



xenith

Glendell Mine Modification 6

**Submissions Report
Mt Owen Pty Limited
April 2026**

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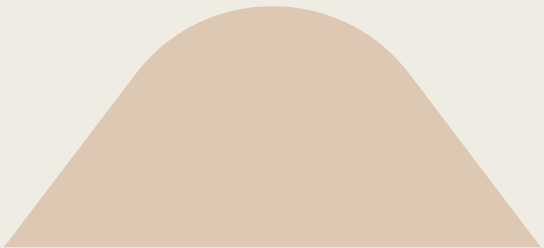
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1. Introduction

This section introduces the development, the applicant, and the proposed Modification.

1.1 Background

Glendell Mine (Glendell) is a coal mining operation located approximately 20 km north-west of Singleton in the Upper Hunter region of NSW (see **Figure 1**). Glendell is a component of Mount Owen/Glendell Operations (MGO), a mining precinct which also includes the Mount Owen and Ravensworth East Mines and the Mount Owen Coal Handling and Preparation Plant (CHPP). MGO is managed by Mt Owen Pty Limited (MOPL), which is a subsidiary of Glencore Coal Pty Limited (Glencore).

MGO is a participant in the Greater Ravensworth Area Water and Tailings Scheme (GRAWTS), which is a network of infrastructure that enables transfer of water and tailings between neighbouring Glencore-managed operations (namely MGO, Integra Underground Mine, Liddell Mine and Ravensworth Operations). The GRAWTS enables surplus water at a particular site to be used for operational purposes at other sites within the scheme. The water sharing facilitated by GRAWTS has the benefits of reducing reliance on external water sources and the need for off-site discharges under the Hunter River Salinity Trading Scheme.

Glendell operates under Development Consent DA 80/952 granted under the *Environmental Planning and Assessment Act 1979* (EP&A Act). The approved development includes a single open cut mining area (Barrett Pit) and ancillary infrastructure. DA 80/952 (as modified) enables the following activities to be undertaken:

- › Extraction of up to 4.5 million tonnes per annum (Mtpa) of run of mine (ROM) coal using truck and excavator mining methods;
- › Hauling of ROM coal to Mount Owen Mine (Mount Owen) for processing and transportation;
- › Hauling of overburden and materials to and from Ravensworth East Mine;
- › Transportation of up to 1 Mtpa of product coal to domestic power stations by conveyor;
- › Ancillary surface infrastructure including offices, workshop, access roads, services and water management infrastructure; and
- › Diversion of Bettys Creek and Swamp Creek.

The approved activities under DA 80/952 are conceptually illustrated in **Figure 2**. DA 80/952 permits mining operations to be undertaken until the end of June 2026.

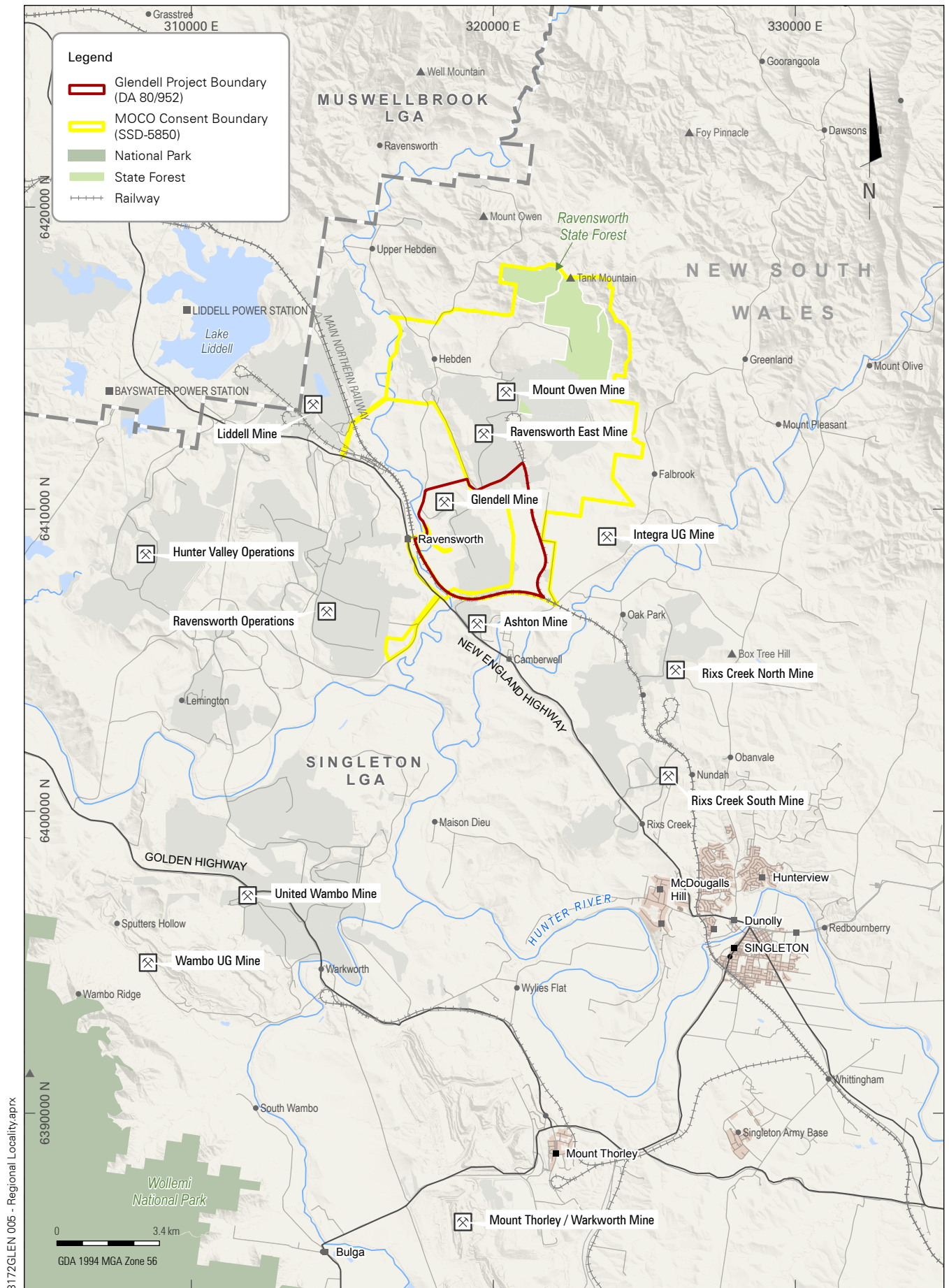
1.2 Modification Overview

The proposed Modification to DA 80/952 (the Modification) includes:

- › Use of Barrett Pit as a mine water storage, including for water received via the GRAWTS; and
- › Continuation of existing approved activities at the Glendell Mine Infrastructure Area (MIA).

These activities are proposed until 31 December 2039, which represents the duration of currently approved mining operations at sites participating in the GRAWTS. This will fulfil the objective of utilising Glendell's assets to benefit surrounding mining operations that participate in the GRAWTS.

The Modification application was supported by the Xenith Consulting (2026) Glendell Mine Modification 6 Modification Report (the Modification Report).



