

## ASSESSMENT REPORT HERA GOLD PROJECT – MODIFICATION 2 (10\_0191 MOD 2)

### Concentrate Transport Route Modification

#### 1 BACKGROUND

Hera Resources Pty Ltd (Hera), a wholly owned subsidiary of Aurelia Metals Ltd (formerly known as YTC Resources) owns and operates the Hera Gold Mine, an underground gold, silver, lead and zinc mine approximately 100 kilometres (km) south-east of Cobar and 4 km south of Nymagee in Western NSW (see Figure 1), in the Cobar local government area (LGA).

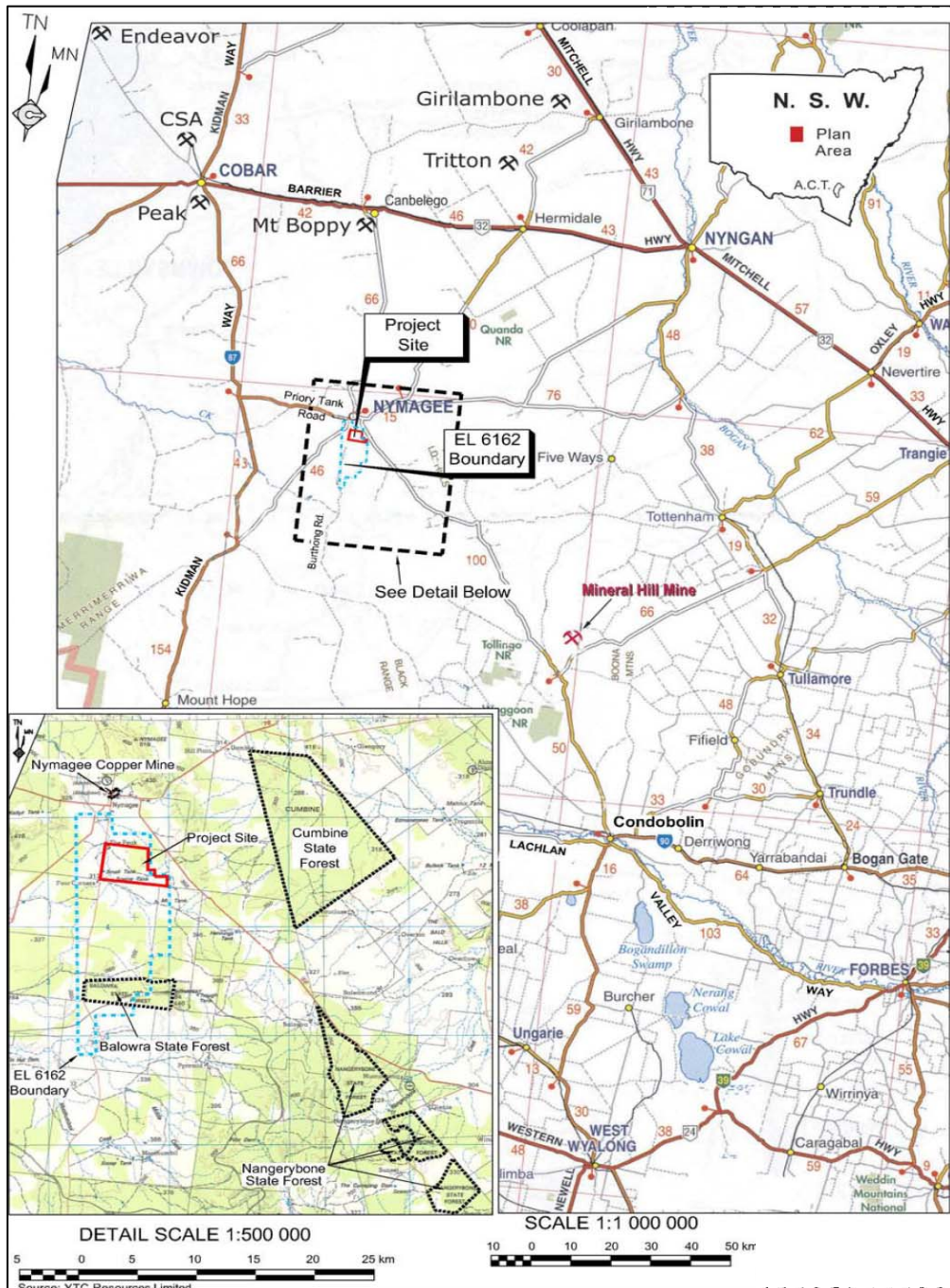


Figure 1: Site Location

On 31 July 2012, the Deputy Director-General, Development Assessment and Systems Performance, as delegate of the Minister for Planning and Infrastructure, approved the mine under Part 3A of the *Environmental Planning & Assessment Act* (EP&A Act). The project approval (MP 10\_0191) has been modified once (in July 2013) and allows the extraction and processing of up to 355,000 tonnes a year of ore containing gold, silver, lead and zinc until 31 December 2020.

The project approval allows up to 50,000 tonnes of ore concentrate a year to be trucked in sealed containers via Priory Tank Road and Kidman Way to Cobar, then either to the Endeavour Mine northwest of Cobar, or rail sidings at Cobar and Hermidale (see Figure 2). This equates to an average of 6 truck movements (to and from the mine) per day on these routes.

