

20 June 2012

**Berrima Colliery Continued Operations (MP 10\_0172) &  
Berrima Cement Works Coal Stockpiling (DA 401-11-2002-i MOD 6)**

**PROPOSAL**

This proposal seeks approval for the following two separate applications:

- Project approval for the continued operation of the Berrima Colliery; and
- Modification approval to increase the coal stockpiling capacity at the existing Berrima Cement Works.

The main activities associated with the project application include:

- continued underground mining of coal within the currently approved footprint, producing up to 460,000 tpa of ROM coal;
- continued operation of existing mine facilities and support structures;
- expansion of the Loch Catherine stockpile area, increasing stockpile capacity from 100,000 tonnes to 115,000 tonnes;
- continued transportation of coal by road to current and future markets or to stockpiling areas;
- new bushfire Asset Protection Zones (APZ) around the colliery's pit-top and the Loch Catherine stockpile site; and
- rehabilitation of the site at the conclusion of mining operations.

The main activities associated with the modification include:

- increasing coal stockpile volumes (over time) at the Berrima cement works to 25,000 tonnes to enable the trucking of the majority of coal to Port Kembla for export from the works; and
- transportation of coal to a bulk carrier at Port Kembla during five campaigns per year over a five to seven day period.

The Proponent for this application is Boral Cement Limited.

**DELEGATION TO THE COMMISSION**

The project was referred to the Commission for determination under the terms of the Ministerial delegation dated 14 September 2011.

Dr Neil Shepherd AM and Mr Garry Payne AM were nominated as the Commission members for the project. Dr Neil Shepherd AM chaired the Commission.

**DEPARTMENT'S ASSESSMENT REPORT**

On 4 April 2012, the Commission received the Director-General's Environmental Assessment Report. The report provided an assessment of key issues including:

- subsidence impacts;
- surface and ground water impacts;
- traffic impacts;
- noise impacts; and
- air quality impacts.

The report also considered social economic impacts, ecology impacts, heritage impacts and rehabilitation.

The Department's Assessment Report concluded that continued operation of the existing colliery is important for ongoing employment and investment in the region and for its significant role in supplying coal for production of cement at the Berrima and Maldon Cement Works. The Department considers that the impacts of the project are able to be managed, minimised or offset to ensure that the proposal achieves an acceptable level of environmental performance. The Department recommended that the application be approved subject to conditions.

The Department received a total of 69 submissions on the project application comprising:

- 8 from public authorities;
- 3 from special interest groups; and
- 58 from the general public.

A total of 68 submissions were received for the modification application comprising:

- 4 from public authorities;
- 1 from special interest groups; and
- 63 from the general public.

Of the 58 submissions received from the general public for the project application 43 supported the project and 15 objected. Of the 68 submissions received for the modification application 42 supported the application and 21 objected. The key areas of concern included traffic impacts noise, air quality, consultation, ground and surface water impacts, subsidence, ecology and socio-economic impacts.

## **Meetings with Key Stakeholders**

### Wingecarabee Shire Council

On 22 May 2012, the Commission met with Council officers, Council's Community Coal Reference Panel and Residents of Medway and Surrounding Properties (at Council's invitation) to discuss the application.

The Council staff indicated support for the ongoing operations of the Colliery subject to suggested amendments. Key issues raised at the meeting included:

- Subsidence (mine subsidence declaration);
- Surface and ground water impacts;
- On-site sewage system upgrade;
- Traffic impacts;
- Coal haulage levy for Taylor Avenue;
- Noise impacts; and
- Air quality impacts;

The Council's Community Coal Reference Panel indicated support for the existing operations. However, the Community Coal Reference Panel do not support the expanded operations. The Panel raised the following concerns:

- Ground and surface water impacts: particularly aquifer interference, discharge water quality (manganese and nickel concentrations), lack of data to support assessment of these impacts and discharge volumes;
- Opposes coal mining in the Southern Highlands generally; and
- Dust impacts.

