

28 February 2018

NSW Planning Assessment Commission Determination Report Hunter Valley Operations South Modification 5 (MP 06_0261 MOD 5)

1. INTRODUCTION

On 5 December 2017, the Planning Assessment Commission received from the Department of Planning and Environment (the Department) a modification application from HV Operations Pty Ltd (the proponent) to modify the project approval for Hunter Valley Operations South (HVO South) to facilitate the progression of mining.

The Department has referred the modification application to the Commission for determination in accordance with the Minister for Planning's delegation because the Department received more than 25 submissions from the public in the nature of objections.

Ms Lynelle Briggs AO, the then Chair of the Commission, nominated Mr Paul Forward (chair), Mr Peter Duncan AM, and Mr Gordon Kirkby to constitute the Commission to determine the modification application.

1.1 Summary of Modification Application

The modification application proposes to allow:

- the progression of mining:
 - from the Cheshunt Pit into Riverview Pit to mine the base of the deeper Bayswater seam (see Figure 1 below); and
 - in South Lemington Pit 2 to mine to the base of the Vaux seam below the Bowfield seam;
- amendment to the currently approved overburden emplacement strategy to enable an 80 metre (m) increase in height in some areas up to maximum overburden emplacement height of 240m Australian Height Datum (AHD);
- an increased rate of extraction from 16 million tonnes per annum (Mtpa) to 20Mtpa of run-ofmine (ROM) coal; and
- the update of the Statement of Commitments within Project Approval 06_0261 to remove commitments and conditions that are redundant or inconsistent with measures prescribed in approved management plans.

The Department notes that the final landform has been redesigned to provide a more natural looking landform complementing the pre-mining environment. The proposed final void will be relocated from within the Cheshunt Pit to within the Riverview Pit, with the surface area of the void increasing from approximately 404 hectares (ha) to 523ha. A reduction in the low-wall slopes within the final void to 8-10 degrees will create an additional 150ha of long term 'useable' land. The modification will not change the approved total surface disturbance area of the project, which will remain at 3160ha.

Figure 1 – Conceptual mine sequencing (for illustrative purposes only)



Source: Proponent's Environmental Assessment Report

1.2 Background

HVO comprises two open cut coal mining areas, HVO North and HVO South, which are geographically separated by the Hunter River and regulated by two separate Ministerial approvals. Under project approval MP 06_0261, granted on 24 March 2009 by the then Minister for Planning, HVO South is permitted to extract up to 16Mtpa of ROM coal and has project approval until 2030.

HVO South comprises the Riverview, Cheshunt and South Lemington Pits 1 and 2, Lemington Coal Preparation Plant (yet to be constructed but with approval to process 16mtpa ROM coal) and all related mining activities and infrastructure such as overburden and fine reject emplacement areas. HVO South produces thermal and semi-soft coking coal products that are supplied to the export market via rail to the Port of Newcastle.

The project approval has been modified on four previous occasions, as detailed below:

- MOD 1 approved on 17 December 2009, to increase the storage capacity of Lake James, which forms part of HVO's water management system;
- MOD 2 approved on 3 February 2012, to reallocate 140ha of remnant woodland vegetation and native enhancement areas within the Archerfield Biodiversity Enhancement Area to an alternative site within the Goulburn River Biodiversity Area;
- MOD 3 approved on 31 October 2012, to modify the project approval to include reference to (and biodiversity conservation measures for) the Goulburn River biodiversity offset area, and to amend the Statement of Commitments to remove the suggestion that HVO South has ongoing obligations in relation to the Archerfield biodiversity offset area; and
- MOD 4 approved on 31 October 2012, to modify the project approval to clarify that the proponent would not undertake any mining-related activities in the biodiversity offset areas established for the Warkworth Extension Project that lie within the area subject to the HVO South project approval.

Mining operations at HVO South are integrated with those at HVO North. This includes the sharing of mining equipment, workforce, surface facilities and infrastructure, as well as integration of coal production, processing, overburden and reject emplacement, water management and rehabilitation.

Currently all ROM coal from HVO South is hauled via internal haul roads to HVO North for processing at the Hunter Valley Coal Preparation Plant (HVCPP). The HVO North consent restricts the HVCPP to receiving no more than 16 Mtpa of ROM coal from south of the Hunter River. This modification does not propose to modify this transfer amount.

1.3 Need for modification

The Department notes that the increased production rate at HVO South would provide greater production flexibility for the HVO Complex and more capacity to meet market demand. The mining of deeper coal seams would provide an additional 56.8Mt of ROM coal, which may have otherwise been sterilised, without the need for any additional surface disturbance or major capital investment.

The proponent states that the proposed modification provides the opportunity to improve the mine plan design resulting in:

- no extension to approved mining disturbance areas and utilisation of the approved disturbance footprint by accessing the deeper coal seams;
- micro-relief being incorporated into overburden emplacement area design with consideration given to sensitive residences to the west (Jerrys Plains), east (Maison Dieu and Long Point) and north-east (Camberwell village) as well as the Hunter Valley Glider Club;
- a mining strip alignment to minimise potential noise emissions received at Jerrys Plains;
- an increased distance between the Hunter River and the proposed evaporative basin within the final void;
- the minimisation of surface water catchment area draining to the final void; and
- a reduction in the low-wall slope to enable greater land use optionality within the final void.

The existing socio-economic benefits of HVO South that will continue under the proposed modification include:

- ongoing direct and indirect employment;
- continued community engagement and investment through the HVO Community Consultative Committee (CCC) and programs such as a Community Development Fund, sponsorships and donations; and
- direct economic benefits and flow-on economic effects of HVO South including \$243 million in royalties and \$160 million in taxes (discounted at 7 per cent).

2. DEPARTMENT'S ASSESSMENT REPORT

The Department's assessment report identified air quality, noise, water, final landform, rehabilitation and land use, visual amenity and socio-economics as the key impacts associated with this proposal.

The Department's assessment report concluded that the proposed modification would provide the proponent with an opportunity to sustainably extract additional coal, at a higher extraction rate, without significant additional adverse impacts. The Department considers that the proposed modification provides an appropriate balance between the minimisation of potential amenity and environment impacts and the efficient recovery of the State's resource.

Based on its assessment, the Department is satisfied that the proposal would not significantly increase the impacts compared to the approved project, and that the residual impacts can be adequately mitigated and/or managed through implementing their conditions of consent. The Department is therefore satisfied that the proposed modification is in the public interest, and is approvable, subject to conditions.

