

**40. Warkworth Mine Extension****FILE: M6-6****Author: Mark Ihlein**

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**Executive Summary**

Coal & Allied have lodged two applications with the NSW Department of Planning & Environment, one seeking consent to extend the Warkworth Mine to the west through Saddleback Ridge, beyond the current approved mine area, comprising an additional 698 hectares, and involving the closure of Wallaby Scrub Road. A second application has been made to extend the development consent for the Mt Thorley Operations (MTO) to extend beyond 2017 to enable completion of mining within the existing approved footprint and to accept overburden from Warkworth Mine to assist in the final landform and processing of ROM coal.

Both proposals have been publically exhibited by the Department of Planning & Environment and any community submissions were to be made directly to the Department.

This report provides an overview of the likely environmental impacts arising from both proposals and where appropriate issues arising as a consequence that relate to the local community and infrastructure.

It is intended that this report together with other issues raised by Council would form Singleton Council's submission to the Department of Planning.

**RECOMMENDED** that this report be forwarded to the NSW Department of Environment and Planning as Singleton Council's submission in respect of the proposed Warkworth Mine Expansion and Mt Thorley Operations project.

**Background**

A very similar proposal in respect of the Warkworth Mine was proposed in 2010 (the original project). That proposal differed from the current application primarily in that originally a number of options were proposed regarding the future of Wallaby Scrub Road. The current application includes the closure of Wallaby Scrub Road and does not propose other options.

Council resolved at its meeting held on 21 June 2010 to not support that project for a number of reasons. The main issues related to a number of adverse environmental and social impacts on the nearby Bulga Village and surrounding community; the setting aside of the 2003 Ministerial Deed of Agreement which was to have conserved Saddleback Ridge; and the closure of Wallaby Scrub Road. Council subsequently resolved on five occasions to restate this position.

In respect to Wallaby Scrub Road, Council's specific concerns were that the road be closed it would enable the operation to continue toward Bulga Village; cause an inconvenience to motorists and hinder emergency services attending incidents in a timely manner.

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On 3 February 2012 the Planning Assessment Commission (PAC) released its determination that the 2010 project be approved subject to conditions.

The Broke Milbrodale Progress Association (BMPA) appealed against the PAC's determination to the Land and Environment Court on 6 March 2012.

Council on 27 February 2012 resolved to support any action proposed by the BMPA in relation to an appeal to the Land and Environment Court.

This appeal was upheld by the Court on the 15 April 2013 and the application was refused.

The Court judgment was appealed on administrative law grounds by Coal and Allied in the Court of Appeal however this was dismissed on 7 April 2014.

Coal and allied have now lodged two applications with the NSW Department of Planning & Environment, one seeking consent to extend the Warkworth Mine to the west through Saddleback Ridge, beyond the current approved mine area, comprising an additional 698 hectares, and involving the closure of Wallaby Scrub Road. A second application has been made to extend the development consent for the Mt Thorley Operations (MTO) to extend beyond 2017 to enable completion of mining within the existing approved footprint and to accept overburden from Warkworth Mine to assist in the final landform and processing of ROM coal.

The purpose of this report is to provide an overview of the likely environmental impacts arising from both the proposals and issues arising as a consequence of these impacts, particularly local community and infrastructure impacts. It is not the intention to provide a full or comprehensive environmental assessment of the proposed projects as would be the case if Council were the consent authority.

## **The Proposals**

### **Warkworth Extension**

It is proposed to extend the footprint of current operations to the west through Saddleback Ridge thereby extending the life of the operation by 21 years.

The Environmental Impact Statement (EIS) describes the proposal as follows:

*Development consent for Warkworth Continuation 2014 (the proposal) is required to enable continuation of operations at Warkworth Mine in 2015 and beyond.*

*Mining in West Pit at Warkworth Mine is forecast to reach consent limits in 2015 which would significantly reduce the length of mining (strike length) in West Pit. This reduced strike length would mean that a dragline could no longer be used to efficiently remove overburden material. The inability to use a dragline to remove overburden material in West Pit would require alternative methods that are more costly and slower. This means the cost of production would increase while revenue decreases from a reduced rate of coal produced, affecting the viability of the mine.*

*The purpose of the proposal is therefore to extend the spatial limit approved under the current development consent to enable mining in West Pit along the required strike length*

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*and, subsequently, enable the two main pits, North and West Pit, to advance down dip to the west.*