The Residents of Medway and Surrounding Properties raised the following issues:

- Traffic impacts including safety, noise, dust and pavement failure associated with additional truck movements;
- Timing of proposed road upgrade works;
- Lack of consultation; and
- Dust impacts.

On 14 June 2012, the Commission received further correspondence from Council raising concerns regarding surface and ground water impacts including the site water balance, ground water depletion, aquifer interference and the quality of mine water discharging into the Wingecarribee River.

#### Proponent

On 26 April 2012, the Commission met with the Proponent to discuss the proposal. The discussion focused on traffic impacts associated with coal haulage, conditions associated with the upgrade of local roads, noise impacts, hours of operation, water impacts and subsidence performance standards.

The Commission also inspected the site including:

- the pit-top;
- the Loch Catherine stockpile;
- the haulage road between the pit-top and the Loch Catherine Stockpile;
- Medway Road from the Colliery to the Cement works; and
- the stockpile at the cement works.

On 1 June 2012, the Commission met with the Proponent to discuss amendments to the conditions to address issues raised at the public meeting.

#### Public Meeting

The Commission held a public meeting on 22 May 2012, to hear the public's views on the Department's Assessment Report and recommendation. Nine people spoke at the Commission meeting (see Appendix 1). The key issues of concern raised at the meeting included:

- Traffic/Road impacts associated with coal haulage (pavement failure, narrow road width, no line marking, inadequate road drainage and shoulder width, safety, conflict with other road users, timing of upgrade works, vibration, inadequate levy for maintenance);
- Ground and surface water impacts (aquifer interference, discharged water quality and quantity, availability of groundwater for other uses).
- Upgrade of on-site sewage system;
- Offset planting for clearing required for the expanded Loch Catherine Stockpile and for the Asset Protection Zone around the colliery pit-top;
- Dust generation from mine activities and vehicle movements;
- Contamination of domestic rain water tanks;
- Road Maintenance levy for Taylor Avenue;
- Further assessment of the export haulage impacts after two campaigns;
- Inadequate Greenhouse Gas assessment;
- Noise from traffic and mine operations;
- Construction of a by-pass road around Medway;
- Flora and Fauna impacts;
- Wording of conditions;
- Inadequate consultation;
- Impact on property values;
- Compliance / enforcement of conditions and penalties for breaching conditions;
- Complaints handling;
- Speed limits / incorrect school bus times signage; and
- Revival of exporting coal from the mine.

#### Department of Planning and Infrastructure

The Commission met with officers from the Department of Planning on 6 June 2012. The meeting focused on clarifying and strengthening a number of the conditions to address issues raised in the Commission's consultation process and to ensure the proposal could achieve an acceptable level of environmental performance.

On 12 June 2012, the Department submitted a revised set of conditions for consideration.

## COMMISSION'S COMMENTS

### Traffic

One of the key concerns raised at the public meeting and by Council was the impact of coal haulage along Medway Road and the haul road between the pit-top and the Loch Catherine stockpile. Key issues associated with coal haulage included:

- amenity impacts (dust and noise generation);
- road safety;
- timing of road works;
- Taylor Avenue Levy; and
- export campaigns.

### Amenity Impacts

Residents from the village of Medway and properties facing Medway Road raised concern regarding noise and dust generated by haulage trucks. Trucks travelling along Medway Road and the haul road between the pit-top and the Loch Catherine stockpile generate noise and dust as they travel over damaged road pavements, broken road edges and unsealed road surfaces. Dust is also generated from coal spilt on the road surface.

The Commission notes the Department has recommend a number of conditions to improve the standard of Medway Road, including:

- widening the road surface to 10m;
- repairing existing damaged sections of the road; and
- payment of a maintenance levy to ensure the road is maintained to an acceptable standard.

These measures will help reduce traffic noise and dust mobilisation from the road surface.

The Proponent has also committed to a number of practical measures to reduce the mobilisation of dust including the installation of rumble grids, restricting vehicle speeds to 20km/h on unsealed roads and spraying water on haul roads.

Notwithstanding the above measures, the Commission notes that dust and noise generated by coal haulage remains an issue for the residents of Medway. Consequently, the Commission has strengthened the conditions to further minimise noise and dust generation.