2.1 Legislative context - Section 75W

Project Approval was granted on 24 March 2009, pursuant to Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Department has provided advice that in accordance with clause 8J(8) of the *Environmental Planning and Assessment Regulation 2000* and the transitional arrangements of Schedule 6A of the EP&A Act, section 75W of the EP&A Act provides the power to modify the approval.

The Commission considers the proposed modifications to mining operations at HVO South do not fundamentally change the essential intent of the existing approved development. The development, if modified, would retain the key elements, including the life of the mine, surface disturbance footprint and mining methods. In the Commission's view, the proposed changes are within the broad scope of section 75W as it applies to the development, and therefore the request to modify may be considered under section 75W.

In determining the proposed modification, the Commission has the legal power under section 75W(4) to modify the approval, with or without conditions, or to disapprove the modification.

3. COMMISSION'S MEETINGS AND SITE VISIT

As part of its assessment of the proposal, the Commission met with the Department, the proponent, and visited the site and the surrounding area. Notes from these meetings and the site inspection are provided in **Appendix 1**. The Commission offered to meet with Singleton Council but this offer was declined. The Commission also conducted a public meeting. The list of the two speakers and notes from the public meeting are provided in **Appendix 2**.

3.1 Briefing from the Department

On 17 January 2018, the Department briefed the Commission on the modification application.

3.2 Briefing from the Proponent and Site Visit

On 6 February 2018, the Commission met with the proponent and visited the site. The Commission also inspected surrounding localities potentially affected by the development including Warkworth, Maison Dieu and Jerrys Plains.

3.3 Public Meeting

On 6 February 2018, the Commission held a public meeting at the Singleton Civic Centre to hear the public's views on the proposal. Subsequent to the public meeting the Commission received 18 written comments. In summary, the following matters were raised:

- noise impacts;
- air quality impacts, particularly from dust;
- groundwater impacts;
- presence and impact of the proposed final void;
- consideration of climate change;
- presence of mining in the area; and
- cumulative impacts to the area.

4. ADDITIONAL INFORMATION

After its meeting with the proponent on 6 February 2018, the Commission sought further information regarding its dust management measures. This information was provided to the Commission by the proponent on 8 February 2018.

On 7 February 2018, the Commission also sought clarification from the proponent and the Department of the correct coal processing figure as part of the proposed modification. The Department clarified that approval to extract 20mtpa of coal was being sought, which the proponent confirmed. However,

the Department noted that coal was currently being processed at the coal processing plant at HVO North, which only has approval to process 16mtpa. As a result, the Department stated that a modification to the HVO North project approval would be required to process 20mtpa, or the proponent could construct the Lemington Coal Preparation Plant (LCPP), which has been approved at HVO South. The Commission accepts the Department's clarification.

5. COMMISSION'S CONSIDERATION

In this determination, the Commission has considered carefully:

- all information provided by the proponent including additional information;
- the Department's assessment report;
- submissions received during the Department's notification of the project;
- comments received by the Commission from the public;
- advice from government agencies; and
- relevant matters for consideration under the EP&A Act.

The key matters considered by the Commission include air quality and greenhouse gas emissions, final landform, final void and land use, groundwater and groundwater dependent ecosystems, noise, socioeconomics and visual amenity.

The Commission has reviewed and accepts the Department's assessment in respect of all other matters including, but not limited to, surface water and water balance. These matters are not elaborated on in this report.

In addition to the key matters considered, the Commission has also considered a concern raised in written comments received in relation to blasting impacts from mining operations. This matter is discussed in Section 6 of this report.

5.1 Air Quality and Greenhouse Gas Emissions (GHGE)

The Commission heard concerns at the public meeting and received comments regarding the project's impact on air quality and GHGE. These concerns included the level of dust generated by increasing mining operations, its impact on the health of nearby receivers and the mine's contribution to GHGE.

The proponent's Air Quality Impact Assessment (AQIA), undertaken by Todoroski Air Sciences, states that the predicted emissions for the modification would have generally similar concentrations to those predicted in the original 2008 Environmental Assessment (EA), and dust levels similar to the approved operations. In its Response to Submissions (RtS) the proponent acknowledges that the modification will move more dust-generating material than the existing operations due to the additional resource recovery, overburden emplacement activities and increased mining rate, but notes that there would not generally be an equivalent increase in dust impacts.

The modelling results within the proponent's AQIA state that the modification will satisfy the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP) non-discretionary standards for the privately-owned dwellings which are not already entitled to acquisition from neighbouring mines. In addition, the significant impact criteria of the Voluntary Land Acquisition and Mitigation Policy (VLAMP) corresponds with the Mining SEPP non-discretionary standards.

Further, the proponent states that the modification is not predicted to significantly change air quality impacts associated with coal train dust, blasting, or GHGEs, as rail movements would not change, improvements to operational systems relating to blasting are recommended, and GHGEs are expected

to increase approximately 0.03 per cent when compared to the estimated greenhouse emissions for Australia.

The proponent currently operates an Air Quality Management Plan for the HVO Complex and proposes to continue using its management mitigation and management measures, including controlling dust sources, applying water for dust suppression, altering or reducing operations during adverse weather conditions and using real-time air quality monitors and automatic alarm systems to identify and respond to rising dust levels. The proponent states that these current air quality management controls were a key component of the mine design process to avoid and mitigate potential dust generation impacts on private dwellings in Maison Dieu. These management controls were afforded as a result of the emplacement of material further north in the Cheshunt emplacement areas, which are close to Maison Dieu.

When assessing the proponent's AQIA predictions for privately-owned residences against the Environment Protection Authority's (EPA) 2016 Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales, the Department found that there were exceedances at receivers in Warkworth and Camberwell under the PM₁₀, PM_{2.5} and Total Suspended Particulate (TSP) matter criterion. In addition, the Department undertook an assessment of the predictions against their VLAMP and Mining SEPP criteria to ascertain if any of these exceedances warrant additional voluntary mitigation or acquisition rights for the affected receivers.

The Department identified inconsistencies between the cumulative predictions in the AQIAs for this modification and the neighbouring proposed United Wambo Project to the south, which is concurrently under assessment. Given the simultaneous nature of these two applications and the close proximity of the mining operations, the Department was concerned with the degree of variation in the predicted impacts. Consequently, the Department commissioned Ramboll Environ Australia Pty Ltd (Ramboll) to undertake an independent technical review of the adequacy of predicted air quality impacts associated with each proposal, both individually and cumulatively.