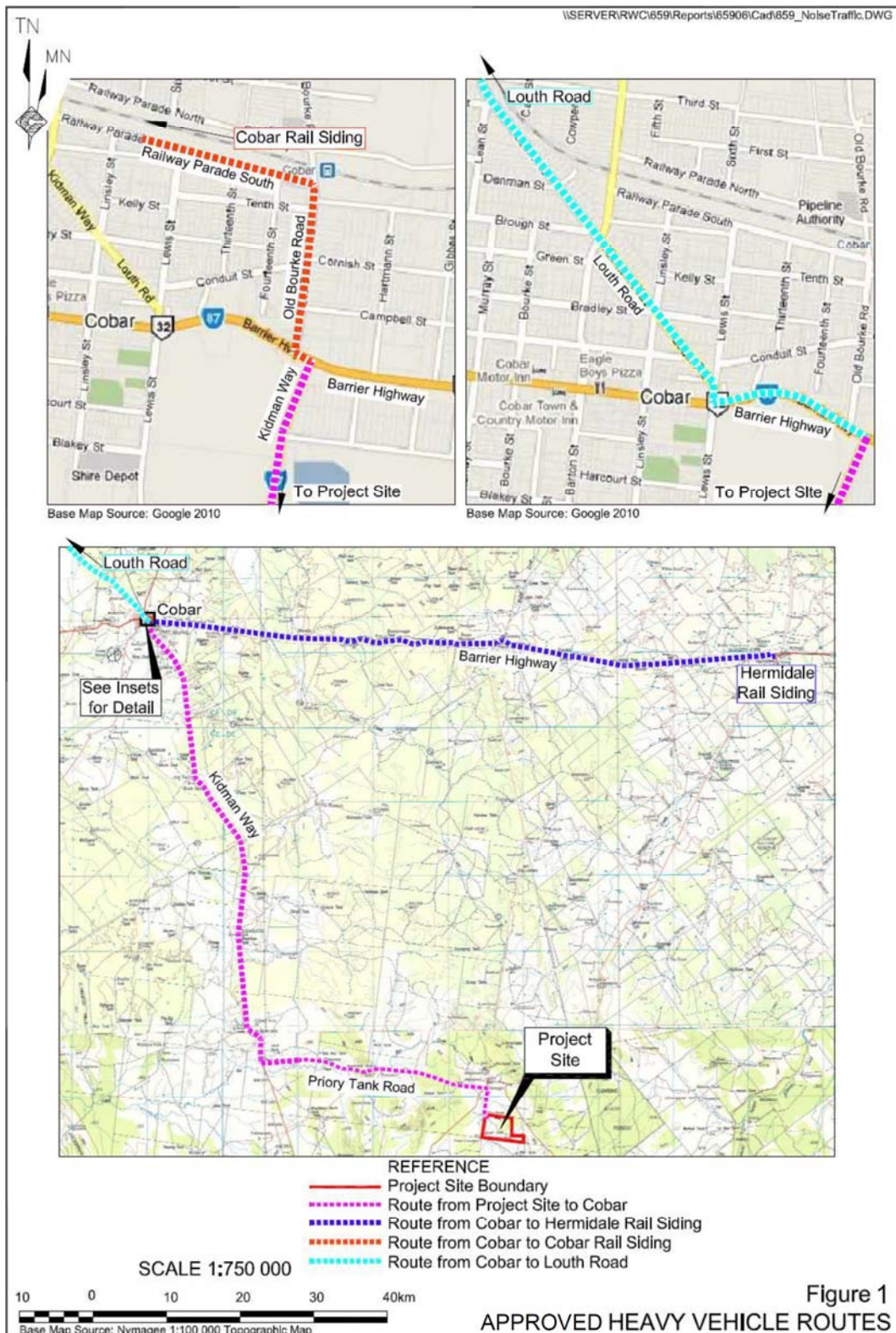


Figure 2: Approved haul routes

Hera's preferred destination for road transport is the Hermidale rail siding, which is also used by the Tritton mine. However the approved haulage route to Hermidale rail siding is indirect (see Figure 2), and 185 km in each direction. During the original assessment, Hera also investigated a more direct route to the Hermidale rail siding via Nymagee-Hermidale Road, which is approximately 83 km in length. While its alignment and capacity were found to be acceptable, sections of this route are unsealed, and at the time it was considered less suitable due to the ongoing maintenance requirements. Therefore this route was not included in the project approval.

Following further evaluation, and agreements with Tritton mine, Hera considers the benefits of using a more direct route outweigh the costs of any necessary upgrades and ongoing maintenance.

## 2 PROPOSED MODIFICATION

Hera is seeking to modify the project approval to use the Nymagee-Hermidale Road to transport concentrate to the Hermidale rail siding (see Figure 3). This route includes travel through the villages of Nymagee (located in the Cobar LGA, see Figure 4) and Hermidale (located in the Bogan LGA) and via the following roads, all of which are approved for use by road trains:

- Nymagee-Burthong Road (referred to as Burthong Road);
- Priory Tank Road (within the village of Nymagee);
- Nymagee-Hermidale Road; and
- Barrier Highway.