*The resource can be extracted efficiently and effectively by the applicant, Warkworth Mining Limited (WML), because of the hundreds of millions of dollars invested in the mine since it commenced operations in 1981 and, that as an existing mine, it has established access to product transport and distribution infrastructure such as road, rail and port. Extraction of the resource would enable the mine to continue to be a major employer in the Singleton Local Government Area (LGA).*

*The economic significance of the resource attributable to Warkworth Mine includes:*

- the continuation of approximately 1,187 jobs on average in the long-term;*
- the payment of \$567million in royalties to the state; and*
- the making of approximately \$75million in additional income in net present value terms (NPV) and additional employment of 57 full-time people in the Singleton LGA.*

*It is recognised that the proposal has some residual social and environmental impacts some of which would be experienced locally, but as discussed below the impacts meet all current government policies and would be managed in accordance with industry best practice.*

### **Mt Thorley Operations**

Consent is sought for the continuation of operations at MTO for another 21 years past the existing consent which expires in 2017. This will enable MTO to accept overburden from Warkworth Mine to complete approved final landform. The construction of a new tailings dam within Loders Pit void is also proposed.

The proposal is graphically reproduced from the EIS as **Attachment 1** to this report.

### **Legislative Context**

#### **State Significant Development**

The project is declared as state significant under the *Environmental Planning & Assessment Act, 1979*. The Minister of Planning is the consent authority and may delegate this role to the Planning Assessment Commission.

#### **Mining State Environmental Planning Policy**

The State Government amended the Mining State Environmental Planning Policy in December 2013. The effect of the amendments is as follows:

- the significance of the resources (major and minor) must be considered;
- stipulates the key environmental, ecological and amenity criteria to be used to protect water resources, habitat and amenity;

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- raises the importance of the NSW Office of Environment and Heritage (OEH) in the assessment process, by ensuring that a consent authority must consider OEH's certification of biodiversity mitigation and offset measures.

These matters will need to be considered by the consent authority in determining the applications.

### State Policies

#### Upper Hunter Strategic Regional Land Use Policy

The Upper Hunter Strategic Land Use Policy was released in September 2012. The effect of this policy is that it requires projects to demonstrate the extent to which they impact on mapped biophysical agricultural land. The proposals do not impact on any such land.

#### Aquifer Interference Policy

A ground study has been carried out which concludes that the standards contained within the policy would be met.

#### Singleton Local Environmental Plan

The subject site is zoned RU1 under the Singleton Local Environmental Plan within which open cut mining is permissible with consent.

### **Improvements and Differences to the 2010 Proposal**

The current proposal seeks to improve the 2010 project and to respond to the main issues raised by the Land and Environment Court in its decision to refuse consent.

These differences are described in the EIS as follows:

- *Operational improvements in response to ongoing stakeholder engagement particularly regarding the proactive and reactive management of noise and dust resulting in changes to operations.*
- *Changed legislative and policy environment. Of importance, this includes the introduction of Clause 12AA of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (the Mining SEPP) which operates to make the 'significance of the resource' the principal consideration of the matters the Minister is to consider under Part 3 of the Mining SEPP. Non-discretionary development standards for mining were also introduced through the operation of Clause 12AB.*
- *Additional commitments, for example: the inclusion of an additional area within the Wollombi Brook Aboriginal Cultural Heritage Conservation Area (WBACHCA) and establishment of local historic heritage conservation initiatives.*
- *Design elements, such as a more undulating landform and optional underpass of Putty Road.*
- *Key matters raised in the L&E Court judgement have been addressed, namely:*

*Planning and Sustainable Environment Report (Items Requiring Decision) - DP&SE40/14**Noise:*

- *Background noise levels in Bulga have been confirmed through further detailed studies enabling a thorough and advanced way of allocating background noise levels to each individual receiver, which was discussed with the NSW Environment Protection Authority (EPA).*
- *All residences in Bulga are below the Mining SEPP's cumulative noise limit from all industrial noise sources. Compliance with the Mining SEPP's cumulative noise limit is accepted as providing significant protection against noise impacts. This means that the total impact from all mines in the locality would not result in reduced amenity.*

*Ecology:*

- *The proposed offset strategy fully satisfies contemporary policies and provides a significant ecological benefit in the long-term.*
- *An assessment of impacts on biodiversity has been undertaken in accordance with new government policies which were not in place for Warkworth Extension 2010. These include the principles and strategies in the Draft NSW Biodiversity Offsets Policy for Major Projects (OEH 2014a) and the Upper Hunter Strategic Assessment (UHSA) – Interim Policy. These new policies have been developed to encourage a transparent methodology for calculating biodiversity loss and gain and support the strategic management of biodiversity. The calculation of impact credits using the biodiversity certification assessment methodology (BCAM).*
- *Warkworth Sands Woodland (WSW) communities impact credits would be retired using a combination of land based offsets and supplementary measures.*
- *Non-WSW communities' impact credits would be retired in accordance with the provisions of the UHSA or by providing land based offsets or purchasing credits on the open market.*

