

Whitehaven ROM Coal Haulage Modification



Environmental Assessment

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1 INTRODUCTION

This document is an Environmental Assessment (EA) for the Whitehaven Run-of-Mine (ROM) Coal Haulage Modification (the Modification), and has been prepared to support an application to modify Project Approval (11_0047) for the Tarrawonga Coal Mine.

Project Approval (11_0047) currently allows up to 2 million tonnes per annum (Mtpa) of Tarrawonga ROM coal to be transported to the Whitehaven Coal Handling and Preparation Plant (CHPP) along the Approved Whitehaven ROM Coal Road Transport Route (Approved Road Transport Route), prior to the commissioning of upgraded infrastructure at the adjacent Boggabri Coal Mine (Figure 1).

Within 3 months following the commissioning of the Boggabri CHPP and rail spur, Project Approval (11_0047) requires Tarrawonga ROM coal to be transported off-site via Boggabri infrastructure.

Up to 1.5 Mtpa of ROM coal from the Rocglen Coal Mine (Figure 1) is also approved to be transported to the Whitehaven CHPP along the Approved Road Transport Route in accordance with Project Approval (10_0015).

In addition, Whitehaven Coal Limited (Whitehaven) proposes to use the southern section of the Approved Road Transport Route to transport a total of 4.5 Mtpa of ROM coal (i.e. cumulatively with other Whitehaven coal mines) from the Vickery Coal Project (Figure 1) to the Whitehaven CHPP (subject to approval of the Vickery Coal Project [SSD-5000]).

The Vickery Coal Project also includes construction of a private haul road and Kamilaroi Highway overpass (Figure 1) between Blue Value Road and the Whitehaven CHPP, which would remove the need for ROM coal trucks to cross the Kamilaroi Highway.

Modification – Tarrawonga Coal Mine

Due to the recent downturn in coal prices, Boggabri Coal Pty Ltd (BCPL) and Whitehaven do not currently consider it to be economically viable to process and transport Tarrawonga coal via Boggabri infrastructure.

As such, the Modification would involve an increase in the road haulage of Tarrawonga ROM coal (from 2 to 3 Mtpa) along the Approved Road Transport Route for the life of the Tarrawonga Coal Mine.

However, Whitehaven would manage the use of the Approved Road Transport Route such that the cumulative ROM coal transported from all Whitehaven coal mines (i.e. the Tarrawonga Coal Mine, Rocglen Coal Mine and Vickery Coal Project) to the Whitehaven CHPP would not exceed:

- 3.5 Mtpa (i.e. the currently approved rate¹) prior to the commissioning of the proposed private haul road and Kamilaroi Highway overpass (Figure 1); and
- 4.5 Mtpa (i.e. the maximum annual rate described and assessed in the Vickery Environmental Impact Statement [EIS]) following the commissioning of the proposed private haul road and Kamilaroi Highway overpass.

Therefore, in comparison with what is currently approved, or previously assessed in the Vickery EIS, the Modification would increase the maximum annual rate of ROM coal road haulage on the northern section of the Approved Road Transport Route only (i.e. between the Tarrawonga Coal Mine and the Vickery Coal Project) (Figure 1).

All dwellings proximal to the northern section of the Approved Road Transport Route are currently owned by Whitehaven and/or BCPL, or are subject to a purchase agreement by Whitehaven (Figure 2).

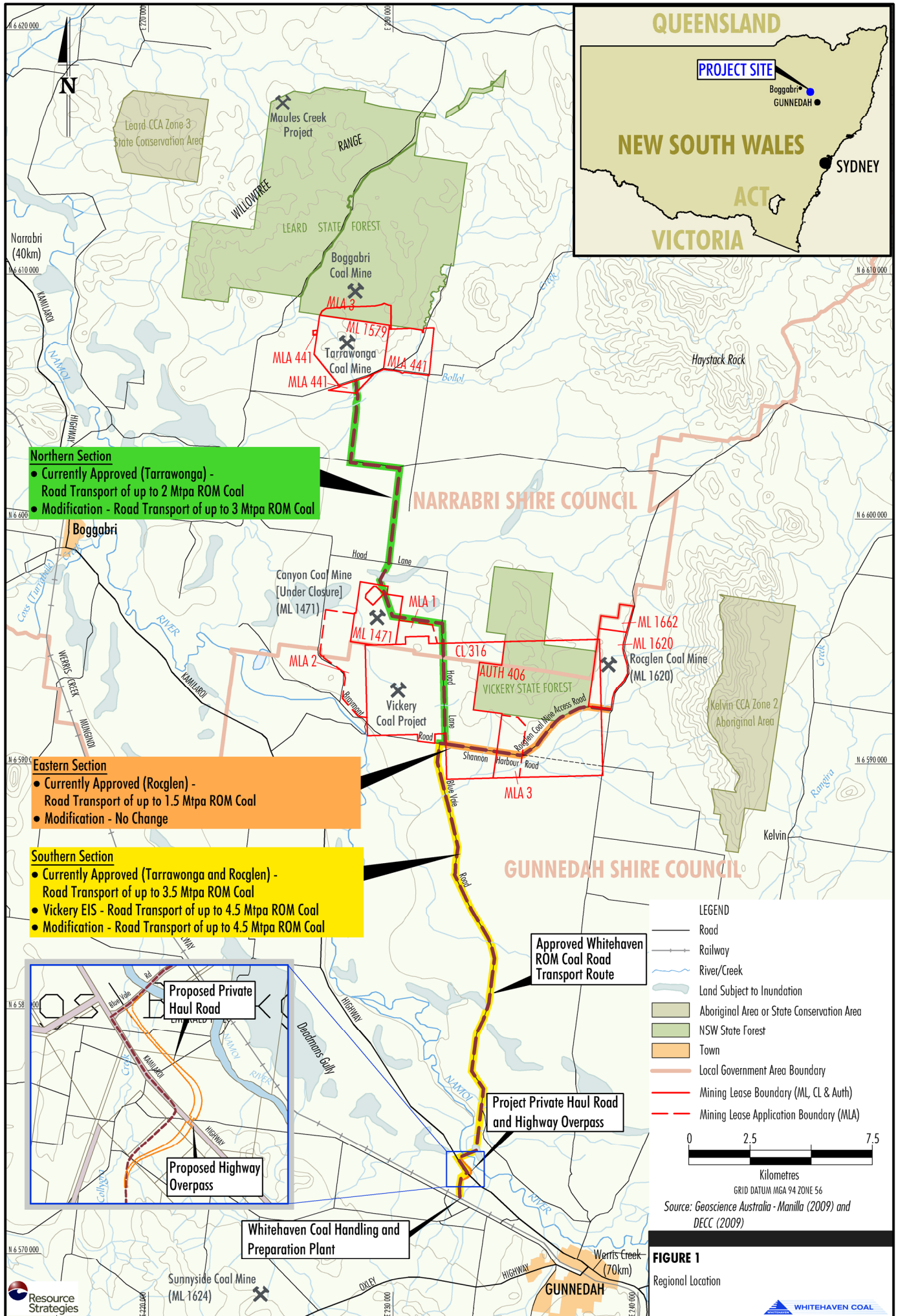
Notwithstanding the above, should financial circumstances improve, Tarrawonga ROM coal would be transported to the Boggabri Coal Mine for processing and transportation as described in the Tarrawonga EA.