This review identified that, while each AQIA provided detailed and rigorous predictions of air quality impacts, when considered together, there were notable differences and variations in the cumulative predictions, particularly for the areas of Warkworth Village and Jerrys Plains.

To address these inconsistencies the Department requested the relevant companies prepare a coordinated assessment of the cumulative air quality impacts of both proposals. This was also assessed by Ramboll. Taking into consideration advice from Ramboll, the Department concluded that HVO South and the proposed United Wambo Project could operate concurrently without significant adverse cumulative impacts to residences in Warkworth and Jerrys Plains.

The Department found that as a result of the modification, two receivers (receiver 77[45] in Warkworth and receiver 471 in southwest Camberwell) could be entitled to voluntary acquisition due to exceedances of PM₁₀ and TSP criteria. While it is noted that these receivers have existing voluntary acquisition rights under development consents for neighbouring mines, the Department states that receiver 77[45] should be added to the list of land subject to voluntary acquisition under the project approval because the relevant exceedances are based on both cumulative and project-specific impacts. The Department considers that receiver 471 should not be entitled to voluntary acquisition rights under this modification application because the relevant exceedances are all based on cumulative impacts, and HVO South's contribution is relatively minor (approximately 5-7% of total dust levels). Instead, the Department has proposed adding receiver 471 to the list of land subject to voluntary air quality mitigation under their conditions of consent.

The Department also found that the predicted cumulative annual average PM₁₀ concentrations at Warkworth Hall (receiver 102) and St Phillips Church (receiver 264) would exceed the 2016 Approved Methods criteria. However, these exceedances were considered acceptable by the Department as

these are non-residences where visitors would only be subject to brief periods of potential exposure and the actual experienced levels would be much less.

The Department concludes that the proposed modification would not significantly change the air quality impacts at sensitive receivers, when compared to the approved project. The Department is satisfied that the proponent's continued implementation of dust mitigation and management measures will effectively minimise air quality impacts as far as reasonable and feasible. In consideration of air quality concerns raised in public submissions, the Department in consultation with EPA has recommended conditions of approval to ensure the proponent appropriately manages and monitors air quality impacts from HVO South.

The Department considers the predicted additional annual average of GHGE generated by the proposed modification to be negligible and that any GHGEs could be appropriately managed under the proposed Air Quality Management Plan.

The Commission is satisfied with the Department's assessment of air quality impact against the criteria of the 2016 Approved Methods. The Commission finds that subject to the mitigation and management measures proposed by the proponent, the project would be consistent with current policies for air quality and GHGE impacts, and that where exceedances are predicted to occur, appropriate mitigation and management controls (including acquisition) exist to adequately offset any impacts.

5.2 Final landform, final void and land use

The Commission heard concerns at the public meeting and comments received regarding the final landform. These concerns related to:

- the increased size of the proposed final void;
- the final void's use as a groundwater sink; and
- the lack of standards for final voids.

In their response to the proponent's EA, Singleton Council raised that the final void should be minimised and the end land use compatible with agreed sustainable environmental, economic and social outcomes.

The proponent states that it has redesigned the final landform to accommodate the additional overburden material produced from mining deeper coal seams, which will be located in the northern part of the Cheshunt emplacement area. The maximum height would increase by 80m to 240m AHD, in places, which the proponent states is similar to the overburden emplacement areas to the north at Ravensworth Operations and HVO North. The proponent states that the proposed final landform will have slopes and undulations to better replicate and assimilate with the natural landscape in the area.

The proponent stated in its RtS that HVO South underwent a mine plan review process which considered avoidance and minimisation of environmental and amenity impacts on surrounding sensitive receptors as its guiding design principles. The proponent states that improvements in their mine plan design for the final void include:

- increased distance between the Hunter River and the proposed evaporative basin;
- minimisation of the surface water catchment area draining to the final void;
- reduction in surface area at the equilibrium level of the evaporative basin from 402ha to 349ha;

and

• reduction in the low-wall slope angle to enable greater land use optionality within the final void.

The proponent states that reducing the slope of the final void from 14 to 18 degrees to 8 to 10 degrees, would lead to the creation of an additional 150ha of useable land within the final void.

The proponent has further justified the design and location of the final void by stating that future coal resources would not be sterilised in the process of shaping the final landform, and that slope angles of the proposed highwall within the final void would be consistent with the approved mine plan (~35-42 degrees), which was a compromise in order to prioritise the reduced slope of the low wall.

In its RtS, the proponent states that the final void was designed to be a groundwater sink with the primary objective to maximise groundwater flow across back-filled pits to the final void which will prevent saline water entering the surrounding environment. The proponent also states that the final void will also reduce upward seepage of groundwater from the Permian strata to the alluvium around the mine, which has the potential indirect benefit of improving water quality within alluvium and, in turn, the Hunter River and Wollombi Brook.

The Department states that the proposed changes to the final landform design represent an improvement compared to the design approved 10 years ago, which was based on overburden emplacement areas with generally flat tops and uniform slopes. The Department considers that the proposed final landform includes appropriate micro-relief features, meets current standards for final landform design and promotes optimal post-mining land uses.

The Department states that it accepts the proponent's justification for the design and location of the final void and notes that in the absence of a NSW Government policy on final voids, the design aligns with the Department's current working objectives (not yet formalised) of being designed as a long-term groundwater sink and minimised in size to the greatest extent practicable. The Department considers that the gentler low-wall slopes provide an additional 150 ha of land available for post-mining sustainable agriculture, consistent with the requirements of the *Synoptic Plan – Integrated Landscapes for Coal Mine Rehabilitation for the Hunter Valley of NSW* (Synoptic Plan).

The Commission notes that the proposed changes to the final landform and void, including associated rehabilitation, relate only to the mine disturbance area affected by this modification application and not to areas of the HVO South site already rehabilitated.

The Commission is satisfied that the final landform is an improvement from the original project approval design and will represent a more natural landform that compliments the pre-mining environment. The Commission also finds that the proposed void's use as a groundwater sink will minimise impacts on the external environment by ensuring that no saline water is released, and that the proposed reduction of the slope of the void's low wall will create more useable land.

5.3 Groundwater and Groundwater Dependent Ecosystems (GDEs)

The Commission heard concerns at the public meeting and received comments regarding the impacts on groundwater and GDEs from the proposed increase in mining. The Commission heard that the groundwater resource in the area was already depleted due to the depth of the existing pits and surrounding mining activities.