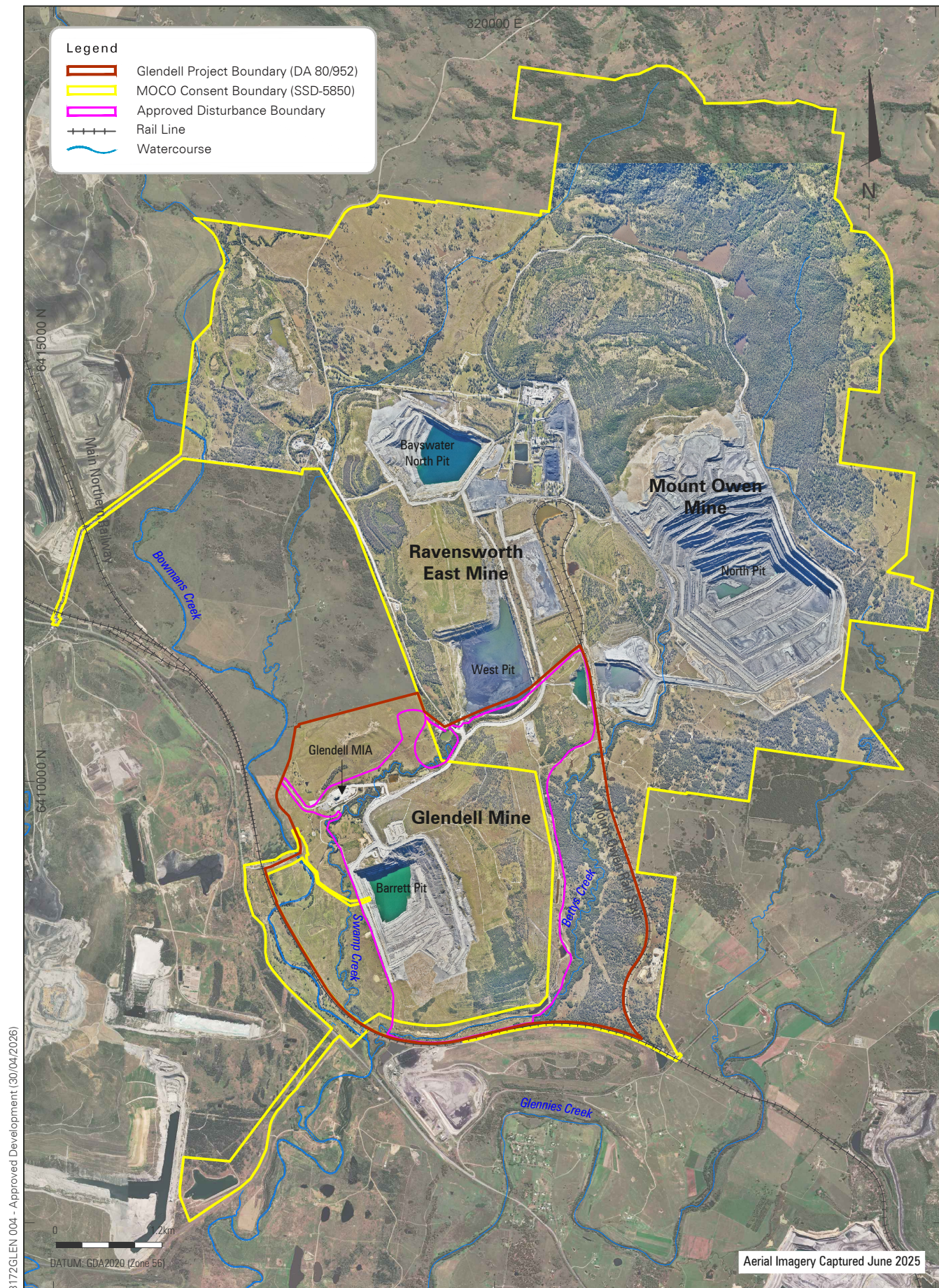
GLENDELL MINE

Regional Locality

FIGURE 1

GLENCORE





3172GLEN 004 - Approved Development (30/04/2026)

GLENDELL MINE

GLENCORE



Mount Owen / Glendell Operations
Approved Development Layout

FIGURE 2

1.3 Document Purpose

Department of Planning, Housing and Infrastructure (DPHI) placed the application and supporting Modification Report on public exhibition for the period from 17 February to 2 March 2026. This Submissions Report has been prepared by Xenith Consulting (Xenith) on behalf of MOPL and responds to the submissions received by DPHI during the public exhibition period. This report has been prepared at the request of DPHI and to address section 59 of the *Environmental Planning and Assessment Regulation 2021* (NSW), having regard to the *State significant development guidelines – preparing a submissions report* (DPHI, 2024).

1.4 Document Structure

- › **Section 1** introduces Glendell and the Modification;
- › **Section 2** provides a summary of the submissions received during exhibition of the Modification Report;
- › **Section 3** provides responses to the submissions received;
- › **Section 4** provides revised mitigation measures for the Modification;
- › **Section 5** lists the reference materials relied upon in the preparation of this document; and
- › **Section 6** defines the terms used in this document.

2. Analysis of Submissions

This section provides an overview of the submissions received.

2.1 Breakdown of Submissions

During the exhibition period, three submissions were received from regulatory agencies, including:

- › NSW Environment Protection Authority (EPA);
- › NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) Water Group (Water Group); and
- › NSW Department of Primary Industries and Regional Development – NSW Resources (NSW Resources).

Seventeen (17) submissions were received from the public, of which:

- › Eleven (11) supported the application; and
- › Six (6) objected to the application.

A summary of the specific matters raised in Community Submissions (CS) objecting to the Modification is included in **Appendix A**, with responses provided in **Section 3**.

Copies of submissions received are publicly available on the DPHI website:

[Modification 6 to Store & transfer water | Planning Portal - Department of Planning and Environment.](#)

3. Response to Submissions

This section responds to the issues raised in submissions.

3.1 Water

3.1.1 Water Management Plan Updates

Issue

Submission addressed: EPA, Water Group

Submissions from the EPA and Water Group recommended that the MGO Water Management Plan (WMP) and Groundwater Management and Monitoring Plan (GWMMP) are revised, to reflect the transfer of water to and storage of water in the Barrett Pit.

Response

As noted in Section 6.1 of the Modification Report, the approved MGO WMP, GWMMP and Surface Water and Groundwater Response Plan (SWGRP) documents will be reviewed and updated following determination of the Modification as required under the conditions of DA 80/952. These updates will reflect the proposed changes to MGO's water management as part of the Modification and will:

- › Describe the approved transfer of water to and from the Barrett Pit and related updates to the site water management system;
- › Describe any changes to the MGO surface water and groundwater monitoring and response programs; and
- › Outline procedures for the monitoring, recording and reporting of water transfers and the ongoing review of the MGO site water balance.

3.1.2 Groundwater Seepage

Issue

Submission addressed: CS5

A community submission raised the potential for the Modification to increase seepage to aquifers, which would have impacts on downstream communities, water users and waterways.

Response

The Water Resources Assessment for DA 80/952 MOD2 (Umwelt, 2007) predicted that the final void lake in the Barrett Pit would reach a long-term equilibrium level of 26 metres Australian Height Datum (mAHD). This predicted level is 44 m below the surrounding land surface, which indicates there is a significant amount of freeboard to contain large storm events.

The Water and Salt Balance Assessment (ATC Williams, 2026) (WSBA) undertaken for the Modification predicts that water levels will not exceed 26 mAHD during the period that Barrett Pit is proposed to be used as a water storage and transfer point. Given that this level remains below the base of the weathered zone (approximately 50 mAHD), seepage of water from the Barrett Pit is not expected to occur due to the Modification.

As noted in Section 6.2.2 of the Modification Report, there is expected to be hydraulic gradient from Barrett Pit towards the Permian aquifer. That is, the Barrett Pit will behave as a groundwater 'sink' for the alluvial aquifers and as a 'source' for the Permian aquifer. Outward seepage from Barrett Pit is predicted towards the workings of Ashton Mine and Integra Underground to the south.

Given that the Modification will increase water volumes in Barrett Pit, there is expected to be greater seepage to the Permian aquifer. However, the change in seepage is predicted to be negligible (<1 ML/year).

3.1.3 Barrett Pit Water Quality

Issue

Submission addressed: CS5

In their submission, CS5 raised concerns regarding the quality of water stored in the Barrett Pit, the potential for contamination to occur and the lack of a management plan for pit lake monitoring.

Response

As outlined in Sections 6.1.2.3 and 6.2.2.2 of the Modification Report, the Modification is not expected to result in discharges to the surrounding environment and is not predicted to adversely affect the water quality of the alluvial aquifer. MOPL implements a comprehensive water monitoring program for MGO, under which relevant water quality indicators, including several analytes and metals, are monitored. Monitoring results to date have consistently remained below the applicable environmental criteria.

As noted in Section 3.1.1, MOPL will review and update the MGO WMP, GWMMP and SWGRP following any determination of the Modification.

3.1.4 Predicted Water Take

Issue

Submission addressed: Water Group, CS2, CS4

The Water Group noted the need for MOPL to obtain a Water Access Licence (WAL) under the *Water Management Act 2000* (WM Act) to account for the maximum predicted water take for the Modification, while CS2 and CS4 noted the potential for the Modification to capture additional rainwater that would otherwise enter the surrounding environment.

Response

As noted in Section 4.1 of the Modification Report, proposed pumping of water to and from Barrett Pit does not give rise to any further licensing requirements or approvals under the WM Act. Existing WALs held for MGO will continue to be applied to the water take during the period of operations proposed for the Modification.

The Modification will not increase the catchment area of the Barrett Pit or result in the capture of runoff in addition to that already approved under DA 80/952.

3.2 Rehabilitation

3.2.1 Barrett Pit Final Landform

Issue

Submission addressed: NSW Resources

NSW Resources noted that the Barrett Pit will require dewatering to enable final landform shaping works after 31 December 2039 and requested additional information regarding potential impacts to the schedule of rehabilitation at Glendell or other operations that form part of the GRAWTS, to allow for reshaping works beyond 31 December 2039.

Response

Based on the Modification WSBA (ATC Williams, 2026), the Barrett Pit has been forecast to potentially store up to approximately 37 Gigalitres (GL) of water during an exceptionally wet year scenario (95th percentile rainfall). Under the existing pumping configuration, dewatering of the Barrett Pit under this conservative scenario would take approximately 4.5 years.

This estimate is considered a conservative upper-bound assessment rather than the most likely operational outcome. In practice, the volume of water stored within the Barrett Pit is expected to reduce prior to 2039, noting that mining operations at Mount Owen are currently approved until December 2037. A reduction in stored water volume needed for GRAWTS would proportionally reduce the dewatering period required. Accordingly, it is considered feasible that rehabilitation activities, including landform shaping, could commence earlier than indicated by the conservative worst-case scenario.

