

# ASSESSMENT REPORT

## Mt Pleasant Coal Mine Section 75W Modification (DA 92/97 MOD 1)

### 1 BACKGROUND

Coal and Allied Operations Pty Ltd (Coal & Allied), a subsidiary of Rio Tinto Coal Australia, owns the Mt Pleasant coal mine, located approximately 3 kilometres (km) northwest of Muswellbrook in the Upper Hunter Valley (see Figure 1).

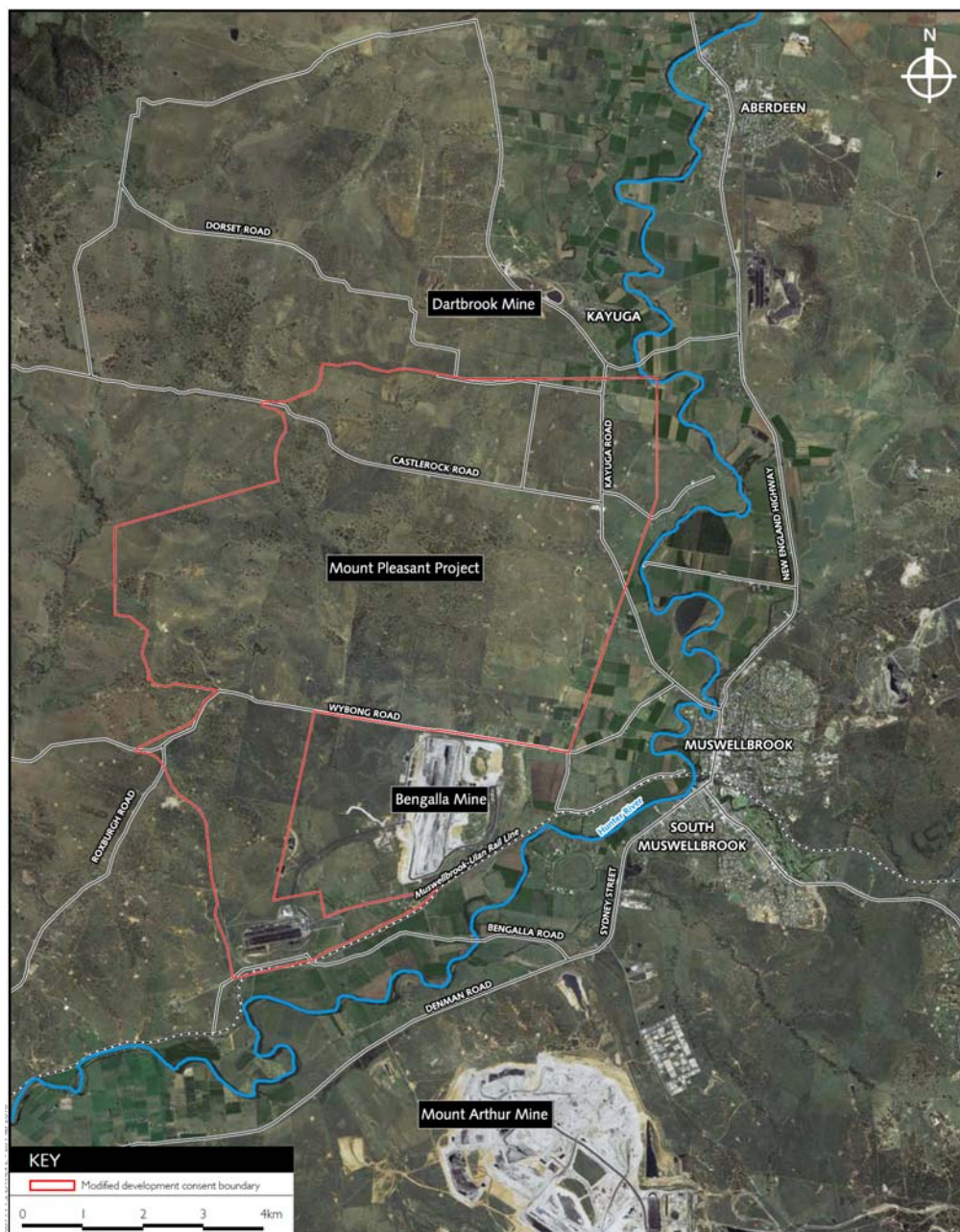


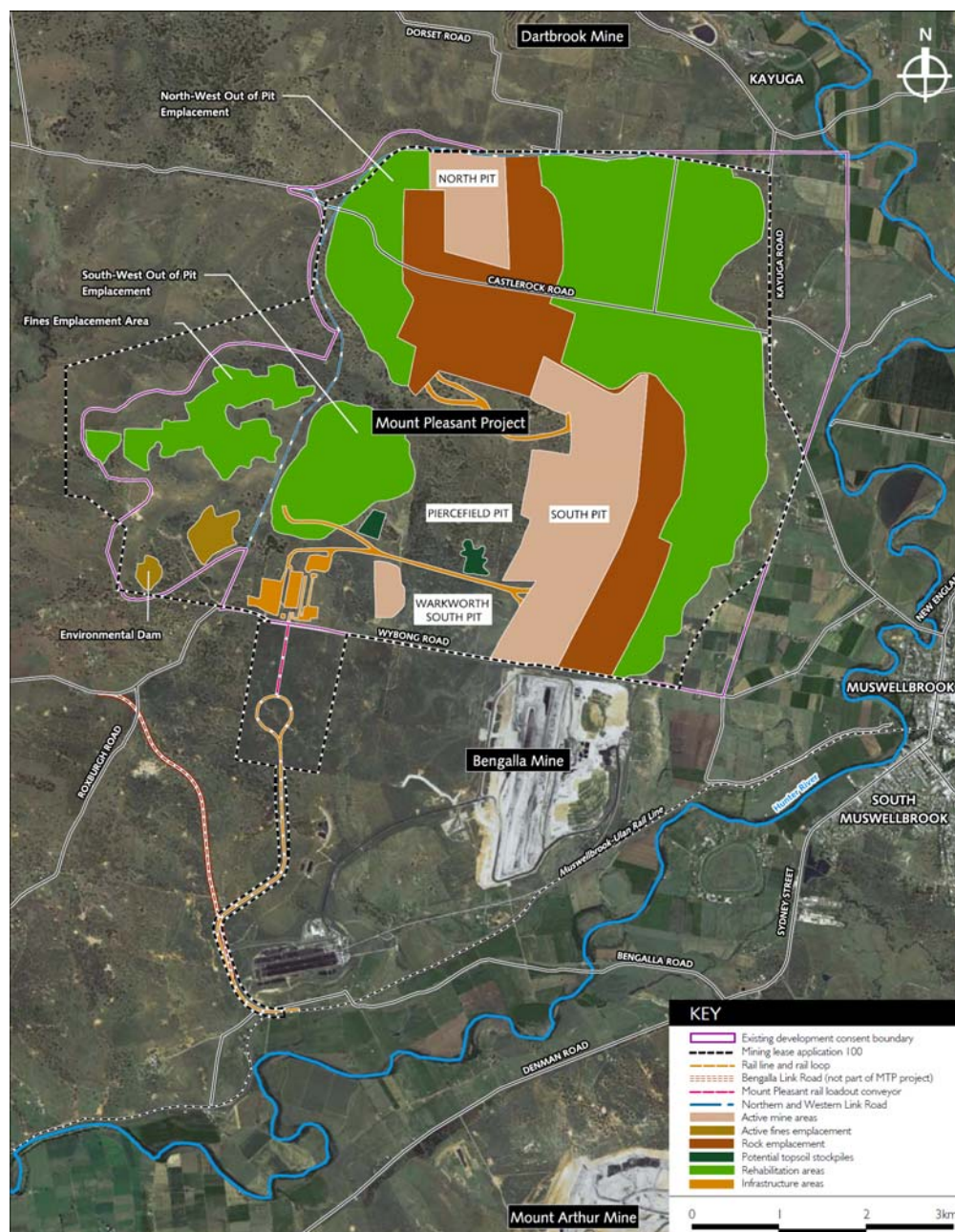
Figure 1: Location of the Mt Pleasant Coal Mine

The Mt Pleasant mine is located adjacent to other mining operations, including the Bengalla and Mt Arthur coal mines to the south and the Dartbrook underground coal mine to the north. The Hunter River and associated alluvial farmlands are located to the east of the mine, while the land to the west is generally dominated by agricultural grazing land.

A number of regional roads surround and dissect the site, including Wybong, Kayuga and Castlerock Roads. The New England Highway is located 3km to the east, passing through the town of Muswellbrook. The Muswellbrook to Ulan railway line is located south of the site.