Additional conditions include;

- Sealing the haul road from the pit-top to the Loch Catherine Stockpile to minimise noise and dust being generated from internal access roads that are within close proximity to Medway Village (*Condition 17(c) Schedule 3 Operating Conditions*);
- Maintenance of the haul road to a standard to ensure noise and dust generation is minimised (*Condition 17(c) Schedule 3 Operating Conditions*);
- Reducing haulage hours from the Colliery pit-top to the Loch Catherine stockpile on Saturdays (starting 7am rather than 6am to provide a consistent start time for all haulage routes to and from the Colliery) (*Condition 7(a) Schedule 2 Coal Extraction and Transport*);
- Requiring a noise audit to be conducted (which includes noise generated by coal haulage) which identifies sources of noise that would contribute to exceedences of the noise goals contained in the approval and makes recommendations on measures to achieve the noise goals(*Condition 10(b) Schedule 3 Noise Goals and Audit*); and
- Ensuring all coal trucks are loaded and covered so as to minimise emission of dust and to prevent spillage of coal onto road surfaces (*Condition 17(d) Schedule 3 Operating Conditions*).

Overall, the Commission considers that the amended conditions will minimise noise and dust generation from coal haulage to an acceptable standard.

### Road Safety

Concern was raised at the public meeting about road safety, particularly for road users such as local residents, school buses and cyclists who share the Medway Road with coal haulage trucks.

The Commission considers that the Proponent's statement of commitments, together with the Department's recommended conditions, will improve safety along Medway Road, particularly through Medway Village.

The Commission notes that the Proponent is required to upgrade Medway Road by widening the road surface, repairing existing damaged sections of the road, upgrading 20m of Liebman's Road (from its intersection with Medway Road) and upgrading nine private property driveways along Medway Road.

Further, the Proponent will be required to prepare and implement a Road Transport Protocol. This would include a Traffic Management Plan and Code of Conduct which in turn includes mechanisms to address designated haulage routes, measures to maximise low frequency trucking schedules, a complaints handling procedure, travel speed restrictions and compliance measures.

The Commission also notes that the Proponent has committed to a 30km/ph speed limit through the village of Medway. This will ensure trucks pass through the village at an appropriate speed.

The Commission is satisfied that the proposed road upgrade works, together with the Road Transport Protocol and the Proponent's Statement of Commitments, will provide a sound platform for improved road safety conditions along Medway Road. However, the required result will only come from effective implementation, particularly of the protocol and commitments.

### Road Upgrade – Timeframe

Concern was raised regarding the timing of the proposed Medway Road upgrade works. Many residents considered that the works should be completed prior the expanded operations commencing.

The current recommended conditions require:

- Phase 1 road works (widening the current 50km/hr section of Medway Road to 10m and repairing existing damaged sections of Medway Road) to be completed no later 31 March 2013.
- Phase 2 works (widening the 80km/hr section of the Road to 10m, upgrading 20m of Liebman's Road intersection and nine private property driveways) to be implemented when the project reaches coal sales exceeding 330,000 tonnes per annum, but no later than 31 March 2014.

The Commission accepts the Department's assessment and considers that the timing of the road works is reasonable given much of the coal haulage traffic is existing and the upgrade works are required to be completed in a relatively short time period.

However, to avoid any doubt when the upgrade works are to be completed, the Commission has:

- deleted the reference to the coal sales target from the phase two works; and
- adjusted the Phase 1 and Phase 2 completion dates to 12 months and 24 months respectively from the date of the approval (in keeping with the intent of the original recommendation).

### Road Bypass

Council and residents at the public meeting suggested that a new bypass road be constructed to separate haulage traffic from Medway Road. However, the Commission notes

that a bypass road does not form part of the current application and has not been considered in the assessment process. The Commission also considers that the cost and time frame for constructing such a bypass may be prohibitive given the limited lifetime of the project approval.

