

21 November 2025

Our reference: D2025/125060

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**RE: Metropolitan Coal Modification Application (MP08\_0149-Mod 4) - Longwalls 317 and 318 - Response to Submissions**

Dear Melanie,

Thank you for your referral dated 11 November 2025 seeking WaterNSW's advice on the Response to Submissions (RtS) Report for the Metropolitan Coal Modification Application 4.

WaterNSW has reviewed the RtS report and supplementary information, and has the following residual concerns:

**Avoiding mining under Swamp 106**

Metropolitan Coal (MC) concluded that modifying the mine plan to avoid undermining Swamp 106 would be uneconomic. However, WaterNSW considers that impacts to Swamp 106 must be avoided. It is therefore recommended that MC thoroughly evaluate alternative mine layout options to limit subsidence, including reducing panel width as implemented when mining directly beneath the reservoir.

**Ventilation shaft setback from Swamp 92**

Although the RtS provided comments on the management options to be implemented to reduce impacts from ventilation shaft construction activities on nearby Swamp 92, it did not comment on WaterNSW's request to increase setback from the swamp.

**Water quality**

WaterNSW has reviewed the additional assessments presented in the Supplementary Surface Water Assessment Information (Appendix 5) of the RtS report and noted the following conclusions in Section 2.5.2:

- *"The increasing trend in total iron mass of the Woronora Reservoir recorded from January 2020 to May 2023 (post commencement of mining of Longwall 1) resembled that recorded from January 1986 to May 1989 (prior to commencement of mining of Longwall 1), with similar total rainfall and peak iron mass recorded in both periods.*
- *Although an increase in dissolved iron concentrations has been recorded since July 2016 at monitoring site ETWQ AU on the Eastern Tributary, total iron concentrations recorded in the Woronora Reservoir at DW01 have remained within the range of historical concentrations recorded at DW01 prior to commencement of mining of LW 20.*

The above interpretations do not account for the reservoir's operational history, particularly the use of aeration, which maintains oxic conditions throughout the water column to control iron and manganese levels for water supply. Aeration suppresses the release of dissolved iron from sediments and promotes

particulate settling, leading to reduced dissolved and total iron concentrations in the water column at the dam wall. Notably, with aeration operating (post-Longwall 1), the recent peak iron mass estimate of 45 tonnes is approaching pre-1990 levels (50 tonnes), indicating that mining impacts may be substantially masked by aeration. Overall, the assessment of reservoir water quality trends presented in Appendix 5 are overly simplistic and risk substantially underestimating the potential mining effects on water quality.

The assessment in Section 2.5.2 refers to the report by Noller (2025) stating the following:

- *“As recommended by the IEAPM (2023; 2024), records of aluminium, iron and manganese concentrations for sediment samples collected from various locations in the Woronora Reservoir were assessed by the Sustainable Minerals Institute (Noller, 2025)”.*
- *“As stated in Noller (2025), “there are no trends in the data that suggest that mining is resulting in elevated concentrations of aluminium, iron or manganese at sites near to the mining area compared to those sites located away from the mining area”.*

If assessment by Noller (2025) is based on WaterNSW data, these sediment investigations are not related and are inconsistent with the Panel’s (IEAPM, 2023) recommendations. WaterNSW (former SCA) sampled Woronora reservoir sediments in September 2012 and provided data to MC to help guide sediment core collection recommended by the Panel. These samples were taken before the 2016 iron-staining incident and prior to a decade of elevated metal inputs from the Eastern Tributary. More importantly, the dataset consists of grab samples rather than sediment cores and therefore does not capture the temporal record needed to evaluate metals accumulation associated with mining activities.

The RtS concluded that *“Project as modified would have the same adverse impact on water quality when compared to the approved Project and, as such, would have a neutral effect on water quality”.*

The Modification may generate impacts of a similar nature and lower magnitude to the approved Project, however the extension of impacts to an additional catchment increases cumulative water-quality impacts. Because of existing exceedances of water quality indicators, including a breach of water-quality performance criteria, the overall effect cannot be considered neutral.

WaterNSW recommends that MC implement the monitoring program as recommended by the Panel and develop more robust assessment methodologies to determine whether mining activities are impacting on reservoir water quality.

### **Aquatic ecology**

WaterNSW recommended that the aquatic ecology assessment should assess impacts on platypus and rare dragonflies. The RtS report commented that *“Platypus is currently not listed as a threatened species under the Fisheries Management Act 1994 and was therefore not considered in the assessment”.*

Platypus are an iconic high-profile species that are protected as a native species under the *Biodiversity Conservation Act 2016*. Due to the sensitivity of platypus to hydrological and geomorphic changes, the limited existing survey data, and known populations in adjacent catchments (including those re-introduced to Royal National Park that have been subject to water pollution events from MC), it is recommended that targeted platypus habitat and presence surveys be undertaken.

Regarding the WaterNSW recommendation for assessment of potential impacts on rare dragonflies including the Sydney Hawk Dragonfly and Adam’s Emerald Dragonfly, the RtS report states: *“These species have not been recorded during the numerous aquatic macroinvertebrate surveys carried out in the watercourses in the local area of the Metropolitan Coal Mine (i.e. since 2003)”.*

The absence of records from general macroinvertebrate surveys reflects the limitations of those survey methods for detecting rare dragonflies. Because these species require specialised, targeted survey techniques, their non-detection in broad aquatic surveys should not be interpreted as evidence of absence.

## **Aboriginal Cultural Heritage**

Heritage NSW provided similar feedback on the potential exceedance of the Aboriginal Cultural Heritage performance measure. This indicates that the definition of "subsidence impact" needs to be clarified. Particularly the difference between a site that has changed as a result of subsidence (Level 2) and a site that is impacted by subsidence (Level 3), which creates confusion.

If the compliance body itself has difficulty applying existing TARPs, other agencies as well as Registered Aboriginal Parties (RAPs) may experience even greater confusion. This highlights the need for clearer explanation and communication around TARP thresholds and application.

## **Conclusions**

WaterNSW considers that MC has not adequately addressed all key concerns and recommendations raised in WaterNSW's previous submission dated 22 August 2025 (our reference D2025/99547).

WaterNSW requests that residual concerns outlined above are taken into account by the Department when making its determination and setting any approval conditions for the project and by the applicant in the preparation its monitoring and management plans.

WaterNSW recommends that the Department seek further advice from the Panel on residual issues raised by WaterNSW (and other agencies) in relation to this Modification.

If you wish to discuss any matter raised above, please contact Maria Dubikova or David Bretreger at [environmental.assessments@waternsw.com.au](mailto:environmental.assessments@waternsw.com.au).

Yours sincerely,



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