Consistent with the requirements of the *Mining Regulation 2016* (Mining Regulation), MOPL will continue to prepare and submit an Annual Rehabilitation Report and Forward Program for MGO, together with the associated Rehabilitation Cost Estimate (RCE). These established regulatory instruments provide a robust framework for ongoing rehabilitation planning, performance reporting, cost review, and regulatory oversight throughout the remaining life of mine and into closure.

3.2.2 Glendell Rehabilitation Schedule

Issue

Submission addressed: NSW Resources, CS3, CS4

NSW Resources noted that a description of the revised life of mine rehabilitation schedule should be provided (including for those works required beyond 31 December 2039 to achieve final land use), to ensure that Glendell rehabilitation is undertaken as soon as practicable.

NSW Resources and CS3 also noted the need for further justification on the proposed delays in the rehabilitation of the OEA adjacent to the Barrett Pit void until after December 2039, along with an updated plan showing the areas to be rehabilitated after this date.

Response

MGO commenced rehabilitation at Glendell in 2008 and has consistently undertaken progressive rehabilitation each year since. As noted in Section 6.3.6 of the Modification Report, Condition 37 in Schedule 3 of DA 80/952 requires that at least 250 ha of treed rehabilitation is provided within the Glendell final landform. The proposed use of Barrett Pit as a water storage will not affect the ability to achieve this area of treed vegetation during the rehabilitation phase. To date, MOPL has established rehabilitation at Glendell in the areas shown in **Figure 3**, which includes approximately 90% of the treed rehabilitation area required by Condition 37 of Schedule 3 of DA 80/952. This demonstrates a well-established record of progressive rehabilitation delivery and provides confidence in MGO's capacity to continue implementing rehabilitation and closure works in accordance with approved requirements.

Consistent with the Mining Regulation, MOPL will continue to prepare and submit an Annual Rehabilitation Report and Forward Program for Glendell, together with the associated RCEs. These established regulatory mechanisms provide a clear and robust framework for rehabilitation planning, annual performance review, cost review, and ongoing regulatory oversight throughout the remaining life of the operation and into closure. Importantly, this framework also enables rehabilitation opportunities to be reassessed regularly and brought forward where practicable.

Consistent with the requirements of SSD-5850, demand on MGO operational and site-based resources is expected to reduce from December 2037. This reduction is anticipated to create additional capacity to support the acceleration of progressive rehabilitation and closure implementation. An indicative schedule of progressive rehabilitation activities for Glendell during the period from 2035 to 2037 is shown in **Figure 4** (noting that this is indicative only and is subject to change depending on operational requirements). As noted in **Section 3.2.1**, MOPL will continue to review rehabilitation outcomes and complete annual performance reporting during this time, in accordance with the requirements of the Mining Regulation.

From 2038, MGO proposes to commence shaping of the upper section of the eastern slope of the final void. This area requires reworking to achieve the approved slope criteria and final landform design requirements, and its rehabilitation would represent a further important step toward establishing the final landform.

Subject to stored water levels, operational requirements and the ability for the Barrett Pit dewatering to commence prior to December 2039 (see **Section 3.2.1**), MOPL may also be able to commence preparation of the final Barrett Pit rehabilitation on the eastern slope of the final void from 2038, with shaping of the lower section of the eastern slope to achieve the final landform from 2041 – 42, as conceptually illustrated in **Figure 5**. This demonstrates that MGO is actively identifying opportunities to bring rehabilitation forward where feasible.

Overall, the proposed approach reflects a commitment to progressive rehabilitation at the earliest practicable opportunity, while ensuring that rehabilitation timing remains responsive to operational conditions, MGO and GRAWTS water management requirements, and Glendell final landform objectives. This approach is considered appropriate, achievable, and consistent with the principles of minimising disturbance duration, reducing closure risk, and supporting timely achievement of approved rehabilitation outcomes.

3.2.3 Glendell MIA Rehabilitation

Issue

Submission addressed: NSW Resources, CS3

Submissions from NSW Resources and CS3 noted the proposed continuation of existing approved activities at the MIA until the end of 2039 and sought further detail on whether there were any opportunities to decommission infrastructure and rehabilitate the area prior to this date.

Response

As noted in Section 3.1.2 of the Modification Report, the Glendell MIA is approved to be used for ancillary mining activities including operational management, communications, services, training, administration and plant maintenance. These activities support the other mining operations at MGO (as approved under SSD-5850), as well as the wider GRAWTS. The Glendell MIA does not include any coal handling infrastructure.

Given the synergies between MGO and the GRAWTS, the Modification seeks to confirm that approved ancillary activities at the Glendell MIA will continue until 31 December 2039, to continue serving Mount Owen and the neighbouring mining operations that participate in the GRAWTS.

Figure 3 shows that rehabilitation at Glendell is well advanced, with approximately 541 ha of rehabilitation established to the end of 2025. This substantial progress should provide confidence in the capability and commitment of MOPL to continue the delivery of rehabilitation outcomes in accordance with the approved rehabilitation objectives and completion criteria.

It is expected that the demand on MGO operational and site-based resources will reduce from December 2037, consistent with the requirements of SSD-5850. This reduction is expected to create additional capacity to further support the implementation of progressive rehabilitation and mine closure activities. The progressive rehabilitation of this area is consistent with the principles of minimising disturbance duration, reducing closure risk, and advancing final landform establishment at the earliest practicable opportunity.

This approach would also support timely achievement of approved rehabilitation outcomes, while remaining subject to detailed planning, operational constraints, and ongoing regulatory review.

As noted in **Section 3.2.1**, MOPL will continue to complete annual rehabilitation performance reporting during this time, in accordance with the requirements of the Mining Regulation.

3.3 Geotechnical

3.3.1 Highwall Stability

Issue

Submission addressed: Water Group

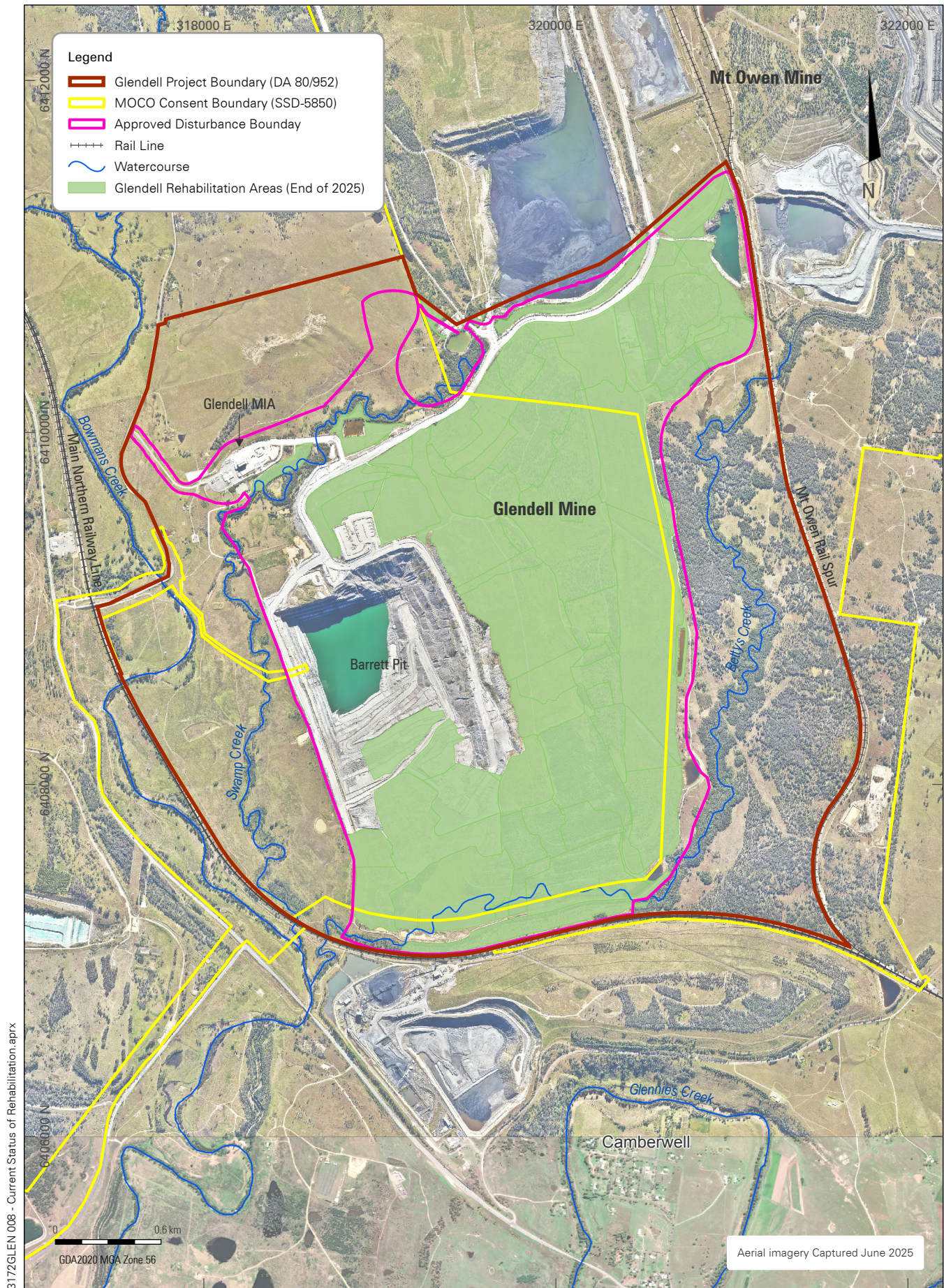
The Water Group's submission noted:

- › The presence of faulting in the northern highwall of the Barrett Pit and potential interactions with Modification-related seepage within the weathered zone; and
- › That further assessment of geotechnical / hydrogeological interactions is required to address stability risks associated with the storage of water in the Barrett Pit is required.

