

ARR0001582

AUSTAR COAL MINE ANNUAL REHABILITATION REPORT

Monday 1 July 2024 to Monday 30 June 2025

Summary table

DETAIL	
Mine	Austar Coal Mine
Reference	ARR0001582
Annual report period commencement date	Monday 1 July 2024
Annual report period end date	Monday 30 June 2025
Forward program	FWP0001480
Mining leases	ML 1345 (1992), ML 1677 (1992), ML 1283 (1906), ML 1157 (1906), ML 1666 (1992), MPL 23 (1906), MPL 204 (1906), DSL 89 (1901), MPL 233 (1906), MPL 1364 (1906), ML 1851 (1992), ML 1661 (1992), MPL 269 (1906), CCL 752 (1973), ML 1550 (1992), MPL 217 (1906), CML 2 (1992), CCL 728 (1973), ML 1388 (1992)
Lease holder(s)	Austar Coal Mine Pty Limited
Contact	Carly McCormack
Date of submission	Wednesday 24 September 2025

Important

The department may make the information in your report and any supporting information available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your report to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

Mine details

Project description

Austar Coal Mine is a closed underground coal mine located approximately 10 km southwest of Cessnock in the Lower Hunter Valley in NSW. Austar Coal Mine incorporates the former Pelton, Ellalong, Cessnock No. 1 (Kalingo) and Bellbird South Collieries and includes coal extraction, handling, processing and rail and road transport facilities. Pit top facilities are located on Middle Road, Paxton, and the Coal Handling and Preparation Plant (CHPP) is located at Wollombi Road, Pelton. Mining is approved under two major project approvals: Bellbird South (DA 29/95) and Stage 3 (PA 08_0111), along with numerous development approvals from Cessnock City Council. DA 29/95 expired on 14 February 2022 whilst PA 08_0111 expires on 31 December 2030. Austar is currently in the closure planning stage with investigations and studies being undertaken to inform the closure process. Early works closure activities are being undertaken including mine sealing, decommissioning and demolition.

Life of mine

0 years

Current development consents, leases and licences

Development consents granted under the *Environmental Planning and Assessment Act 1979*

DA29/95
DA29/95
DA29/95
DA29/95
PA 08_0111
PA 08_0111
DA29/95
DA29/95
DA29/95
DA29/95
PA 08_0111
DA29/95
DA29/95
DA29/95
PA 08_0111
PA 08_0111
DA29/95
DA29/95

DA29/95
PA 08_0111
PA 08_0111
DA29/95

Authorisations covering the mining area granted under the *Mining Act 1992*

ML 1345 (1992), ML 1677 (1992), ML 1283 (1906), ML 1157 (1906), ML 1666 (1992), MPL 23 (1906), MPL 204 (1906), DSL 89 (1901), MPL 233 (1906), MPL 1364 (1906), ML 1851 (1992), ML 1661 (1992), MPL 269 (1906), CCL 752 (1973), ML 1550 (1992), MPL 217 (1906), CML 2 (1992), CCL 728 (1973), ML 1388 (1992)

Any other approvals, licences, or authorities issued by government agencies that are relevant to the progress of mining operation and rehabilitation activities

WAL 19181
Numerous Cessnock City Council DA's
Environment Protection Licence (EPL) 416
WAL 41504

Summary of the scope and/or purpose of the new applications or modifications to existing approvals (if applicable)

There were no changes to approvals during the reporting period.

Changes to land ownership and land use

No changes during the reporting period.

Surface disturbance and rehabilitation activities during the reporting period

Surface disturbance and rehabilitation activities that were conducted and an analysis of the progress against the rehabilitation schedule

Surface disturbance and rehabilitation progressed in accordance with the previous forward program. Intrusive site investigations for FS commenced in March 2024 and were largely completed in Q3 2024. Site investigations included test pitting and borehole drilling with material analysis, geotechnical logging, downhole camera and sonar inspections. Infrastructure decommissioning and equipment recovery activities continued in CMA's 1, 2, and 5 in preparation for demolition. Austar completed demolition works at CMA 5 (Kalingo Infrastructure Area) in March - April 2025. Demolition at CMA 2 (CHPP) commenced in early May 2025 and is continuing. During demolition, contamination validation sampling and an unexpected finds procedure is being implemented. Hazardous materials are being managed and disposed of by the demolition contractor. Desilting of Kalingo Dam was completed in Q2 2025 with silt removed and transported to the East Pit Reject Emplacement Area for disposal. Post remediation contamination sampling was undertaken to confirm all sediment had been removed and the dam is suitable for rehabilitation. A new clean water diversion commenced construction during the reporting period to minimise the Kalingo Dam catchment prior to rehabilitation. This will be completed in the second half of 2025. General site maintenance activities were undertaken as required. The borehole rehabilitation project continued, with due diligence ecological and cultural heritage surveys commenced.