The Mt Pleasant mine is regulated by a Ministerial development consent (see tag A), DA 92/97, which was granted following a Commission of Inquiry on 22 December 1999 and is scheduled to expire in 2020. Under its consent, Coal & Allied is allowed to extract up to 10.5 million tonnes of run-of-mine (ROM) coal a year for a period of 21 years using open cut mining methods. The approved mine includes a rail loop, loadout facility and conveyor, connecting the mine to the Muswellbrook to Ulan rail line for transport of coal to the Port of Newcastle (see Figure 2).

To date, Coal & Allied has not commenced mining operations at the site, principally due to port capacity constraints. However, Coal & Allied now proposes to commence mining operations on site in 2014.



**Figure 2: Approved Mt Pleasant Coal Mine**



## 2 PROPOSED MODIFICATION

On 19 May 2010, Coal & Allied submitted an application to the Department, seeking to modify the Minister's consent for the Mt Pleasant mine under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Coal & Allied is seeking to improve operational efficiencies at the mine and is proposing to:

- construct a conveyor and service corridor from Mt Pleasant mine to the existing rail facilities at Bengalla mine, as an alternative to the approved rail loop, loading facility and conveyor;
- extend the development consent boundary to accommodate the proposed conveyor/service corridor;
- relocate approved mine infrastructure within an envelope, rather than the specific locations identified in the Environmental Impact Statement (EIS); and
- contemporise all noise-related conditions in the development consent.

The proposed modifications are summarised below, depicted on Figure 3, and described in detail in the Environmental Assessment supporting the request (see Tag B).

### Conveyor/Service Corridor

Coal & Allied is seeking approval for a conveyor/service corridor to transport coal from Mt Pleasant mine to the existing rail facilities at Bengalla mine. The conveyor/service corridor is proposed as an alternative to the approved rail loop and loading facilities. The preferred option would be selected following detailed design and only one option would be constructed.

The proposed conveyor/service corridor is shown in blue hatching on Figure 3. The approved rail loop and loading facilities are shown on Figure 2.

Part of the proposed conveyor/service corridor is located across the neighbouring Bengalla mine, which is operated (but not owned) by Coal & Allied, but outside the Mt Pleasant development consent boundary. Accordingly, Coal & Allied is proposing to modify the consent boundary to accommodate the proposed corridor (see Figure 3).

If selected as the preferred option, Coal & Allied would construct a 6.7km long conveyor, within a 30m wide easement, from the Mt Pleasant coal handling and preparation plant (CHPP) to the existing Bengalla rail facility. The conveyor would be located overland before passing underneath Wybong Road via an underpass approved for the rail facilities. Approval is also sought for supporting infrastructure including surge bin(s), a train loading bin, access roads, sediment dams and laydown areas.

The location of the conveyor within the proposed corridor would be selected following detailed design, but would consider:

- existing consent conditions requiring relocation of the rail loop should Bengalla mine expand westwards;
- minimising ecological impacts by avoiding Endangered Ecological Communities; and
- minimising Aboriginal heritage impacts by avoiding significant sites.

Construction of the conveyor would take nine months and result in a total disturbance area of approximately 20 hectares (ha).

### Infrastructure Envelope

Coal & Allied proposes to locate its supporting infrastructure for the mine within a footprint area (shown in orange hatching on Figure 3), rather than the specific locations detailed in the EIS and approved in the consent. This would provide flexibility in the final layout of infrastructure such that it supports the preferred coal transport option. Specific infrastructure locations would be determined following a detailed design process.

There would be no change to approved construction activities within the infrastructure envelope.

### Noise Conditions

Coal & Allied proposes to contemporise all noise-related conditions in the consent, so that they reflect current NSW Government policy and take into account additional controls proposed by Coal & Allied to better mitigate and manage its noise emissions.

Coal & Allied originally sought to extend the period of the development consent by a further two years, from 2020 to 2022. However, in February 2011, Coal & Allied withdrew this component of the modification. As such, the modification would not extend the consent life beyond that originally approved.

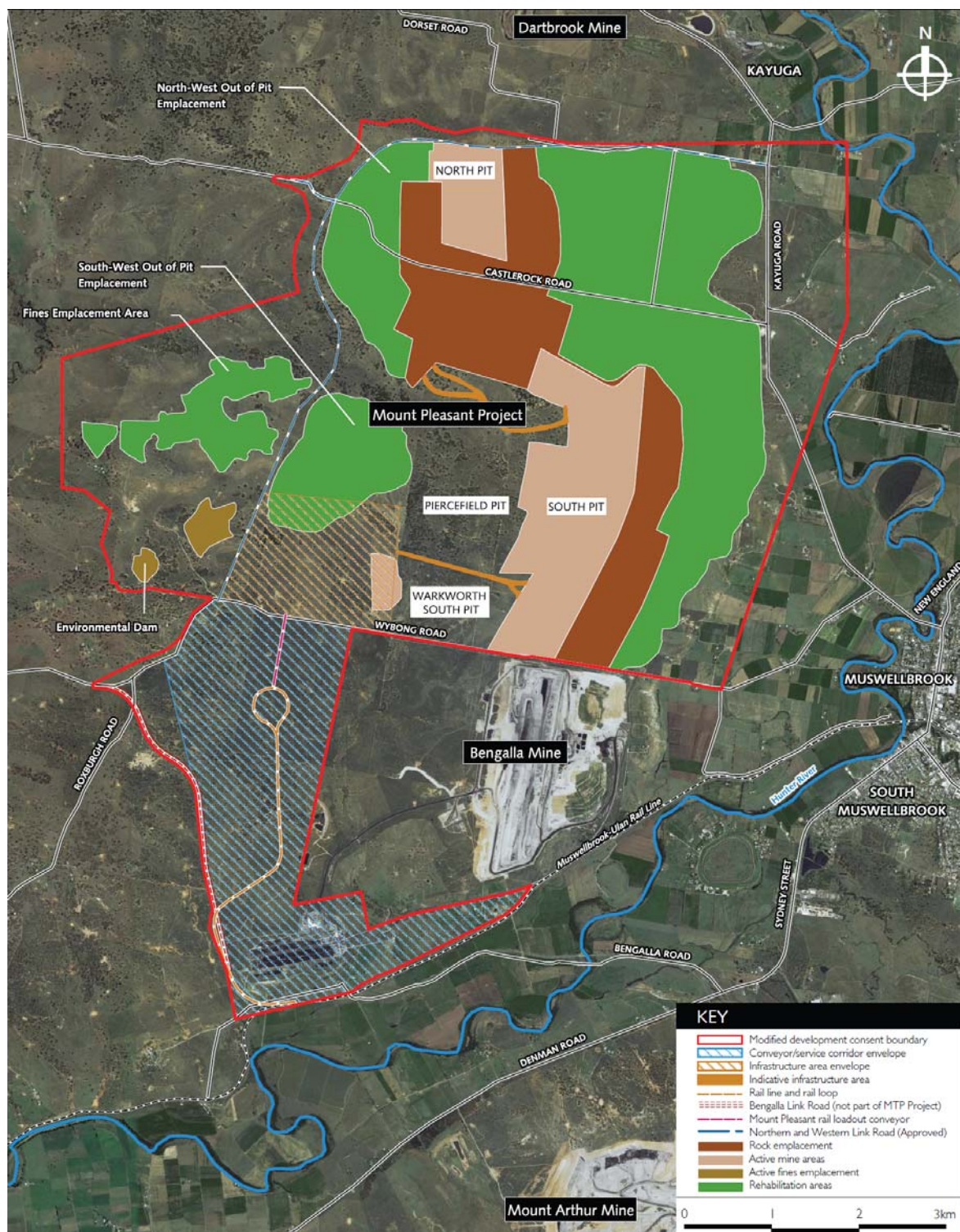


Figure 3: Proposed Modification (orange and blue hatching)

### 3 STATUTORY CONTEXT

#### 3.1 Clause 8J(8)

Under Clause 8J(8) of the *Environmental Planning and Assessment Regulation 2000*, section 75W of the EP&A Act applies to any modification of a development consent granted by the Minister under section 101 of the EP&A Act. The Mt Pleasant mine development consent was granted under section 101, and must therefore be modified under Section 75W of the EP&A Act.