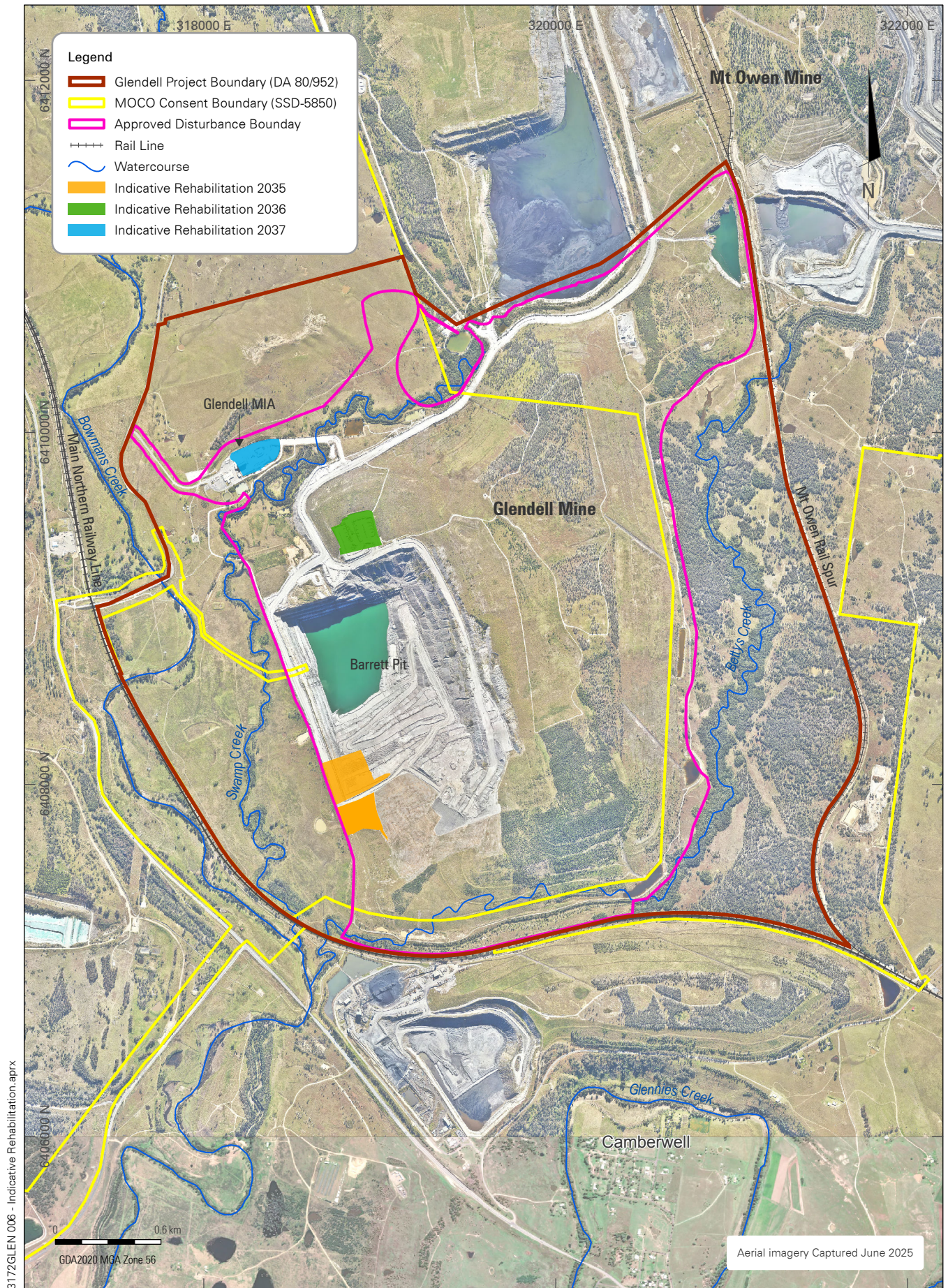
Response

DAS Mining Solutions (DAS) (2026) completed a geotechnical assessment of the proposed use of Barrett Pit as a water storage. The DAS (2026) assessment concluded that in general, the use of Barrett Pit as a water storage is feasible, based on the void achieving acceptable levels of stability, in the context of ongoing active management of the void. The geotechnical assessment was conducted in accordance with the '*Guidelines for Assessment of Geotechnically Safe and Stable Post-Mining Landforms*' (ACARP, 2024) and indicated that the walls of the void demonstrated acceptable levels of stability, consistently achieving Factor of Safety (FOS) values near or above 1.5.

DAS (2026b) has subsequently provided further advice to respond to the issues raised by the Water Group, which is included as **Appendix B**. This additional DAS advice provides clarification on the interpretation and characterisation of fault structures within the northern and western walls of the Barrett Pit. In reviewing potential slope stability impacts and the proposed use of the void as a water storage, DAS (2026b) concluded that the fault structure presents a low risk to long-term stability.



3172GLEN 008 - Current Status of Rehabilitation.aprx



3172GLEN 006 - Indicative Rehabilitation.aprx

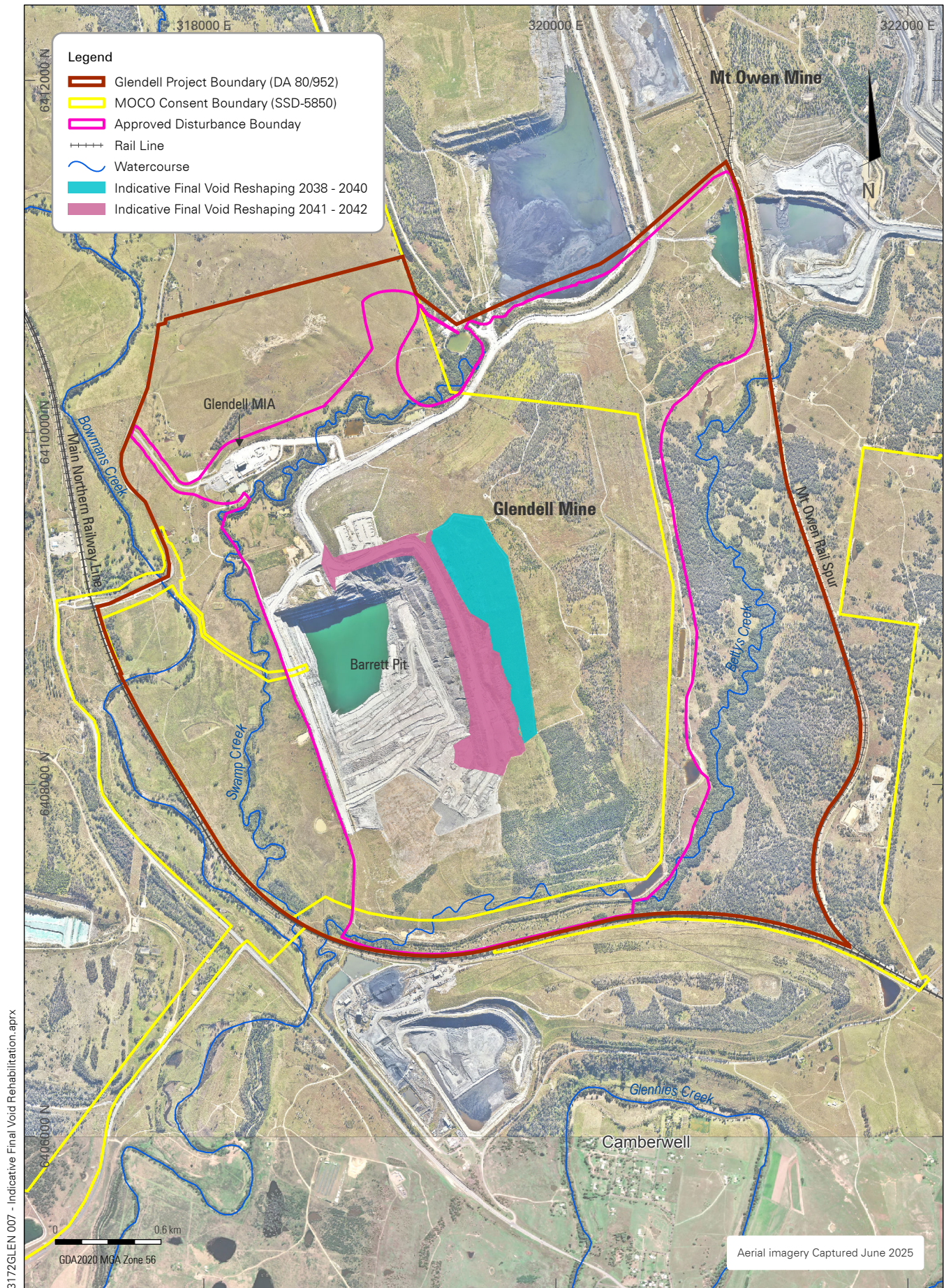
GLENDELL MINE

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Indicative Rehabilitation from 2035 - 2037