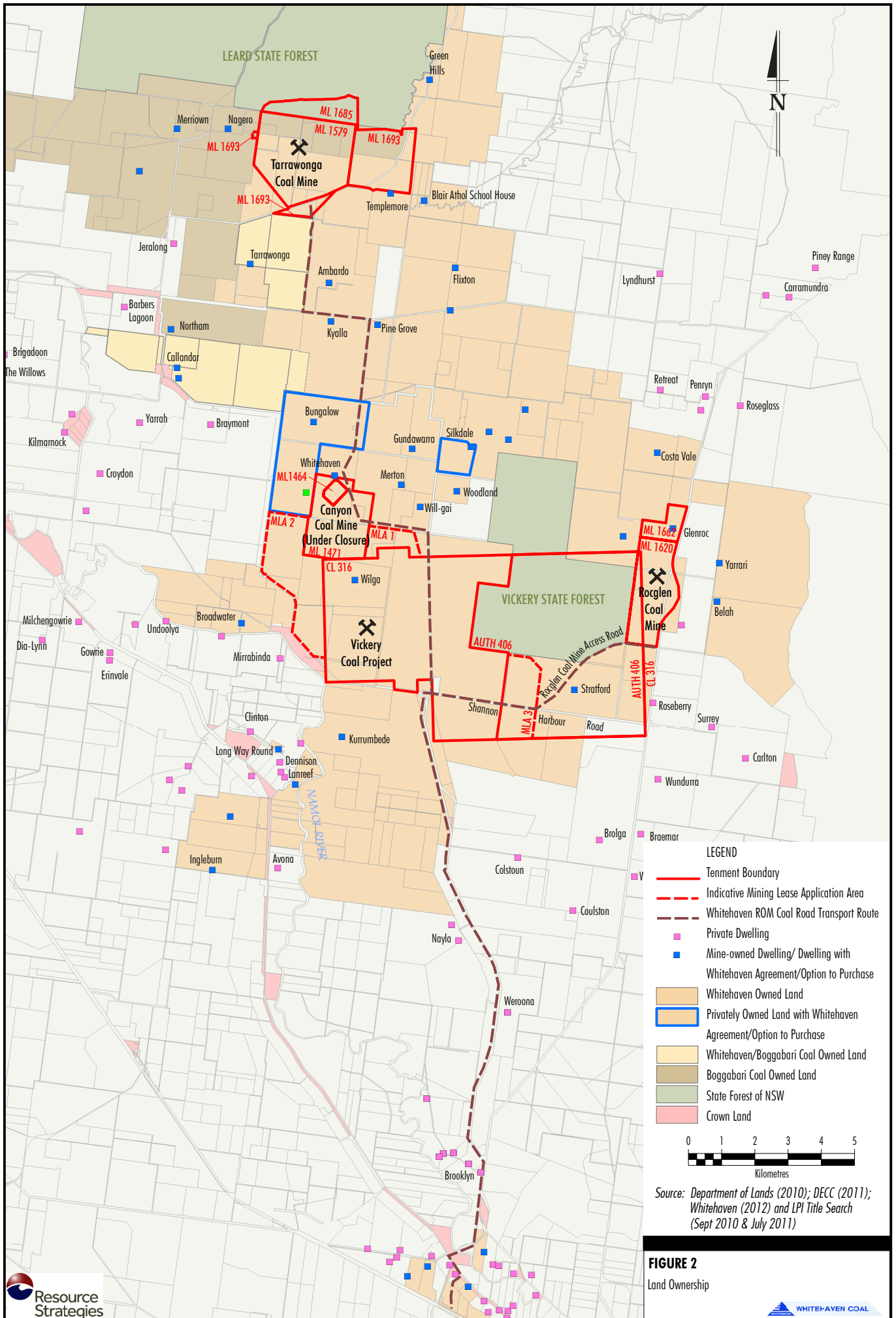
Modification – Rocglen Coal Mine

The Modification would not change the currently approved rate of ROM coal transported from the Rocglen Coal Mine to the Whitehaven CHPP (or any other approved operations at the Rocglen Coal Mine).

However, it is expected the Rocglen Project Approval (10_0015) would be modified to include a condition to reflect the commitment to manage the cumulative road haulage of ROM coal from the Tarrawonga and Rocglen Coal Mines and the Vickery Coal Project. As such, this EA also supports an application to modify Project Approval (10_0015) for the Rocglen Coal Mine.

¹ Comprising up to 2 Mtpa of Tarrawonga ROM coal and 1.5 Mtpa of Rocglen ROM coal.





2 BACKGROUND

2.1 Tarrawonga Coal Mine

The Tarrawonga Coal Mine is located approximately 42 kilometres (km) north-northwest of Gunnedah in New South Wales (NSW) (Figure 1).