*Economics:*

- *New models have been provided to assist the consent authority in understanding the economics of the proposal. The models used rely on market-based and revealed preference techniques for valuing the external effects associated with the proposal as opposed to choice modelling as it is considered to be a more reliable indicator of people's preferences. It is noted that these are tools only, and do not replace the decision-making task of the consent authority, but are as robust as current economic modelling permits.*
- *The resource within the proposed 2014 disturbance area, approximately 230 million tonnes is economically significant as per the matters outlined in clause 12AA(2) of the Mining SEPP.*
- *It is clear that the proposal provides significant economic benefits. The benefits of MTW include annual average employment of almost 1,300 full time people. Approximately \$6.1 billion in additional expenditure (including capital investment), and*

*Planning and Sustainable Environment Report (Items Requiring Decision) - DP&SE40/14 over \$617million in royalties (see Section ESS.5). The benefits attributable solely to Warkworth Mine include annual average employment of approximately 1,187 full time people. approximately \$5.8billion in additional expenditure (including capital investment). And over \$567million in royalties.*

**Social:**

- *A detailed social impact analysis has been undertaken. The results of which are that, while immediate neighbours have expressed subjective concerns in respect of the proposal. the objective evidence demonstrates that the actual impacts meet the levels prescribed in various government policies. Therefore. while not wanting to minimise the subjective concerns of immediate neighbours. the impacts of the proposal need to be considered in this light.*

*Further, it should be noted that the decision by the L&E Court in respect of the Warkworth Extension 2010 was a merits based appeal determined on those particular facts the subject of the appeal. Accordingly, it is not a binding legal precedent that limits the discretion of future decision makers in respect of the proposal.*

While the current proposals seek to respond to previous concerns they are nevertheless fundamentally the same as proposed in 2010. Furthermore, while they are made at a time where the economic conditions in the mining industry are challenging the economic benefits need to be considered alongside the local environmental and social impacts.

### **Local Environmental Impact**

#### **Noise**

The impact of noise on the surrounding residences is a significant issue and was thoroughly examined by the Land and Environment Court.

A full assessment of noise and vibration was carried out in accordance with the Industrial Noise Policy (the INP, EPA 2000).

The following is a summary of the results from the noise assessment report in the EIS:

- *all reasonable and feasible measures have been applied to control noise from Warkworth Mine;*
- *the Mining SEPP's non-discretionary standard for cumulative amenity noise levels at privately owned residential dwellings is met for Bulga village and, therefore, noise impacts are below the acceptable noise levels and amenity of the village as a rural area would be maintained;*
- *the determining factor for the project specific noise levels (PSNLs) for all residences is the intrusiveness criteria. Background levels have been determined in full compliance with the required processes in the INP for setting background levels;*
- *four significant exceedances (>5dB)(All of the PSNLs are predicted to occur and require the provision of acquisition rights with three at Warkworth village (77, 102 and 264) and one to the north of Bulga village (34). Assessment location 34 is the only residence that*

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would be subject a significant exceedance due to the proposal, the other three already being subject to a significance exceedance of noise. Assessment location 77 is currently afforded acquisition rights from Wambo Mine. Assessment location 264 is inferred to have acquisition rights from Wambo Mine but is not currently included in its approval. Assessment location 102 is Warkworth Hall, which is a nonresidence;

- *noise levels would be within 1 or 2dB(A) of the PSNLs for the majority of the residences at Bulga village. Current government practice is not to accord mitigation rights to residences unless noise levels are greater than 3dB(A) above PSNLs;*
- *low frequency noise levels predicted from the proposal meet current government policy requirements. Noise levels are predicted to meet relevant Broner criteria for low frequency noise and INP criteria for sleep disturbance at representative assessment locations;*
- *cumulative noise levels would satisfy the INP (and Mining SEPPI night time criterion at all but two residential assessment locations In Warkworth village /77 and 264). However, it should be noted that the exceedance of cumulative noise criteria at these assessment locations is predominantly caused by the nearby Wambo Mine. Furthermore, as noted above, assessment location 77 is currently afforded acquisition rights from Wambo Mine, and assessment locations 264 would be afforded acquisition rights from Wambo Mine had it been previously assessed;*
- *appropriate management of blasts would ensure blast noise overpressure and ground vibration limits (and Mining SEPP non-discretionary standards) are satisfied;*
- *the closure of Wallaby Scrub Road and resulting increased traffic on detoured roads would not result in an exceedance of relevant noise criteria; and*
- *the removal of Saddleback Ridge (initially assessed in indicative Year 9 mine plan) is accounted for in modelled and predicted noise levels for the proposal. At this stage of mining, noise generated from Warkworth Mine would be managed through different combinations of equipment attenuation and onsite operational noise controls such as plant relocation and shutdown to achieve relevant noise criteria.*