#### 3.2 Approval Authority

The Minister was the consent authority for the original development application, and is consequently the approval authority for this application. However, the Director-General may determine the application under the Ministerial delegations of 25 January 2010 and 28 May 2011, as:

- less than 25 public submissions were received during the public exhibition period that were in the nature of an objection;
- Coal & Allied has not made any reportable political donations; and
- Muswellbrook Council does not object to the proposal, as the concerns it raised in its initial submission on the proposal have been satisfactorily addressed by the proposed conditions of approval.

#### 3.3 Applicability of s75U and s75V

A development consent issued under Part 4 of the EP&A Act and modified by the Minister under Section 75W is not, for the purposes of Sections 75U and 75V, considered to be an approved project under Part 3A of the Act. Consequently, Coal & Allied is required to obtain any approvals that are required under other legislation for the modification, such as Aboriginal Heritage Impact Permits under the *National Parks & Wildlife Act 1974*.

#### 3.4 Modification

The proposed modification involves changes to infrastructure locations and an alternative coal transport option to improve the efficiency of approved mining operations. The modification does not involve changes to any of the mine's approved mining methods or extraction volume. Consequently, the Department is satisfied that it can be properly characterised as a modification to the original development consent, rather than a new project in its own right, and can therefore be determined under section 75W of the EP&A Act.

### 4 CONSULTATION

Under Section 75W of the EP&A Act the Department is not required to notify or exhibit the application. However, after accepting the Environmental Assessment (EA) for the proposed modification, the Department:

- made the EA publicly available from 8 October 2010 until 29 October 2010:
  - on the Department's website;
  - at the Department's Information Centre;
  - at the office of the Muswellbrook Shire Council;
  - at the Coal & Allied Muswellbrook Shopfront; and
  - at the office of the Nature Conservation Council of NSW;
- notified relevant State and local government authorities by letter; and
- advertised the exhibition in the Muswellbrook Chronicle and Hunter Valley News.

Following the exhibition of the EA, the Department received 23 submissions on the modification including:

- 4 from public authorities (OEH, NOW, Council and DRE);
- 6 from special interest groups (including Balmoral Park Racing; Anglo American; Stop Open Cut Coal Mining; Construction, Forestry & Mining and Energy Union; Scone Equine Hospital and 1 confidential submission); and
- 13 from the general public (including 1 confidential submission and 7 form letters).

These submissions (see tag C) were made publically available on the Department's website. A summary of the issues raised during the consultation process is provided below.

#### 4.1 Public Authorities

The **Office of Environment and Heritage** (OEH) raised concerns regarding the biodiversity survey effort, proposed biodiversity offsets, Aboriginal heritage consultation and significance assessment; and advised that it was unable to recommend conditions until these concerns were addressed.

To address OEH's concerns, Coal & Allied provided supplementary information and met on several occasions with OEH and the Department. Subsequently, OEH confirmed that the outstanding issues could be resolved and recommended a number of conditions to address biodiversity and Aboriginal heritage. OEH also recommended conditions for noise and blasting.

The **NSW Office of Water** (NOW) recommended a condition requiring Coal & Allied to ensure it has sufficient water supply for all stages of the development and to adjust the scale of its mining operations to match its water supply.

**Muswellbrook Shire Council** (Council) raised a number of broader concerns regarding the approved Mt Pleasant coal mine, including potential impacts of the mine on local roads and rail, the labour market, social infrastructure, land use conflicts, water resources, and health services. Council recommended a number of conditions to manage these issues and advised it could not support the modification unless its recommended conditions were implemented. Coal & Allied subsequently met with Council and negotiated a Voluntary Planning Agreement to provide for road maintenance, community enhancement, employment and environmental management. Subsequent correspondence from Council has confirmed that it is satisfied that the proposed conditions of approval adequately address their initial concerns, and that with the implementation of these conditions it does not object to the proposed modification.

The **Division of Resources and Energy** (DRE) within the Department of Trade and Investment, Regional Infrastructure and Services had no objections to the modification.

#### 4.2 Special Interest Groups

Of the 6 submissions from special interest groups, 4 objected, 1 did not object but raised concerns, and 1 (the CFMEU) supported the modification.

Concerns raised included the level of consultation conducted by Coal & Allied regarding the modification, noise and dust impacts and the broader cumulative impacts of coal mining in the region including potential:

- noise, dust and visual impacts;
- impacts on water resources;
- impacts on local infrastructure; and
- land use conflicts, including potential impacts on the wine and thoroughbred industries.

#### 4.3 General Public

All 13 of the submissions from the general public objected to the proposed modification.

Concerns raised included potential noise and dust impacts, visual and light spill, potential impacts to water resources and road and rail infrastructure, greenhouse gas emissions, and cumulative impacts of coal mining in the region (noise, dust and visual).

Many of these concerns were directed towards the potential impacts of the approved mine, rather than the proposed modification.

Coal & Allied has provided responses to the issues raised in submissions (see tag D). The Department has considered the issues raised, and Coal & Allied's response to these issues, in its assessment of the proposed modification.

### 5 ASSESSMENT

The Department considers that the key environmental issues include noise, biodiversity, Aboriginal heritage, development contributions, air quality and rehabilitation.



## 5.1 Noise

Numerous residences are located within 3km of the Mt Pleasant mine with the suburban areas of Muswellbrook and South Muswellbrook located to the east and south east respectively, and the smaller residential area of Kayuga located immediately to the north. Rural residences are located around Wybong and Roxburgh Roads to the south west and Castlerock Road to the north west, see Figure 4.

The noise assessment, conducted by EMGA Mitchell McLennan, identified 156 residential receivers around the mine and grouped them by geographic location into 11 noise assessment groups (NAGs). The assessment considered the:

- noise impacts of the modification, including worst case siting of the conveyor and infrastructure within their respective envelopes;
- noise impacts of the entire Mt Pleasant mine, in accordance with the NSW *Industrial Noise Policy 2000* (INP);
- construction noise impacts of the modification; and
- cumulative noise impacts.

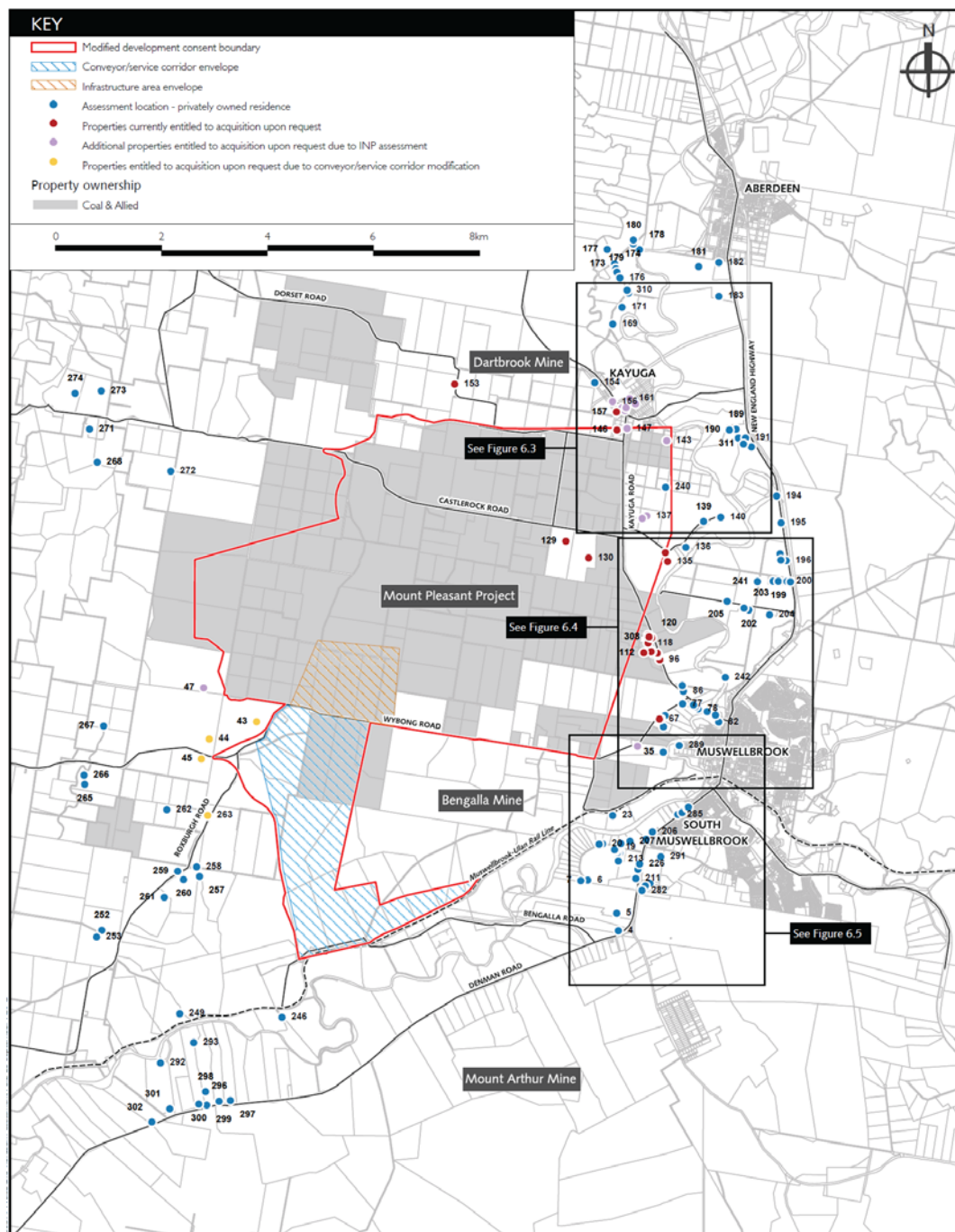


Figure 4: Significantly Affected Residences

### **Modification Noise Impacts**

The noise assessment considered the worst case siting of the conveyor and infrastructure at the western extremity of their respective envelopes, and identified NAG 1 as the most affected receiver location.

