

Advice to decision maker on coal mining project

Proposed action: Boggabri Coal Mine Extension (2009/5256)

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| Requesting agency | Department of Sustainability, Environment, Water, Population and Communities |
| Date of request | 29 August 2012 |
| Date request received | 29 August 2012 |
| Project title | Boggabri Coal Mine Extension (2009/5256) |
| Summary of request | <p>The Department of Sustainability, Environment, Water, Population and Communities (the department) advises the Interim Independent Expert Scientific Committee on Coal Seam Gas and Coal Mining (the interim committee) of an opportunity to comment on the proposed decision brief. Specifically, the department seeks – taking into account the recent release of the <i>Namoi Catchment Water Study: Independent Expert Final Study Report</i> (July 2012), and the NSW Planning Assessment Commission’s review report of February 2012 for the Boggabri Coal Project Section – the advice of the interim committee on:</p> <ol style="list-style-type: none"> 1. Does the interim committee consider there will be any significant impacts on matters of national environmental significance that are dependent on water resources, including as a result of cumulative impacts; and 2. Does the interim committee believe that the construction of a crossing over the Namoi River will have any impact on matters of national environmental significance? |

Advice

- 1) The interim committee notes that the New South Wales Project Approval for the extension of the Boggabri Coal Mine includes approval conditions which require Boggabri Coal to prepare and implement a Surface Water Management Plan and a separate Groundwater Management Plan to the satisfaction of the Director-General. To ensure that significant impact on matters of national environmental significance that are dependent on water resources does not occur, the interim committee recommends that the department consider strengthening these conditions by:
 - Including a condition which ensures that the water management plans are completed to the satisfaction of the federal environment minister or his delegate;
 - Including a condition which requires that the water management plans are in accordance with the National Water Management Strategy;
 - Including a condition that Boggabri Coal’s water monitoring, groundwater modelling and water

management regime is expanded to provide a greater regional context for the project expansion to the satisfaction of the minister or his delegate, and may include a collaborative approach with the Tarrawonga Coal and Aston Coal (Maules Creek) mines in the event that these mines were approved;

- Including a condition related to the cumulative impacts on the White box- Yellow box- Blakerly's Red Gum Woodland community in the Leard State Forrest and Leard State Conservation Area that monitors the moisture stress on the vegetation community through remote sensing. The monitoring should be at a frequency and resolution that can take account of seasonal variations. Such a monitoring regime has the capacity to capture pre-mining conditions (pre 2006) including severe drought if appropriate remote sensing data is utilised; and
 - Including a condition that a risk-based assessment of the disposal of mine water disposal by irrigation be assessed. The assessment should include the risk of metal and salinity accumulation in these soils. The interim committee recommends that the risk to Murray-Darling Basin Authority's end of valley salinity targets should also be assessed.
- 2) The interim committee considers that water related impacts of the Boggabri mine should be reviewed, as far as possible, as part of a cumulative assessment process. The Namoi Catchment Water Study enables cumulative impact assessment on a catchment scale for the area in question. The interim committee notes that for the scenario which includes a range of current and future projects (scenario 3), the study predicts drawdown in some areas of the alluvial aquifer adjoining the site of, in excess of 2m. This would represent as much as a 10 per cent reduction in the average saturated thickness of the aquifer in Namoi Groundwater Management Area 4. The Namoi Catchment Water Study also indicates that the larger expected drawdown in the adjacent hard rock aquifer, where the mine is situated, may exacerbate the impact on the alluvium by altering the direction of groundwater flow.

A further cumulative impact consideration relates to the adjacent proposed Tarrawonga Coal Mine where a groundwater barrier is proposed to divert the groundwater flow from the Upper Namoi Alluvium around the open pit. Such a barrier is likely to impede groundwater flow causing a buildup of groundwater upstream of the barrier and subsequent surface expression resulting in land salinity. The extent of this land salinisation and any downstream impacts need to be considered as do the changes in groundwater flow and the impacts on the Boggabri mine.

The interim committee notes with regard to section 255AA of the Commonwealth *Water Act 2007*, relating to mining operations on floodplains of the Murray-Darling system inflows, that the Namoi Catchment Water Study constitutes the required independent expert study required by this section of the Act.

- 3) The interim committee notes that the New South Wales Project Approval for the Boggabri Coal Mine includes approval conditions which require Boggabri Coal to design and construct the rail spur line, rail spur support bridges and any upgrade to the haul roads so that they minimise impacts from flooding. The condition appears appropriate and adequate to protect matters of national environmental significance.
- 4) The interim committee notes that the Nagero Creek appears to run through the centre of the mine pit and that the upstream surface water monitoring site will no longer be viable after 5 years of operation. As there was no discussion of this potential creek diversion within the Environmental Assessment it was not possible to adequately undertake a risk based assessment of this aspect of the mining operation.

**Date of
advice**

9 October 2012
