

Submission on Ulan Coal Amended Modification 6
Application Number MP08_0184-Mod-6

27 January 2026

I object to the Ulan Coal Mines Pty Ltd (UCMPL), a subsidiary of Glencore Coal Mine Amended Modification 6 development. This proposal would extend the life of the UCMPL from 2033 to 2035, and facilitate the proposed Modification 8 underground expansion that would extend mining to 2041. The amended report does not fully identify the impact of climate change from the mining and burning of an additional 18.8 million tonnes of coal (43 MT when combined with Mod 8) on the local environment and community, as required as required under the [Environmental Planning and Assessment Act 1979 No 203, Section 4.15](#). (EP&A Act)

UCMPL Modification 6 and Modification 8 (also under assessment) are significant expansions of Ulan West and Ulan Underground that would impact an additional 2,368, hectares. Both 'Modifications' are located predominantly outside existing UCMPL Mining leases in new Exploration License areas. The proposed underground expansion extends and intensifies environmental damage to the surface water catchment and groundwater system that flow to the Talbragar River (Murray Darling Basin) and Goulburn River (Hunter catchment).

MODIFICATION 6 & MODIFICATION 8 should be assessed together as a new project subject to a forensic, independent expert assessment in order to fully understand the cumulative impacts on water, climate and the local community.

Impact on Water Resources

The MOD6 extension will compound impacts on the groundwater network that crosses the Great Dividing Range linking the fractured and porous rock groundwater sources of the eastern fall with the Talbragar and Murray-Darling Basin water systems. The proposed undermining and degradation of this valuable water system extends well past the lifetime of all peoples currently alive. The potential sterilisation and loss of an irreplaceable water resource, that would potentially support a range of more sustainable industries of greater value than the short-term returns and long-term damage from mining the coal. This groundwater system represents an essential community resource and protection from the increasing challenges of climate change.

The cumulative groundwater drawdown from Modification 6 will cause additional loss of baseflows to both the Goulburn River to the east and the Talbragar River to the west. This latest incremental mine expansion application is 'death by 1000 cuts' to the Goulburn River water system.

MOD 6 will drawdown and depressurisation the groundwater system to closer to the Talbragar River, further intercepting and permanently distorting the groundwater network. Insufficient monitoring data has been collected to inform both the modelling

and Management Plans. Ulan Coal Complex (UCC) monitoring program for the groundwater aquifers, alluvial aquifers and streams are deficient with significant gaps in the necessary baseline data and monitoring frequency required to validate the groundwater model and cumulative groundwater impacts across the site. The limited surface water and alluvial/colluvial monitoring sites are a significant impediment for assessing the impact of the longwalls on streams and ‘verifying’ the model’s predicted baseflow losses.

Baseline monitoring data that is temporally, spatially and scientifically rigorous, collected through varying climatic seasons and extremes - before mining intervention - is essential for transparency and reliability in determining and proving future and cumulative impacts and for the community to have faith in the process.

To adequately assess the impacts of this proposal requires the development and submission of an appropriately detailed Water Management Plan (including Surface Water Management and Groundwater Management for MOD6 and MOD8). To be submitted **before** any determination can be made on either expansion of the Ulan Mine to allow for open and transparent public scrutiny and comment.

The depressurisation, distortion and lowering of groundwater, as predicted by UCMPL modelling, will reverse hydraulic gradients and divert groundwater flow away from creeks and the river into the underground goaf, resulting in a reduction of stream baseflow. With the increasing pressure on water resources from a heating planet and climate change, this distortion of water system is a significant risk to both the environment and local communities.

The UCMPL MOD 6 Amended report has failed to assess the impact of climate change compounded by this project on valuable and irreplaceable local water resources on which the community and environment depend.

Groundwater Modelling and Loss of baseflows to streams and rivers.