FIGURE 4



3172GLEN 007 - Indicative Final Void Rehabilitation.aprx

3.4 Greenhouse Gas

3.4.1 Modification Greenhouse Gas Impacts

Submission addressed: CS1, CS2 CS3, CS4, CS5

Comments made in the objections from CS1, CS2, CS3, CS4 and CS5 noted the impacts associated with the Modification's greenhouse gas emissions, including emissions from any coal extraction and its related impacts to the local area, Australia, and globally, and the inconsistency of the Modification with the legislated emissions reduction targets of the NSW Government.

Response

It is noted that the Modification seeks to utilise the Barrett Pit as a mine water storage and continue existing approved activities at the Glendell MIA. The Modification does not seek approval for the extraction of coal in addition to what is approved under DA 80/952. As such the Modification would not result in any additional emissions associated with coal extraction. The review of greenhouse gas impacts associated with the proposed storage of water in the Barrett Pit (described in Section 6.3.2 of the Modification Report) found that the Modification would not contribute to more than 25,000 tonnes of carbon dioxide equivalent (Scope 1 and Scope 2) greenhouse gas emissions in any financial year. Section 6.3.2 of the Modification Report also considered potential climate change impacts on the locality, with reference to the *Hunter Climate Change Snapshot* (NSW DCCEEW, 2025). Given the minor volumes of greenhouse gas emissions anticipated, the Modification is not expected to materially contribute to climate change impacts, either globally or in the locality.

Following lodgement of the Modification Report, the NSW Government (2026) *NSW Coal Industry 2026 – 50* (NSWCI) statement was published. This document presents a holistic NSW Government position on the future for coal mining in NSW. The statement confirms that coal will continue to play an important part in supporting regional jobs, investment and communities, within NSW's current legislated emissions reduction targets.

NSWCI confirms that the NSW Government will continue to accept applications for exploration licences, planning approvals and mining leases to allow existing mines to continue operating and extensions of existing mines, building on existing development consents. NSWCI also confirms NSW's intent to remain a reliable supplier to established international trading partners. As an established approved site, the Modification fits within the future pathway for coal mining operations in NSW.

This serves as a statement of the NSW Government's policy towards coal, to be drawn upon by regulators, planning authorities, and other decision-makers. Under the NSWCI, the NSW Government will continue to consider and assess development applications and modification applications for existing coal mines within the existing regulatory and planning framework.

3.5 Glendell Mining Operations

Issue

Submission addressed: CS3, CS4

Two community submissions objecting to the Modification raised issues regarding the potential for the Modification to result in future mining operations at Glendell.

Response

As noted in Section 3.2 of the Modification Report, the Modification does not seek to change the existing duration of mining operations, mining method or production rates approved for Glendell under DA 80/952.

3.6 Regulatory Framework

3.6.1 Approvals Pathway

Issue

Submission addressed: CS3

The submission from CS3 raised issues with the Modification approvals pathway, noting that it is not 'substantially the same development' as that approved under DA 92/97 [sic], avoids independent review and should be referred to the IPCN for assessment.

Response

As noted in Section 4.2.1 of the Modification Report, the Modification proposes the use of Barrett Pit as a water storage and transfer point during the post-mining phase of the development. This additional water management activity is not materially different in character or scale to existing Glendell water management activities approved under DA 80/952 and will not change the key aspects of the approved development.

4. Mitigation Measures

Table 1 provides a summary of management and monitoring commitments for the Modification.

Table 1 Mitigation Measures for DA 80/952 Modification 6

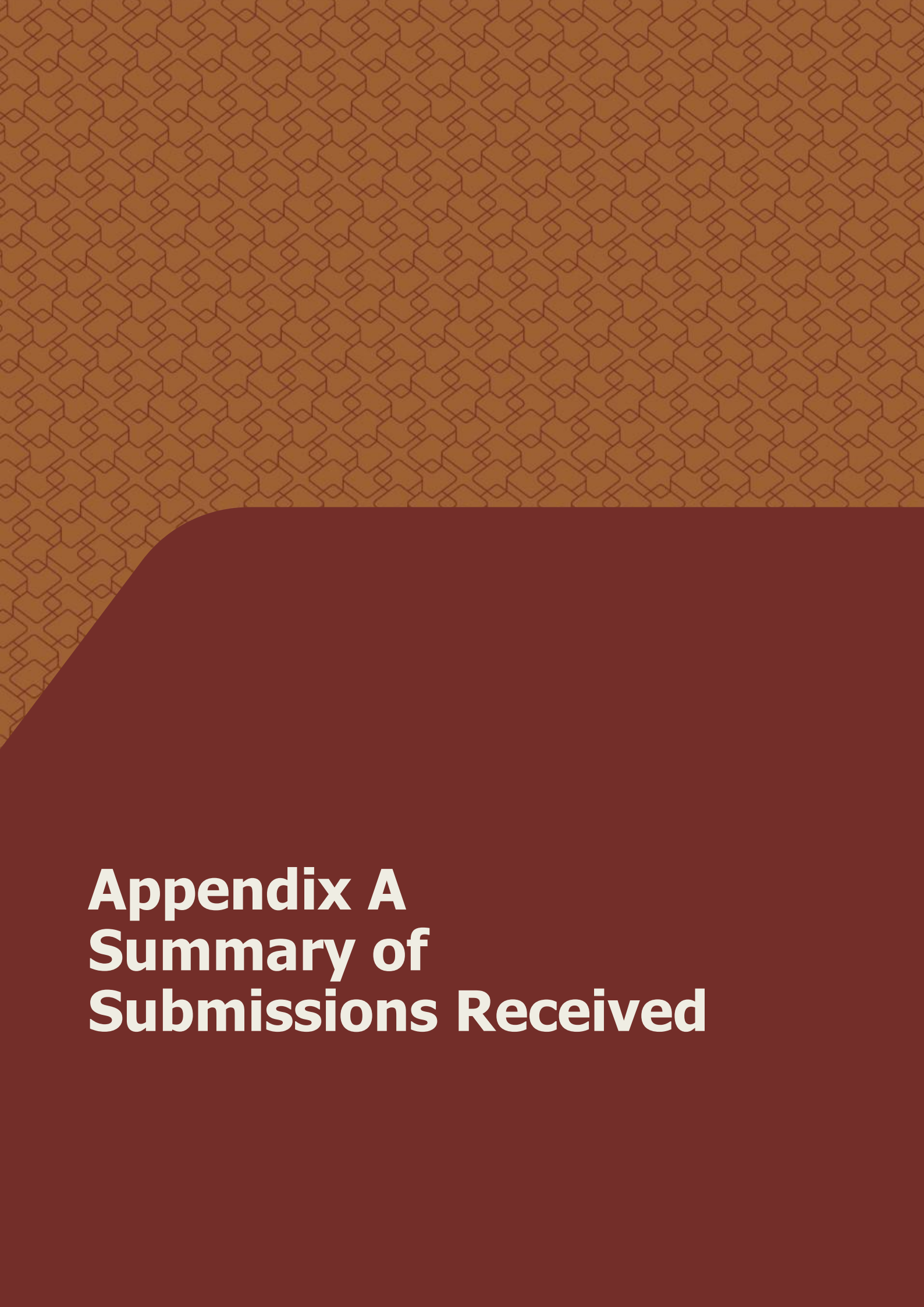
Environmental Aspect	Mitigation Measure	Timing
Water	MGO water management plans will be reviewed and updated following determination of the Modification, in accordance with DA 80/952 requirements.	Within three months of any determination of the Modification, per Schedule 5, Condition 6 of DA 80/952

5. References

- › ATC Williams (2026), *Glendell Mine Modification 6 - Water and Salt Balance Assessment*.
- › DAS Mining Solutions (2026), *Barrett Pit - Void Water Storage Stability Assessment*.
- › DAS Mining Solutions (2026b), *Consideration of geotechnical and hydrogeological interactions along the "Cutback Fault" within the Barrett Pit*. Memo prepared for Mt Owen Glendell Operations.
- › DPHI (2024), State significant development guidelines – preparing a submissions report.
- › DPHI (2026), The SSD process, Modifications. Seeking approval for modifications to an approved project. <https://www.planningportal.nsw.gov.au/major-projects/assessment/state-significant-development/modifications> [website accessed 13 April 2026].
- › EPA (2025), *NSW Guide for Large Emitters: Guidance on How to Prepare a Greenhouse Gas Assessment as Part of the NSW Environmental Planning Processes*.
- › NSW DCCEEW (2025), *Hunter Climate Change Snapshot*.
- › NSW Government (2026), *NSW Coal Industry 2026–50*.
- › Umwelt (2007), *Water Resources Assessment for Modification of Glendell Mine Operations*.
- › Umwelt (2026), *Glendell Modification 6 Groundwater Impact Assessment*.
- › Xenith Consulting (2026), *Glendell Mine Modification 6, Modification Report*.