The following mitigation measures are proposed:

- Continue a program of mine fleet noise attenuation, including trucks, dozers, drills and excavators, complete by end 2016
- Routinely assessing the noise level of mine fleet
- Continued use of targeted supplementary surveillance noise monitoring conducted by Community Response Officers and application of noise Trigger, Action, Response Plans
- Continuing compliance monitoring programme with regular Departmental oversight
- Progressing development of predictive noise tools to build upon current pre-emptive controls

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- Actively adjusting mine activity for day and night conditions, including using quieter equipment in noise sensitive areas
- Education and awareness amongst employees and contractors of noise sensitivities

**Issues**

- Verification that the exceedances in cumulative noise impacts are attributable to Wambo Mine. If so, to what extent is this operation meeting its noise criteria obligations.
- The removal of Saddleback Ridge will expose residences to audible ongoing mining operation noise which they would otherwise not be exposed to. Council would be concerned to ensure noise levels do not incrementally creep up above the average noise peaks.
- The principal means of managing noise impacts is proposed through “different combinations of equipment attenuation and onsite operational noise management. It is unclear whether real time monitoring at sensitive nearby receptors is proposed.
- The noise assessment undertaken uses different noise modelling techniques which will result in different background noise levels.
- The background noise data should be verified to ensure it is appropriate given the different modelling undertaken. The background noise level in the EIS of 30dB(A) is significantly less than the 33 dB(A) background noise level from the previous proposal.

**Biodiversity**

The biodiversity assessment and offsetting approach for the proposal follows the principles and guidelines outlined in the Draft NSW Biodiversity Offsets Policy for Major Projects (OEH 2014a) and the accompanying Draft Framework for Biodiversity Assessment (OEH 2014b).

In accordance with these policies avoidance and minimisation measures have been implemented through the design of the proposal, including the decision to close rather than relocate Wallaby Scrub Road to reduce further impacts on EECs that would occur if the road was relocated.

The resultant proposal would require the progressive clearing of 611ha of native vegetation, including approximately 72ha of WSW endangered ecological community (EEC), 372ha of Central Hunter Grey Box/Ironbark Woodland EEC and 15ha of Central Hunter Ironbark - Spotted Gum - Grey Box Forest EEC (including regenerating vegetation).

Residual impacts on biodiversity are proposed to be compensated for by the provision of offsets in the SBA and Northern Biodiversity Area (NBA). The clearing of WSW EEC for the proposal would be offset by the provision of 75.5ha of WSW in the SBA and NBA, as well as the re-establishment of approximately 159ha of this community. In addition, a

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range of supplementary measures would be implemented for this community including the conservation of previously un-protected Warkworth Sands Grassland to be re-established under the 2003 consent, preparation of an Integrated Management Plan for WSW and the development of completion criteria for rehabilitation.

In the future, the SBA and rehabilitated mine area would combine to create a large area, exceeding 2,000ha in size, of treed vegetation in the landscape subject to long-term, conservation and would join other conservation initiatives from adjoining mines. The NBA would also be regenerated to form a large patch of woodland and forest of over 300ha. Such vegetation is intended to provide and maintain substantial habitats for native flora and fauna in the long-term.

The proposed mitigation and offset measures presented for the proposal purport to minimise the impacts on threatened species, populations and ecological communities and compensate for the loss of biodiversity by:

- *meeting the offset requirements of the Draft NSW Biodiversity Offsets Policy for Major Projects (OEH 2014a);*
- *adequately reallocating the offsets for non-WSW vegetation, providing a 'maintain or improve' outcome in accordance with the BCAM;*
- *providing suitable offsets for the WSW through both land-based and supplementary offsets to maximise the long-term viability of the community;*
- *adequately compensating for the impacts of the proposal on non-WSW vegetation in accordance with the UHSA;*
- *providing a net increase in the area of EECs to compensate for the predicted loss as a result of the proposal;*
- *provide a net increase in habitat available for threatened fauna species such as threatened woodland birds, micro chiropteran bats and the Squirrel Glider; and*
- *provide a connecting corridor of woodland vegetation and fauna habitat across the site, linking to other rehabilitation areas and remnant vegetation, thus providing large continuous patches of habitat into the future.*

The offset areas are depicted in a graphic from the EIS, appended as **Attachment 2**.