Rehabilitation planning activities that were conducted, including any specialist studies

During the reporting period, Austar progressed the Closure Feasibility Study (FS) which commenced in March 2024. Geochemical, geotechnical and contamination FS Site Investigations were largely completed in Q3 2024 and analysis and reporting of the results was ongoing through the reporting period. The outcomes of the FS assessments will be used to refine the rehabilitation and closure designs and strategies including landform design, contamination remediation, and rejects and tailings management and capping designs. FS hydrological assessments have been progressed including the development of a surface water balance, and a rehabilitation surface water management strategy to inform the management of surface water through the rehabilitation phases. FS rehabilitation and revegetation strategies have been progressed including identification of alternative growth media types and constraints, and development of target revegetation communities and seed mixes. FS is scheduled for completion in late 2026. In parallel with the FS, Austar have commenced scoping of an SSD modification to clarify and contemporise rehabilitation outcomes for the entire complex, and ensure Austar has approval to execute closure activities to meet these outcomes.

Overview of subsidence repair and/or remediation works undertaken

Subsidence has been deemed complete in approved mining areas and no maintenance or remediation activities were required during the reporting period. Subsidence repairs may be required from time to time in historic mining areas, these repairs are currently carried out by Subsidence Advisory NSW.

Overview of rehabilitation management and maintenance activities

Weed management was carried out during the reporting period, targeting the CHPP boundaries and creek lines, Aberdare Extended Emplacement Area (EEA), Bellbird Areas 12 and 13, the Kalingo Infrastructure Area, and Kitchener SIS. Weed management was also completed more broadly across mining lease areas in accordance with the site Weed Action Plan and the annual weed report. The primary targeted weeds which were controlled during the reporting period included Green Cestrum, Lantana, Mother of Millions, Tobacco Bush, Asparagus Weed, Inkweed, Nightshade species, Narrow-leaf Privet, Blackberry, Black Heliotrope, Camphor Laurel, Date Palm, Senna and Thistles. Endemic seed collection was carried out during the reporting period to continue the establishment of a seed storage bank for future rehabilitation activities. The focus of seed collection was on species comprising the main vegetation communities within Austar. To prevent trespasser access, concrete barriers continued to be installed at the Bellbird Areas 12 and 13, Aberdare EEA, and at multiple track entry points across the Mining Lease. Maintenance also included the slashing of grassland areas and the clean-up and removal of dumped rubbish around Bellbird Areas 12 and 13, as well as the Aberdare Extended EEA.

Details of any rehabilitation actions taken as required by any letters, notices or directions issued by government agencies, including the NSW Resources Regulator

No notices or directions were received from NSW Resources Regulator or any other government agencies regarding rehabilitation activities during the reporting period. In August 2024, Austar completed an update of the Rehabilitation Risk Assessment in response to the NSW Resources Regulator Tailings Targeted Assessment Program recommendations.

Details of any rehabilitation areas that have achieved the final land use

No rehabilitation areas achieved the final land use in the reporting period.

Key production milestones

MATERIAL	UNIT	FWP0001480 YEAR 1		THIS REPORT
Stripped topsoil (if applicable)	(m ³)	0		0
Rock/overburden	(m ³)	0		0
Ore	(Mt)	0		0
Reject material ¹	(Mt)	0		0
Product	(Mt)	0		0

¹ This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

Disturbance and rehabilitation statistics

Current disturbance and rehabilitation progression

ELEMENT		UNIT	THIS REPORT
A1	Total disturbance footprint – surface disturbance	(ha)	214.86
B	Total active disturbance	(ha)	153.79
C	Rehabilitation – land preparation	(ha)	23.32
D	Ecosystem and land use establishment	(ha)	37.76
E	Ecosystem and land use development	(ha)	0
F	Rehabilitation completion	(ha)	0

Rehabilitation key performance indicators (KPIs)

ELEMENT		UNIT	THIS REPORT
G	New disturbance area	(ha)	3.78
H	New rehabilitation commenced during annual reporting period	(ha)	-0.24
I	Established rehabilitation	(ha)	0
J	Annual rehabilitation to disturbance ratio	%	-0.06
K	Rehabilitated land to total mine footprint	%	0

Progressive achievement of established rehabilitation

ELEMENT		UNIT	THIS REPORT
L	Established rehabilitation for agricultural final land uses	%	0
M	Established rehabilitation for native ecosystem final land uses	%	0
N	Established rehabilitation for other/non-vegetated final land uses	%	0

Variation to the rehabilitation schedule

Identify the components of the most recent forward program that were not achieved

Not applicable. Activities undertaken during the reporting period were consistent with the most recent forward program.

Key factors that delayed progressive rehabilitation

No factors significantly delayed the progressive rehabilitation schedule during the reporting period.

Outline actions that will be included in the forward program and carried out to minimise disturbance and undertake progressive rehabilitation as far as reasonably practical

Further disturbance and rehabilitation will be undertaken in accordance with the RMP and the FY 2025 Forward Program.