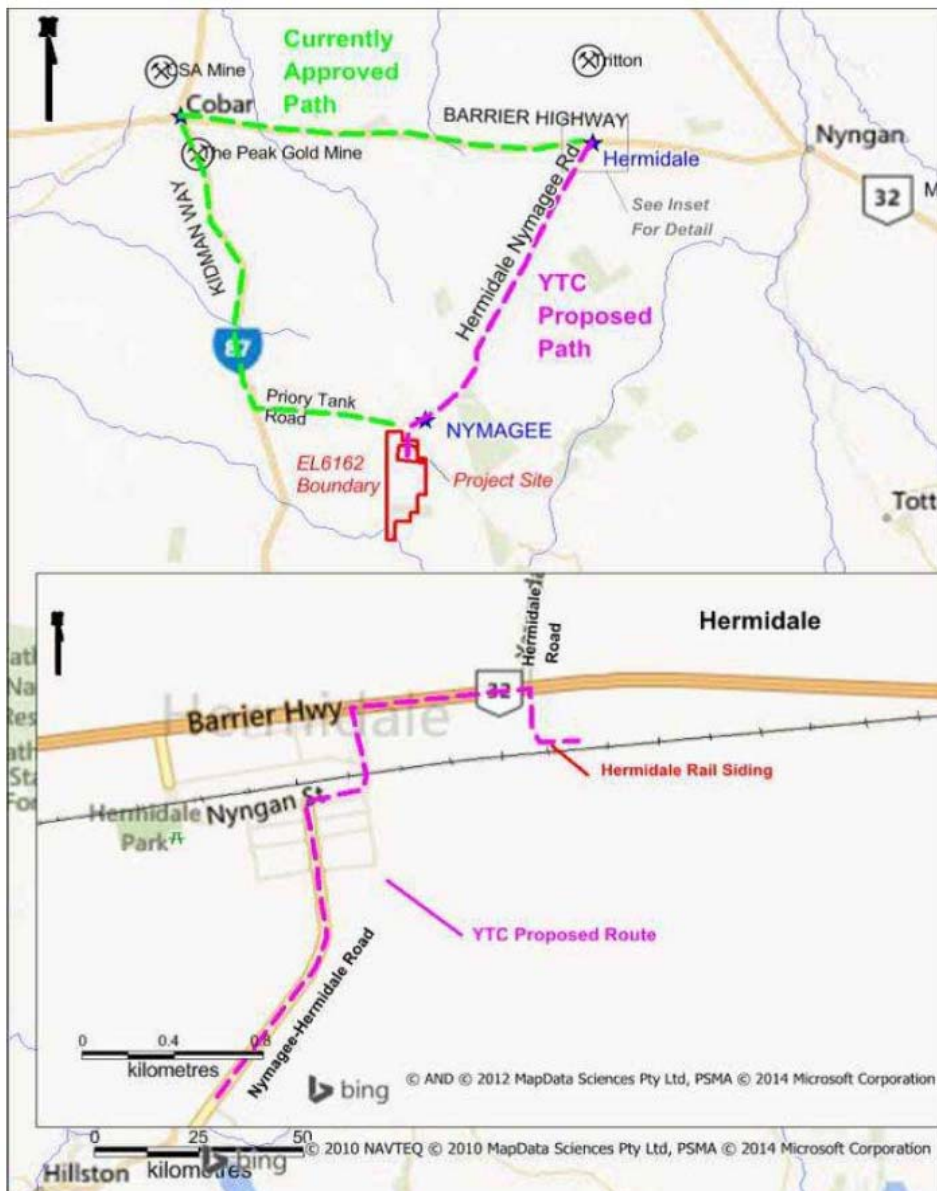


Figure 3: Proposed haulage route to Hermidale rail siding



Figure 4: Roads through Nymagee

### 3 STATUTORY CONTEXT

#### 3.1 Section 75W

Although Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) was repealed, the approved operations of the Hera Gold Mine remain a “transitional Part 3A project” under Schedule 6A of the EP&A Act. Consequently, the proposed modification is being considered under the former Section 75W of the EP&A Act, in accordance with the relevant savings provisions.

The Department is satisfied that the proposed modification is within the scope allowed under section 75W of the EP&A Act as it only involves a change to the approved haulage route between the mine and a rail siding which is approved for use. There would be no changes to the approved disturbance area, mining or processing operations.

#### 3.2 Approval Authority

The Minister for Planning is the approval authority for the proposed modification. However, under the Minister’s delegation of 10 November 2014, the Manager of Mining Projects may determine the application as both Cobar Shire Council and Bogan Shire Council have not objected to the modification, Hera has not made any reportable political donations, and no submissions from the community were received on the proposed modification.

#### 3.3 Environmental Planning Instruments

In accordance with section 75I of the EP&A Act, the Department has considered the modification against the provisions of relevant environmental planning instruments, and is satisfied that none of these instruments substantially govern the carrying out of the modification.

