appears to understate and minimise the traffic impact from the proposed development. The EIS does not reflect the advice from the RMS that 10% of

production will have traffic activity (not haulage activity that they have stated would be on rail) which will be considerable given the 3.5 million tonne per annum predicted extraction.

29. The existing delays and queueing stated on the EIS for the intersections of Argyle Street with Waite Street and Lackey Road are significantly more favourable than observed field conditions and as such places the accuracy of the analysis in question.

**Intersection of the Hume Highway north bound on-ramp with Mereworth Road**

30. The EIS states that retention of the existing T-intersection with a change in priority was shown to be the "best solution".

31. The input into the intersection analyses is likely to have been significantly under-estimated and as such the treatment of the improvement should be re-evaluated.

**Rail Proposal**

32. It is noted that a rail maintenance access road is proposed to be included in the land triangle formed by the Hume Highway, Old Hume Highway and Medway Road. The road is shown to intersect with the Old Hume Highway (between Taylor Avenue and the south bound freeway on ramp. The EIS does not discuss the expected traffic generated at this intersection.

33. Any use other than for maintenance activity is not supported. Regardless of traffic volumes, the minimum treatment is recommended to be an Austria's "BAR" and "BAL" treatment.

**Proposed and funded Berrima Road Deviation and Proposed Hume Coal Rail Proposal**

34. It is noted that the EIS includes two possible rail proposals. Council is committed to proceeding with the Berrima Road Deviation project that will deviate Berrima Road to the east of the existing rail level crossing that provides rail access into the Boral Berrima Cement works. Council's preferred route for the rail maintains the existing rail connection into the Cement works in conjunction with a new spur leading to the proposed Hume Coal site. Plans to construct the Berrima Road deviation project are advanced.

**Interruptions to traffic at railway level crossings on the Moss Vale to Unanderra Railway**

35. The EIS states that rail movements on the Moss Vale to Unanderra line will increase by approximately 50 train movements per week. Existing rail movements are approximately 120 train movements per week.

36. Increased frequency of delays at level crossings should be considered against the improved overall road safety and reduced congestion that would be created should all production coal be transported on road.

**Transport of Hazardous Material**

37. The EIS lists the need for contractors transporting hazardous materials to comply with a number of "guidelines".

38. The nature or frequency of the hazardous materials are not stated however include transport of dangerous goods by road and rail, explosives and radioactive material.