6. Abbreviations

Abbreviation	Meaning
AHD	Australian Height Datum
CHPP	Coal Handling and Preparation Plant
DPHI	Department of Planning, Housing and Infrastructure
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environment Protection Authority
GHG	Greenhouse gas
GL	Gigalitres
Glencore	Glencore Coal Pty Limited
GRA	Greater Ravensworth Area
GRAWTS	Greater Ravensworth Area Water and Tailings Scheme
IPCN	NSW Independent Planning Commission
km	Kilometre
kV	Kilovolt
Large Emitters Guide	<i>NSW Guide for Large Emitters Guidance on How to Prepare a Greenhouse Gas Assessment as Part of the NSW Environmental Planning Processes (EPA, 2025)</i>
m	metres
MGO	Mount Owen/Glendell Operations
MIA	Mine Infrastructure Area
Mining Act	<i>Mining Act 1992</i>
Mining Regulation	<i>Mining Regulation 2016</i>
MOC	Mount Owen Complex
MOPL	Mt Owen Pty Limited
Mount Owen	Mount Owen Mine
Mtpa	Million tonnes per annum
ROM	Run of mine
SWBA	Salt and Water Balance Assessment



Appendix A Summary of Submissions Received

Table A1 Glendell DA 80/952 Modification 6 Summary of Submissions

Issue Ref	Submission Summary	Issue Category / Sub-Category	RTS Section
NSW Environment Protection Authority (EPA)			
EPA1	Update the WMP: The proponent should consider revising and updating the Water Management Plan before implementing any modified operations. The updated plan must reflect the proposed modification and include detailed measures for monitoring and managing the volume and quality of the transferred water throughout the transfer period to ensure that no adverse environmental impacts occur.	Economic, environmental and social impacts / Water	Section 3.1.1
EPA2	Update the Groundwater Management and Monitoring Plan The proponent should consider revising and updating the Groundwater Management and Monitoring Plan before implementing any modified operations. The updated plan must reflect the proposed modification and include a detailed description of an updated groundwater management and monitoring system, commensurate with the proposed modification, including an expanded monitoring network that is capable of: › characterising temporal and spatial variations of all potentially affected water sources › providing an early warning of any impacts to potentially affected water sources, at varying depths the geological profile › providing data to improve the confidence of existing seepage groundwater seepage models.	Economic, environmental and social impacts / Water	Section 3.1.1
NSW Department of Climate Change, Energy, the Environment and Water – Water Group (WG)			
WG1	Geotechnical/ hydrogeological interaction. Providing a clear statement of residual risks: The Department of Planning, Housing and Infrastructure (DPHI) should request the proponent to assess and report on the potential geotechnical risk of faulting evident in the northern highwall of Barrett Pit... ...An issue of note is the presence of a minor reverse structure known as the Cutback Fault in the northern highwall of Barrett Pit. The fault has an estimated displacement of 3–5 m and dips at approximately 12° to the east. It is described as a conduit for	Economic, environmental and social impacts / Geotechnical	Section 3.3

Issue Ref	Submission Summary	Issue Category / Sub-Category	RTS Section
	Modification-related seepage within the weathered zone, where long-term inflows are significantly higher than those within the Permian coal measures, which show slower and less pronounced increases. Geotechnical/hydrogeological interactions, particularly pit wall stability risks associated with re-saturation and long-term hydraulic behaviour have not been sufficiently addressed. Given the increased hydraulic conductivity along the fault zone, an assessment of associated stability risks of the elevated highwall is required. This additional analysis will close the identified gap, support defensible decision-making, and ensure that storing mine water in the pit void does not compromise long-term highwall stability.		
WG2	Water supply, take Acquiring a WAL to account for the maximum predicted water take. DPHI should request the proponent to obtain a water access licence (WAL) to account for the maximum predicted water take for construction and operation activities... The Barrett Pit currently receives groundwater inflows and catchment runoff. Under the <i>Water Management Act 2000</i>, a WAL must be obtained prior to any water take occurring unless an exemption under the <i>Water Management (General) Regulation 2025</i> applies.	Economic, environmental and social impacts / Water	Section 3.1.3
WG3	Updating the Water Management Plan to include the proposed modification. DPHI should request the proponent to provide an updated Water Management Plan to include the proposed modification to DCCEEW Water for review.	Economic, environmental and social impacts / Water	Section 3.3
NSW Resources - Resources Regulator (NSWR)			
NSWR1	A description of the revised life of mine rehabilitation schedule and how opportunities will be maximised to ensure that rehabilitation is undertaken as soon as reasonably practicable. This will need to include the scope of rehabilitation works and predicted timeframe to achieve the final land use(s) beyond 31 December 2039.	Economic, environmental and social impacts / Rehabilitation	Section 3.2.1, 3.2.2

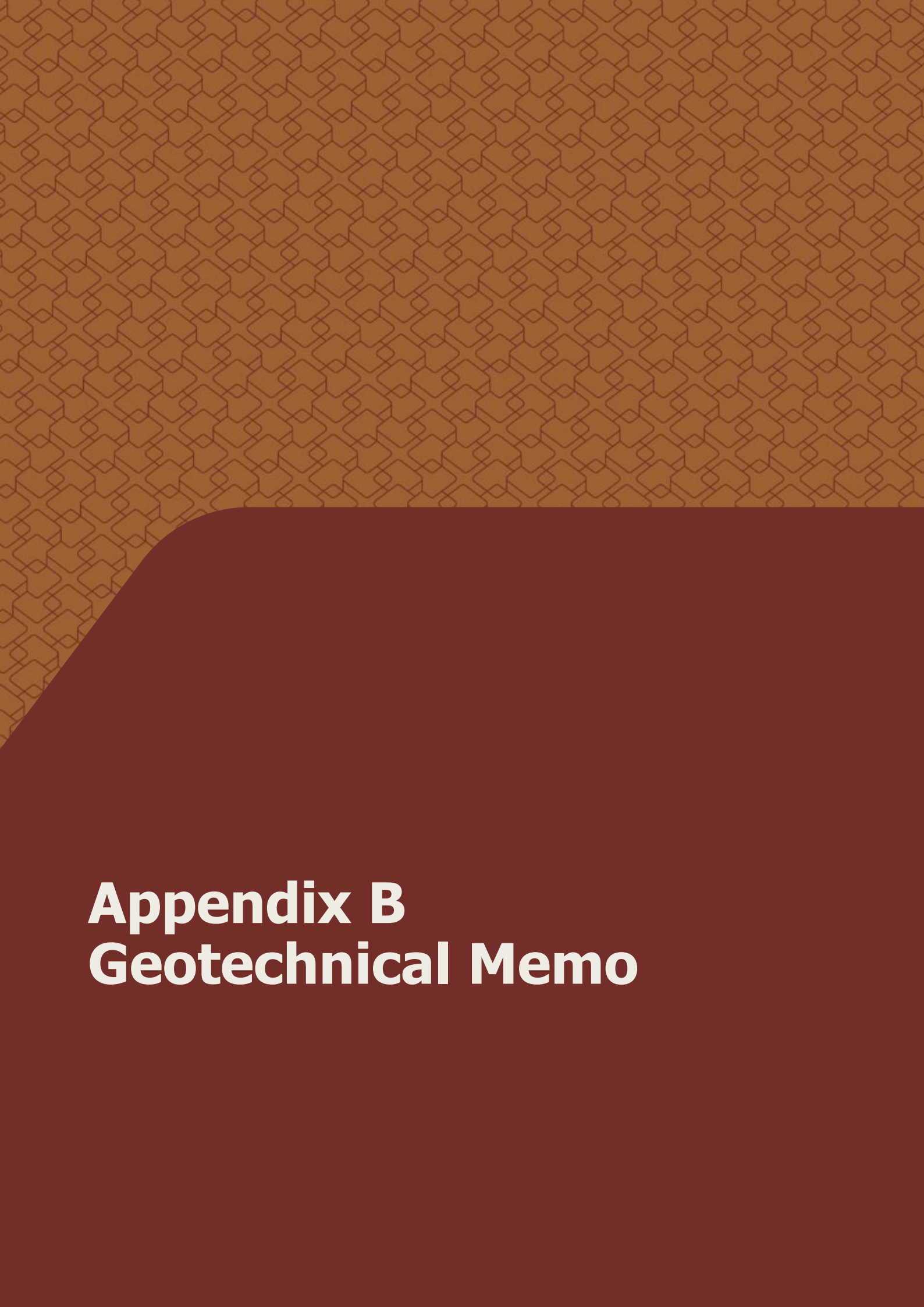
Issue Ref	Submission Summary	Issue Category / Sub-Category	RTS Section
NSWR2	It is noted that the Barrett Pit will require dewatering to enable final landform shaping works after the 31 December 2039. As such, further information is required in relation to potential impacts to the schedule of rehabilitation of other areas in Glendell and or other operations that form part of the Greater Ravensworth Area Water and Tailings Scheme due to the need to stage water as the Barrett Pit is dewatered to allow for reshaping works beyond 31 December 2039.	Economic, environmental and social impacts / Rehabilitation	Section 3.2.1, 3.2.2
NSWR3	Further justification as to why rehabilitation will be delayed on the adjacent overburden emplacement area (OEA) until 31 December 2039. A plan will need to be provided showing the proposed extent of OEA that will not be rehabilitated until this date.	Economic, environmental and social impacts / Rehabilitation	Section 3.2.1, 3.2.2
NSWR4	Further clarification as to whether there are any opportunities to progressively rehabilitate (including decommissioning of infrastructure) parts of the Glendell Mine Infrastructure Area prior to 31 December 2039.	Economic, environmental and social impacts / Rehabilitation	Section 3.2.3
Community Submissions (CS) *			
CS1	Any extension, expansion or creation of a coal mine in NSW conflicts with the government's commitment to reduce emissions, NOT increase them. The emissions from this proposed expansion/extension on their own increase NSW's greenhouse gas emissions, let alone the impact globally when the coal extracted is actually burnt... There are obvious existing alternatives to burning fossil fuels and Australia should be a leader in promotion of them, not act as a quarry for foreign interests, no matter how much dirty money is involved.	Economic, environmental and social impacts / Greenhouse gas	Section 3.4
CS3	This huge mine expansion will create 1.5 million tonnes of local greenhouse gas pollution in the next ten years in NSW and over a 100 million tonnes in downstream emissions at a time when our state is not on track to meet its legislated 2030 or 2035 emissions reductions targets. The people of NSW are already suffering the impacts of climate change, including in the Hunter region and adding further greenhouse pollution will do	Economic, environmental and social impacts / Greenhouse gas	Section 3.4