The Tarrawonga Coal Mine is owned and operated by Tarrawonga Coal Pty Ltd (TCPL), which is a joint venture between Whitehaven Coal Mining Pty Ltd (a wholly owned subsidiary of Whitehaven) (70 percent [%] interest) and BCPL (30% interest).

Mining operations at the Tarrawonga Coal Mine are conducted in accordance with Project Approval (11_0047), which was granted by the NSW Planning Assessment Commission under delegation from the NSW Minister for Planning & Infrastructure pursuant to section 75J of the NSW *Environmental Planning and Assessment Act, 1979* (EP&A Act) on 22 January 2013.

In accordance with Project Approval (11_0047) the Tarrawonga Coal Mine is approved to extract up to 3 Mtpa of ROM coal until the end of December 2030.

A component of the Tarrawonga Coal Project was the construction and use of a haul road to the CHPP proposed to be constructed at the Boggabri Coal Mine (Figure 1). As described in the Tarrawonga EA, Tarrawonga coal was to be processed at the Boggabri CHPP and loaded onto trains for off-site transport via the Boggabri rail spur (Figure 1).

As such, Project Approval (11_0047) currently allows up to 2 Mtpa of Tarrawonga ROM coal to be transported to the Whitehaven CHPP along the Approved Road Transport Route prior to the commissioning of the Boggabri CHPP and rail spur.

Within 3 months following the commissioning of the Boggabri CHPP and rail spur, Project Approval (11_0047) requires Tarrawonga ROM coal to be transported off-site via the Boggabri rail spur.

2.2 Rocglen Coal Mine

The Rocglen Coal Mine is located approximately 25 km north of Gunnedah (Figure 1), and is owned and operated by Whitehaven.

Mining operations at the Rocglen Coal Mine are conducted in accordance with Project Approval (10_0015), which was granted by the Minister for Planning & Infrastructure pursuant to section 75J of the EP&A Act on 27 September 2011.

In accordance with Project Approval (10_0015) the Rocglen Coal Mine is approved to extract up to 1.5 Mtpa of ROM coal until the end of December 2022. ROM coal from the Rocglen Coal Mine is transported to the Whitehaven CHPP along the Approved Road Transport Route.

2.3 Approved Road Transport Route

The Approved Road Transport Route is shown on Figure 1, and comprises:

- northern section (between the Tarrawonga Coal Mine and Vickery Coal Project) – a combination of private roads and public roads (Rangari Road, Hoad Lane and Blue Vale Road);
- eastern section (between the Rocglen Coal Mine and Vickery Coal Project) – a combination of private roads (Rocglen Coal Mine Access Road) and public roads (Shannon Harbour Road); and
- southern section (south of the Vickery Coal Project) – Blue Vale Road and a section of the Kamilaroi Highway.

Whitehaven and BCPL have purchased, or entered into purchase agreements, with a number of properties adjacent to the Approved Road Transport Route (Figure 2).

All dwellings proximal to the northern section of the Approved Road Transport Route are currently owned by Whitehaven and/or BCPL, or are subject to a purchase agreement by Whitehaven (Figure 2).

2.3.1 Existing Road Maintenance Agreements

The Approved Road Transport Route lies within the Gunnedah and Narrabri local government areas (LGAs) (Figure 1).

In accordance with Condition 55, Schedule 3 of Project Approval (11_0047), Whitehaven/TCPL has entered into road maintenance agreements with the Gunnedah and Narrabri Shire Councils for the maintenance of public sections of the Approved Road Transport Route within the Gunnedah and Narrabri LGAs, respectively.

The road maintenance agreement with the Narrabri Shire Council requires the roads and intersections along the Approved Road Transport Route within the Narrabri LGA to be maintained in good condition at all times at Whitehaven/TCPL's cost.

The road maintenance agreement with the Gunnedah Shire Council requires Whitehaven/TCPL to pay 95% of road maintenance costs incurred by the Gunnedah Shire Council for Hoard Lane and Blue Vale Road.

2.3.2 Approved ROM Coal Haulage Rate

Whitehaven is currently approved to transport a total of up to 3.5 Mtpa of ROM coal to the Whitehaven CHPP along the Approved Road Transport Route, consisting up to 2 Mtpa from the Tarrawonga Coal Mine and 1.5 Mtpa from the Rocglen Coal Mine.

2.3.3 Approved ROM Coal Haulage Hours

ROM coal is currently approved to be transported along the Approved Road Transport Route between:

- 7.00 am to 10.00 pm Monday to Friday; and
- 7.00 am to 6.00 pm Saturday.

2.4 Vickery Coal Project

Whitehaven lodged an application (SSD-5000) for approval of the Vickery Coal Project (Figure 1) on 17 December 2012.

The NSW Department of Planning and Infrastructure (DP&I) is currently assessing the Vickery Coal Project.

The Vickery Coal Project would involve the development of an open cut coal mine producing up to 4.5 Mtpa ROM coal for a period of approximately 30 years, and would be located approximately 25 km north of Gunnedah (Figure 1).

Up to 4.5 Mtpa ROM coal from the Vickery Coal Project would be transported along the southern section of the Approved Road Transport Route to the Whitehaven CHPP (Figure 1).

The Vickery Coal Project also includes construction of an approximately 1 km long section of private haul road (including an overpass over the Kamilaroi Highway) between Blue Vale Road and the Whitehaven CHPP (Figure 1). This would remove the need for coal trucks to cross the Kamilaroi Highway.

The private haul road and Kamilaroi Highway overpass would be constructed prior to the cumulative road haulage of ROM coal along the Approved Road Transport Route (i.e. from the Tarrawonga Coal Mine, Rocglen Coal Mine and Vickery Coal Project) exceeding the currently approved road haulage rate of 3.5 Mtpa.

It is understood that the conditions of any Development Consent for the Vickery Coal Project would limit ROM coal haulage along the Approved Road Transport Route to:

- 6.00 am to 10.00 pm Monday to Friday; and
- 7.00 am to 6.00 pm Saturday.

3 MODIFICATION OVERVIEW

3.1 Increase in Tarrawonga ROM Coal Haulage

Due to the recent downturn in coal prices, BCPL and Whitehaven do not currently consider it to be economically viable to process and transport Tarrawonga coal via Boggabri infrastructure.