### **Issues**

- The mine expansion would traverse through an area which was previously intended to be set aside as a conservation area.
- Concern is expressed as to the extent to which the Warkworth Sand Grassland can be re-established in perpetuity which has not been proven at this time.
- The offset package is not on a like for like basis.

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- The area proposed for offsetting would appear to be less than the area that will be impacted upon by mining operations.

**Rehabilitation**

Rehabilitation of the areas mined under the proposal would continue to be undertaken progressively to create a stable, free draining landform able to maintain viable land uses where mining areas are integrated with the surrounding landscape. The final landform would be developed with recognition of the pre-mining landform features and would incorporate the existing rehabilitated landforms to ultimately be consistent with the surrounding landscape features of both the Warkworth Mine and MTO.

Approximately 2,100ha of EEC woodland is proposed to be rehabilitated within MTW, with around 1,617ha at Warkworth Mine and approximately 483ha at MTO. Woodland and trees over grassland components of the rehabilitation would form a north/south connection corridor of vegetation connecting the planned rehabilitation of the Warkworth Mine, the MTO and Bulga Coal Complex with the Singleton Military Training Area, the Pokolbin State Forest and the Yengo National Park as well as the Southern and Putty Road biodiversity offset areas.

**Issues**

- The adequacy of rehabilitation is an ongoing community concern which if carried out regularly minimises air quality impacts;
- A regular and systematic schedule of rehabilitation should be incorporated into any consent conditions which includes a significant per cent of exposed land being rehabilitated on an annual basis;
- The final land form will contain a significant void. It will be important that the final land form integrates with surrounding future land uses and the Council would appreciate being involved in future discussions in this regard.

**Social**

A social Impact assessment (SIA) was prepared for the proposal and the Mount Thorley Operations 2014 which was supported by a comprehensive stakeholder engagement program.

The assessment indicates the following most frequently raised matters:

- *Decline of Bulga Village and loss of sense of place*
- *Closure of Wallaby Scrub Road (particularly in relation to emergency service access)*
- *Relations between MTW and the Bulga Village community*
- *Social amenity impacts of noise, dust, blasting on local residents*
- *Property values and approach to acquisition*

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- *Warkworth Sands Woodland, rehabilitation and post mining land use*
- *Local jobs and local economic health*

The assessment considered the impact of the proposal on demography, socio-economic indicators, social infrastructure & services, housing, employment, as well as stakeholder views and concludes the following:

- *No predicted additional demands for housing, social infrastructure and services, with reasonable current capacity across the region.*
- *Stakeholder views well understood given work over the previous years and ongoing engagement.*
- *There are current and proposed initiatives to respond to concerns and enhance opportunities should the proposal be approved, including,*
  - *Develop Social Impact Management Plan with the community*
  - *Near Neighbour Amenity Resource to provide services to residents surrounding the operation.*
  - *Voluntary Planning Agreement with Singleton Council*

The proponent proposes the following specific initiatives:

- Continued support for local primary schools - i.e. Broke and Milbrodale Public Schools.
- Coal & Allied's Land and Property Management Plan.
- Dedicate a proportion of the MTW Site Donation Committee annual funding for projects which contribute to near neighbour communities, including the Bulga community.
- Outside of the EIS and application process offers of voluntary acquisition for those residents who were granted acquisition rights under the Warkworth Extension 2012 project, prior to the approval being rescinded by the NSW Land & Environment Court.
- Local Procurement Strategy.
- Near Neighbour Engagement Program
- Community Awareness Induction program for new and existing MTW site employees.
- Continued preference for employees and contractors to reside locally.
- MTW Diversity Action Plan
- MTW Apprenticeship and Graduate program (drawing on local candidates),

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- Voluntary Planning Agreements provide an opportunity for the proponent to seek to offset some of the potential adverse social and environmental impacts on the community associated with a project in terms of financial initiatives. The Council requests that a suitable consent condition be imposed should consent be recommended.
- The Bulga Village locality comprises a population of approximately 400 people and the Council is concerned to ensure the ongoing sustainability of this community should mining operations continue.
- The Social Impact Assessment has focussed on broader LGA wide impacts rather than focussing in on the local community.
- Council is concerned to ensure that the Social Impact Assessment report in the EIS accurately reflects the extent of consultation undertaken.
- The community has expressed a strong sense of being let down in relation to the setting aside of the deed which would have preserved Saddleback Ridge.