It also assumed that noise attenuation would be installed on the conveyor, including a cover and shielding on the western side of the conveyor at ground level, and full enclosure of elevated sections of the conveyor. Both OEH and the Department are satisfied that there are very few additional reasonable and feasible measures that could be implemented that would appreciably reduce the noise impacts of the conveyor.

With these measures in place, the modelling predicted noise levels at the receivers within NAG 1, and compared them with the project specific noise levels (PSNLs) established in accordance with the INP. The predictions indicated that only one residence would experience significant noise impacts under calm weather conditions, but that up to four residences would experience significant noise levels under adverse weather conditions (see Table 1). A further two residences would experience moderate noise impacts under adverse weather conditions (see Table 1). Although it should be noted that one of these residences is in the acquisition zone of the adjoining Bengalla mine.

**Table 1: Modification Noise Impacts (dBA)**

<i>Receiver location</i>	<i>Worst case prediction</i>	<i>PSNL</i>	<i>Acquisition criteria</i>	<i>Impact</i>
43	49	35	40	>5 – significant
44	46	35	40	>5 – significant
45	43	35	40	>5 – significant
246	38	35	40	3-5 – moderate
249	32	35	40	-
257	40	35	40	3-5 – moderate
263	43	35	40	>5 – significant

While these impacts would appear to be higher than those of the approved railway corridor, it is important to recognise that the predictions are based on adverse INP conditions (whereas the impacts of approved railway corridor were only ever assessed under calm conditions); consequently, the differences between the two are not as great as they seem. Second, the predictions assume that the conveyor would be built on the western edge of the conveyor corridor (i.e. much closer to the residences than the approved railway corridor), when in fact it may be built on a similar alignment to the railway corridor, and the impacts of the conveyor would be much the same (or even quieter than the approved railway corridor). Finally, the existing conditions of consent require the railway corridor to be relocated if in the future the Bengalla mining operation is extended further to the west. For practical reasons, this relocation could only be to the west of the approved corridor, and closer to the alignment of the “worst case” conveyor corridor. If this were ever to occur, the Department anticipates that the noise impacts of the relocated railway would be equivalent to (if not greater than) the noise of the conveyor.

For these reasons, the Department considers the predicted impacts of the conveyor to be acceptable. Nevertheless, it has recommended conditions requiring Coal & Allied to:

- implement all reasonable and feasible mitigation measures to reduce the noise of the conveyor;
- provide additional noise mitigation on request to the owners of the affected properties; and
- acquire the four properties where significant noise impacts would occur upon request.

### **Mt Pleasant Mine Noise Impacts**

Modelling of noise impacts from the entire Mt Pleasant mine was based on:

- year 10 of the mine plan, representing worst case noise generation;
- no change to the mine plan or equipment locations (as identified in the EIS);
- installation of noise mitigation measures, including locating plant on less exposed areas during night time works, attenuation of the conveyor, noise suppression on all mobile plant, and real-time noise monitoring.

Results of the modelling indicate that a total of 34 residences would be significantly affected by noise as a result of the development, and therefore eligible for acquisition, see Figure 4. These comprise:



- 18 residences, previously identified for acquisition in the consent;
- 12 additional residences, not previously identified, that are significantly affected as a result of the INP assessment (affected under adverse weather conditions); and
- 4 additional residences affected due to the proposed conveyor (see Table 1).

In addition, 18 residences would be moderately affected by noise (i.e. 3 – 5 dBA above PSNLs) and would therefore be eligible for architectural noise attenuation such as double glazing and/or air conditioning.

An assessment of the potential for sleep disturbance identified exceedances of relevant criteria at four residences, all of which would be significantly affected by operational noise.

The original consent included acquisition rights for 47 properties on the basis of significant noise or dust impacts. To date, Coal & Allied has acquired 30 of the identified properties and 1 has been acquired by the Bengalla mine. The remaining privately owned properties have been considered in the INP assessment.

The contemporary noise assessment has identified a considerable number of additional properties that would be significantly affected by noise; however it is important to note that this is a function of the more stringent nature of the INP assessment which takes into account adverse meteorological conditions in developing noise criteria. The additional impacts are not a result of changes to the mine plan, equipment or production rates, rather a tightening of noise regulation in NSW since the original consent was granted.

The Department has used the INP assessment to recommend contemporary noise conditions for the Mt Pleasant mine requiring acquisition and/or noise attenuation for significant and moderately affected properties. OEH provided recommended conditions that also reflect the INP assessment and are consistent with those proposed by the Department.

The Department is satisfied that noise impacts from Mt Pleasant mine can be adequately mitigated and/or managed with the imposition of the recommended conditions.

### ***Construction Noise Impacts***

Construction of the conveyor has the potential to cause temporary noise disturbance for residences in NAG 1 located immediately to the west. The assessment identified 7 residences likely to experience noise levels above relevant criteria, however 4 of these are eligible for acquisition as a result of the development, and an additional 1 is eligible for acquisition under the Bengalla mine consent. The two remaining residences would experience noise levels up to 12dBA above relevant criteria for the six to nine month construction period.

OEH has recommended that construction of the conveyor be restricted to daytime only. The Department considers this to be a reasonable measure for managing temporary noise disturbance and has incorporated this recommendation into the modified conditions.

### ***Cumulative Noise Impacts***

The noise assessment considered cumulative impacts on residences from the operation of Mt Pleasant, Bengalla and Mt Arthur mines. The assessment concluded that:

- 1 residence would be significantly affected by cumulative noise (>5dBA above amenity criteria). This resident is already significantly affected by noise and eligible for acquisition as a result of the development;
- 4 residences would be moderately affected by cumulative noise (3-5dBA above amenity criteria). One of these residences is eligible for acquisition as a result of the development and the other 3 have acquisition rights under the consents for Bengalla or Mt Arthur mines; and
- 7 residences would experience minor cumulative noise impacts (1-2dBA above amenity criteria). One of these residences is eligible for acquisition as a result of the development.

The Department is cognisant of the need to manage cumulative noise, such that the amenity of residents is maintained throughout extended and concurrent mining operations. Therefore, the Department has recommended a range of contemporary conditions for managing cumulative noise, including a requirement for coordination with neighbouring mines in preparation of the site noise management plan and a requirement to extend acquisition rights to residences significantly impacted by cumulative noise.

## 5.2 Biodiversity

The EA included an assessment by Cumberland Ecology which compared the ecological impacts of the approved development against the modified development. OEH identified some inadequacies with the survey effort early in the assessment process and as such, additional information was submitted to address these issues. The findings of the ecological assessment and additional information are considered below.

The modification area supports a number of woodland areas that correspond to listed Endangered Ecological Communities (EECs) under the *Threatened Species Conservation Act, 1995*, including (see Figure 5):

- Upper Hunter White Box – Ironbark Grassy Woodland;
- Grey Box/White Box Integrate Grassy Woodland;
- Central Hunter Ironbark – Spotted Gum Forest; and
- Hunter Floodplain Red Gum Woodland Complex.

The assessment (and information provided by OEH) also identified the following threatened species and Endangered Populations that occur or are likely to occur within the modification area:

- three threatened flora species / Endangered Populations (Pine Donkey Orchid, Tiger Orchid and *Eucalyptus camaldulensis*); and
- 19 threatened fauna species (including woodland birds, bats and mammals).

