

Steve Orr
Director Operations Central West, South Coast and
Tablelands
NSW Environment Protection Authority

6th of Nov 2025

**RE: RESPONSE TO CADIA VALLEY OPERATIONS' FEEDBACK ON THE CVO ENVIRONMENTAL MONITORING PROGRAM
REVIEW AND AMD ADDENDUM REPORT**

Dear Steve,

Hydrobiology appreciates the opportunity to review and respond to feedback provided by Cadia Valley Operations (Cadia) on the *Review of CVO Environmental Monitoring Program Design and Data* and the associated *AMD Addendum Report*. We welcome the engagement and recognise the importance of transparent discussion of technical findings and data interpretation, particularly given the complex hydrogeochemical setting at Cadia.

Hydrobiology notes, however, that the scope of our review was defined by the EPA's Terms of Reference and the datasets and documentation supplied by EPA/Cadia in response to formal data requests. The assessment and conclusions/recommendations presented in both reports were therefore developed within the scope and data constraints available at the time of review. The reports do not constitute a regulatory audit or operational compliance assessment but an independent scientific review of monitoring design, data quality, and environmental performance trends.

Below we provide responses to the principal matters raised in Cadia's correspondence.

Scope and Data Provision

Cadia has suggested that Hydrobiology conducted the review with "materially insufficient data and information." We note that Hydrobiology formally requested access to pre-2010 monitoring data, hydrogeological/mass balance models, and supplementary QA/QC documentation early in the review process. Cadia subsequently provided datasets and reports covering the 2010–2023 period, which formed the core of the review. These materials were reviewed in full and incorporated into Hydrobiology's analysis and findings. Cadia advised that baseline and pre-2010 information was limited and primarily available through the Cadia Project Environmental Impact Statement (EIS, 1995) and associated appendices on aquatic ecology, water quality, and riparian integrity. Hydrobiology acknowledges this context and considers that, while additional historical or hydrogeological data could further inform long-term interpretation, the information supplied to us by Cadia and the EPA was sufficient to meet the review objectives and underpin the conclusions and recommendations presented.



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Interpretation of Environmental Impact Statement

Cadia's feedback references Section 6.4.2 and asserts that Hydrobiology's report failed to highlight that there have been "no documented downstream impacts." This section was cited out of context. The full statement reads:

"While there is evidence that some of this groundwater discharges to nearby tributaries, there has been no documented impact on downstream surface water quality that would constitute a breach of environmental or regulatory thresholds for aquatic ecosystems, irrigation, or stock watering."

This sentence forms part of a broader discussion of groundwater-surface water connectivity, not a definitive conclusion on environmental impact. The statement remains factually correct based on the data reviewed. For clarity, the executive summary and conclusions intentionally focus on program performance and design recommendations rather than restating descriptive findings.

Review Limitations and Methodology

Hydrobiology acknowledges that the review was not intended as a "comprehensive audit" of all historical data, climatic or geological factors, but rather as an independent technical review commissioned by the NSW EPA in accordance with the defined *Terms of Reference*.

The EPA's requirements were to:

- (1) determine whether the existing groundwater, surface water, and aquatic ecosystem monitoring programs are fit-for-purpose for identifying and assessing potential risks to groundwater and waterways;
- (2) identify potential environmental risks and impacts associated with Cadia Valley Operations; and
- (3) identify opportunities for enhancement of the monitoring programs.

Accordingly, Hydrobiology's assessment focused on evaluating the adequacy and integrity of the current monitoring network to detect environmental change and potential risk, based on the available data and supporting documentation. The report clearly identified data and design limitations and provided recommendations specifically targeted to address these gaps and to enhance the effectiveness of CVO's monitoring framework in meeting the EPA's stated objectives.

QA/QC Interpretation

Cadia's comments regarding QA/QC are noted. Hydrobiology's statements relate specifically to the absence of QA/QC metadata within the dataset supplied for review, not to Cadia's internal database validation processes. We acknowledge that Cadia undertakes QA/QC prior to data entry into its environmental database; however, this verification was not documented in the data provided. Our observations therefore reflect the information received rather than an assumption about Cadia's internal data management practices.

Statutory Reporting Context

Hydrobiology acknowledges Cadia's clarification regarding Annual Review requirements under DPHI guidelines. References in the report to inclusion of additional information in Annual Reviews were intended as recommendations to enhance environmental transparency and community understanding, not as prescriptive changes to regulatory obligations. We recognise that the inclusion of additional hydrogeochemical analysis could be undertaken through alternative reporting mechanisms if considered more appropriate by Cadia.

Operational Context and Reference Sites

We note Cadia's concern that Hydrobiology did not differentiate between operational infrastructure and environmental monitoring points. Site classification was based on nomenclature and information provided in Cadia's monitoring documentation and data tables. Any apparent misalignment reflects incomplete or ambiguous site metadata as provided to us, not a methodological error.

Regarding reference site selection, Hydrobiology's recommendation to establish or validate reference locations unaffected by current or legacy mining, forestry, or agriculture aligns with best-practice

environmental monitoring design principles (ANZG 2018). We acknowledge that suitable reference sites along Cadiangullong Creek may be limited; nonetheless, surrogate or regional reference sites remain essential for distinguishing mine-related from catchment-scale influences.

Report Revisions

Hydrobiology acknowledges several minor technical comments raised by Cadia and will consider these in future iterations of similar studies. However, the substantive conclusions and recommendations of the *CVO Review Report* and *AMD Addendum* remain valid and do not require revision. The outcomes are based on objective data analysis and professional judgment consistent with the review scope and the information available at the time.

Path Forward

Hydrobiology welcomes constructive collaboration with both the EPA and Cadia to enhance future monitoring design, data management transparency, and reporting integration. We remain open to further discussion should additional datasets (e.g., pre-2010 monitoring records or QA/QC metadata) become available for independent verification.

Hydrobiology appreciates the opportunity to contribute to the ongoing evaluation and improvement of environmental monitoring at Cadia Valley Operations. We remain confident that the findings and recommendations presented in the *CVO Environmental Monitoring Program Review* and *AMD Addendum* provide a sound scientific basis for enhancing monitoring design, data interpretation, and long-term environmental management.

We value the constructive dialogue with both the EPA and Cadia and are committed to supporting future discussions that promote data transparency, technical rigour, and continuous improvement in environmental performance monitoring.

Thank you for the opportunity to respond to Cadia's feedback. Please do not hesitate to contact us should further clarification or discussion be required.



Sincerely,
Dr Ross Smith
Director
Hydrobiology