Groundwater

The proponent's EA included a Groundwater Study, undertaken by Australasian Groundwater and Environmental Consultants Pty Ltd (AGE), for the proposal in accordance with the Department of Primary Industry Water's (DPI Water) Aquifer Interference Policy (AIP). A numerical groundwater model was developed and remodelled the existing project approval and modification, as well as

including all currently approved and foreseeable mine plans within the region, allowing the assessment of cumulative impacts. The proponent notes that as part of the study, AGE updated the groundwater model for HVO and had it peer reviewed by Kalf and Associates Pty Ltd.

The groundwater study states that mining would continue to directly remove groundwater from the Permian aquifer, and indirectly from the alluvial aquifer and connected streams as a result of depressurisation of the underlying strata. The proponent states that groundwater drawdown from the modification is predicted to not exceed 0.5m at any of the locations within the Hunter River alluvium. However, in areas adjacent to South Lemington Pit 2 where the existing approved operations are expected to result in drawdown of up to 7m, the proposed modification is predicted to further decrease groundwater levels by up to an additional 2.8m.

The proponent states that no privately-owned bores are predicted to experience a cumulative decline in groundwater levels in excess of 2m, as a result of the existing operations and modification. Their RtS also clarifies that no privately-owned bores would experience a drawdown in excess of 1 metre within the alluvium. As a result, the proponent states that the groundwater level drawdown predictions satisfy the requirements of the AIP and meet the relevant non-discretionary standards in clause 12AB(7) of the Mining SEPP. The peer review of the groundwater model concluded that the predictions of drawdown due to the modification together with the existing approved mine plan and cumulative effects will have minimal influence on the environment.

The proponent's groundwater model predicts a peak take from the Permian strata of 1,591 megalitres per year (ML/year) at Year 11 under the North Coast Fractured and Porous Rock Water Sharing Plan (WSP). The model predicts a peak indirect take of 423ML/year under the Hunter Unregulated WSP and 584ML/year under the Hunter Regulated WSP. The proponent states that these volumes are within previously predicted maximum water takes for the currently approved operations stated in their 2008 EA and can be accommodated by licensed water entitlements that it currently holds.

The Department considers the proponent's management measures would generally remain sufficient to avoid or minimise groundwater impacts to the greatest extent practicable, and concludes that the proposed modification would not significantly change the water regime at HVO South, when compared to the approved project.

However, the Department has outlined a number of changes to conditions of approval to reflect advice from the Crown Lands and Water Division of DPI (CLWD) and the EPA, and to address the number of public submissions that raised concerns with the predicted additional groundwater drawdown. The Department notes that these changes are consistent with the proponent's existing approvals for HVO North and Mount Thorley/Warkworth (MTW) and align with other contemporary approvals for Hunter Valley coal mines.

Groundwater Dependent Ecosystems (GDEs)

The proponent's EA included an ecology assessment of potential indirect impacts to ecosystems from the changing groundwater regime. This assessment states that a number of ecosystems that potentially depend on groundwater have been identified in riparian zones within the flood plains along the Hunter River and Wollombi Brook, including River Red Gums and the Hunter Floodplain Red Gum Woodland. However, the proponent notes that there are no identified GDEs in the vicinity of the project area, as mapped in the Commonwealth Government's *National Atlas of Groundwater Dependent Ecosystems*.

The ecology assessment identified that the ecosystems in riparian zones within the floodplains along the Hunter River and Wollombi Brook that potentially use groundwater are opportunistic users only, inhabiting the niche on the floodplain due to the flooding regime rather than water supplied directly from the groundwater system. The proponent's RtS states that due to the high frequency of recurring saturation of the alluvial aquifers (i.e. rainfall and flooding) no impacts on these ecosystems are predicted due to the modification. The proponent concludes that the modification will therefore have no additional impacts on ecology other than those already approved and offset for the existing operations.

The Department states that as the modification would not change the local flooding regime, impacts on these ecosystems are not expected. They conclude that the modification would therefore have no additional impacts on ecology other than those already approved and offset for the existing operations.

The Commission notes that CLWD, the EPA and the Office of Environment and Heritage (OEH) have not raised any concerns with the potential impacts of the mine on GDEs. However, to reflect advice from CLWD and the EPA, and to address public submissions that raised concerns with the potential impacts of the mine on GDEs, the Department has outlined a condition to expand the proponent's groundwater monitoring program to ensure that monitoring encompasses GDEs and riparian vegetation health.

Conclusion

The Commission is satisfied that the proposed modification is within acceptable non-discretionary standards under the AIP and Mining SEPP, and finds that the impact of the modification on groundwater drawdown to be acceptable under current government policy. The Commission also finds that the modification would not have any additional impact on riparian ecosystems.

5.4 Noise

The Commission heard concerns at the public meeting regarding noise impacts from the mine's operation on nearby residential receivers.

The proponent's Noise Impact Assessment (NIA), prepared by EMM Consulting, concluded that operational noise will comply with the project approval, for all assessment locations during 'calm' weather conditions for day, evening and night periods. The predicted noise levels from the NIA for the modification are similar to the original 2008 EA for sensitive receivers to the east in Maison Dieu and marginally higher for sensitive receivers to the west in Jerrys Plains. The proponent notes that predicted noise levels would continue to remain under the sleep disturbance criterion of 45 dBA (LAmax) for all locations.

In its RtS, the proponent notes that the ambient noise at assessment locations in the vicinity of the proposed modification is also influenced by other nearby industrial sources. The proponent states that the results of a cumulative noise assessment indicate the modification satisfies the EPA's *Industrial Noise Policy* (INP) (and the Mining SEPP non-discretionary standard) acceptable night time criterion of 40 decibels (dBA) (LAeq, 9hour) at all locations except for receiver 77[45]. This receiver is predominately affected by current approved mining at the adjacent Wambo Mine which the proponent states dominates noise levels, with relatively insignificant contributions from the modification.

To minimise the impact of noise generated from the modification, the proponent proposes to continue using mitigation and management measures from its Noise Management Plan for the HVO Complex, which include:

- attenuating haul trucks and other equipment with noise suppressing devices;
- altering or reducing operations during adverse weather conditions;
- utilising meteorological forecast data to proactively guide day-to-day planning of mining operations; and
- using real-time noise monitors to identify and respond to rising noise levels.