Table 2 compares the area of disturbance associated with the approved and modified development, for the infrastructure and rail/conveyor areas only.

**Table 2:** *Vegetation clearing of approved and modified development (in hectares)*

Vegetation	Approved	Modified
EECs	41.8	35.5
Woodland EECs	2.2	11.5
Total	54.8	47.5

The assessment considered the worst case alignment for the conveyor within the proposed corridor and the worst case siting of infrastructure within the proposed infrastructure envelope, in relation to clearing of woodland EECs.

Therefore, under the worst case, the modification would result in an additional 9.3 ha of woodland EECs being cleared. The total amount of vegetation to be cleared would be less than the approved development; however, as identified by OEH, the increase in clearing of higher quality woodland EECs represents a greater impact on biodiversity than the approved infrastructure area and rail facilities.

As such, OEH requested that the impacts on woodland EECs be offset by provision of a biodiversity offset area to be conserved in perpetuity, appropriately managed and with adequate financial security. The Department gave detailed consideration to the requirement for an offset for the modification, including analysis of:

- requirements in the existing consent for biodiversity offsets;
- the recommendations of the Commission of Inquiry on the Mt Pleasant Mine (1999); and
- the requirements of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) with respect to offsetting the impacts of the entire Mt Pleasant Mine.

Following this analysis, and in consultation with OEH, the Department concluded that an offset would be required for the woodland EECs affected by the modification. However, as the Commonwealth process for offsetting the impacts of the entire mine are progressing (with approximately 15,000ha of offset proposed), the Department considers it prudent to allow Coal & Allied to integrate the offset requirements for the modification with the Commonwealth process. This would enable a relatively small offset requirement for the modification to be integrated with significantly larger and contiguous offset areas required by the Commonwealth. The Department has included recommended conditions requiring long term security of the offset and a conservation bond, should the offset requirement not be met through the Commonwealth process.

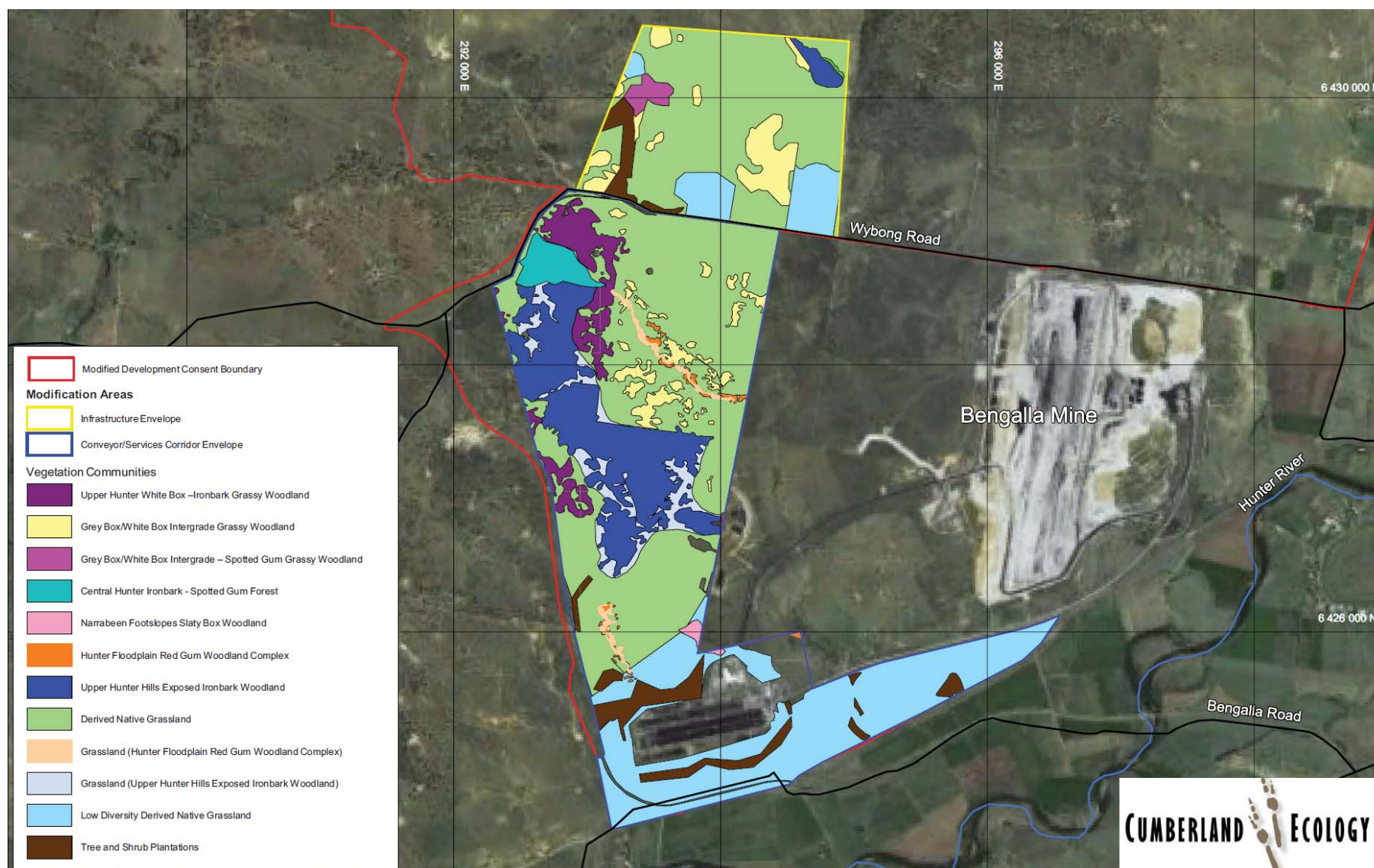


Figure 5: Vegetation Communities



In addition, the Department has recommended that a biodiversity management plan be prepared to manage remnant vegetation on site and in the offset area. Should Coal & Allied select the approved rail facilities as the preferred option, a biodiversity offset would not be required (as the additional clearing of woodland EECs relates primarily to the conveyor/service corridor).

Overall, the Department and OEH are satisfied that the recommended conditions adequately address the minor additional impacts on biodiversity resulting from the modified development.

### **5.3 Aboriginal Heritage**

An Aboriginal heritage assessment was undertaken by Central Queensland Cultural Heritage Management, in consultation with Aboriginal stakeholders through Coal & Allied's Cultural Heritage Working Group (CHWG). The assessment summarised a number of additional assessments commissioned by Coal & Allied including a detailed survey of the conveyor/service corridor envelope. Additionally, acknowledging that considerable time had passed since the original surveys were carried out for the 1999 consent, Coal & Allied has undertaken comprehensive surveys of the original development consent area over the last few years.

The assessment for the modification identified a number of Aboriginal objects located within the footprint of the infrastructure area and the proposed conveyor/service corridor that could potentially be affected, including 8 scarred trees, 10 artefact scatters and 200 isolated artefacts (see Figures 6 and 7).

The assessment ranked the scarred trees and three of the artefact scatters as being of medium archaeological significance, with all other sites considered as being of low significance. The CHWG considers all Aboriginal sites to be of cultural significance and would prefer the impacts on these sites to be avoided where possible.

The assessment noted that additional impacts associated with the infrastructure area, beyond those approved, would be minimal, as the proposed infrastructure would be of a similar size to the approved infrastructure. However, there may be a change in which sites are impacted as a result of an altered layout.

For the conveyor/service corridor, it is estimated that a total of 20 hectares would be disturbed, approximately 7.3 hectares less than the approved rail facilities. The Department acknowledges that as a result, the impact on sites could potentially be reduced. However, until the preferred alignment is finalised, the actual impacts are not quantifiable.