Accordingly, TCPL is seeking to modify Project Approval (11_0047) to authorise the transportation of up to 3 Mtpa of Tarrawonga ROM coal to the Whitehaven CHPP via the Approved Road Transport Route for the life of the Tarrawonga Coal Mine (i.e. until December 2030).

Notwithstanding, should financial circumstances improve, Tarrawonga ROM coal would be transported to the Boggabri Coal Mine for processing and transportation as described in the Tarrawonga EA.

3.2 ROM Coal Haulage Hours

It is proposed that for the Modification, the Tarrawonga ROM coal haulage transportation hours would be updated to be consistent with those expected for the Vickery Coal Project, which are as follows (Section 2.4):

- 6.00 am to 10.00 pm Monday to Friday; and
- 7.00 am to 6.00 pm Saturday.

In comparison with what is currently approved or previously assessed in the Vickery EIS, this would result in an additional hour of ROM coal haulage along the northern section of the Approved Road Transport Route (i.e. between 6.00 am and 7.00 am) on weekdays. However, there are currently no privately-owned dwellings along the northern section of the Approved Road Transport Route (Figure 2).

There would be no change to the currently approved Tarrawonga ROM coal haulage hours on Saturdays (i.e. 7.00 am to 6.00 pm), and no ROM coal haulage would occur on Sundays or public holidays.

3.3 Management of Cumulative ROM Coal Haulage

Notwithstanding the proposed increase in Tarrawonga ROM coal haulage, Whitehaven would manage the use of the Approved Road Transport Route such that the cumulative ROM coal transported from Whitehaven coal mines (i.e. the Tarrawonga Coal Mine, Rocglen Coal Mine and the Vickery Coal Project) to the Whitehaven CHPP would not exceed:

- 3.5 Mtpa (i.e. the currently approved rate) prior to the commissioning of the private haul road and Kamilaroi Highway overpass².
- 4.5 Mtpa (i.e. the maximum rate described and assessed in the Vickery EIS) following the commissioning of the private haul road and Kamilaroi Highway overpass.

That is, cumulative ROM coal haulage along the southern section of the Approved Road Transport Route would not exceed the maximum annual rate described and assessed in the Vickery EIS.

Notwithstanding, the Vickery EIS assessed the transport of up to 4.5 Mtpa of Vickery ROM coal on a 24 hour per day, 7 day per week basis. For the Modification, the cumulative ROM coal transported to the Whitehaven CHPP would be limited to those described in Section 3.2 to avoid ROM coal haulage during the night-time period (i.e. 10.00 pm to 6.00 am).

It is expected that both the Tarrawonga Project Approval (11_0047) and Rocglen Project Approval (10_0015) would be modified to include a condition to reflect the commitment to manage the cumulative road haulage of ROM coal from Whitehaven mines to the Whitehaven CHPP. It is also expected that any Development Consent for the Vickery Coal Project would include a consistent condition of approval.

In accordance with Development Consent (DA 0079.2002), the Whitehaven CHPP is currently approved to process up to 3 Mtpa of ROM coal, and the rail loadout facility at the Whitehaven CHPP is approved to handle up to 4.1 Mtpa of product coal. As a result of these existing constraints, not more than approximately 4.5 Mtpa of ROM coal could be received and processed/handled at the Whitehaven CHPP without infrastructure upgrades and additional environmental approvals.

Therefore, Whitehaven considers the commitment to limit the cumulative transport of ROM coal to the Whitehaven CHPP to 4.5 Mtpa to be reasonable for the Modification.

3.4 Other Project Components

3.4.1 Tarrawonga Coal Mine

There would be **no change** to the following key components of the currently approved Tarrawonga Coal Mine due to the Modification:

- mining operations (i.e. open cut coal mining and waste rock emplacement);
- maximum annual ROM coal production rate;
- mine life;
- mining tenements;
- surface development extent;
- water supply or management;
- peak number of employees;
- deliveries and consumables;
- the construction of Goonbri Road realignments and associated mine access road intersection prior to any project works occurring within 25 metres (m) of the existing Goonbri Road alignment, or on the southern/eastern side of the existing road alignment;
- use of an existing on-site mobile crusher for coal crushing and screening of up to 150,000 tonnes of domestic specification coal per annum for direct collection by customers at the mine site; and
- use an existing on-site mobile crusher to produce up to approximately 90,000 cubic metres (m³) of gravel materials per annum for direct collection by customers at the mine site.

3.4.2 Rocglen Coal Mine

The Modification would not change any component of the currently approved Rocglen Coal Mine operations, including the transport of up to 1.5 Mtpa of ROM coal transport to the Whitehaven CHPP.

Notwithstanding, the amount of Rocglen ROM coal transported to the Whitehaven CHPP would be managed in consideration of the amount of ROM coal transported from the Tarrawonga Coal Mine and/or the Vickery Coal Project (Section 3.3).

² The construction of the private haul road and Kamilaroi Highway overpass would be subject to approval of the Vickery Coal Project, and other relevant approvals.

3.5 Consultation

Consultation with the DP&I regarding the Modification was undertaken in December 2013.

The Vickery EIS described the cumulative transport of up to 4.5 Mtpa of ROM coal along the Approved Road Transport Route to the Whitehaven CHPP, which would not change for the Modification.

The Vickery EIS was placed on public exhibition by the DP&I between 5 March and 14 April 2013. As such, stakeholders and other interested parties have had the opportunity to review and provide comments on the proposed cumulative transport of up to 4.5 Mtpa of ROM coal along the Approved Road Transport Route to the Whitehaven CHPP during public consultation for the Vickery EIS.

4 ENVIRONMENTAL REVIEW

The Modification EA considers relevant potential impacts associated with the following proposed changes to currently approved/previously assessed operations:

- the increase in the road haulage of Tarrawonga ROM coal (from 2 to 3 Mtpa) on the northern section of the Approved Road Transport Route; and
- ROM coal haulage of up to 4.5 Mtpa on the southern section of the Approved Road Transport Route during the hours described in Section 3.2 (i.e. rather than 24 hours per day, 7 days week as described in the Vickery EIS).