The Department informed the Commission that the major noise sources would be the operation of mobile plant and overburden emplacement activities (operation of trucks, dozers and graders). The Department states that receivers to the east in Maison Dieu would experience noise levels similar to the original 2008 EA and receivers to the west in Jerrys Plains would experience higher noise levels as a result of the modification, which they consider unavoidable. The Department highlights that 12 additional receivers would be afforded voluntary mitigation rights and one receiver (77[45]) would be afforded voluntary acquisition rights. The Commission notes that of these 13 receivers, 7 are already afforded voluntary acquisition rights and 2 afforded voluntary mitigation rights under the project approval for the United Wambo Project.

The Department is satisfied that the proponent's continued implementation of noise mitigation and management measures would effectively minimise noise impacts as far as reasonable and feasible. The Department acknowledges that public submissions raised concern over the potential increased noise impacts of the proposal and therefore has strengthened the proposed conditions of approval to ensure the proponent appropriately manages and monitors noise impacts from HVO South.

The Commission notes that the Department's assessment report states that the proposed modification predates the release of the EPA's *Noise Policy for Industry* (NPI). The transitional arrangements for the NPI stipulate that, apart from those aspects that relate to low frequency noise, the INP continues to apply as the relevant NSW Government policy for the assessment of this proposal.

The Commission is satisfied that the project would be generally compliant with the relevant criteria for noise under the INP, but acknowledges that there would be exceedances at receivers which would be afforded mitigation or acquisition rights. The Commission finds that the proposed conditions and the implementation of the proponent's mitigation and management measures will adequately address the noise impacts from the project.

5.5 Socio-economics

The proponent highlights that HVO contributes significantly to both the local and regional economies, through ongoing direct and indirect employment, expenditure on local suppliers, a Community Development Fund, and tax and royalty payments. The proponent states that the modification would not result in social impacts arising from workforce influx, population change and associated impacts on infrastructure. The proponent concludes that the proposed modification will optimise the existing operations to enable the mine's socio-economic benefits to be maintained.

The proponent acknowledges that surrounding residences will experience a change in noise and air quality impacts and has subsequently established a HVO Near Neighbour Amenity Resource Fund to fund discretionary mitigation works and services to improve amenity for near residences. The Commission understands that this fund was voluntarily established by the proponent and is captured under the proponent's Statement of Commitments.

The Department states that in light of the recent community contribution commitments for the period between January 2015 and December 2017, totalling approximately \$4 million, additional community funding would not be necessary for the modification.

The Commission acknowledges that there will be impacts on the amenity of local communities from the mine development, including from noise and impacts to air quality and visual amenity. However, any impacts can be appropriately managed through the framework of rigorous controls and requirements in place to mitigate, minimise, compensate and offset those impacts. The Commission finds that the project will continue to contribute social and economic benefits for local communities and the wider region, as outlined earlier in the report.

5.6 Visual Amenity

The Commission heard concerns at the public meeting regarding the project's impact on visual amenity, particularly the increasing visual presence of the mine on the landscape.

The proponent's EA included a visual assessment, undertaken by EMM Consulting, of the potential impacts of the modification on the visual amenity of surrounding sensitive receivers as the result of changes to the approved final landform as well as changes to the viewscape during operations.

The proponent states that the modification will emplace the additional material within the Cheshunt emplacement area rather than in areas to the south, which would have reduced views of the nearby Wollemi National Park for sensitive receivers to the east of HVO South at Maison Dieu. The proponent's EA states that of the six emplacement options considered the modification offers a balance between disposing the additional volume of overburden material within the constraints of the existing approved footprint of disturbance while minimising visual impacts on near neighbours.

The proponent notes in their EA that rehabilitation would continue to be progressive with disturbed land rehabilitated as soon as it is practical. The proponent states that this rehabilitation will provide for the development of a more natural landscape that includes large areas of connected native vegetation and grassland to support land suitable for agriculture and native fauna movement.

The proponent's RtS states that in the longer term, the modification will present moderate/low cumulative visual impacts at viewpoints in Maison Dieu, Long Point, Jerrys Plains and Camberwell village. The proponent considers the changes to visual amenity to be generally consistent with the 2008 assessed final landform.

The proponent acknowledges the potential for lighting from the mining area to cause a nuisance to residences and proposes to minimise this nuisance by implementing visual and lighting management procedures. The proponent also proposes to implement specific lighting controls during overburden emplacement area construction including boundary inspections for intrusive lights.

The proponent concludes that the continued implementation of visual and lighting management measures, including progressive rehabilitation as soon as practical, along with the inherent design and mitigation measures for the post mining landform will reduce potential impacts on visual amenity associated with the modification.

The Department notes that receivers in Maison Dieu and Long Point, with direct views of HVO South, would experience moderate visual impacts when the Cheshunt emplacement area is being shaped and established during States 1 and 2 of the mine plan. In addition, the Department notes that receivers in Jerrys Plains would experience moderate/low impacts while the landform is being established and will decrease over time with rehabilitation.

The Department states that with the additional emplacement activities and periods of unrehabilitated surfaces, the short term visual impacts would be generally similar to the approved project. However, with the reshaping of the landform, proposed rehabilitation measures and the maturing of vegetation the Department considers that the long term visual impacts should noticeably reduce.

The Department notes that to minimise the effects of lighting from the mine, the proponent implements a number of lighting management measures such as limiting external lighting and directing lights below the horizontal away from sensitive receivers. The Department states that the proponent would continue to be required to take all practicable measures to mitigate off-site lighting impacts from the project.

The Department considers that no additional visual impact or amenity conditions are necessary.

The Commission has considered the proponent's alternative overburden emplacement strategies and finds that the proposed strategy for this modification will minimise the impact on visual amenity for nearby receivers, compared to the alternatives, and that progressive rehabilitation of the mine disturbance area subject to this modification would further minimise impacts over the long term. In addition, the Commission has included an additional rehabilitation objective in the conditions of consent to ensure that the existing views of the Wollemi National Park and associated escarpments for residences of Maison Dieu are protected and maintained.

6. COMMISSION'S RESPONSE TO COMMUNITY ISSUES

The Commission received written comments which raised significant concern about the impacts of blasting from mining operations on the health of local communities, particularly from mine blast plumes.

Separate to the Commission's consideration of the modification application in Section 5 of this report, the Commission responds to this issue raised by the community as follows.