### 4 CONSULTATION

After accepting Hera’s application, the Department exhibited the Environmental Assessment (EA) and supporting documents between 11 June 2014 and 25 June 2014. The Department advertised the application in the Cobar Weekly and made the EA publicly available:

- on the Department’s website ([www.planning.nsw.gov.au](http://www.planning.nsw.gov.au));
- at the Department’s information centre;
- at Cobar Shire Council; and
- at Bogan Shire Council.

The Department received submissions from Cobar Shire Council, Bogan Shire Council and the Roads and Maritime Services (RMS). A copy of the submissions is contained in Appendix C and a copy of Hera’s response is provided in Appendix D, with a summary of the outcomes of this consultation provided below.

**Cobar Shire Council** does not object to the proposed modification but made a number of recommendations. These recommendations relate to:

- Hera providing suitable funds to Council to implement the recommended upgrades to signage, linemarking and guideposts, as recommended in the traffic assessment; and
- widening of the Hartwood and Milford Streets intersection with Priory Tank Road in Nymagee.

Hera currently has an existing Voluntary Planning Agreement with Cobar Shire Council which would remain in place. Hera has also committed to implement Council's recommendations and Council has no residual concerns.

**Bogan Shire Council** initially raised concerns about the proposed modification, however it has indicated its conditional support for the project if Hera:

- is responsible for the cost of grading the unsealed section of the Nymagee-Hermidale Road which would occur approximately every two months;
- contributes to the cost of the annual crushed road re-sheeting of the unsealed section of the Nymagee-Hermidale Road;
- engages an independent consultant to undertake a road pavement condition assessment for the Nymagee-Hermidale Road before haulage commences;
- funds repairs of damage to road caused by mine-related traffic;
- contributes funds towards the upgrade of traffic control devices in accordance with the recommendations of the traffic assessment; and
- restricts haulage during times of rainfall to prevent deterioration of the unsealed section of road.

Hera has now completed the road pavement condition assessment and has committed to implement these recommendations (see below), and on this basis Council supports the proposal.

The **Roads and Maritime Service** (RMS) initially objected to the modification due to safety concerns with traffic turning onto the Barrier Highway from Nyngan Street in Hermidale. Hera subsequently demonstrated that no alternative local route existed in Hermidale and has committed to restrict heavy vehicle movements to an average of 4 per day and only during daylight hours. Based on this commitment, RMS does not object to the proposed modification.

## **5 ASSESSMENT**

In assessing the merits of the proposal, the Department has considered a range of material, including the:

- EA for the original project;
- existing conditions of approval;
- EA for the proposed modification;
- submissions received on the application and Hera's response to the submissions;
- relevant environmental planning instruments, policies and guidelines; and
- the objects of the EP&A Act.

### **5.1 Traffic**

The EA considers the original transport assessment for the project, and includes an assessment of the proposed haul route by Geolyse against the relevant Austroads standards, taking into consideration the assessment for the original project. The EA also includes a geotechnical and road pavement design investigation of the key intersections along the proposed route by Envirowest Consulting.

Following the exhibition of the application, Hera also commissioned a road pavement condition assessment of the Nymagee-Hermidale Road, to determine the baseline (existing) condition of the road prior to the commencement of concentrate transport along the proposed route.

#### ***Road Condition and Maintenance***

The majority of the haul route consists of a 7m wide pavement, with 13 km of the Nymagee to Hermidale Road currently unsealed (between 6 – 7 m width). Speed limits on the route range between 50 km/hr (through villages) and 100 km/hr. As the route is approved for road trains, and with the low existing traffic volumes (up to 56 vehicles per day), the assessment found that the addition of up to 6 heavy vehicle movements would not impact the capacity of the road network.

To ensure the unsealed sections of the Nymagee to Hermidale route is maintained to a satisfactory condition, Hera has committed to:

- inspect the unsealed sections with Council every two months during transport operations;

- grade the unsealed sections of the road where required (following the two-monthly inspections);
- contribute \$20,000 annually to Bogan Shire Council for the re-sheeting of the road; and
- restrict the trucking of concentrate during heavy rainfall.