#### Taylor Avenue Maintenance Levy

In addition to the Medway Road maintenance levy, Council has requested a levy for coal haulage along Taylor Avenue. The levy would be used for the reconstruction of Taylor Avenue (or parts thereof) and not apply to ongoing maintenance.

Council has requested a levy of 2 cents per laden kilometre for coal haulage along Taylor Avenue from the colliery to the cement works stockpile and from the stockpile to the Hume Highway. Council has set the levy at 2 cents per kilometre in recognition of the number of existing truck movements along Taylor Avenue.

The Commission considers that a levy for Taylor Avenue is reasonable as the proposal will result in additional truck movements along Taylor Avenue which will require ongoing maintenance/reconstruction over time. The Commission has therefore imposed a new condition (*Condition 27 Schedule 3 Maintenance of Taylor Avenue*) accordingly.

#### Export Campaigns

The modification application seeks approval to increase coal stockpile volumes (over time) at the Berrima cement works to 25,000 tonnes to enable transportation of the majority of coal by road to Port Kembla Coal Terminal for export.

To minimise the impacts associated with the export of coal, the Department has imposed conditions that require:

- export campaigns to be limited to a maximum of 5 campaigns per calendar year with each campaign limited to seven days in duration;
- restriction of export campaigns between 4am to 4pm to minimise impacts on the road network and to provide respite periods;
- suspension of cement clinker haulage from the cement works to offset the additional traffic movements; and
- implementation of a specific Traffic Management Plan to manage traffic impacts between the Cement works and the Port Kembla Coal Terminal.

Council requested that a further condition be included to enable a review of the 4am to 4pm operational times following the completion of the first two export haulage campaigns.

The Commission considers that Council's request has merit as it will allow further assessment of the impacts associated with the coal export campaigns once the full extent of the impacts are known. However, the Commission recommends that the review be broadened beyond operating times to a general review of the impacts associated with the export campaigns. This will enable further adjustment of the operating conditions (where necessary) to ensure the export campaigns have an acceptable environmental performance. The Commission has therefore imposed a new condition (*Condition 3.16E*) on the modification approval accordingly.

#### Conclusion

The Commission has carefully considered the issues raised at the public meeting as well as the Department's Assessment Report and recommended conditions. Whilst traffic will increase along Medway Road and the haul road between the colliery pit-top and the Loch Catherine Coal stockpile, the Commission is satisfied that the impacts associated with the additional truck movements will be minimised through the amended conditions of approval.

## **Ground and Surface Water Impacts**

The Council and speakers at the public meeting raised concern regarding the impacts of the proposal on ground and surface water. A further detailed submission on these issues was received on 14 June and referred to Department for consideration. In particular, concern was raised regarding the site water balance, ground water depletion, aquifer interference and the quality of mine water discharging into the Wingecarribee River.

The lack of appropriate data on which to make a proper assessment of water impacts is raised in government agency, local government and public submissions alike. The Proponent also acknowledged to the Commission that the data were inadequate.

This situation appears to arise from reliance on the long history of a mine with no obvious serious incidents and a level of operational and regulatory complacency that is out of step with current requirements. It means that the Commission is again faced with a decision as to whether to delay or refuse a Project until the required data are available for consideration, or construct an approval framework that will ensure collection of the required data, proper assessment of the options and retro-fitting of any actions required into the approval.

Given the long history of this mine and its small size, the Commission is prepared in this instance to adopt the approach of constructing an approval framework that will ensure collection of the required data, proper assessment of the options and retro-fitting of any actions required into the approval. However, the Commission considers this to be poor practice and that its acceptability is likely to come under increasing scrutiny in the future.

For the public, the situation is compounded by the difficulty of understanding just what is being proposed in the draft approval conditions annexed to the Director-General's Assessment Report. It requires extensive cross-referencing of Schedule 3, Appendix 4, the Proponent's Response to Submissions, relevant parts of the EA, and the EPL to understand exactly what is required – and following the trail is no easy task.

The Commission has undertaken the cross-referencing task and is satisfied that the aggregated requirements would, if undertaken properly, provide the data necessary to assess any changes in operational or regulatory requirements and provide a pathway for implementation. However, in the interests of transparency the Commission requested the Department to provide a much clearer and cohesive scheme of conditions for surface and groundwater investigations, management and improvements. The Commission considers that the amended conditions achieve this.