The Commission notes that the proponent currently operates a Blast Management Plan (BMP) for the HVO Complex to ensure that blasting operations comply with all relevant requirements particularly noise, overpressure, vibration, blast fume and dust effects. The proponent states that it uses a predictive blast system to schedule blast events to the least-risk time of the day where feasible, which minimises the risk of any off-site impact occurring, and is based on hourly forecast weather conditions that may affect the dispersion of blast emissions. The proponent states that the modification will remove the current commitments related to blasting and replace them with updated blast scheduling procedures to ensure that HVO South is implementing best practice.

The Department notes that the project approval includes air blast overpressure and ground vibration criteria, restricted blasting hours, blasting frequency and blast monitoring requirements, which are not proposed to change through the modification. The Department has proposed minor changes to strengthen conditions of approval, particularly with regards to restricting blasting near public roads and coordinating blasts with nearby mines.

The Commission finds that, subject to conditions, surrounding communities would not be adversely impacted by blasting from mining operations.

7. COMMISSION'S FINDINGS AND DETERMINATION

The Commission has considered carefully the proponent's proposal, the Department's assessment report and the relevant matters for consideration under the EP&A Act. The Commission has noted the advice from government agencies including the EPA. Finally, the Commission has heard from members of the community about their concerns for the proposal during the public meeting in Singleton and has undertaken an inspection of the mine and surrounding localities.

The Commission finds that, subject to conditions, the modification:

- would not significantly change the air quality impacts at sensitive receivers, compared to the approved project;
- proposes a final landform which will more closely represent a natural landform that compliments the pre-mining environment;
- final void's use as a groundwater sink will not adversely impact the external environment, and its design will create more useable land which will promote optimal post-mining land uses;
- would not have a significant adverse impact on groundwater levels and would not have any additional impact on riparian ecosystems;

- would not create adverse, unmitigated noise impacts on the amenity of nearby residential • receivers;
- will continue to contribute social and economic benefits for local communities and the wider • region; and
- will minimise the impact on visual amenity for nearby receivers. •

For the reasons set out above, the Commission has determined to grant consent to the modification application subject to the conditions set out in the instrument of approval.

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Mr Paul Forward (Chair) Member of the Commission

Mr Peter Duncan AM Member of the Commission

Mr Gordon Kirkby Member of the Commission

APPENDIX 1 RECORDS OF COMMISSION MEETINGS

Minutes of Department of Planning & Environment Briefing to the Planning Assessment Commission

This meeting is part of the determination process.			
Date: 17 January 2018	Time: 10.00am		
Project: Hunter Valley Operations South MOD 5	Project: Hunter Valley Operations South MOD 5		
Meeting place: PAC Offices, 201 Elizabeth Street, Sydr	ney		
Attendees: Commission Members: Paul Forward, Peter Duncan AM, Gordon Kirkby.			
Commission Secretariat: Matthew Todd-Jones (Senior Planning Officer), David Koppers (Team Leader), Alana Jelfs (Senior Planning Officer), David McNamara (Director).			
Department of Planning & Environment: Howard Reed (Director – Resource Assessments), Megan Dawson (Team Leader – Resource Assessments)			
The purpose of the meeting is for the Department to brief the Commission on the project			
The Department provided the Commission with answers to questions put forward in the agenda, which were discussed at the briefing and are outlined below in blue: *The Department's answers to the Commission's questions contain references to Coal & Allied. For clarity, at the time of the application, Coal & Allied was majority-owned by Rio Tinto Coal Australia Pty Limited. However, during assessment of the application, Yancoal Australia Limited completed its acquisition of Rio Tinto's stake in Coal & Allied.			
 <u>Relationship of proposal with HVO North</u> Further clarity around the misalignment between the HVO North and South consents in terms of timeframes and production (Section 2.3 of the assessment report). All ROM coal from HVO South is currently processed at HVO North (approved under DA 450-10-2003), however mining operations (including processing) at HVO North are only permitted until 2025 (compared to 2030 for HVO South). Additionally, the modification proposes to increase HVO South production to 20 Mtpa, however HVO North is only permitted to receive up 16 Mtpa of ROM coal from HVO South. In the request for an RTS, the Department asked Coal & Allied to clarify the proposed ROM coal processing arrangements between HVO South and HVO North, particularly as no modification has been proposed for HVO North. Coal & Allied's response is detailed in section 5.2.3 of the RTS. In summary, Coal & Allied clarified that it would operate within its approved limits and review the arrangements before seeking to modify the HVO North consent to receive up to 20 Mtpa in approximately 2022. 			
consent?	Plant at HVO North passed 2025 tied to this modification Pwould need to be sought and obtained via a modification		

- Would HVO North require a MOD to cater for the receival of an extra 4 Mtpa from HVO South? Particularly as the HVO North operational timeframe only runs to 2025.

Yes, condition 8 of Schedule 2 of DA 450-10-2003 would need to be modified if Coal & Allied intends to transfer all 20 Mt of ROM coal from HVO South to the Hunter Valley Coal Handling and Preparation Plant at HVO North. Alternatively, Coal & Allied could rebuild the Lemington CHPP at HVO South to process the extra 4 Mt without the need for a modification.

Groundwater

- Overview of the results of the ground water modelling undertaken for the project.

A contemporary numerical groundwater model was developed to assess the impact of the proposed modification on groundwater resources and users. The results of the modelling are detailed in the Groundwater Study (Appendix G of the EA) prepared by AGE. The results are summarised as follows:

- groundwater take would be less than originally predicted in the 2008 EA and Coal & Allied has sufficient licences to account for this take;
- o baseflows in both the Hunter River and Wollombi Brook would decline slightly;
- o no privately-owned bores would be significantly impacted; and
- groundwater drawdown would result in a 2.8m decline in the Wollombi Brook alluvium and a 0.5m decline in the Hunter River alluvium.
 These results show that the proposed modification would have limited additional impact on the overall groundwater system.

<u>Amenity</u>

- Further details of the proponent's Near Neighbour Amenity Resources Fund and how it is used.

The Near Neighbour Amenity Resource fund was initiated in March 2017 to provide services to improve amenity for near neighbours. The Department understands that the allocation of such services would be based on community feedback and would be in addition to conditioned requirements in accordance with the VLAMP. As stated in section 4.2.1 of the RTS, the fund is currently providing free drinking water tank cleaning for neighbours in the areas of Long Point, Maison Dieu and Jerrys Plains. Further details should be sought from Yancoal.

Noise

- Potential inconsistency between the project objective of minimising additional noise impact and the assessment recommending additional properties be entitled to acquisition or noise mitigation works (Section 5.2).