**Economic**

A cost benefit analysis and regional economic impact assessment, was undertaken to assess the economic benefits of the proposal and address the requirements of the Guideline for the use of Cost Benefit Analysis in mining and coal seam gas proposals (NSW Government 2012), the Guideline for economic effects and evaluation in EIA (Planning NSW 2002), and the NSW Government Guidelines for Economic Appraisal (NSW Treasury 2007). The assessments were undertaken by Brian Fisher (BAEconomics).

35% of the operations employees and long term contractors live in the Singleton Local Government area and the estimated local flow on effect is \$84million in additional income and the continued employment of 61 full-time equivalent workers.

Should approval be granted, in Net Present Value (NPV) terms, the combined Warkworth and Mount Thorley Operations would deliver net benefits to NSW of around \$1.5 billion.

The benefits attributable to Warkworth Mine in NPV terms are identified to amount to:

- *for NSW, the additional disposable income received by employees of \$346million, additional annual employment of 191 full time employees, and a contribution to NSW gross operating surplus of \$406million;*
- *for the Mid and Upper Hunter region, the additional disposable income received by employees of \$204million, and additional annual employment of 198 full time employees; and*
- *for the Singleton LGA, the additional disposable income received by employees of \$75million, and additional annual employment of 57 full time employees.*

### **Issues**

- Approximately 35% of the work force lives in the Singleton Local Government Area and should the operation close there would be a loss of revenue to local businesses and leakage from the area together with adverse impacts on families. Significant royalties to the State Government would not be realised and returned to the area through infrastructure projects.
- Should the projects be granted consent it could result in residents leaving the area, particularly in the Bulga Village, and because of perceived and real mining impacts it may prove difficult to re-establish the lost community members whilst ever the mining operations are continuing. This would have a negative economic impact on the immediate locality and more broadly the Singleton Local Government Area. The EIS does not appear to address and quantify this issue.

### **Traffic and Transport**

No changes are proposed to the existing average MTW workforce, truck traffic or annual train movements. However, the proposal's potential traffic impacts are in respect to the proposed closure of Wallaby Scrub Road as mining progresses westward. The closure would result in current traffic being detoured via Putty Road and the Golden Highway. The detoured traffic would be subject to some increased daily travel distances and journey times; however, travel safety and travelling conditions are expected to improve due to road construction standards on the Golden Highway. The detoured traffic would not significantly impact the capacity of the detoured roads and relevant intersections.

Construction of an appropriate emergency access road between Putty Road and the Golden Highway would occur prior to the closure of Wallaby Scrub Road which would be constructed in accordance with the NSW Rural Fire Service's (RFS) access standards prescribed in Planning for Bush Fire Protection (Rural Fire Service 2006) and NSW Bushfire Coordinating Committee Policy No. 2/2007, in consultation with emergency services. Coal & Allied has consulted with the RFS, who has stated their acceptance of the emergency access road provided it is constructed in accordance with the aforementioned standards.

### **Issues**

- The closure of WSR has been a long standing issue of concern for the Council and the community due to the potential inconvenience to road users should it closed. It is also considered by the community to define the outer limit of mining operations.
- It is proposed to provide an access track through the expanded operations for the Rural Fire Service in lieu of Wallaby Scrub Road. Consideration should be given to the other emergency services and their access arrangements should this route be closed.
- Wallaby Scrub Road is 7 kilometres in length and is a significant Singleton Council asset. Should this road be closed this value will be lost to the Singleton community.
- If Wallaby Scrub were to be closed this would facilitate the continued encroachment of mining operations towards the village of Bulga.

### **Blasting**

The blasting assessment states that vibration and overpressure limits will be met and no impacts from fume emissions are predicted.

An online blast management plan has been implemented which includes a predictive management system which updates blast restrictions for each blast on the basis of predicted impact.

### **Issues**

- Best practice blast management should continue to be implemented and be incorporated into any consent conditions.
- An online blast schedule should be provided and updated regularly.

### **Aboriginal Heritage**

Within the proposed 2014 disturbance area there are 110 extant items or places primarily consisting of stone artefact(s) in disturbed contexts. These items/places are categorised as 'material cultural heritage' that derive from cultural activities of Aboriginal people and are unlikely to have scientific significance.

The WBACHCA is proposed to compensate for the proposal's impacts on Aboriginal cultural heritage. The WBACHCA is west of the proposed 2014 disturbance area adjacent to the Hunter River. A total of 265 items/places have been identified within this area including the Bulga Bora Ground, a place of very high cultural significance to the Upper Hunter Valley Aboriginal community as well as scientific significance.