Issue Ref	Submission Summary	Issue Category / Sub-Category	RTS Section
	unacceptable harm to the public interest. The NSW Court of Appeal's Denman Decision made it clear that the local impacts of climate change caused by the downstream greenhouse pollution from NSW coal have to be considered by planning authorities. As this decision is now in the High Court, acceptance of this application will cause legal and practical confusion with environmental and social consequences for the area. The expansion of this mine is in direct contradiction to the Government's own advice from the NSW Net Zero Commission in December of last year that continued extensions or expansions to coal mining in NSW are not consistent with NSW climate law nor with the Paris Agreement temperature goals. Approval would inflict harm on our people and our economy. The people of NSW are already dealing with increasing bills and escalating dangers from climate change fuelled extreme weather.		
CS3	This expansion is not a modification. It is not 'substantially the same development' as the one previously approved (DA 92/97) and calling it a 'modification' avoids independent review. This project must go to the Independent Planning Commission [IPCN] for proper assessment.	Procedural matters / Approvals pathway	Section 3.6
CS5	Objects are made on these grounds. 1. The IPC decision approval of Mod 5 extension of time for two years to recover the resources importance to the economy, but in fact the mining stopped in 2022 as per the CCC minutes, since this time the Barrett pit has been used for water storage at last CCC minutes October 2025 the pit contains 9gl. 2. The issue of a pit lake would be produced as per the information provided the water level maybe 37gl or up to 91gl, with no rehabilitation to the Barrett pit for over 13 years, where as stated could have seepage impacts into aquifers. Which has downstream impacts on major waterways for water supply to communities and other users 3. There is no report on heavy metals or other contaminants in the water	Issues beyond the scope of the Modification Economic, environmental and social impacts / Water	N/A Section 3.1.2

Issue Ref	Submission Summary	Issue Category / Sub-Category	RTS Section
	held in the pit now and GWATS water held in the system to be transferred to the Barrett pit, so the public can make comment on the safety and protection of the water network	Economic, environmental and social impacts / Water	Section 3.1.3
	4. There is no management plan on the pit lake and monitoring, acid drainage. The fact to intentionally fill or produce water a water body in the pit is to make a pit lake. Dams safety has stated in correspondence to me that it is not a dam.	Economic, environmental and social impacts / Water	Section 3.1.3
	5. There is no statement that clearly states there will be no more mining of the resource at Glendell mine	The project / the site	Section 3.5
	6. There is no clear reason why the Glendell demountable building cannot be removed and why there is clear reason why the MIA needs to be used for maintenance of the mining equipment, as the mine has not recovered the resource in two years.	Economic, environmental and social impacts / Rehabilitation	Section 3.2.3
	7. Holding the closure planning of Glendell mine for 13 years will have a impact on the hunter valley to diversify and transform.	Economic, environmental and social impacts / Rehabilitation	Section 3.2.1, 3.2.2
CS4	Current works are to 2026 and also to 2037. The Mod 6 wants to 'confirm' that the subject mine zone will be actively used to 2039. This is not made clear in the "water transfer etc" title. I object to any time extension of coal mining, with or without honest description, and my grounds are both economic (taking workers from the natural economy) and climate (more coal, more carbon). Flexible use of water until 2039 facilitating further mining in adjacent zones is a sneaky way of enabling mines in these other zones to keep on producing for extended time, surely. Also the water sources, condition and processing: the project may or may not rob natural rainwater for mine use, which would otherwise enter and sustain creeks and the vegetated lands. I could not easily read this from the graphics I saw. Without knowing whether the project further robs the remaining bushland I cannot say it's OK. Any project put forward can only be for the purpose of extending coal mining for burning purposes. No project would be done just for the (mentioned) rehab purposes. rehab is	The project / the site Economic, environmental and social impacts / Water The project / the site Economic, environmental and social impacts / Rehabilitation	Section 3.5 Sections 3.1.2, 3.1.3, 3.1.4 Section 3.5 Section 3.2.1, 3.2.2

Issue Ref	Submission Summary	Issue Category / Sub-Category	RTS Section
	a minor budget cosmetic exercise. I totally oppose this Modification.		
CS2	We all want a job so we can live good live. Jobs in coal is no longer a viable proposition for all humans to live good lives. Jobs can be found in renewable, time for change & moving forward. This project is not the way of the future, no matter which way you look at it. Environmentally we have to say enough is enough, no more digging out Coal put it to bed. Water is limited & climate change is changing weather patterns and life as we know it. I totally object to this projects.	Economic, environmental and social impacts / Water and Greenhouse gas	Sections 3.1, 3.4

** Table A1 includes community submissions objecting to the Modification only*

The background of the page is a solid brown color. The top half of the page features a repeating geometric pattern of interlocking squares and diamonds in a slightly darker shade of brown. A large, smooth, curved shape in a darker brown color separates the patterned top from the solid bottom, starting from the left edge and curving towards the right.

Appendix B

Geotechnical Memo

Date	24/04/2026
Title	DAS-MGO-0012M_1
To	Mt Owen Glendell Operations
From	Liam Davenport – Senior Geotechnical Engineer, DAS Mining Solutions
Subject	Consideration of geotechnical and hydrogeological interactions along the “Cutback Fault” within the Barrett Pit.

Introduction

The purpose of this letter is to address the DCCEEW water group enquiry relating to the Glendell MOD 6 application. The enquiry relates to a structural feature historically referred to as the “Cutback Fault” within the Barrett Pit and its relevance to the stability of the northern insitu wall, particularly in the context of potential saturation related effects associated with the MOD 6 water storage and the weathered rockmass conditions present within this area.

This structure is of particular importance as it intersects both the western and northern insitu walls of the final Barrett Pit void and therefore represents a potential structural control on slope stability. The interaction with the northern wall is not considered critical due to the favourable fault orientation and the buttressing support provided by previously placed adjacent mine spoil. The primary influence of the structure is therefore considered to be on the western wall, where the fault exhibits unfavourable reverse dips out of the slope.

It should be noted that the impact of this structure has previously been assessed as part the geotechnical assessment completed by DAS Mining (Barrett Pit – Void Water Storage Stability Assessment, January 2026). As such, this letter does not present new analysis but rather provides a summary and clarification of the existing assessment findings, including the updated naming and interpretation.

Cutback Fault Clarification

The recent geotechnical assessment completed by DAS Mining (Barrett Pit – Void Water Storage Stability Assessment, January 2026) indicates that the structure historically referred to as the “Cutback Fault” should now be interpreted as the “Upper & Lower Verdelho Faults”. This update reflects a more recent geological interpretation and an improved structural understanding which identifies two individual fault structures as part of the original “Cutback Fault” system.

