

	amenity bunds and stockpile pads).	used in the construction of access roads to the ventilation shaft.
Power Supply	Electricity supplied to site via a spur line from a 66 kilovolt (kV) transmission line located to the east of the Kamilaroi Highway.	No change to electricity supply to site. Change to the location of minor spur lines and additional minor spur lines to the ventilation shafts and rear of panel ventilation shaft.
Road Transport Requirements	Construction road traffic: heavy vehicles delivering construction materials and machinery to the pit top area, as well as workforce light vehicle movements. Operational road traffic: workforce, consumables, visitors and general deliveries and maintenance vehicles.	No change.
General Surface Facilities and Supporting Infrastructure	General surface facilities including site offices, switch rooms, workshop, compressor shed, wash bay, hardstand, fuel storage and re-fuelling facilities and septic system(s). Supporting infrastructure including minor access tracks and electricity spur lines.	Additional minor supporting infrastructure outside the pit top area (e.g. access tracks, electricity spur lines, surface water control features and gas/water pipelines).
Workforce	Construction workforce (employees and on-site contractors) of approximately 80 people. Operational workforce (employees and on-site contractors) of approximately 94 to 113 people (dependent on the number of continuous miners in operation).	Employment of an additional 35 people over a period of approximately 12 months (i.e. during construction of the modification components).
Construction Hours	Construction hours (7 days per week): - Vegetation clearance/soil removal – 7.00 am to 6.00 pm. - Surface infrastructure and pit top area construction – 7.00 am to 10.00 pm. - Mining – 24 hours per day. - Raw materials/supply delivery – 7.00 am to 10.00 pm.	As per approval with: Shaft construction – 24 hours per day.
Operating Hours	Operating hours: mining 24 hours per day 7 days per week.	No change.



Figure 3: Aerial View of Stage 1 Pit Top



Figure 4: Indicative Layout of Proposed Stage 1 Modification

3. STATUTORY CONTEXT

3.1 Approval Authority

The Minister was the approval authority for the original project application, and is consequently the approval authority for this modification application. However, under the Minister's delegation of 25 January 2010, the Director, Mining and Industry Projects, may determine the application.

3.2 Modification

The proposed modification does not involve changes to any of the mine's main operating functions (area to be mined, rate or method of coal production, processing or dispatch - see Figure 4 and Table 1). The modification is mostly concerned with construction activities and the operation of gas and water pre-drainage infrastructure for three of the proposed 26 longwall panels. Consequently the Department is satisfied that the proposed modification falls within the scope of section 75W of the EP&A Act and can be determined under that section.

3.3 Consultation

Under section 75W of the EP&A Act, the Department is not required to exhibit the modification application or undertake consultation. However, the modification application and accompanying Environmental Assessment (EA) was referred to the:

- Department of Environment, Climate Change and Water (DECCW),
- NSW Office of Water (NOW) within DECCW;
- Department of Industry and Investment (I&I NSW);
- Namoi Catchment Management Authority (Namoi CMA);
- Roads and Traffic Authority (RTA);
- Gunnedah Shire Council (GSC); and
- Narrabri Shire Council (NSC).

The Department also provided a copy of the EA for the modification to a local resident who had made the only public submission received in response to the recent exhibition of the EA for the Stage 2 project.

All agencies that specifically responded regarding the Stage 1 modification application (DECCW, NOW, I&I NSW, RTA and Namoi CMA) referenced their prior submissions for the Stage 2 project, and requested that their comments on the relevant Stage 2 components be considered during the assessment of the Stage 1 modification. Following is a summary of the issues relevant to the Stage 1 modification that were raised by agencies in their Stage 2 submissions:

DECCW is concerned about noise impacts from construction activities and the operation of coal seam gas drainage facilities and the rail loop. In particular, DECCW considered that exceedances of noise criteria could occur for the *Bow Hills*, *Naroo*, *Greylands* and *Kurrajong* residences. DECCW sought clarification of sleep disturbance impacts and of apparent inconsistencies in the information presented in the NIA.