The Aboriginal community would continue to be involved in the development and implementation of a customised management plan for the WBACHCA as well as overall Aboriginal heritage management at MTW.

### **Issues**

- The proposed conservation area would appear to present a beneficial outcome. However the adequacy of this measure should be reviewed and confirmed in consultation with the Aboriginal community.

### **European Heritage**

Within the proposed 2014 disturbance area there are four non-registered historic features, two with local and State Significance (the former RAAF Base Bulga Complex and Great North Road Complex) and two with local significance (P1 huts at 297 and 377 Wallaby Scrub Road).

The study found that while small portions of the former RAAF Base Bulga Complex and Great North Road Complex would be impacted by the proposal, heritage impacts are likely to be minor. Impacts on the PI Huts are likely to be moderate as these style huts are becoming rare. Other historic features within and in close proximity to the proposed 2014 disturbance area may experience indirect impacts associated with activities such as exploration and blasting. Impacts on these features are mostly negligible.

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Where impacts on historic heritage sites or places are unavoidable, mitigation measures would be undertaken in accordance with their heritage value. Conservation management plans have been, or would be, prepared for the Great North Road Complex, former RAAF Base Bulga Complex, the Brick Farm House and Springwood homestead.

Coal & Allied also proposes to implement a Local Community Historic Heritage Conservation Initiative, the key element of which is to establish two historic heritage conservation funds - the Mount Thorley Warkworth Historic Heritage Conservation Fund and the Mount Thorley Warkworth Great North Road Conservation Fund.

**Issues**

- The proponent's commitments in respect of European heritage should be incorporated into any future consent conditions.
- The impacts on the PI huts are described as moderate due to them becoming rare, however it would be likely the impact in this circumstance is significant.
- Council is concerned to ensure there is full understanding of the funding program proposed in relation to European heritage and particularly in relation to any residue of the historic Old North Road.

**Air Quality**

An air quality and greenhouse gas study was undertaken for the proposal in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC 2005). The EIS summarises the findings of the study as follows:

- *significant air quality impacts would be primarily experienced at Warkworth village due to mining activities moving closer as the mine plan progresses westwards;*
- *the Mining SEPP's non-discretionary standard for cumulative air quality is met at all but two privately-owned residential dwellings (assessment locations 77 and 264) which are in Warkworth village. These assessment locations, and one non-residence (102 - Warkworth Hall), may experience concentrations above the relevant air quality goals for 24-hour average and annual average PM10 (particulate matter with a diameter of 10µm or less). Assessment location 77 is currently afforded acquisition rights from Wambo Mine. Assessment location 264 is inferred to have acquisition rights from Wambo Mine but is not currently included in its approval;*
- *the Mining SEPP's non-discretionary standard for cumulative air quality at privately-owned residential dwellings is met for Bulga village and, therefore, air quality impacts are below the acceptable air quality concentrations and amenity of the village should not be reduced;*
- *dust from mining is generally coarse in fraction (> PM2.5) whereas the fine fraction dust « PM2.5) of concern to human health typically originates from combustion sources;*

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- *cumulative PM2.5 (particulate matter with a diameter of 2.51µm or less) concentrations would be below the National Environment Protection Measure (NEPC 2003) advisory reporting standards at all of the assessment locations where the concentrations of other pollutants are below the relevant air quality goals;*
- *no air quality impacts are predicted to result from diesel emissions (NO<sub>2</sub> and CO) and blast fume emissions; and*
- *annual average greenhouse emissions over the 21 year life of the proposal are conservatively estimated at 1.038Mt CO<sub>2</sub>-e (Scope 1 and 2), which represents approximately 0.18 per cent and 0.65 per cent of Australia's and NSW emissions, respectively.*

**Issues**

- A PM10 and PM2.5 monitoring and reporting system should be established in respect of the expanded Warkworth Mine and the Minister for Planning be requested to impose a suitable consent condition in this regard should consent be granted.
- While the EIS seeks to address environmental health impacts in relation to particulate size, it does not consider any broader possible health impacts associated with air quality. Given that the proposal would continue the emission of particulate matter it is considered appropriate the proponent make a financial contribution toward a broader health impact study.
- The timely rehabilitation of exposed mined areas and over burden dumps is an ongoing issue of concern and would contribute to reducing adverse air quality impacts if carried out in a more timely manner. The extent and rate of rehabilitation on an annual basis should be prescribed through suitable conditions should consent be granted.
- The DPE is requested to apply and enforce appropriate rehabilitation conditions which meet best practice and community expectations.
- Even though no new cumulative impacts are predicted in relation to Bulga Village and its surrounds, should the project proceed, amenity impacts will be experienced over an extended period of time. These impacts, would amongst others, comprise dust in water tanks and cleanliness of domestic buildings.
- The extent of the proposed strike rate of the open cut would expose a significant amount of material which would have an impact on air quality.