Rehabilitation monitoring and research findings

Rehabilitation monitoring

The rehabilitation monitoring carried out in the annual reporting period

Annual rehabilitation monitoring was undertaken across all existing Austar rehabilitation areas and associated reference sites during April and May 2025. The annual rehabilitation monitoring report concluded that the weather conditions in the lead up to the 2025 monitoring event were favourable for vegetation growth resulting in high levels of ground cover vegetation in areas which are not subject to machinery movement (and thus decreases in exposed earth and susceptibility to erosion). Increases in native species richness from that of the baseline were identified at the majority of rehabilitation sites along with the continued presence of natural regeneration of native tree and canopy species, however an increase in weed coverage was noted in all forest plots since the previous monitoring period. Monitoring will be undertaken annually until each area is considered “self-sustaining”. At this point, these sites are not considered self-sustaining, primarily due to weed presence, and lack of canopy and understory regeneration.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

Tabulated results of the monitoring for each rehabilitation area have been provided by the monitoring consultant and compared to the trigger action response plan (TARP) from the RMP. Based on the monitoring results, all areas of rehabilitation are still considered to be in the Ecosystem and Land Use Establishment Phase. The major findings are lack of appropriate species for the targeted vegetation community and the current level of weed presence. Performance criteria, monitoring requirements and final land use vegetation types for the site are being reviewed and refined as part of the detailed mine closure planning work currently being undertaken.

Are all rehabilitation areas in Landform Establishment phase or higher represented in the monitoring program to assess performance against the rehabilitation objectives and approved or, if not yet approved rehabilitation completion criteria and final landform and rehabilitation plan?

Yes

Year rehabilitation areas will be included as part of the monitoring program

An appraisal of whether rehabilitation is moving towards achieving the proposed rehabilitation objectives, approved or, if not yet approved, rehabilitation completion criteria and final landform and rehabilitation plan as soon as reasonably practicable.

Based on the comparison against the proposed completion criteria, rehabilitation areas are generally progressing towards achieving the proposed completion criteria, however based on the comparison of monitoring results against the RMP TARP, recommended actions were provided in the most recent monitoring report. The main factors identified during monitoring as key to progression of all monitoring locations towards completion criteria is a reduction in weed cover and a reduction in unauthorised access into rehabilitation areas, with activities such as rubbish dumping and motorbike riding being commonplace. Recommendations have also been made with respect to the probability of needing to undertake supplementary planting, but this will depend on final land use determinations that will be made during detailed mine closure planning. The current completion criteria will be further refined during FS, with proposed final completion criteria and an updated final landform and rehabilitation plan submitted to the RR for consultation and approval following completion of the detailed mine closure plan.

Appraisal description

Rehabilitation is moving towards achieving the final land use as soon as reasonably practicable.

Rehabilitation monitoring program findings

Austar currently completes rehabilitation monitoring at the Aberdare EEA, Bellbird Areas 12 and 13, and Kalingo areas. Reference site baseline monitoring includes two forest reference sites (one at Bellbird Areas 12 and 13, and one at Kalingo) and at two forest sites on Austar land located in proximity to the Kitchener SIS. Annual rehabilitation monitoring was undertaken at the rehabilitation areas and reference sites during the end of April and beginning of May 2025. Monitoring included both visual inspections and photo monitoring and recommendations provided to progress towards the completion criteria. Methodologies included walkover inspections comprising a traverse of the rehabilitated areas with the following documented:

- General assessment of the health of the rehabilitated vegetation
- Visual assessment of vegetation cover, species diversity and stage of growth
- Identification of weeds and pests including density of infestation and observable impacts on rehabilitation
- Evidence of erosion (rill, gully and tunnel)
- Stability and functioning of any erosion and sediment control and water management structures
- Evidence of unauthorised access to the rehabilitated areas and
- Evidence of use of rehabilitation area by native fauna species.

Forest monitoring comprised a 20 m by 20 m plot, as well as a 50 m transect. Monitoring of the 50m transect assessed percentage of native canopy, and mid-storey cover; and presence of native ground cover (grass, shrub, other), bare ground and leaf litter. The 20 m by 20 m plot included full floristic survey and photo monitoring. Grassland monitoring comprised 5m x 5m plots assessing percentages of vegetation, weeds, canopy vegetation, documentation of flora species, their cover and abundance, and photo monitoring.

Performance issues and their causes including identification of any knowledge gaps that must be addressed

Rehabilitation monitoring noted an increase in weed coverage in all forest plots since the previous monitoring period. Austar has a site wide Annual Weed Action Plan in place incorporating the rehabilitation areas. Weed management works are undertaken by a specialist contractor on a regular basis throughout the year. Weed management in the rehabilitation areas is ongoing, with weed works focusing on recommended actions and areas, including rehabilitation areas and creek lines across site during the reporting period. Evidence of unauthorised access (such as 4WD tracks, motorbike riders and push bike riders) continues to be problematic in the Bellbird Areas 12 & Area 13 and Aberdare REA. Given proximity of these areas to urban areas, such aspects are difficult to control. Measures are in place to strengthen site security and exclude trespassers through the installation of concrete barriers, maintenance of fencing and ongoing security patrols.