Potential impacts associated with mining operations at the Tarrawonga Coal Mine were described and assessed in the Tarrawonga EA, and subsequently approved subject to the Tarrawonga Coal Mine operating in accordance with the conditions of Project Approval (11_0047).

As there would be no change to the currently approved mining operations at the Tarrawonga Coal Mine (Section 3.4) no further assessment relevant to mining operations at the Tarrawonga Coal Mine is required for the Modification.

The Modification would not change the currently approved Rocglen ROM coal haulage rate of 1.5 Mtpa, and therefore, no assessment of potential impacts on the eastern section of the Approved Road Transport Route is required.

A summary of the assessment of relevant potential impacts associated with the Modification is provided below.

4.1 Road Transport

A Road Transport Assessment Review was undertaken by GTA Consultants (2014) for the Modification and is presented as Appendix A to the EA.

4.1.1 Background

Tarrawonga Coal Mine

An assessment of potential road transport impacts was undertaken for the Tarrawonga EA by Halcrow (2011).

The assessment considered the haulage of up to 2 Mtpa of Tarrawonga ROM coal to the Whitehaven CHPP in Year 1 of the Tarrawonga Coal Mine. Following Year 1, it was assumed that up to 3 Mtpa of Tarrawonga ROM coal would be directly hauled to the Boggabri Coal Mine (Appendix A).

The assessment also considered other road traffic generated by the Tarrawonga Coal Mine, including employee movements, deliveries and the collection of domestic specification coal/gravel by customers.

No significant impacts on the performance, capacity, efficiency and safety of the local road network were predicted by Halcrow (2011), and no specific monitoring or mitigation measures were considered warranted.

Notwithstanding, in accordance with Project Approval (11_0047) the following management and monitoring measures relevant to road transport are undertaken for the Tarrawonga Coal Mine:

- trucks travelling to and from the site do not exceed 40 kilometres per hour in the vicinity of the school bus operating on Hoard Lane;
- Whitehaven has implemented a protocol whereby all ROM coal haulage truck drivers maintain positive communication between themselves and the bus drivers via UHF radio;
- all oversized vehicles have the relevant permits, licences and escorts, as required by the government agencies;
- all oversize vehicles loads are appropriately secured and covered; and
- road maintenance agreements have been implemented with the Gunnedah and Narrabri Shire Councils (as described in Section 2.3.1).

Vickery Coal Project

An assessment of potential road transport impacts was undertaken for the Vickery EIS by GTA Consultants (2012).

The assessment considered the potential impacts of the haulage of up to 4.5 Mtpa of ROM coal along the southern section of the Approved Road Transport Route (i.e. between Vickery and the Whitehaven CHPP) as well as other road traffic generated by the Vickery Coal Project.

In addition, the assessment considered the potential cumulative impacts associated with traffic expected to be generated by the following relevant sources:

- Tarrawonga Coal Mine;
- Rocglen Coal Mine;
- Boggabri Coal Mine;
- Maules Creek Coal Mine; and
- background traffic growth associated with other (non-mining) sources.

No significant impacts on the performance, capacity, efficiency and safety of the road network were expected by GTA Consultants (2012) to arise as a result of the Vickery Coal Project, including in consideration of expected cumulative impacts with other traffic sources. Therefore, no specific traffic monitoring or mitigation measures were considered to be warranted (GTA Consultants, 2012).

Whitehaven anticipates that road maintenance agreements similar to those currently held with the Gunnedah and Narrabri Shire Councils (Section 2.3) would be maintained over the life of the Vickery Coal Project (should it be approved).

4.1.2 Environmental Review

Northern Section of the Approved Road Transport Route

The increase in road haulage of Tarrawonga ROM coal (from 2 to 3 Mtpa) is predicted to increase average weekday ROM coal haulage truck movements on the northern section of the Approved Road Transport Route from approximately 348 to 520 vehicle movements per day (Appendix A).

GTA Consultants (2014) concludes the increased road haulage of Tarrawonga ROM coal for the Modification would result in no significant impacts on the performance, efficiency and safety of the road network relevant to the northern section of the Approved Road Transport Route, given the following:

- There would be no change to the Level of Service of the northern section of the Approved Road Transport Route, as the peak hourly volume of traffic associated with the Modification would remain significantly below the volume associated with a Level of Service A (i.e. the best traffic conditions).
- While there would be a small increase in the potential interaction between school buses and ROM coal haulage trucks, the increase is considered by GTA Consultants (2014) to be sufficiently small such that no additional measures or protocols (i.e. in addition to the existing measures and protocols described in Section 4.1.1) are considered warranted.

Southern Section of the Approved Road Transport Route – No Highway Overpass

Prior to the commissioning of the private haul road and Kamilaroi Highway overpass, Whitehaven would manage the use of the Approved Road Transport Route such that the cumulative ROM coal transported from Whitehaven coal mines would not exceed the currently approved rate of 3.5 Mtpa of ROM coal.

Therefore, no additional road transport impacts are predicted on the southern section of the Approved Road Transport Route prior to the commissioning of the private haul road and Kamilaroi Highway overpass (i.e. in comparison to those currently approved for the Tarrawonga Coal Mine and Rocglen Coal Mine) (Appendix A).

Southern Section of the Approved Road Transport Route – With Highway Overpass

Following the commissioning of the private haul road and Kamilaroi Highway overpass, Whitehaven would manage the use of the Approved Road Transport Route such that the cumulative ROM coal transported from Whitehaven coal mines would not exceed 4.5 Mtpa ROM coal.

As such, the Modification would not change the maximum annual ROM coal haulage rate of 4.5 Mtpa assessed in the Vickery EIS on the southern section of the Approved Road Transport Route.

No significant impacts on the performance, capacity, efficiency and safety of the road network were expected by GTA Consultants (2012) to arise as a result of the Vickery Coal Project, including in consideration of expected cumulative impacts with other traffic sources such as the Tarrawonga Coal Mine and Rocglen Coal Mine (Section 4.1.1).