The Department notes that the modification design objective was to minimise additional noise impacts not avoid them. The number of additional properties that surpass the VLAMP threshold for acquisition or mitigation rights may not be the best representation of meeting/not meeting this objective. For example, it is significant to consider the number of privately-owned properties that would exceed the current noise impact assessment criterion, which is 20 of 161 (12%) with exceedances ranging from 1-4 dBA. It is not unusual that a modification to a coal mine would increase noise impacts for some receivers.

- As a result of the MOD, a number of residences would exceed the current noise impact assessment criteria in the project approval, do we know what the contributor to these exceedances is?

Table 6.1 of the Noise Impact Assessment (Appendix E of the EA) details the main noise sources of the proposed modification. Operation of mobile plant is the major noise source, and the Department understands that overburden emplacement activities (operation of trucks, dozers and graders) is a major contributor to the noise exceedances. The increased height of the overburden emplacements (as a result of deeper coal extraction and the decision to apply macro-relief to the formally planar surface of the OEAs) is a key contributor to this outcome.

<u>Air Quality</u>

- An outline of the air quality modelling and the peer review undertaken by Ramboll Environ Australia -

particularly the predicted cumulative impacts of HVO and the proposed United Wambo Project.

Given the concurrent nature of these two applications and the proximity of the two mining operations, the Department engaged Ramboll Environ to undertake an independent technical review of the specialist air quality impact assessments. This review identified that there were some inconsistencies between the two assessments, particularly with the predicted cumulative impacts (HVO South predicted notably higher concentrations than United Wambo). These inconsistencies were largely attributed to different assumptions in emissions inventories and, to a lesser extent, differences in meteorological data and background air quality levels. Joint remodelling of predicted annual average PM10 emissions demonstrated that HVO South had conservatively estimated the cumulative air quality impacts, particularly for receivers to the east in Jerrys Plains. Further discussion on the peer review can be found in Section 6.1.1 (p 31) of the Department's Preliminary Assessment Report for the United Wambo Open Cut Coal Mine Project.

Is there any intention to bring the VLAMP acquisition/mitigation criteria or Mining SEPP for pm10 in line with the EPA's Approved Methods Criteria (which is in line with National criteria)?
 Yes, proposed amendments to the VLAMP and Mining SEPP were released on 1 December 2017 and are currently on exhibition until 16 February 2018. More information can be found here http://www.planning.nsw.gov.au/Policy-and-Legislation/State-Environmental-Planning-Policies-

<u>*Review/Mining-SEPP-amendment/Review-of-VLAMP-Mining-SEPP.</u>* These amendments are unlikely to be finalised before this current modification application is determined.</u>

Final void and rehabilitation

Potential discrepancy in the reporting of the final void in the assessment report – the area of the final void outlined in Table 1 on page 5 appears to be inconsistent with Figure 9 on page 26.
 The Department has confirmed with Coal & Allied that the labels on Figure 13.3 of the EA (replicated as Figure 9) are the surface areas of the pit lake/'evaporative basin' at equilibrium. Whereas the surface areas quoted on pages ES.10, 196 and 202 of the EA (ie 403 ha and 372 ha), have been interpreted as the same measurement when they are actually the combined surface area of the pit lake and unusable land (slope > 10 degrees) at equilibrium. This error was carried over into the second dot points of Table 1, row 'Final Void' of the Department's Assessment Report. Nevertheless, the Department does not consider this error to be material as this information was not relied on in the Department's consideration of the proposed final void.

- What is the current and proposed depth of the pits?

Table 1 of the Department's Assessment Report summarises the approved and proposed pit depths by coal seam. The depth of the coal seams vary across the site and generally dip to the south-southwest. Figures 10.5 and 10.6 of the EA best show this variability. The deepest coal seam, Bayswater, can reach approximately -165 m RL, which equates to approximately 300 metres depth.

- Any update on the Department's work dealing with final voids associated with open cut coal mines and if there has been any development of a Government policy on final voids?

On 30 November 2017, the Department released a discussion paper on improving mine rehabilitation in NSW, including consideration of final voids. The discussion paper is the first step to developing a new rehabilitation policy for all future major mining projects. It is expected that this revised policy will not be finalised before Q3 2018.

- An explanation of why the final land form represents an improvement compared to the design approved 10 years ago and how the final land form has been appropriately redesigned to integrate with the existing landscape.

The proposed landform is considered an improvement because it incorporates macro and micro-relief features, promotes optimal post-mining land uses, and better adheres to the Department's standard rehabilitation objectives (see Table 16). Figure 5.2 of the RTS best depicts this improvement.

- Was there any consideration of progressively backfilling the pits? Or backfilling after operations have ceased?

Backfilling the final void was not formally considered. The Department did not ask Coal & Allied to consider this option because of the age of the mine and the associated costs and environmental impacts of redisturbing/rehandling overburden material. It is generally accepted that the economic costs of filling final voids with previously emplaced overburden are very high.

- Were any other overburden emplacement strategies considered? In the request for an RTS, the Department asked Coal & Allied to provide additional information on what emplacement options were considered in the design process. Section 3.4 of the RTS details five alternative options considered by Coal & Allied.

- Can the Department demonstrate how and when progressive rehabilitation will take place? Table 3.3 of the EA includes a summary of the proposed rehabilitation area by mine stage. Detailed rehabilitation commitments would be specified in the Rehabilitation Management Plan/ Mining Operations Plan (regulated by DRG), as required under condition 36 of Schedule 3.
- Does the Department / NSW Government have performance measures in terms of the ratio of active mining areas to rehabilitation areas? (Section 5.4)

The Department does not have a specific target ratio; however, it does require companies to design mine plans that promote progressive and timely rehabilitation to minimise exposed (non-vegetated) areas and establish mature vegetation as early as possible. The Department has recently began to require mining companies to specify forward programs of progressive rehabilitation in Rehabilitation Management Plans (see condition 36).

- The proposed United Wambo Mine adjacent to HVO South proposes to realign the Golden Highway within the HVO South project area in close proximity to South Lemington Pit No.2. To what extent has this been considered in the assessment?

The potential impacts of the Golden Highway realignment on South Lemington Pit 2 are considered in the Department's Preliminary Assessment Report for the United Wambo Open Cut Coal Mine Project (see p 121). The Department has not considered these impacts in its assessment of this modification because South Lemington Pit 2 is an approved pit. Nevertheless, the Department understands that the proposed realigned highway would not significantly impact the viability of South Lemington Pit 2, but that Coal & Allied would have to scale back the size of its blasting activities as mining approaches the proposed realigned Highway.