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
RRT000111 1	Growth medium trial	Evaluation of composted municipal green waste material as a growth medium, as an alternative to topsoil.	Three rehabilitation trial plots to be established. One plot to have no compost, second plot to have 50mm of composted growth medium and the third plot to have 100mm of composted growth medium. Soil testing will be used to inform amelioration requirements. All three plots will be seeded with key canopy, shrub and groundcover species of the Lower Hunter Spotted Gum Ironbark Forest vegetation community. Ongoing monitoring will inform suitability of compost use as a growth medium.	31 Dec 2025	Ongoing	Yes
RRT000113 0	Growth Medium Trial	Evaluation of composted municipal green waste material as a growth medium, as an alternative to topsoil.	Three rehabilitation trial plots have been established. Plot 1 has no compost, Plot 2 has 50mm of composted growth medium Plot 3 has 100mm of composted growth medium. Soil testing will be used to inform amelioration requirements. All three plots will be seeded with key canopy, shrub and groundcover species of the Lower Hunter Spotted Gum Ironbark Forest vegetation community and a cover crop. Ongoing monitoring will inform suitability of compost use as a growth medium.	31 Dec 2025	Ongoing	Yes

AUSTAR COAL MINE ANNUAL REHABILITATION REPORT

ARR0001582 | Monday 1 July 2024 to Monday 30 June 2025



RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
RRT0001155	Coal Waste Blending Trial	To inform materials handling, excavation, blending and placement strategies through the execution of bulk earthworks, with a focus on optimising processes for tailings and coarse coal reject (CCR) man	Tailings will be excavated from the NWTD, dewatered as required, and transported to a trial location at the CHPP. Materials will be spread or blended with coarse coal reject (CCR) to evaluate drying rates, handling behaviour, and suitability for placement in containment cells. Observations, geotechnical testing, and laboratory analysis will be conducted to optimize processes.	30 Jun 2026	Ongoing	Yes

Outcomes of completed trials and research

N/A

Attachment 1 – Reporting Definitions

REPORTING CATEGORY		DEFINITION
A1	Total disturbance footprint – surface disturbance	<p>All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities.</p> <p>The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below).</p> <p>Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.</p>
A2	Underground Mining Area	Underground mining operations areas/subsidence management areas.
B	Total active disturbance	Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).
C	Rehabilitation – land preparation	<p>Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation – decommissioning, landform establishment and growth medium development.</p> <p>Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.</p>

REPORTING CATEGORY	DEFINITION
D Ecosystem and land use establishment	<p>Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites.</p> <p>Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.</p>
E Ecosystem and Land Use Development	<p>Rehabilitation has matured to a level where target revegetation outcomes are on a trajectory towards meeting the final rehabilitation objectives and rehabilitation completion criteria (as verified by monitoring).</p> <p>This phase includes infrastructure areas that are to be retained for an approved post mining land use, following completion of all necessary measures to render the infrastructure fit for this purpose (for example structural integrity).</p>
F Rehabilitation Completion	<p>The NSW Resources Regulator has determined in writing that the mining area has achieved the approved rehabilitation objectives and approved rehabilitation completion criteria and final landform and rehabilitation plan following the submission of <i>Form: ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate and/or notification of mine or petroleum site closure</i>.</p>
G New active disturbance area	<p>The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).</p>
H New rehabilitation commenced during annual reporting period	<p>The sum of any new rehabilitation commenced in the annual reporting period. These areas may be in the rehabilitation land preparation phase or the ecosystem & land use establishment phase (definitions C and D in Table 5).</p>
I Established rehabilitation (hectares)	<p>The total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5).</p>

REPORTING CATEGORY		DEFINITION
J	Annual rehabilitation to disturbance ratio	The rehabilitation to disturbance ratio (H/G) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the year. A ratio of 1/1 indicates that the area of new rehabilitation and disturbance in that year are the same.
K	% Rehabilitated land to total mine footprint	The proportion of the total mine footprint (area of land that has been disturbed by past or present surface disturbance activities) that has established rehabilitation ($I/A1 \times 100$). For open cut mining, the proportion of the total mine footprint verified to be “established rehabilitation” should substantially increase as an operation progresses towards mine closure.
L	Established rehabilitation for agricultural final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to an agricultural final land use.
M	Established rehabilitation for native ecosystem final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or rehabilitation completion phase (definitions E & F in Table 5) that have been returned to native ecosystem final land use.
N	Established rehabilitation for other/non-vegetated final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to other/non-vegetated final land use.

Attachment 2 – Definitions

WORD	DEFINITION
Active	In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
Active mining phase of rehabilitation	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
Analogue site	In the context of rehabilitation, an analogue site is a 'reference site' that represents an example of the defining characteristics (such as vegetation composition and structure or agricultural productivity) of the final land use. Characteristics of analogue sites can be assessed to develop the rehabilitation objectives and completion criteria for final land use domains.
Annual rehabilitation report and forward program	As described in the Mining Regulation 2016.
Annual reporting period	As defined in the Mining Regulation 2016.
Closure	A whole-of-mine-life process, which typically culminates in the relinquishment of the mining lease. It includes decommissioning and rehabilitation to achieve the approved final land use(s).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning Phase of Rehabilitation	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit for purpose' built infrastructure to be retained for future use(s) following lease relinquishment.