Notwithstanding, for the Modification ROM coal haulage of up to 4.5 Mtpa on the southern section of the Approved Road Transport Route would occur during the hours described in Section 3.2, rather than 24 hours per day, 7 days week as described in the Vickery EIS.

It is predicted this would result in an increase (i.e. in comparison to what was assessed in the Vickery EIS) in average weekday ROM coal haulage truck movements from approximately 670 to 780 vehicle movements per day.

GTA Consultants (2014) concludes the increased average weekday ROM coal haulage truck movements for the Modification would result in no significant impacts on the performance, efficiency and safety of the road network relevant to the southern section of the Approved Road Transport Route, given the following:

- The construction of the private haul road and Kamilaroi Highway overpass would mean that ROM coal trucks would no longer use the intersections between the Approved Road Transport Route and the Kamilaroi Highway, which would reduce potential interactions with other traffic.
- There would be no change to the Level of Service of the southern section of the Approved Road Transport Route, as the peak hourly volume of traffic associated with the Modification would remain significantly below the volume associated with a Level of Service A.
- While there would be a small increase in the potential interaction between school buses and ROM coal haulage trucks, the increase is considered by GTA Consultants (2014) to be sufficiently small such that no additional measures or protocols (i.e. in addition to the existing measures and protocols described in Section 4.1.1) are considered warranted.

4.1.3 Mitigation, Monitoring and Management

GTA Consultants (2014) concludes that, in consideration of the commitment to manage the cumulative ROM coal haulage from Whitehaven coal mines to the Whitehaven CHPP (Section 3.3), the Modification would result in no significant impacts on the performance, efficiency and safety of the road network.

Therefore, no additional specific traffic monitoring or mitigation measures are considered to be warranted (Appendix A).

Whitehaven/TCPL would continue to implement the existing traffic management measures and protocols currently in place for the Tarrawonga Coal Mine for the Modification, as well as relevant measures required in accordance with any Development Consent for the Vickery Coal Project.

The existing road maintenance agreements with the Gunnedah and Narrabri Shire Councils would continue for the Modification.

In addition, it is expected that both the Tarrawonga Project Approval (11_0047) and Rocglen Project Approval (10_0015) would be modified to include a condition to reflect the commitment to manage the cumulative road haulage of ROM coal from the Tarrawonga and Rocglen Coal Mines and the Vickery Coal Project to the Whitehaven CHPP. It is also expected that any Development Consent for the Vickery Coal Project would include a consistent condition of approval.

4.2 Road Traffic Noise

A Road Traffic Noise Assessment Review was undertaken by Wilkinson Murray (2014) for the Modification and is presented as Appendix B to the EA.

4.2.1 Background

Tarrawonga Coal Mine

An assessment of potential road traffic noise impacts on public roads was conducted by Wilkinson Murray (2011) for the Tarrawonga EA.

Potential road traffic noise impacts were assessed against the criteria specified in the NSW *Environmental Criteria for Road Traffic Noise* (ECRTN) (EPA, 1999) (which has now been replaced by the NSW *Road Noise Policy* [RNP] [DECCW, 2011]).

No exceedances of the relevant road traffic noise criteria were predicted at the closest privately-owned receiver locations along the Approved Road Transport Route, including during Year 1 of the Tarrawonga Coal Mine (i.e. when 2 Mtpa of ROM coal was assessed as being transported to the Whitehaven CHPP).

Project Approval (11_0047) contains road traffic noise criteria, which require that noise generated by the Tarrawonga Coal Mine on public roads does not exceed the following criteria at existing residences on privately-owned land:

- day – 60 dBA $L_{Aeq(1\text{ hour})}$;
- evening – 60 dBA $L_{Aeq(1\text{ hour})}$; and
- night – 55 dBA $L_{Aeq(1\text{ hour})}$.

Vickery Coal Project

An assessment of potential road traffic noise impacts on public roads was conducted by Wilkinson Murray (2012) for the Vickery EIS.

The assessment considered the potential impacts of the haulage of up to 4.5 Mtpa of ROM coal along the southern section of the Approved Road Transport Route (i.e. between Vickery and the Whitehaven CHPP), as well as other road traffic generated by the Vickery Coal Project and other sources (such as the Tarrawonga Coal Mine and Rocglen Coal Mine).

The predicted noise levels at the two privately-owned receivers closest to Blue Vale Road along the Approved Road Transport Route were predicted to be below the relevant RNP road traffic noise criteria.

Wilkinson Murray (2012) also undertook an assessment of the potential noise impacts associated with the private haul road and Kamilaroi Highway overpass noise levels against the existing noise levels associated with the Kamilaroi Highway.

Combined noise from all traffic was predicted to meet the RNP road noise criterion of 60 dBA $L_{Aeq(15\text{ hour})}$ for the day time period, and noise from the private haul road and Kamilaroi Highway overpass alone was predicted to meet the RNP criterion for a new arterial road of 55 dBA $L_{Aeq(15\text{ hour})}$.

Rocglen Coal Project

Project Approval (10_0045) contains road traffic noise criteria, which require that noise generated by the Rocglen Coal Mine and Tarrawonga Coal Mine on public roads does not exceed the following criteria at existing residences on privately-owned land:

- day – 55 dBA $L_{Aeq(1\text{ hour})}$;
- evening – 55 dBA $L_{Aeq(1\text{ hour})}$; and
- night – 50 dBA $L_{Aeq(1\text{ hour})}$.

It is noted the road traffic noise criteria in the Rocglen Project Approval (10_0045) (dated September 2011) are inconsistent with the road traffic noise criteria in the more contemporary Tarrawonga Project Approval (11_0047) (dated September 2011), and are also inconsistent with the relevant RNP criteria.

Existing Compliance

Cumulative road traffic noise monitoring is conducted in accordance with the existing Road Traffic Noise Management Plan for the Rocglen Coal Mine.

Based on monitoring conducted in 2012 and 2013 (i.e. since Tarrawonga Project Approval [11_0047] was granted), no exceedances of the Tarrawonga road traffic noise criteria have been reported (inclusive of cumulative road traffic from the Rocglen Coal Mine on the southern section of the Approved Road Transport Route).