Groundwater modelling for Ulan Mine has been revised and updated many times since the first approval, and despite a ‘calibration/validation process’ and numerous model updates, the groundwater modelling has failed to confidently predict the scale and cumulative impacts of longwall mining induced fracturing and dewatering of the landscape on the surface and groundwater systems. These mining impacts, destined to last many decades and even centuries into the future, threaten the very health and viability of the upper Talbragar and Goulburn River catchments, effectively ‘sterilizing’ irreplaceable groundwater resources of great value to the community now and into the future.

MOD6 modelling report predicts the changes in hydraulic properties due to fracturing above longwall panels will result in a quite different ‘*uniform*’ groundwater network post

mining. Discrete aquifer layers will be lost with the long-term predicted residual drawdown or 'new equilibrium' forming different high and low groundwater levels from pre-mining (App 8 - 7.4). As levels slowly return this mixing of water sources, both fresh and saline, combined with increased contact with crushed rock and exposure is a significant risk to groundwater quality.

MOD6 groundwater modelling predicts baseflow loss in the Upper Goulburn Water Source of approximately 100 ML/year greater than previously predicted in earlier models, with post mining take increasing by 86.97 ML/year (App8- 8.1.4). This further demonstrates the uncertainty in accurately determining baseflow loss due to mining. With no pre-mining baseline data or reliable way of measuring actual baseflows, the modelled estimates could well be out by a factor of 10 or greater.

The MOD 6 AGE EIA (2022) modelling of drawdown of the Triassic 'lithic layer' differs significantly to a more recent MOD 6 version (2024) extending impacts well out to the north to include the Talbragar River alluvium. South-east of the mine, Triassic groundwater is predicted to decline 50-100m beneath the Goulburn River and The Drip gorge. Such significant increases in the predicted mining drawdown of quality groundwater that provides drought-proofing baseflow to our creeks, rivers and private bores is unacceptable socially and environmentally.

Misrepresentation of the value of pre-mining water resources

The characterisation of groundwater resources in the Ulan Wollar area as low value – poor quality and unproductive ignores the evidence and the presence of accessible, good quality groundwater that supports local ecosystems and the community¹.

The 1981 Ulan Coal Mines Environmental Impact Assessment² described the local groundwater as *"characteristically of excellent quality"*,

In 2006 Peter Dundon & Associates³ reported:

'.. abundant evidence in the large number of springs and seeps that the groundwater discharges to the surface throughout the area'.... 'discharges sufficient to maintain semi-perennial flows in the major tributaries and virtually permanent flow in the Goulburn River'.... 'Landowners report that a number of spring-fed dams are able to maintain permanent water through extended dry periods due to groundwater seepage'.

These reports indicate strong groundwater–surface water connectivity, with springs and baseflow sustaining creeks and riparian systems. The consequences of dewatering this

¹ The Electrical Conductivity EC range for Triassic aquifers is within the potable range [613 +/-466 µS/cm], including some Permian sources (1040 (398) µS/cm (App. 8 - Table 5.3).

² Proposed Ulan Coal Mine Expansion EIA Dept Env. & Planning Sydney 1981

³ Dundon, P.J (2006) *Appendix 5 Groundwater Assessment* Moolarben Coal Mines Pty Ltd

landscape to produce more carbon pollution driving climate extremes, risks rendering this land uninhabitable and leaves an unjust legacy to future generations.

Conclusion

The proposed new underground expansion will facilitate the development of the extensive coal reserves associated with MOD 8 and allow access to even more coal resources to the north of current operations, contributing significantly to greenhouse gases and climate change. Coal mining at UCML must cease no later than 2033 to allow for the necessary global decarbonisation to avoid a 1.5C rise in global temperatures and catastrophic climate change.

Considering the clear scientific advice on climate change and strong likelihood of future water shortages we must protect this water resource from further degradation. Science is telling us society will become increasingly dependent on groundwater – especially in Australia where we have limited surface water sources. The precautionary principle must be comprehensively and transparently applied to this project application.

Dr Julia Mullins Imrie

26 January 2026