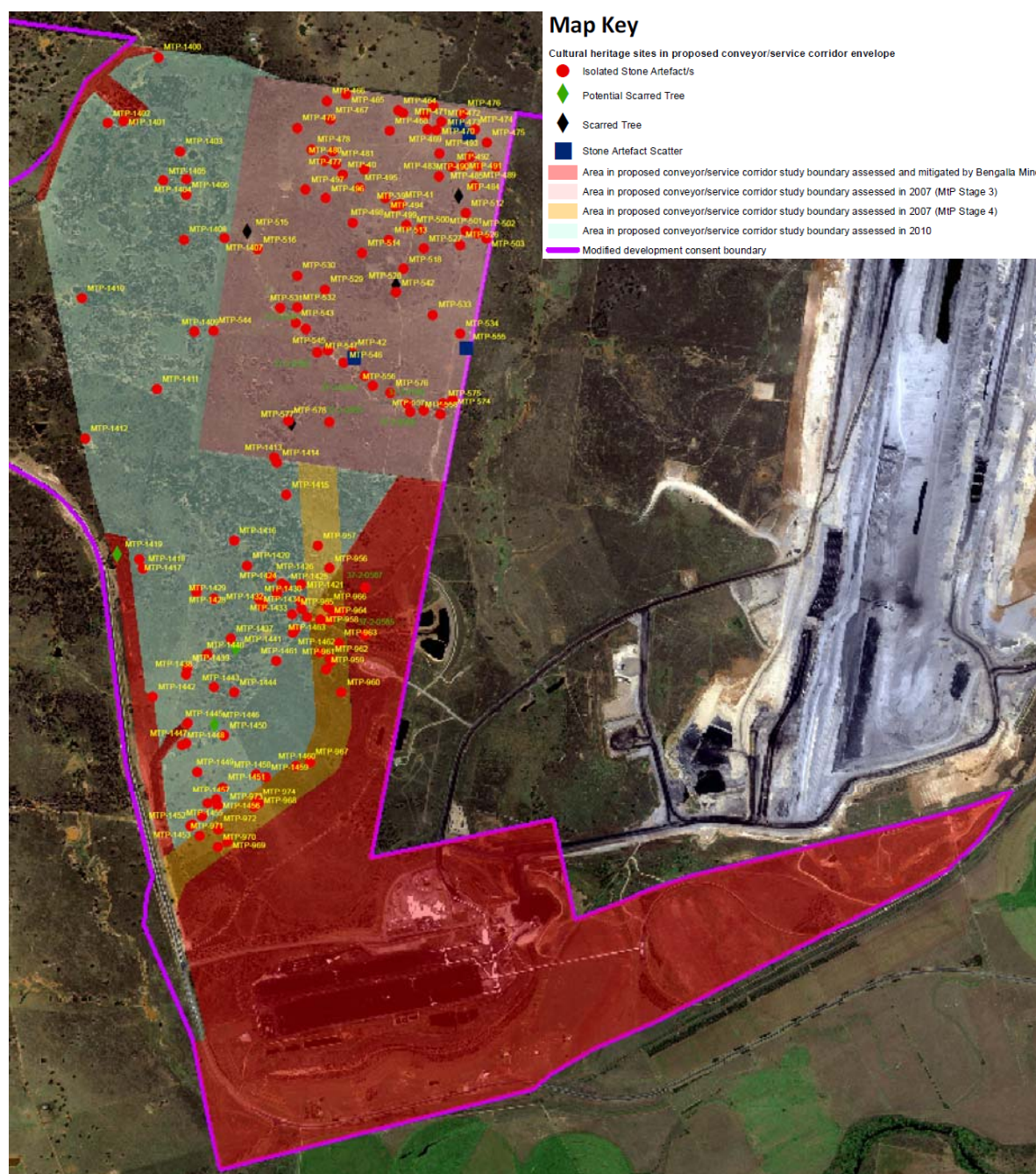
In its submission, OEH raised concerns regarding lack of evidence of consultation with the Aboriginal community, the method for assessing site significance and insufficient details with regard to the proposed off-site conservation area, required by the existing consent.

In response, Coal & Allied stated that it had undertaken its assessment in accordance with relevant guidelines and that detailed consultation was conducted with the CHWG regarding the modification.

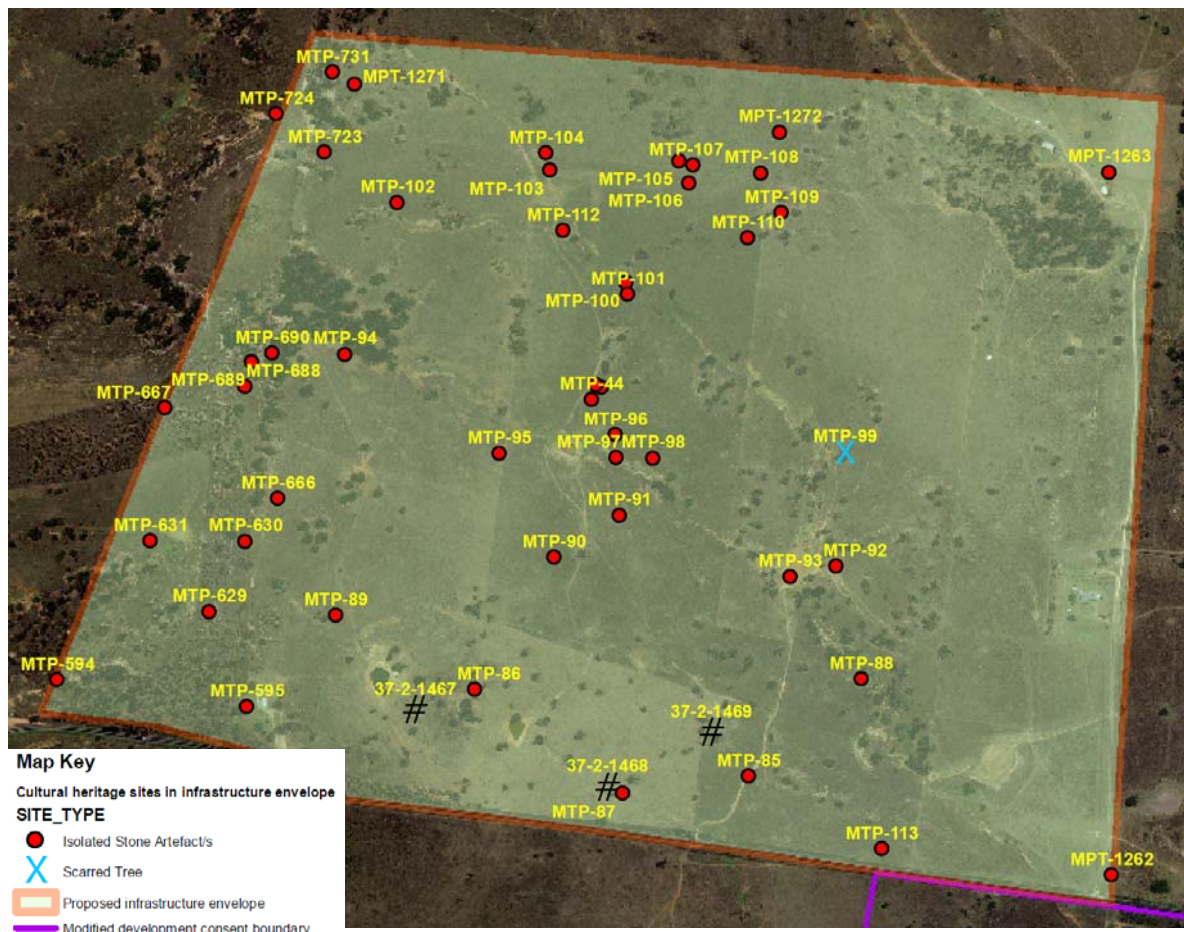
Following review of Coal & Allied's response, OEH indicated that it was still unable to determine the precise level of impact from the modification and therefore provided recommended conditions requiring:

- avoidance of sites identified by an archaeologist and the Aboriginal community as being of moderate or high value;
- continued consultation with the Aboriginal community throughout the development; and
- continued compliance with the *National Parks and Wildlife Act 1974*, including obtaining relevant approvals prior to commencement of ground disturbance.

To address the uncertainties around the level of impact on Aboriginal heritage items associated with the siting of the conveyor, the Department has recommended a condition requiring Coal & Allied to avoid Aboriginal objects of medium and high significance within the conveyor envelope. The Department also requires Coal & Allied to obtain approval from the Director-General for the final design of the conveyor.







Coal & Allied has also committed to additional field inspection with the CHWG to finalise the design, location and alignment of the conveyor and infrastructure.

Taking into account the potential impacts of the modification, and the lack of detail regarding the proposed off-site conservation area, the Department has recommended the preparation and implementation of an Aboriginal heritage conservation strategy for the development. The strategy includes requirements for an off-site conservation area with long term security, consistent with the existing consent.

The Department has also recommended that Coal & Allied be required to prepare and implement a heritage management plan to manage the impacts of the entire mine, including the modification. The plan is required to detail how Coal & Allied will comply with the requirements of any Aboriginal heritage impact permit issued for the development and detail how the Aboriginal heritage conservation strategy will be implemented.

The Department notes that Coal & Allied will need to obtain Aboriginal heritage impact permits from OEH under the *National Parks and Wildlife Act 1974* for any impacts to Aboriginal objects within the development consent area.