Hera has updated its statement of commitments to reflect these measures, which are consistent with the recommendations of Bogan Shire Council. The Department also notes that the existing project approval requires Hera to repair any damage to the road network that is caused by project-related activities, and Council has advised the Department that it would close the sections of unsealed road during wet weather. The Department has recommended conditions requiring Hera to conduct the two-monthly inspections of the concentrate transport route in consultation with Bogan Shire Council, and grade the unsealed road where necessary, as identified by the inspection.

The Geolyse assessment also reviewed the existing traffic control devices along the transport route, which found them to be generally in accordance with Austroads standards, with some deficiencies generally related to signage and linemarking. Hera has committed to provide funds to the respective Councils to implement the recommendations of the Geolyse Review. The Department has reflected this commitment in recommended conditions of approval requiring Hera to install (or contribute to the cost of installing) traffic control devices in accordance with these recommendations, to the satisfaction of the respective council. Should there be any disagreement with the necessary standard of work to be undertaken, then either party may refer the matter to the Department for resolution.

### **Intersections**

The original EA assessed the intersections through which the transport vehicles would travel as part of the proposed modification. This assessment found that all intersections have sufficient capacity to accommodate the project vehicles.

The Envirowest assessment identified two intersections along the proposed haulage route that would require upgrading to accommodate heavy vehicle movements:

- the Hartwood and Milford Street intersection with Priory Tank Road in Nymagee; and
- the Nymagee and Nyngan Street intersection with Nymagee-Hermidale Road in Hermidale.

The recommended upgrades include improvements to the road base, sealing of shoulders and improvements to roadside drainage. Hera has committed to upgrade the Nymagee intersection in accordance with these recommendations, in addition to the existing VPA with Cobar Shire Council.

Hera does not propose to initially upgrade the intersection at Hermidale. However, consistent with the approach for Nymagee-Hermidale Road, the intersection would be inspected every 2 months with Council and if deterioration due to mine-related vehicles is identified, Hera would upgrade or maintain the intersection in consultation with Bogan Shire Council. Council has accepted this approach and the Department has recommended a condition of approval requiring Hera to implement this commitment.

The RMS raised concerns about the potential safety risks of heavy vehicles turning right from Nyngan Street onto the Barrier Highway at Hermidale, due to the slower heavy vehicles mixing with vehicles travelling on the highway without the provision of any intersection treatments.

Following further consultation, RMS agreed that this was the only feasible option available to access the Hermidale rail siding as local roads could not be used as an alternative. Based on these discussions, Hera agreed to limit heavy vehicle movements to an average of 4 per day and only during daylight hours, which RMS agreed would help to mitigate and/or limit any potential impacts associated with the heavy vehicle movements.

Hera has revised its Statement of Commitments to reflect this commitment and the Department has recommended a condition restricting heavy vehicle movements to 4 per day averaged over a month and during the day-time only.

Given the low level of existing traffic using the proposed haul route, and with the implementation of the recommended upgrade and maintenance measures, the Department is satisfied that the impacts on the safety of road users and road conditions would be managed to an acceptable level.

## **5.2 Noise**

A Noise Assessment was undertaken by Spectrum Acoustics for the proposed haulage route along Nymagee-Hermidale Road and in the villages of Nymagee and Hermidale, in accordance with the *NSW Road Noise Policy*.

Within the village of Nymagee, traffic counts show that there are approximately 20-70 vehicles per day. This is in the order of 1-3 vehicles per hour, and as a result the noise generated due to the existing road traffic would be considered negligible. Given the existing noise levels are significantly below the noise criteria, the assessment predicts the additional 4 heavy vehicle movements per day would not exceed the relevant criteria.

The road traffic noise was also assessed at the residences within Hermidale along the proposed haulage route. Within Hermidale there are 3 residential buildings within 20 m of the haulage route, but Spectrum Acoustics advised that their apparent state of dilapidation makes it uncertain whether they were occupied. However for the purpose of the noise assessment they were assumed to be occupied.