WORD	DEFINITION
Department	The Department of Regional NSW.
Disturbance	See Surface Disturbance.
Disturbance area	<p>An area that has been disturbed and that requires rehabilitation.</p> <p>This may include areas such as on-licence exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (i.e. managed to minimise dust generation and/or erosion).</p>
Domain	<p>An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.</p>
Ecosystem and Land Use Development	<p>This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved rehabilitation objectives and completion criteria.</p> <p>For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile.</p> <p>This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.</p>
Ecosystem and Land Use Establishment	<p>This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform.</p> <p>For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.</p>
Exploration	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Growth Medium Development	<p>This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short lived pioneer species).</p> <p>This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.</p>
Habitat	Has the same meaning as that term under the <i>Biodiversity Conservation Act 2016</i> and the <i>Fisheries Management Act 1994</i> (as relevant).
Indicator	An attribute of the biophysical environment (e.g. pH, topsoil depth, biomass) that can be used to approximate the progression of a biophysical process. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion (i.e. defined end point). It may be aligned to an established protocol and used to evaluate changes in a system.
Land	As defined in the <i>Mining Act 1992</i> .
Landform Establishment	<p>This phase of rehabilitation consists of the processes and activities required to construct the final landform.</p> <p>In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (e.g. rock raking or ameliorating sodic materials).</p>
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.

WORD	DEFINITION
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	<p>Means the NSW Resources Regulator’s online portal that lease holders must use (via a registered account) to:</p> <ul style="list-style-type: none"> ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. <p>Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.</p>
Mining area	As defined in the <i>Mining Act 1992</i> .
Mining domain	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
Mining land	As defined in the <i>Mining Act 1992</i> .
Native vegetation	Has the same meaning as that term under section 60B of the <i>Local Land Services Act 2013</i> .
Overburden	Material overlying coal or a mineral deposit.
Performance indicator	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.

WORD	DEFINITION
Phases of rehabilitation	<p>The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are:</p> <ul style="list-style-type: none"> ■ active mining ■ decommissioning ■ landform Establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development.
Progressive rehabilitation	<p>The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.</p>
Rehabilitation Completion	<p>The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of <i>Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate</i> application by the lease holder.</p>
Rehabilitation Completion criteria	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation cost estimate	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation management plan	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation objectives	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation risk assessment	<p>As defined in the Mining Regulation 2016.</p>
Rehabilitation schedule	<p>The defined timeframes for progressive rehabilitation set out in the forward program.</p>

WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: <ul style="list-style-type: none"> ■ the relevant development consent authority ■ the local council ■ the relevant landholder(s) ■ community consultative committee (if required under the development consent) or equivalent consultative group ■ affected land holder(s) ■ government agencies relevant to the final land use ■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) ■ local Aboriginal communities, and ■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water ² .
Waste	Has the same meaning as that term under the <i>Protection of the Environment Operations Act 1997</i> .

² Commonwealth of Australia (DITR), 2007. *Tailings Management*.

Attachment 3 – Rehabilitation Complaints

DATE	COMPLAINANT	COMPLAINT DETAILS	RESPONSE DETAILS	STATUS OF RESPONSE	DATE RESPONSE COMPLETED (IF APPLICABLE)
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Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
4 Dec 2024	EPA/DPHI/Resources Regulator	Meeting	Q4 2024 closure update.	Presentation distributed
12 Feb 2025	Cessnock Council	Meeting	Meeting with Cessnock Council staff regarding infrastructure, rehabilitation, proposed plans for flood retention dams and council projects that may have interactions with Austar.	Ongoing dialogue to continue
20 Sep 2023	Community Consultative Committee	CCC meeting	Closure planning, Go-forward Post-Mining Land use, Demolition Strategy, Early Works, Environmental Monitoring, Incidents & Complaints.	Meeting minutes kept and any actions documented.
8 Nov 2023	Cessnock Council	Meeting with Cessnock Council to discuss mine closure plans	Proposed borrow pits / detention dams, heritage items and demolition, flood impact assessments, proposed bypass road.	Meeting minutes kept and any actions documented.
19 Jun 2024	NSW EPA, NSW Resources Regulator, DPHI	Mine closure update meeting	Q2 2024 update. Closure Project status, FS Site Investigations, Demolition, Kalingo Dam Decommissioning, Borehole Rehabilitation, Stakeholder Engagement.	Meeting minutes kept and actions documented.
27 Nov 2024	Community Consultative Committee	Meeting	Annual update on mine closure planning progress, community programs and environmental performance.	Minutes published to website
14 Mar 2024	NSW Resources Regulator	Resources Regulator Teams Meeting	Q1 2024 Update. Closure Project Status, FS Site Investigations Program, Decommissioning, Demolition, Historic Borehole Rehabilitation, Stakeholder Engagement, Rehabilitation Completion Criteria.	Meeting minutes kept and any actions documented.