Notwithstanding, it is noted that monitoring conducted in June 2013 recorded a road traffic noise level of 57 dBA $L_{Aeq(1\text{ hour})}$ during the day at the “Brooklyn” dwelling located adjacent to the southern section of the Approved Road Transport Route (Figure 2).

This represents an 2 dB exceedance of the existing Rocglen criteria of 55 dBA $L_{Aeq(1\text{ hour})}$ for the day time period. However, as noted in the RNP, 2 dB represents a minor impact that is considered barely perceptible to the average person.

In addition, as described above, the Rocglen road traffic noise criterion for the day time period (55 dBA $L_{Aeq(1\text{ hour})}$) is inconsistent with the more contemporary Tarrawonga criterion for the day time period (60 dBA $L_{Aeq(1\text{ hour})}$). It is expected that the Rocglen road traffic noise criteria would be updated for the Modification to be consistent with the Tarrawonga road traffic noise criteria and the RNP.

4.2.2 Environmental Review

Road Traffic Noise Criteria

For the Modification, ROM coal haulage would occur between the hours of (Section 3.2):

- 6.00 am to 10.00 pm Monday to Friday; and
- 7.00 am to 6.00 pm Saturday.

It is noted that the ‘shoulder’ period of 6.00 to 7.00 am forms part of the night-time period (10.00 pm to 7.00 am) as defined in the RNP. However, Section 2.5.5 of the RNP recognises that it may be reasonable to vary the standard time period applied to the day (7.00 am to 10.00 pm) and night (10.00 pm to 7.00 am), and that appropriate noise levels for ‘shoulder’ periods may be negotiated with the determining or regulatory authority.

Based on consultation with the DP&I in December 2013 (Section 3.5), potential road traffic noise impacts associated with the Modification have been assessed against the relevant criteria for the day time period only (i.e. the ‘shoulder’ period 6.00 to 7.00 am is considered to be part of the day time period).

While ROM coal haulage would occur over a 16 hour period (6.00 am to 10.00 pm) on weekdays, Wilkinson Murray (2014) conservatively assumed that all ROM coal haulage would occur over a 15 hour period, with the resulting potential road traffic noise impacts compared against the relevant criteria of 60 dBA $L_{Aeq(15hour)}$ for the day time period.

Northern Section of the Approved Road Transport Route

Wilkinson Murray (2014) predicted potential road traffic noise impacts associated with the transport of 3 Mtpa of Tarrawonga ROM coal along the northern section of the Approved Road Transport Route.

Since the Tarrawonga EA and Vickery EIS, Whitehaven and BCPL have purchased, or Whitehaven has entered into purchase agreements, with a number of properties proximal to the northern section of the Approval Road Transport Route (Section 2.3) (Figure 2).

The closest privately-owned receivers, the “Braymont” and “Jeralong” dwellings (Figure 2), are located over 4 km away from the northern section of the Approved Road Transport Route.

By comparison, the Tarrawonga EA assessed potential road traffic noise impacts at the “Kyalla” dwelling (Figure 2), which is located approximately 180 m from the Approved Road Transport Route, with no exceedances of the relevant road traffic noise criteria predicted at “Kyalla”, including during the transport of 2 Mtpa of Tarrawonga ROM coal.

No exceedances of the relevant day time road traffic noise criteria were predicted at any privately-owned receivers along the northern section of the Approved Road Transport Route due to the Modification (Appendix B).

There would be no ROM coal haulage during the night-time period for the Modification, and therefore, no exceedance of the night-time road traffic noise criteria is expected (Appendix B).

Southern Section of the Approved Road Transport Route

Wilkinson Murray (2014) predicted potential road traffic noise impacts associated with the cumulative transport of 4.5 Mtpa of ROM coal along the southern section of the Approved Road Transport Route.

The closest privately-owned receivers to the southern section of the Approved Road Transport Route are the “Brooklyn” and “Weroona” dwellings (Figure 2).

It was predicted that there would be no exceedance of the relevant road traffic noise criteria at either the “Brooklyn” or “Weroona” dwellings during the day time period (Appendix B).

The maximum total road traffic noise levels (i.e. including the cumulative haulage of 4.5 Mtpa of ROM coal, other cumulative mine-related traffic and non-mining traffic) are presented in Table 1.

Table 1
Maximum Predicted Road Traffic Noise Levels

Receiver	Maximum Predicted Noise Level ¹	Criteria
Brooklyn	55 dBA $L_{Aeq(15hour)}$	60 dBA $L_{Aeq(15hour)}$
Weroona	46 dBA $L_{Aeq(15hour)}$	60 dBA $L_{Aeq(15hour)}$

Source: After Appendix B.

¹ Includes road traffic noise associated with: cumulative haulage of 4.5 Mtpa of ROM coal from the Tarrawonga Coal Mine, Rocglen Coal Mine and Vickery Coal Project; other cumulative mine-related traffic; and non-mining traffic.

There would be no ROM coal haulage during the night-time period for the Modification, and therefore, no exceedance of the night-time road traffic noise criteria is expected (Appendix B).

As the relevant road traffic noise criteria are predicted to be met at the two closest receivers, then the criteria would be anticipated to be met at all other receivers (Figure 2) along the southern section of the Approved Road Transport Route.

Private Haul Road and Kamilaroi Overpass

Wilkinson Murray (2014) has undertaken an assessment of the potential noise impacts associated with ROM coal haulage trucks using the private haul road and Kamilaroi Highway overpass.

No exceedances of the relevant RNP road noise assessment criteria for the day time period were predicted at any of the privately-owned receivers surrounding the private haul road and Kamilaroi Highway overpass (Figure 2) due to the Modification (Appendix B).

4.2.3 Mitigation, Monitoring and Management

Road traffic noise monitoring would continue to be conducted in accordance with the existing Road Traffic Noise Management Plan, which would be reviewed and updated for the Modification.

4.3 Air Quality

The Air Quality and Greenhouse Gas Assessment prepared for the Vickery EIS (PAEHolmes, 2012) considered potential dust emissions associated with ROM coal transport along the Approved Road Transport Route.