Consultation

- What has been the extent of the Department's discussions with agencies in putting together the conditions of consent? Have agencies confirmed that they have no issues with the modification?

Draft conditions were provided to DPI, EPA, DRG, OEH, Council and HNE Health on 2 November 2017. All agencies were generally supportive of the draft conditions with a few suggested changes. The Department made these changes in the final version.

The EPA did rightly raise concerns with the draft noise conditions as there were a few errors in the early draft of Table 2. The table was revised and resent to the EPA on 8 November 2017. In a follow up meeting on 14 November 2017 with M Dawson and J Parnell (the Department's noise specialist), L Clarke (EPA's noise specialist) confirmed he was happy with the revised table. The revised table aligns with the EPA's recommendations of 14 July 2017 except for residences where noise levels are predicted to be lower than the criteria in the project approval. The EPA recommended lowering the criteria, however the Department typically retains the approved levels, particularly in this instance when it's only a 1dB difference.

The Department also consulted with the Hunter Valley Gliding Club regarding the proposed changes to conditions 47-49 of Schedule 3. This was undertaken via email and phone with the Secretary of HVGC.

The Department informed the Commission that the proponent has viewed and accepted the proposed conditions of consent.

Other matters

M Todd-Jones asked M Dawson if landowners had been consulted and consent given for this proposed modification. Under clause 8F(1)(c) of the EP&A Regulation, landowner's consent is not required for any modification application relating to a mining project.

Meeting closed at 11.40am

Minutes of Proponent Briefing to the Planning Assessment Commission

This meeting is part of the determination process.		
Date: 6 February 2018	Time: 8.30am	
Project: Hunter Valley Operations South MOD 5		
Meeting place: HVO Offices, Lemington Road		
Attendees: Commission Members: Paul Forward, Peter Duncan AM, Gordon Kirkby.		
Commission Secretariat: Matthew Todd-Jones (Senior Planning Officer), David Koppers (Team Leader).		
Proponent: Michael Moore (Manager – Environmental Services, Yancoal), Mark Nolan (Manager – Projects Approvals HVO/MTW, Yancoal), Mark Jacobs (General Manager – Environment and Community), Michael Lloyd, Andrew Speechly, Pearl Garrett, Doug Fenton.		
Apologies: Jason McCallum, David Bennett.		
The purpose of the meeting is for the proponent to brief the Commission on the project		
 The proponent provided a presentation to the Commission (which can be viewed on the Commission's website), a tour of the mine site and discussed the following matters: <u>Groundwater</u> The proponent has adequate water licences to cover the required amount of groundwater take. Groundwater recharge and surface water run-off will create the pit lake, which will be 1/3 of the salinity of sea water. No privately-owned bores would be impacted and groundwater drawdown would be within the standards of the Aquifer Interference Policy. There are no groundwater dependent ecosystems at the site. Ecosystems at the edge of the river use river water. 		
 <u>Amenity</u> The overburden emplacement area was chosen as it stays within the existing disturbance footprint with less environmental impacts. It has been as far away from Maison Dieu as possible. The increased height of the overburden emplacement has been concentrated to the north so that the views currently enjoyed by Maison Dieu aren't affected. There are currently real time noise monitors in Jerrys Plains and Maison Dieu. There are have been no complaints regarding lighting impacts from operations at HVO South. The proponent's Near Neighbour Resource Fund will affect 120 properties. It will be an ongoing voluntary fund and has a set annual budget. 		
2 to the revised Stage 2 (Table 3 of the Departme	tion for the decreases in PM_{10} levels from the AQIA Stage ent's Assessment Report).	

• The proponent stated that the drop in data was due to cumulative data being used rather than the previous estimated data used by the proponent.

Final void and rehabilitation

- The project will develop approximately 50 hectares more Class 1 agricultural land than was previously approved.
- There is no fresh disturbance proposed under this modification.
- Topsoil stockpiles will be put straight onto rehabilitation areas.
- The proponent stated that filling the void would take a long time and that it would bring no real benefits.
- The final landform has been designed to create gentler slopes with greater land capability.

Meeting closed at 1.00pm

APPENDIX 2 LIST OF SPEAKERS AT THE HVO SOUTH MOD 5 PUBLIC MEETING

Planning Assessment Commission Meeting

Hunter Valley Operations South Modification 5, Singleton LGA

Date & Time: Tuesday, 6th February 2018 at 3:30pm

Place: Civic Centre, 12 Queen Street Singleton NSW 2330

Meeting Schedule	
3:30 pm	Opening Statement from the Chair – Mr Paul Forward
Registered Speakers:	1. Ian Moore
	2. Deidre Olofsson
	End

SUMMARY OF ISSUES RAISED AT THE PUBLIC MEETING

This meeting is part of the determination process.		
Date: 6 February 2018	Time: 3.30pm	
Project: Hunter Valley Operations South MOD 5		
Meeting place: Singleton Civic Centre, 12 Queen Street, Singleton		
Attendees: Commission Members: Paul Forward, Peter Duncan AM, Gordon Kirkby.		
Commission Secretariat: Matthew Todd-Jones (Senior	Planning Officer), David Koppers (Team Leader).	
The purpose of the meeting is for the Commission to hear the public's views on the Department's Assessment Report.		
The following matters were raised:		
 <u>Noise</u> There were previously no noise impacts from the mine but as it has increased in size the impact has become greater, especially on the residences of Jerrys Plains. The modification will create more noise. 		
 <u>Dust</u> A haze in the air from dust can be seen after blasting. The impacts of dust on Jerrys Plains are exacerbated in prevailing easterly wind conditions. The modification will create more dust. The proponent's offer to clean out water tanks as part of their Near Neighbour Amenity Resource Fund is an admission of guilt that there is a problem with dust in the areas around the mine site. 		
 <u>Groundwater</u> Groundwater in the area has already been impacted by the mine and the modification will drain further groundwater. 		
looked like.	y which it should be assessed against. The and the land is not being returned to what it previously In the area too and the cumulative impact of these on the	

Other matters

- The impact of climate change has not been considered in the assessment of this modification.
- Each mine should be accountable for acquisition of properties that their operations will impact on, even if two or more mines impact on one property.

Meeting closed at 3.55pm