



Major Development Assessments
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Our ref : ER 20268
Your ref: **S04/01440**

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Attention: Sara Wilson

Dear Sara

**Ulan Coal Continued Operations Project MP08_0184 – Mod 1
Additional Longwall Panels – LWC-LWG**

The NSW Office of Water (NOW) has reviewed the Environmental Assessment (EA) to the above modification application of the project approval MP 08-0184, made under S.75W of the *Environmental Planning and Assessment Act 1979*. The following comments are made to advise the Department of Planning and Infrastructure (DoPI) regarding the proposed additional onwall blocks.

The impact assessment for the proposal utilises the groundwater impact assessment provided in the Ulan West project EA. This assessment was assessed by NOW in 2009, and provides for an extended range of groundwater depressurisation in the Ulan seam and connective drainage through the Triassic and Jurassic sedimentary series towards the mining operation. This informs NOW's understanding of the level and extent of groundwater impact assessment for the current mining project, and the additional groundwater impacts eventuating from the Ulan West longwall operation. The additional longwall blocks are not predicted to substantially increase the take of groundwater into the Ulan Coal Mine workings in the initial years of the project, but will lead to an incremental increase in groundwater take beyond Year 8 of the project.

The range of variation of groundwater take occurring as a result of extraction of longwalls LWC-LWG is predicted to be 1 MI per day, which accounts for an additional 4% increase on the maximum groundwater take volume predicted for Ulan West.

Although this may be regarded as a small increase in total take of groundwater from the porous rock groundwater source (maximum increase from 9490 to 9855 MI pa), NOW reiterates its concerns on impacts to baseflows in the Talbragar and Goulburn River systems it raised in its assessment of the Ulan West project EA on 16 December 2009. In particular, the potential impacts on Ulan Creek are likely to be higher than predicted in the Ulan West EA.

The proximity of Longwalls C-G to Ulan Creek is not anticipated to induce direct connective drainage into the underground workings. However, as a second order watercourse crosses from LWC-LWG, discharge flow into Ulan Creek may be reduced. This will be offset to some degree by the ongoing discharge arrangement from the

Bobadeen treatment facility into Ulan Creek. However, the maintenance of the treated discharge system is subject to review by DoPI and the Office of Environment and Heritage (OEH), and is likely to be subject to increasing restrictions in view of incremental mine water discharge arrangements from the nearby Wilpingjong and Moolarben Coal mines, and any future projects which are approved into the Upper Goulburn River Water Source.

NOW submitted a number of recommended conditions to approval of the Ulan West project. These conditions should apply to the modification of project approval, should it be determined by the Minister. In particular, the following conditions should form the basis for review of relevant management plans to the Ulan West project approval.

The relevant recommended conditions to such review include:

1. UCML must obtain entitlement to the volumetric ingress and/or drawdown on surface or ground water systems caused by the mining project, in accordance with the provisions of the *Water Management Act 2000* and/or *Water Act 1912* and any water sharing plan in force in the affected water sources.
2. UCML must ensure any losses caused by the project to the base flows of the Talbragar River, Ulan Creek and Mona/Bobadeen Creeks is accounted for, and any licences to account for this obtained in accordance with operating rules under any water sharing plan in force, including the *Hunter Unregulated Rivers and Alluvial Water Sharing Plan 2009*.
3. UCML must carry out a regional water supply and monitoring investigation in consultation with Moolarben Coal Mine, with the aim to integrate monitoring networks and response protocols, and to ascertain and undertake remediation and rehabilitation with regard to the extent and severity of impacts caused by mining operations to any identified groundwater dependent ecosystems and connected river and alluvial systems within a nominated groundwater drawdown zone surrounding the project; the investigation must include:
 - (a) assess the feasibility and potential environmental benefits of increased water sharing between the three mining operations in the region;
 - (b) consider the potential for developing regional surface and ground water monitoring programs to:
 - rationalise the surface and ground water monitoring programs of the three mining operations in the region; and
 - improve the monitoring of the individual and cumulative surface and ground water impacts of these mining operations; and
 - (c) recommend measures to reduce the surface and ground water impacts of mining in the region, and any potential changes to existing licences and/or approvals that could facilitate the implementation of these measures.
4. UCML must provide updated water balances to NOW for assessment of projected water demand and surpluses over the lifetime of the project, in accordance with *NOW Water Reporting Requirements for Mining Operations 2009*

NOW recommends these conditions should provide a basis of review to any modification of project approval granted by the Minister. This review should be undertaken within six (6) months of any approval issued.

Should you require any clarification of the above, please contact Fergus Hancock on (02) 4904 2532.

Yours sincerely

Mark Mignanelli
Manager Major Projects and Assessment