Within the current structural understanding for the Barrett Pit, the Upper & Lower Verdelho faults are characterised as a low-angled reverse thrust faults dipping towards the north-east intersecting both the western and northern insitu final walls. Its suggested that this updated naming convention is adopted to ensure consistency with the latest geological interpretation and alignment with the structural model used for the MOD-6 stability assessment.

Stability Impact of the Verdelho Faults

The primary influence of the Verdelho faults is considered to be along the western wall due to its unfavourable orientation resulting in reverse dips out of the slope. Both Verdelho faults are expected to have minimal impact on the northern wall due to a more favourable orientation and buttressing support provided by the adjacent spoil.

In the MOD-6 assessment the Verdelho faults were evaluated to present an overall low risk to slope stability based on the following reasons outlined below:

For the northern wall -

- The fault orientations relative to the northern wall are considered more favourable and buttressing support provided by previously placed spoil restricts the development of any deep-seated fault sliding mechanisms sliding towards the east. Faulting sliding towards the south is not considered critical due to the relatively sub-horizontal apparent dip and shallow position of the fault relative to the overall pit slope wall.
- The hydrogeological impacts on fault strength and integrity are considered to have minimal influence relative to the passive support provided by the adjacent mine spoil and favourable fault orientations.

For the western wall -

- The intersection of the Lower Verdelho fault with the western wall occurs a shallow depth below the pit crest and therefore loading and resulting driving forces are limited. The Upper Verdelho fault projects above the western wall and as a result does not form any mechanism.
- Although the fault dips out of the wall, the dip angle is relatively shallow, around 9 degrees on average (apparent dip towards the pit), reducing the likelihood of large-scale kinematic sliding.
- No significant instability associated with the Lower Verdelho fault was recorded during exposure of the final western wall.
- The Lower Verdelho fault was assessed as a potential controlling mechanism in 2D limit equilibrium assessment which concluded the following -
 - Fault sliding was determined to be stable with a high margin of stability resulting in a FOS value greater than 3.
 - Stability is not expected to be materially impacted by void water levels at the assessed maximum storage condition.
- Groundwater modelling indicates minimal pressure influences from nearby swamp creek surface water feature.

The overall interpretation is that deep-seated instability via sliding along the Lower Verdelho fault plane is considered very unlikely with the most plausible outcome being shallow degradation (i.e. minor break back or weathering related damage) at the fault wall intersection.

Conclusion

In summary, the following conclusions are provided in relation to the updated fault interpretation and its implication for slope stability.

- The previously termed “Cutback fault” should now be recognised as the “Upper and Lower Verdelho faults”.
- The structure has been considered in the assessment of stability for both the northern and western walls considering saturation related effects for the MOD 6 water storage requirements.
 - The western wall returns a high FOS greater than 3.
 - The northern wall is not considered critical in terms of deep-seated fault sliding.
- Overall, the structure presents a low risk to long-term stability, with impacts expected to be related to minor localised degradation rather than deep-seated sliding failure.



Liam Davenport – Senior Geotechnical Engineer

MEngSc (Geotech.), BEng (Hons) (Civil)

Appendix – Supporting Images

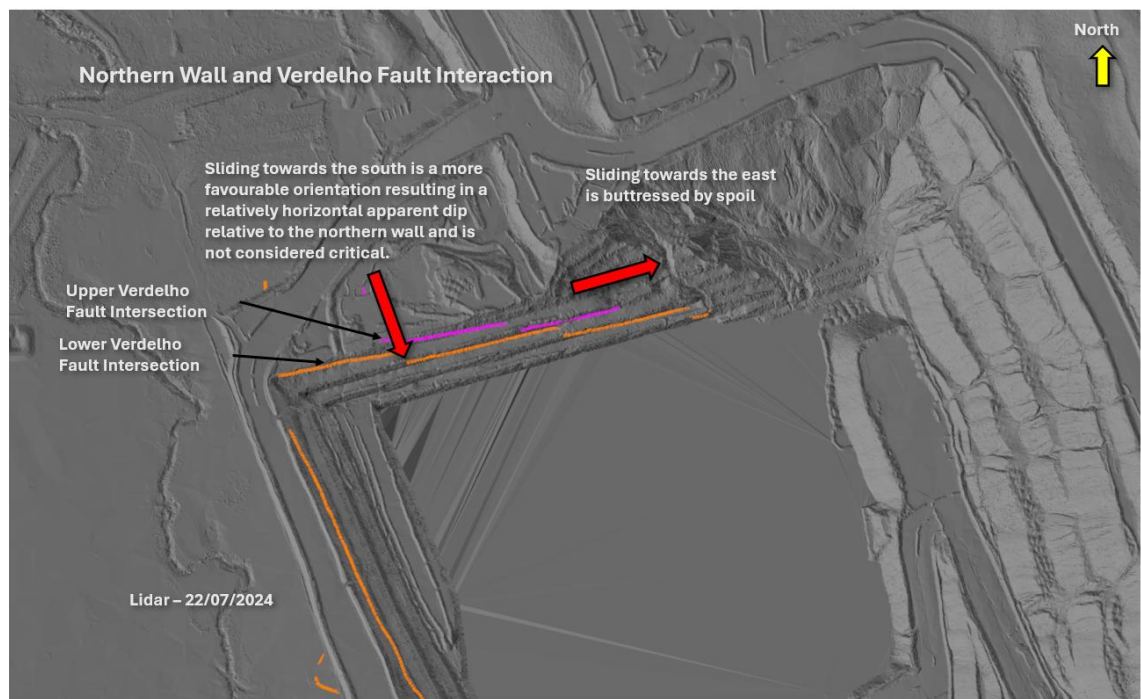


Figure 1 - Northern wall and Verdelho fault interactions

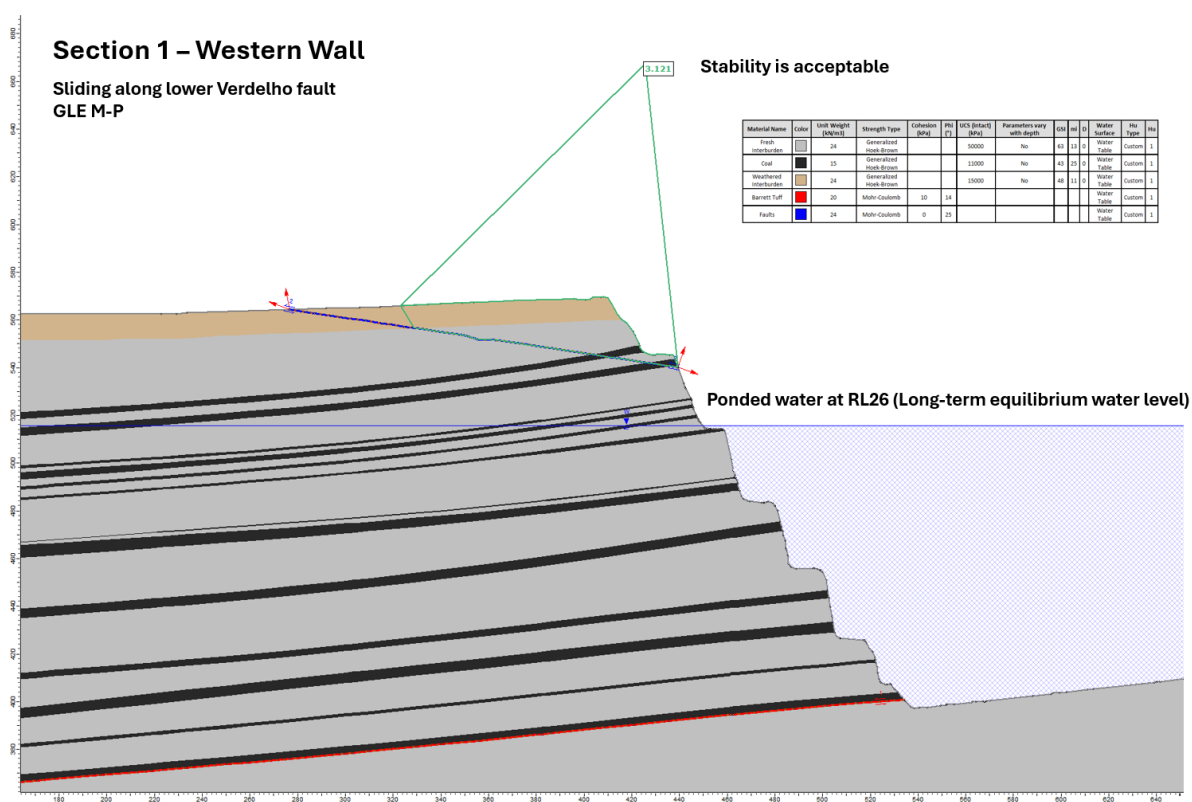


Figure 2 – Excerpt from DAS-MGO-009R_1 - Western Wall stability analysis for sliding along the lower Verdelho fault resulting in FOS > 3 (long-term equilibrium water level RL26).



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