It was concluded that, as the on-highway trucks used for transportation of ROM coal to the Whitehaven CHPP would be covered to minimise potential dust emissions, and the trucks would travel along sealed roads, dust emissions would be negligible (PAEHolmes, 2012).

These control measures would continue for the Modification. Therefore, the PAEHolmes (2012) conclusion that ROM coal transport along the Approved Road Transport Route would result in negligible dust emissions is relevant for the Modification.

5 LEGISLATIVE FRAMEWORK

The legislative framework relevant to the Modification is described below.

5.1 Section 75W of the Environment Planning and Assessment Act, 1979

The Tarrawonga Project Approval (11_0047) and Rocglen Project Approval (10_0015) were granted under Part 3A of the EP&A Act.

Therefore, the Tarrawonga and Rocglen Coal Mines both constitute a “transitional Part 3A project” pursuant to the savings and transitional provisions in Schedule 6A of the EP&A Act.

Clause 3 of Schedule 6A provides that Part 3A of the EP&A Act continues to apply to and in respect of “transitional Part 3A projects” following its repeal. That is, Part 3A of the EP&A Act continues to apply, notwithstanding its repeal.³

Approval for the proposed changes is sought as modifications to the Tarrawonga Project Approval (11_0047) and Rocglen Project Approval (10_0015) under section 75W of the EP&A Act.

Section 75W of the EP&A Act relevantly provides:

75W Modification of Minister’s approval

(1) *In this section:*

Minister’s approval means an approval to carry out a project under this Part, and includes an approval of a concept plan.

modification of approval means changing the terms of a Minister’s approval, including:

- a) *revoking or varying a condition of the approval or imposing an additional condition of the approval, and*
- b) *changing the terms of any determination made by the Minister under Division 3 in connection with the approval.*

(2) *The proponent may request the Minister to modify the Minister’s approval for a project. The Minister’s approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.*

³ Part 3A of the EP&A Act (as in force immediately before its repeal) continues to apply for the Tarrawonga and Rocglen Coal Mines. The references to clauses of Part 3A in this document are, therefore, as if Part 3A of the EP&A Act is still in force.

- (3) *The request for the Minister's approval is to be lodged with the Director-General. The Director-General may notify the proponent of environmental assessment requirements with respect to the proposed modification that the proponent must comply with before the matter will be considered by the Minister.*
- (4) *The Minister may modify the approval (with or without conditions) or disapprove of the modification.*

...

5.2 Other Legislation

5.2.1 Tarrawonga Coal Mine

State Environmental Planning Policies

Under section 75R(2)(b) of the EP&A Act, State Environmental Planning Policies (SEPPs) apply to projects to which Part 3A applies.

Given this, various SEPPs potentially of relevance to the Tarrawonga Coal Mine were described in the Tarrawonga EA, including:

- Major Development SEPP;
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;*
- *State Environmental Planning Policy No. 44 – Koala Habitat Protection;*
- *State Environmental Planning Policy No. 55 – Remediation of Land;*
- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007;* and
- *State Environmental Planning Policy (Infrastructure) 2007.*

No change is required to the location of the development, land uses, materials handled or the development of infrastructure at the Tarrawonga Coal Mine due to the Modification.

While there would be an increase in ROM coal transported to the Whitehaven CHPP due to the Modification (up to a total of 3 Mtpa), ROM coal is currently approved to be transported at a rate of 2 Mtpa along the Approved Road Transport Route in accordance with the conditions of Project Approval (11_0047).

On this basis, consideration of additional SEPPs (i.e. in addition to those considered in the Tarrawonga EA) is not required for the Modification.

Local Environmental Plans

The Approved Road Transport Route lies within the Narrabri and Gunnedah Shire Council LGAs. Given this, the Tarrawonga EA considered the Gunnedah Local Environmental Plan (LEP) and Narrabri LEP.

Project Approval (11_0047) currently allows ROM coal to be transported along the Approved Road Transport Route within the Narrabri and Gunnedah Shire Council LGAs, subject to Whitehaven/TCPL entering into road maintenance agreements with the Gunnedah and Narrabri Shire Councils.

Whitehaven/TCPL implements road maintenance agreements with the Gunnedah and Narrabri Shire Councils (Section 2.3.1), and these agreements would continue for the Modification.

On this basis, further consideration of LEPs is not required for the Modification.

5.2.2 Rocglen Coal Mine

The Modification would not change the approved operations of the Rocglen Coal Mine.

Therefore, no further consideration of relevant SEPPs or LEPs is required for the Modification.

6 REFERENCES

- Department of Environment, Climate Change and Water (2011) *NSW Road Noise Policy*.
- Environment Protection Agency (1999) *Environmental Criteria for Road Traffic Noise*.
- GTA Consultants (2012) *Vickery Coal Project Gunnedah Basin, NSW, Road Transport Assessment*. Report prepared for Whitehaven Coal Limited.
- GTA Consultants (2014) *Whitehaven ROM Coal Haulage Modification – Road Transport Assessment Review*. Letter prepared for Whitehaven Coal Limited.
- Halcrow (2011) *Tarrawonga Coal Project Road Transport Assessment*. Report prepared for Tarrawonga Coal Pty Ltd.
- PAEHolmes (2012) *Vickery Coal Project Air Quality and Greenhouse Gas Assessment*. Report prepared for Whitehaven Coal Limited.

Tarrawonga Coal Pty Ltd (2012) *Tarrawonga Coal Project Environmental Assessment*.

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Wilkinson Murray (2011) *Tarrawonga Coal Project Environmental Assessment Noise and Blasting Impact Assessment*. Report prepared for Tarrawonga Coal Pty Ltd.

Wilkinson Murray (2012) *Vickery Coal Project Environmental Impact Statement Noise and Blasting Impact Assessment*. Report prepared for Whitehaven Coal Limited.

Wilkinson Murray (2014) *Whitehaven ROM Coal Haulage Modification – Road Traffic Noise Assessment Review*. Letter prepared for Whitehaven Coal Limited.