NOW is concerned about the proposed 34.6 ha of ground disturbance and potential for impacts to surface and ground waters.

RTA does not consider the modification would impact on road safety or traffic issues.

I&I NSW supports the proposed modification and requested that NCO finalise the Rehabilitation Management Plan required under the Stage 1 approval.

Two agencies (DECCW and NOW) also identified additional issues solely in respect of the Stage 1 modification. **DECCW** identified that the EA supplied to it by NCO included an incorrect assessment of construction noise, being based on the draft Stage 2 EA rather than the corrected and final version of that EA. On 10 February 2010, NCO responded to this shortcoming by providing the Department with a revised Noise Impact Assessment (NIA) for the modification, which was, in turn, provided to DECCW for review. Both **DECCW** and **NOW** also questioned the wisdom of dealing with components of the Stage 2 project as a separate modification application rather than as an integrated Stage 2 project assessment.

The owner of **Kurrajong**, strongly opposed all aspects of Stage 2 of the project, and therefore is opposed to those components of the Stage 2 proposal included in this modification application. He was particularly critical of the company's performance in controlling noise emissions since construction commenced at the site in 2008 and believes that these activities would have adversely affected his residential amenity. In March 2010, contracts were exchanged for NCO's purchase of the Kurrajong property. Consequently, the Department has not considered further amenity impacts for this property.

3.4 Environmental Planning Instruments

The following environmental planning instruments are relevant to the proposal:

- *Narrabri Local Environment Plan 1992*;
- *SEPP (Mining, Petroleum Production and Extractive Industries) 2007*;
- *SEPP (Major Development) 2005*;
- *SEPP 33 – Hazardous and Offensive Development*;
- *SEPP 44 – Koala Habitat Protection*; and
- *SEPP 55 – Remediation of Land*.

The Department has assessed the proposal against the relevant provisions in these instruments and is satisfied that the proposal complies with and is otherwise consistent with the aims, objectives and provisions of the instruments (see Appendix B).

4. ASSESSMENT OF ENVIRONMENTAL IMPACTS

4.1 Noise

Figure 5 shows the location of sensitive noise receivers (shown as yellow "houses") for the mine's activities. The closest privately-owned residences to the proposed Stage 1 modification construction activities are:

- *Kurrajong* (now under purchase by NCO) – surface facilities and West Mains ventilation shaft;
- *Naroo* – surface facilities and rail loop;
- *Bow Hills* – rail loop; and
- *Newhaven* – end of Panel 2 ventilation shaft.

In February 2010, at the Department's request, NCO provided a revised assessment of construction noise impacts. Two scenarios were modelled, both of which considered noise emissions from the operation of all approved Stage 1 components and construction of all components of the proposed modification, except that:

- Scenario 1 included consideration of operational noise emissions from the current ventilation fan located in the box-cut; while
- Scenario 2 considered operational noise emissions from the proposed fans on the West Mains ventilation shaft and the end of Panel 2 ventilation shaft (i.e. post-construction noise emissions with the box-cut fan decommissioned).

Predicted noise impacts at nearby residences are provided in Tables 2 and 3, representing Scenarios 1 and 2 described above.

To assess the relative contribution of heavy machinery proposed to be used in the construction of the CHPP, variations to each of the above scenarios were modelled. The first included the use of heavy equipment (cranes and excavator – typical of daytime activities) and the second only included fabrication works, without the use of heavy equipment (typical of proposed evening activities). Construction of the CHPP would not occur during night hours.

The NIA indicated that the contribution of heavy equipment would increase noise levels at the nearest privately-owned residence (*Bow Hills*) by no more than 2 dB(A). Consequently, the Department has not further considered the "no heavy construction equipment operating" sub-scenarios. Therefore, the predicted noise levels in Tables 2 and 3 are conservative for evening and night time noise emissions.

The NIA (Tables 2 and 3) predicts that the current noise impact assessment criterion of 35 dB(A) would be met at all privately-owned residences, albeit that this criterion would be reached at the *Bow Hills* residence.