Noise levels were calculated for a single truck travelling at 60km/h at 20m from the residence and it was calculated at 40.8dB(A). This is significantly below the day-time and night-time noise criteria of 55 and 50db(A) respectively.

Spectrum Acoustics recommended that project-related heavy vehicle movements through Hermidale should be limited to 9 per hour at night and 31 per hour during the day in order to achieve compliance with the traffic noise criteria. As the project is only proposed to generate a maximum of 6 movements during the day-time, the project would be well within this recommendation.

The Department is satisfied that the proposed modification would not exceed the road traffic noise criteria and have a negligible noise impact on residents along the haul route.

### **5.3 Air Quality**

As approximately 13 km of the Nymagee-Hermidale Road is unsealed, this may have the potential to create additional dust impacts on this section of the road. However, due to the relatively low number of heavy vehicles per day and the fact that there are very few rural properties located along this section of road, the Department considers that the potential dust impacts would not be significant and do not warrant any additional mitigation measures.

### **5.4 Other matters**

The Department has assessed the other impacts associated with the proposed modification, and they are not predicted to be significant. The Department is satisfied that any other potential impact can be controlled, mitigated or managed through the existing conditions of approval.

## **6 RECOMMENDED CONDITIONS**

The Department has recommended conditions of approval for the proposed modification (see Appendix A). The modified conditions provide details of the proposed haulage route and require Hera to:

- restrict heavy vehicle movements to an average of 4 per day and only during daylight hours;
- upgrade the Hartwood and Milford Street intersection with Priory Tank Road in Nymagee;
- carry out two-monthly inspections of the route within Bogan Shire Council LGA in consultation with Council, and grade the unsealed section of the Nymagee-Hermidale Road where necessary;
- contribute \$20,000 each year to Bogan Shire Council for the cost of crushed rock re-sheeting of the unsealed sections of the haul route; and
- implement and/or provide funding to both Councils for the implementation of the traffic control device recommendations by Geolyse.

Hera has reviewed and accepted the Department's recommended conditions.

## **7 CONCLUSION**

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act.

The Department is satisfied the proposed modification to the haulage route is reasonable and logical, as it would improve the efficiency of transporting ore concentrate to the Hermidale rail siding by reducing the distance travelled by haulage vehicles by 102km in each direction.

The assessment found that the use of these roads would not impact on the safety or efficiency of the road network. The key impact associated with the proposed modification would be the potential degradation of the existing road network and the need for maintenance and/or upgrade of local roads and key intersections over the life of the project.

To address these matters, Hera has committed to implement a range of monitoring and maintenance measures in consultation with the relevant councils, including regular inspections of the unsealed section of the transport route, and the Department has recommended conditions that require Hera to either financially contribute to the maintenance of these roads, or carry out the upgrades or install traffic control devices.

With the implementation of these measures, the Department believes that the benefits of the proposed modification would sufficiently outweigh its costs and it is in the public interest and should be approved, subject to stringent conditions.

## 8 RECOMMENDATION

It is RECOMMENDED that the Manager, Mining Projects, as delegate of the Minister:

- **consider** the findings and recommendations of this report;
- **determine** that the proposed modification is within the scope of section 75W of the EP&A Act;
- **approve** the proposed modification under section 75W of the EP&A Act; and
- **sign** the attached Notice of Modification (Appendix B).

 21/11/14

Kane Winwood  
**Team Leader**  
**Mining Projects**

 21.11.14

Mike Young  
**Manager**  
**Mining Projects**

## **APPENDIX A – ENVIRONMENTAL ASSESSMENT**

The EA and appendices can be viewed on the Department's website:

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=6550](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6550)

**APPENDIX B – NOTICE OF MODIFICATION**

**APPENDIX C – SUBMISSIONS**

**APPENDIX D – HERA’S RESPONSE TO SUBMISSIONS**