AUSTAR COAL MINE ANNUAL REHABILITATION REPORT

ARR0001582 | Monday 1 July 2024 to Monday 30 June 2025

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
5 Jul 2024	EPA	Letter	Austar notified EPA of proposed on-site beneficial reuse of waste, i.e. use of ballast and/or demolition waste (concrete/brick) for shaft filling	Austar are undertaking validation sampling and risk assessment to demonstrate fill material is suitable as a shaft filling material.
27 Aug 2024	Resources Regulator	Meeting and site inspection	Tailings Targeted Assessment Program	Update to rehabilitation risk assessment based on RR recommendations
5 Sep 2024	Landholder	Meeting	Interactions between closure and rehabilitation of Aberdare Extended and neighbouring property development, including security, drainage and highwall discussions.	Ongoing consultation to occur
4 Sep 2024	Resources Regulator	Meeting	Q3 2024 Closure Update	Presentation Distributed
19 Mar 2025	Resources Regulator	Meeting	Q1 2025 closure update	Presentation distributed
1 Apr 2025	Resources Regulator	Meeting/ site inspection	Decommissioning Targeted Assessment Program	No feedback received to date.
18 Mar 2025	Local Residents	Letter and Newsletter	Local residents in Pelton, Paxton (Dunlop Drive), Bellbird and Ellalong were notified of upcoming demolition activities at the CHPP and Pit Top facilities, including the overland conveyor.	Nil
19 Mar 2025	Resources Regulator	Site Inspection	Environment Inspectorate site inspection	Nil
4 Jun 2025	EPA/DPHI/Resources Regulator	Meeting	Q2 2025 update.	Presentation distributed
2 May 2024	Cessnock Council	Mine closure update meeting	Mine closure planning, and synergies with council plans	Meeting minutes kept and any actions documented.

AUSTAR COAL MINE ANNUAL REHABILITATION REPORT

ARR0001582 | Monday 1 July 2024 to Monday 30 June 2025



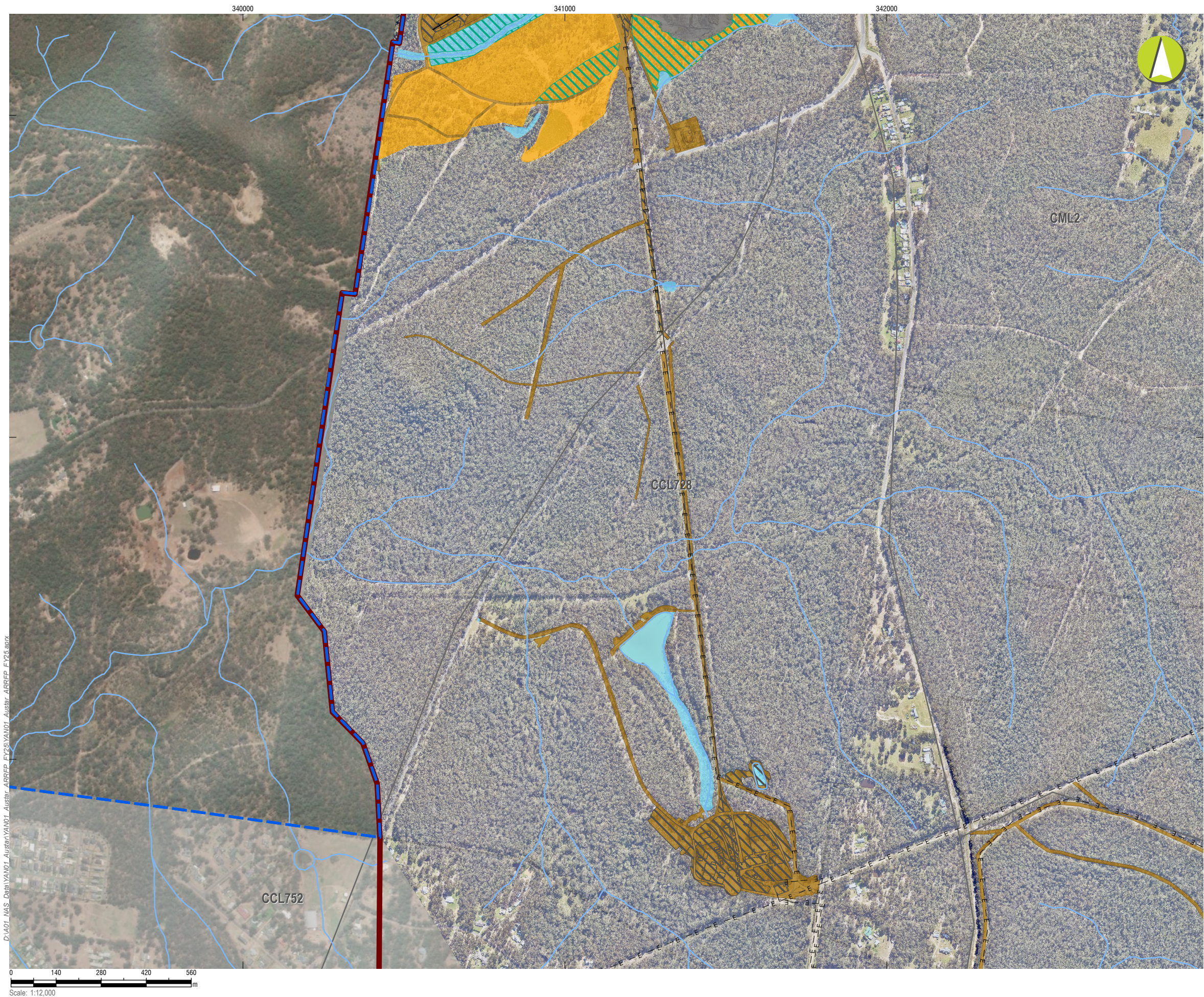
DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
6 Dec 2023	NSW Resources Regulator, Environmental Protection Authority, Crown Lands, Department of Planning, Housing and Infrastructure.	Mine closure planning update meeting	Q4 2023 update. Early Works, Demolition Strategy, Final Landform, Post Mining Land Use, and Stakeholder Engagement.	Meeting minutes kept and any actions documented.
13 Sep 2023	Resources Regulator	Q 3 2023 Update	Closure Project, go-forward case, stakeholder engagement, Rehabilitation Management Plan and Forward Program updates.	Meeting minutes distributed.
22 Mar 2023	Community Consultative Committee	CCC meeting	Discussion regarding progress of early works activities including partial mine sealing and specialist studies, conceptual final landform design, submission of Rehabilitation Objectives Statement, Final Landform and Rehabilitation Plan, Forward Program and Rehabilitation Management Plan. Presentation on mine closure planning progress update.	Meeting minutes kept and any actions documented.