With these measures in place, the Department is satisfied that the recommended conditions are sufficient for avoiding and/or minimising impacts on significant heritage items as a result of the modification.

## 5.4 Development Contributions

Council raised a number of concerns regarding the development in general, and the modification. The concerns were primarily related to the impact of the development on local infrastructure and services. In particular, Council sought commitments from Coal & Allied for:

- financial contributions for road maintenance and upgrades;
- financial contributions to Council for environmental monitoring and services;



- specific air quality monitoring, including particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>); and
- preparation of a landscape management plan for the infrastructure area.

#### Roads

The proposed modification would not change road traffic impacts associated with the approved development, as there is no change to site access arrangements, construction or operational traffic volumes or movements. As such, Council's concerns relate to the impacts of the Mt Pleasant mine as a whole.

The existing consent requires Coal & Allied to construct and maintain a number of roads affected by Mt Pleasant mine. Some of these conditions have already been satisfied, and some would not be completed until mining operations commence at the site. Following the exhibition period, Coal & Allied met with Council and resolved all outstanding concerns relating to both the construction and/or upgrade of roads for the development as a whole, and also the ongoing maintenance of these and other roads. This resolution is reflected in the proposed conditions of approval which require Coal & Allied to:

- carry out a range of road works, including upgrades to various intersections, to the satisfaction of Council;
- maintain the roads and intersections between the Bengalla mine entrance and the Mt Pleasant mine entrance to the satisfaction of Council; and
- enter into a Voluntary Planning Agreement (VPA) with Council to contribute a maximum of \$220,000 per annum to Council for a additional road maintenance within the Muswellbrook local government area.

Both Council and the Department are satisfied that the proposed conditions of approval will ensure that the potential road and traffic impacts of the development will be suitably managed.

#### Environmental Monitoring

To address Council's concerns regarding environmental management and air quality monitoring, the following commitments are made:

- Coal & Allied will provide a \$20,000 per annum contribution to Council's Environmental Officer, as detailed in the VPA; and
- a requirement to monitor PM<sub>2.5</sub> is retained in the modified conditions.

#### Landscape Management

Council requested that a landscape management plan for the infrastructure area be submitted for its approval. Given the broader requirements for rehabilitation, landscape and biodiversity management, the Department has revised the existing conditions requiring Coal & Allied to consult with Council in the preparation of its landscape and rehabilitation management plans, but that final approval of these plans rest with the Department. This is consistent with other contemporary mining approvals and would ensure that the overall rehabilitation objectives for the site can be met.

#### Community Enhancement

To address Council's concerns regarding impacts on social services and the labour market, Coal & Allied, via the VPA have committed to:

- \$500,000 per annum for community contributions; and
- use its best endeavours to engage four apprentices per year for the life of the mine, sourced from Muswellbrook and Aberdeen.

The Department is satisfied that Council's concerns have been adequately addressed through the VPA. The Department has included the VPA in the modified conditions. The Mayor and General Manager have also confirmed that adequate consideration has been given to Council's concerns in the recommended conditions.

### **5.5 Air Quality**

The EA includes a specialist air quality assessment undertaken by PAE Holmes.

The Department notes that the air quality predictions are based on the implementation of a number of proposed mitigation measures, including:

- minimising the area of disturbance as far as practicable;
- enclosing the conveyor on the top and western side at ground level; and

- enclosing elevated sections of the conveyor on all sides.

The assessment indicates that the modification would result in a maximum of 1,463 kg of additional dust emissions a year. These emissions are considered negligible in the context of emissions from the approved Mt Pleasant mine with a maximum increase of 0.02% predicted as a result of operation of the conveyor/service corridor and infrastructure area. Similarly, the assessment indicates that dust emissions associated with construction activities would not be significant. The assessment predicts construction activities would be up to 0.35% of the annual dust emissions for the approved mine.

However, despite the findings of the air quality assessment, the Department received a number of submissions, raising concern over dust impacts, including potential PM<sub>2.5</sub> dust emissions as a result of the modification and the entire Mt Pleasant mine. The Department notes that the existing consent for the development requires Coal & Allied to implement an air quality management plan, including monitoring of the mine's contribution to PM<sub>10</sub> and PM<sub>2.5</sub>.

The Department is satisfied that potential air quality impacts at nearby private residences as a result of the modification would not be significant. Nevertheless, the Department has recommended contemporary air quality management conditions for the entire site, to ensure that the Mt Pleasant mine operates in accordance with current best practice air quality management for coal mines in NSW.

## 5.6 Rehabilitation

The modification would cause direct disturbance of the ground surface as a result of clearing which would need to be rehabilitated following completion of mining.

The development consent for Mt Pleasant mine was granted in 1999 with mining approved to take place over a period of 21 years (until 2020). However, there are only 9 years remaining until the development consent expires, with mining operations expected to commence in 2014. Accordingly, Coal & Allied would not be able to undertake mining operations for a 21 year period and rehabilitate the site as described in the original EIS. At the Department's request, Coal & Allied provided a revised mine plan providing for mine closure and rehabilitation of the site at the end of year 2020, which would reflect approximately Year 6 of mining operations (see Figure 8).

Coal & Allied proposes to progressively rehabilitate the site following mining. Rehabilitation would include:

- decommissioning and removing supporting infrastructure;
- blasting down, regrading and landscaping the highwall of the pit voids to reduce visual impacts;
- restoring surface drainage to be compatible with surrounding drainage patterns; and
- revegetating disturbed areas with woodland and grassland species to provide habitat for native fauna.

The Department acknowledges that Coal & Allied may in the future seek a revision to the approved mine plan and an extension to the life of the development consent. However, this has not been proposed or assessed as part of this modification.

The Department is satisfied that the revised mine plan would be able to be mined within the existing development consent life and that Coal & Allied's rehabilitation and final land use strategies for both the approved mine, and this proposed modification, are achievable and are compatible with surrounding land uses.

Nevertheless, to formalise Coal & Allied's rehabilitation commitments, the Department has recommended a suite of contemporary rehabilitation conditions, including rehabilitation objectives, for the mine to promote best practice rehabilitation outcomes. Coal & Allied would be required to comply with its conditions of consent in all respects beyond 2020, other than the right to conduct mining operations, until rehabilitation of the site has been carried out satisfactorily.