**Groundwater**

A groundwater study was undertaken to assess the potential impacts of the proposal and address the requirements of NSW Office of Water's Aquifer Interference Policy and the Mining SEPP. The study applied a groundwater model which was rigorously calibrated with data from the extensive MTW monitoring network. The groundwater model was independently peer reviewed with the outcomes reflected in the final study.

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The modelling demonstrates less water take than currently approved and no predicted impact on the water table in the alluvium. The filling of Loders Pit reduces water take over time.

**Issues**

- Should consent be granted best practice conditions be imposed in respect of ground water monitoring.

**Surface Water**

The EIS concludes the project will realise similar water demands and surpluses compared to existing operations. No adverse impacts are predicted on surface water quality of adjacent water features.

It is proposed to continue implementing the MTW Water Management Plan.

**Issues**

- Should consent be granted best practice conditions be imposed to monitor surface water.

**Visual Amenity**

Existing topography and vegetation would continue to provide screening to Warkworth Mine as mining activities progress westwards. Some residences west of the site, such as elevated residences around Bulga village, may experience high visual amenity impacts. Progressive rehabilitation of disturbed areas and implementation of visual impact mitigation measures would be undertaken to minimise impacts to visual amenity. In addition, residents of potentially sensitive properties would be able to request site specific visual assessments be undertaken which may identify the need for site specific mitigation measures.

The overburden emplacement at WML is already visible from some Bulga village viewers and visual impacts are generally predicted to be low to moderate compared to existing view sheds.

Some vegetation and bund screening is proposed around the site boundary. However there is an offer of site specific visual assessments for landowners where high visual impacts are predicted.

**Issues**

- The EIS generally concludes there would be a low level of visual impact, however there are offers for elevated locations in Bulga to request a site specific visual assessment, possibly resulting in visual screening at impacted residences. A further detailed supplementary visual impact assessment should be carried out for the elevated locations in Bulga to determine the need for mitigation measures.

## **Project Justification**

The EIS states the following:

*Warkworth Mine and the adjoining MTO are long standing members of the community having commenced operations in 1981. An average workforce of approximately 1,300 people including full-time contractors is employed at MTW.*

*Overall, while the proposal has some residual social and environmental impacts some of which would be experienced by near neighbours, it should be approved as:*

- *the resource within the footprint of the proposal is significant (enabling the long-term employment of approximately 1,187 persons, \$5.8billion in expenditure and \$567million in royalties);*
- *the majority of the Mining SEPP's non-discretionary standards are met;*
- *impacts on near neighbours have been minimised to the greatest extent possible using all reasonable and feasible measures while maintaining an economically viable mine plan;*
- *it meets all government policies;*
- *Warkworth Mine has a long history of minimal non-compliances with government approvals;*
- *it ensures maximum return on the substantial capital invested in the mine since it commenced in the 1981 and has access to existing infrastructure such as road, rail and port; and*
- *it provides a state significant economic benefit to the local, regional, state and national economies.*

## **Conclusion**

This submission highlights a number of issues of concern to be raised with the Department of Planning, particularly in respect of Biodiversity, Air Quality, Visual Amenity and the future of Wallaby Scrub Road.

Whilst it is considered that the local environmental impact issues have been reasonably addressed and could be managed, there are broader concerns regarding the cumulative impact of the project when considered in light of possible future mine expansions in the locality and the ongoing impact on nearby communities. Of greatest concern is ensuring the ongoing sustainability of the local community of Bulga Village.

It has been acknowledged by the proponent that residual social and environmental impacts would be experienced locally and it is critical the formal assessment and determination by the Minister or Planning Assessment Commission thoroughly considers and analyses these impacts on the surrounding community.

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While the current proposals seek to respond to previous concerns they are nevertheless fundamentally the same as proposed in 2010. Furthermore, while they are made at a time where the economic conditions in the mining industry are challenging the economic benefits must be considered alongside the local environmental and social impacts.

**Mark Ihlein**

Director Planning &amp; Sustainable Environment Group

**Attachments****AT-1** Attachment 1 - Warkworth Continuation Project**AT-2** Attachment 2 - Offset Areas