Attachment 5 – Plans

YAN01_ARRFP_Plan1A_CurrentStatusMining_CMADetail.pdf

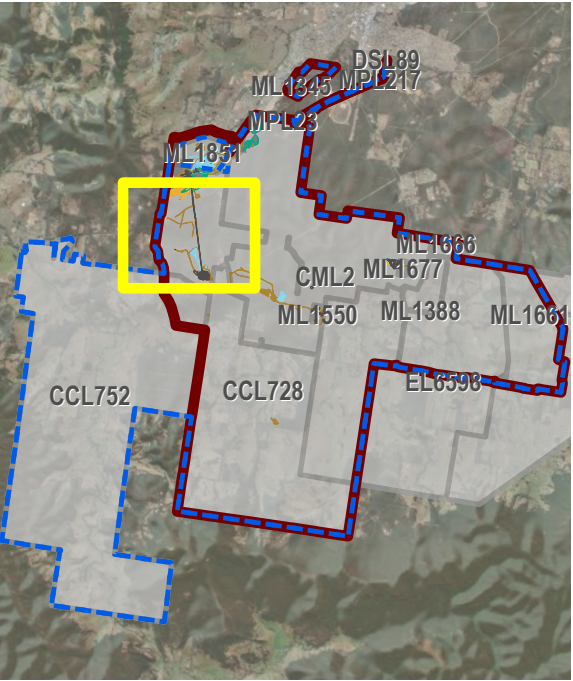
YAN01_ARRFP_Plan1B_CLFContours.pdf

Annual Report (LARGE MINE) v1.11



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines
- Current Authorisations**
 - Coal - Current Titles
- Rehabilitation Phase**
 - Decommissioning
 - Ecosystem and Land Use Establishment
- Mining Domain Type**
 - Domain 1: Infrastructure Area
 - Domain 2: Tailings Storage Facility
 - Domain 3: Water Management Area
 - Domain 4: Overburden Emplacement Area