In summary, the conditions will require the Proponent to prepare and implement a comprehensive Water Management Plan for the project in consultation with EPA and NOW which includes, (but is not limited to):

- a Site Water Balance that includes details of sources of water supply; water use on site water management on site; and reporting procedures;
- a Surface Water Management Plan, that includes a detailed investigation of the options available to reduce the levels of manganese and nickel in the water being discharged into the Wingecarribee River, and a proposed program of measures to be implemented to reduce these levels;
- a Groundwater Management Plan, which includes baseline data of all groundwater levels, including any privately-owned groundwater bores that may be affected by mining operations on site;
- a program to monitor the impacts of the project, including impacts on the alluvial aquifers and any groundwater bores on privately-owned land;
- a plan to respond to any exceedences of the performance criteria, and mitigate and/or offset any adverse groundwater impacts of the project.

The Commission considers that the amended conditions establish an appropriate management approach for assessing and monitoring surface water and groundwater impacts. The conditions will also drive continuous improvement of water quality over time.

## **Operational Noise**

Concern was raised regarding noise impacts from the colliery on the nearby residents in the village of Medway. Modelling undertaken for the EA shows that exceedences of the day time and evening criteria would occur under windy conditions.

Given the predicted exceedences and the proximity of the colliery to the village of Medway, the Commission has amended the conditions in order to provide a more structured approach to drive continuous improvement of noise impacts over time, particularly during adverse weather conditions when noise transmission is exacerbated.

The Commission has therefore amended the conditions to include:

- (i) A noise audit to identify the activities and sources of noise causing exceedences of the noise goals and providing recommendations as to how the activities/sources might be modified to achieve the goals;
- (ii) a strategy for achieving the noise goals and a requirement to set more stringent criteria in response to audit findings and recommendations;
- (iii) A requirement to minimise the noise impacts of the Project during adverse meteorological conditions including a requirement to investigate and report annually on the measures taken to minimise noise impacts from the Project under adverse meteorological conditions including:
  - the effectiveness of these measures in maintaining impacts within the noise criteria; and
  - any additional measures available to mitigate noise impacts under adverse meteorological conditions;

Overall, the Commission considers that the recommended conditions of approval (as modified) will adequately manage noise impacts to an acceptable standard.

## **Other Issues**

### Vegetation

A number of speakers at the public meeting raised concern regarding the extent of land clearing associated with the proposal. A total of 2.59ha of native vegetation will be cleared to provide Asset Protection Zones around the pit-top and the Loch Catherine stockpile.

The Commission accepts the Department's assessment that the extent of vegetation clearing is acceptable. The Commission considers that the establishment of appropriate APZ's is essential for the proposal and the total area of land clearing is minor, particularly given the area to be cleared does not contain any endangered vegetation communities. Further, re-establishing vegetation at the pit –top and stockpile can be further considered at the final rehabilitation phase of the project.

### Subsidence Performance Measures

The Commission has modified the built features performance measures condition by deleting the identified Subsidence Protection Zone design criteria from the conditions. The Commission considers that the performance measures recommended by the Department are sufficiently robust for managing subsidence impacts on built features.

## **COMMISSION'S DETERMINATION**

The Commission has carefully considered the views expressed at the public meeting, the Department's Assessment Report, and agency, Council and public submissions.

On balance, the Commission agrees with the Department's recommendation that the proposal should be approved, subject to the modified conditions.

**Commission Member**

**Commission Member**

## **Appendix 1**

### **List of Speakers**

#### **Planning Assessment Commission Meeting**

**Time & Date:** 9:30am - Wednesday 22 May 2012

**Venue:** **Moss Vale Services Club**

1. Robert Parker
2. Anne Hird
3. Nigel Browne
4. Lynne Morrison
5. Debra Hebbard
6. Joshua Cook
7. Glenn Corney
8. Stuart McColl
9. Graham McLachlan