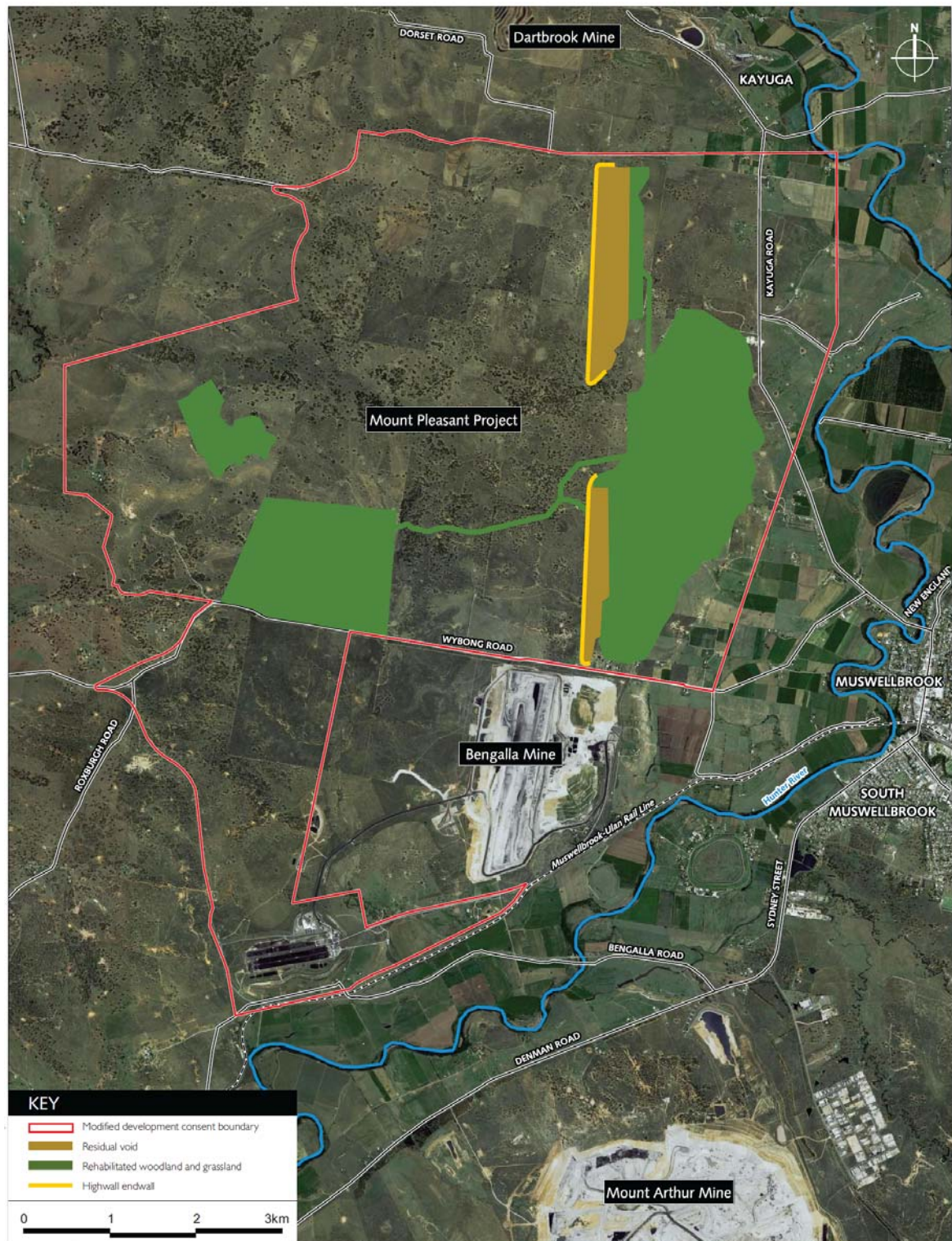


Figure 8: Final Mine Plan



## 5.7 Other Issues

Other environmental issues associated with the modification are considered in Table 3.

**Table 3: Assessment of other issues**

Issue	Potential impact and consideration	Recommendation
Visual	<ul style="list-style-type: none"> <li>Several submissions from nearby landowners raised concerns regarding the potential visual impacts of the modification;</li> <li>The EA considers the visual impacts of the modification from six representative locations on public roads and determined that private residences would have limited views of the modification;</li> <li>The assessment concluded that the conveyor/service corridor and infrastructure area would be visible from each assessed location and would have a moderate visual impact on views from Wybong Road;</li> <li>However, visual impacts are predicted to be intermittent from passing motorists and are not considered significant;</li> <li>The Department notes that under the existing consent Coal &amp; Allied must implement a Landscape Management Plan to minimise the visual impacts of the mine;</li> <li>The Department is satisfied that the modification would not result in any significant visual impacts beyond those already approved and that residual impacts are able to be managed in accordance with the existing conditions of consent.</li> </ul>	<ul style="list-style-type: none"> <li>Contemporary conditions for visual mitigation are included, providing for visual mitigation to be installed to minimise impacts on land owners with a significant direct view of mining operations</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>The modification would not impact on groundwater resources or alter surface water impacts;</li> <li>Construction activities for the conveyor/service corridor and infrastructure areas would be similar to approved construction works and would require standard erosion and sediment controls;</li> <li>NOW recommended a condition requiring Coal &amp; Allied to have sufficient water supply for all stages of the development, or to match the scale of mining to available supply;</li> <li>The existing consent also requires provision of compensatory water supply for land owners whose water entitlements are adversely affected by the development. This requirement has been maintained.</li> <li>The Department is satisfied that the modification would result in a negligible change to approved impacts and has revised all existing water management conditions to be consistent with contemporary mining approvals.</li> </ul>	<ul style="list-style-type: none"> <li>Water management conditions have been updated to include conditions for water supply, discharges, erosion and sediment control and surface and groundwater management.</li> </ul>
Broader social and environmental impacts of the approved Mt Pleasant mine	<ul style="list-style-type: none"> <li>Council and many of the public submissions raised concerns regarding the broader social and environmental impacts of the approved Mt Pleasant mine, including air quality, visual, land use planning, local infrastructure, health services and traffic;</li> <li>The Department has given consideration to the concerns raised, however does not believe these broader concerns are applicable to the modification;</li> <li>Irrespective, the Department notes that Coal &amp; Allied has subsequently established a VPA with Council to address some of the broader issues raised regarding the approved mine;</li> <li>The Department is satisfied that the proposed modification would not result in any significant social and environmental impacts beyond those approved for the Mt Pleasant mine.</li> </ul>	<ul style="list-style-type: none"> <li>No additional conditions required.</li> </ul>
Coal transport	<ul style="list-style-type: none"> <li>Coal &amp; Allied proposes to construct either the rail loop and loading facilities, or the conveyor to transport coal to the Muswellbrook to Ulan railway line. The preferred option would be selected prior to detailed design.</li> <li>The existing consent requires Coal &amp; Allied to move the rail loop and loading facilities should the neighbouring Bengalla mine expand westwards, as the facilities are located across the Bengalla mine boundary. This condition is also relevant for the conveyor/service corridor and has been retained.</li> </ul>	<ul style="list-style-type: none"> <li>Inclusion of a condition limiting Coal &amp; Allied to construct only one coal transport option.</li> </ul>
Contemporise existing consent	<ul style="list-style-type: none"> <li>As detailed below, the Department has recommended conditions to reflect contemporary approvals for mining developments in the Hunter Valley. Key revisions include: <ul style="list-style-type: none"> <li>inclusion of a requirement to minimise greenhouse gas emissions;</li> <li>updated requirements for meteorological monitoring;</li> <li>a requirement to monitor and report on coal transport volumes;</li> <li>updated waste management requirements, including fine rejects management;</li> <li>inclusion of rehabilitation objectives and updated management plan requirements.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Numerous revisions to existing conditions to ensure consistency with contemporary approvals.</li> </ul>

## **6 RECOMMENDED CONDITIONS**

The Department has revised the existing consent to be consistent with contemporary mining approvals to ensure that the mine can be effectively regulated. In addition, the Department has incorporated conditions to address the impacts of the modification, including:

- contemporary noise criteria, additional acquisition and noise mitigation requirements and cumulative noise management;
- a biodiversity offset requirement and a biodiversity management plan;
- avoidance of significant Aboriginal sites, an Aboriginal heritage conservation strategy and management plan;
- financial contributions to Council for road maintenance, environmental management and community enhancement; and
- amended rehabilitation requirements.

## **7 CONCLUSION**

The Department has assessed the modification application, EA, submissions, Coal & Allied's response to submissions and additional information in accordance with the relevant requirements of the EP&A Act, including the objects of the EP&A Act and the principles of ecologically sustainable development.

The assessment has found that the proposed modification (if selected as the preferred coal transport option) would:

- have significant noise impacts for 4 privately-owned residences;
- result in clearing a maximum of 9.3ha of woodland EECs, beyond that associated with the approved mine; and
- impact on Aboriginal heritage sites, however the preferred alignment and design would avoid sites of medium and high significance.

By way of the more stringent INP noise assessment, a further 12 privately-owned residences would be significantly impacted by noise from the development and therefore eligible for acquisition by the mine.

The Department has recommended a range of conditions to mitigate noise impacts and to manage native vegetation and Aboriginal heritage in conservation areas. With the implementation of these conditions, the Department is satisfied that the impacts of the proposed modification would be adequately minimised and/or managed.

In addition, the Department believes that the proposed revision of numerous other conditions relating to air quality, rehabilitation, visual, water and waste management would improve regulation of the overall mine.

Finally, the proposed Voluntary Planning Agreement for road maintenance and community enhancement would provide Council with the necessary funding to carry out a range of improvements to community infrastructure and services within the local government area.

The Department's assessment has also found that the proposed modification would allow Coal & Allied to make a number of improvements to the approved mine plan, such as replacing the approved rail loop with a conveyor, thereby improving operational efficiency of the mine as a whole.

For these reasons, the Department believes the benefits of the modification sufficiently outweigh its costs; and that the proposed modification is in the public interest and should be approved subject to conditions.

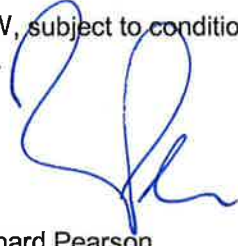
## 8 RECOMMENDATION

It is RECOMMENDED that the Director-General, as delegate of the Minister:


- **consider** the findings and recommendations of this report;
- **determine** that the proposed modification falls within the scope of section 75W of the EP&A Act;
- **approve** the application under section 75W, subject to conditions; and
- **sign** the notice of modification (see tag E).

 16/9/11

David Kitto  
Director  
Mining and Industry Projects

 18/9/11

Richard Pearson  
Deputy Director-General  
Development Assessment & Systems Performance

  
Sam Haddad  
Director-General  
19/9/2011