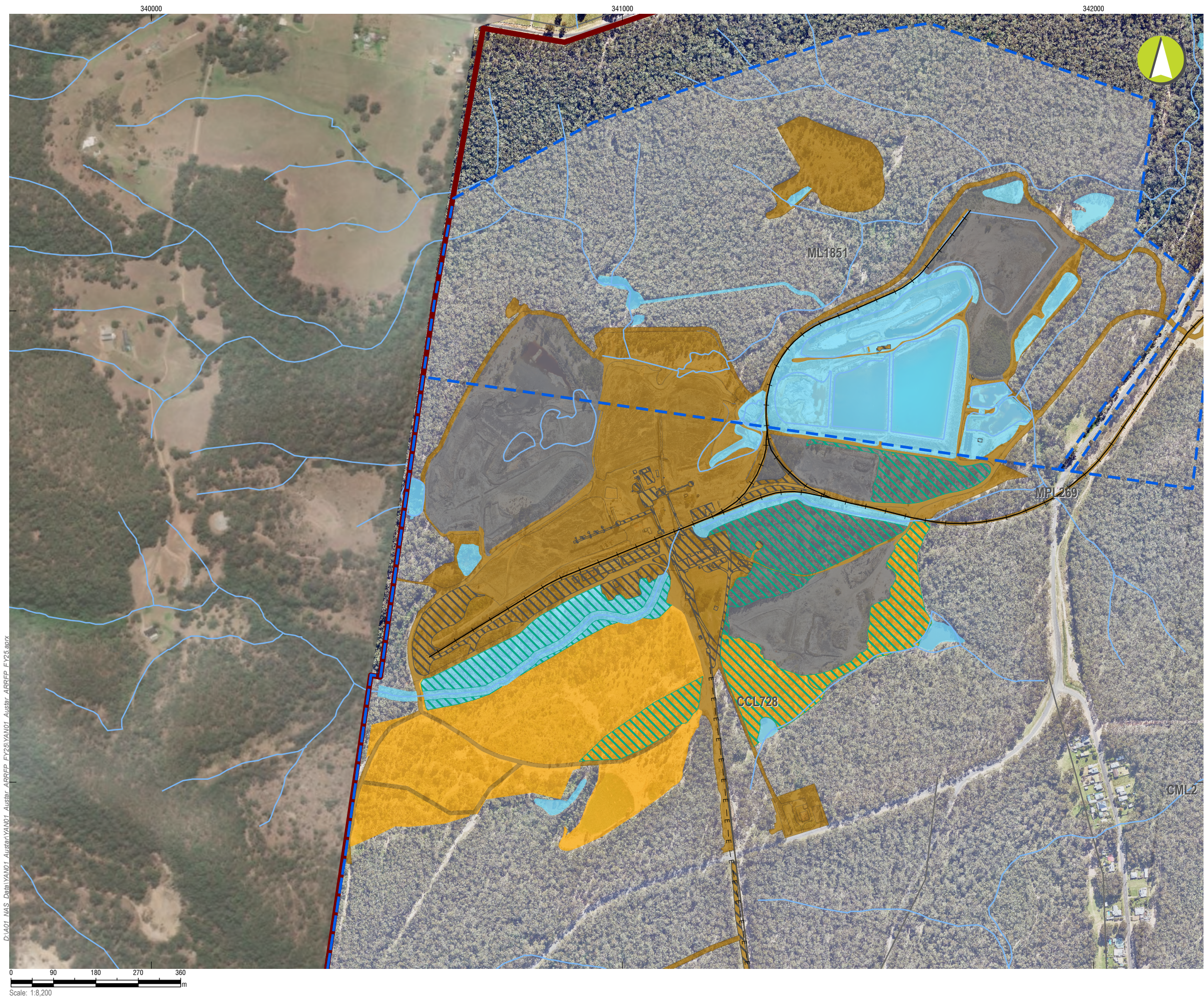
Austar Coal ARRFP

CMA 1 - Austar Pit Top Facilities

Current Status of Mining and Rehabilitation

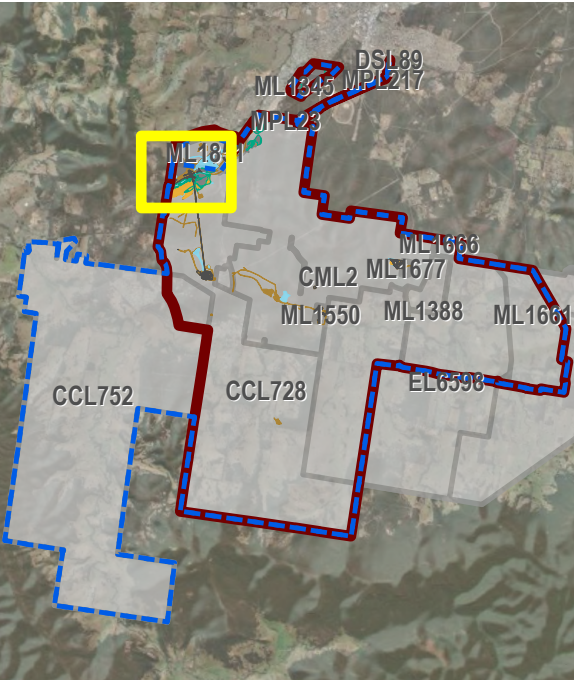
PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Road
- Railway
- Electricity Transmission Line
- Creek lines
- Current Authorisations**
 - Coal - Current Titles
- Rehabilitation Phase**
 - Decommissioning
 - Ecosystem and Land Use Establishment
- Mining Domain Type**
 - Domain 1: Infrastructure Area
 - Domain 2: Tailings Storage Facility
 - Domain 3: Water Management Area
 - Domain 4: Overburden Emplacement Area



Austar Coal ARRP

CMA 2 - Pelton CHPP - Inset 1

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

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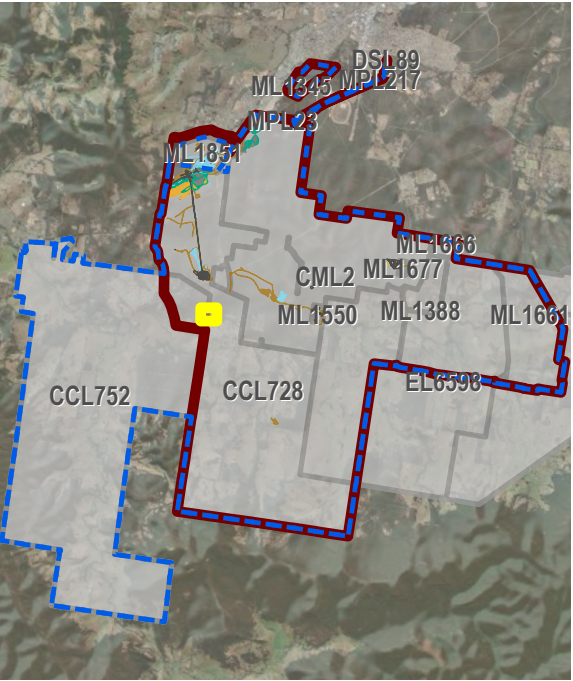
- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

- Coal - Current Titles

Mining Domain Type

- Domain 1: Infrastructure Area



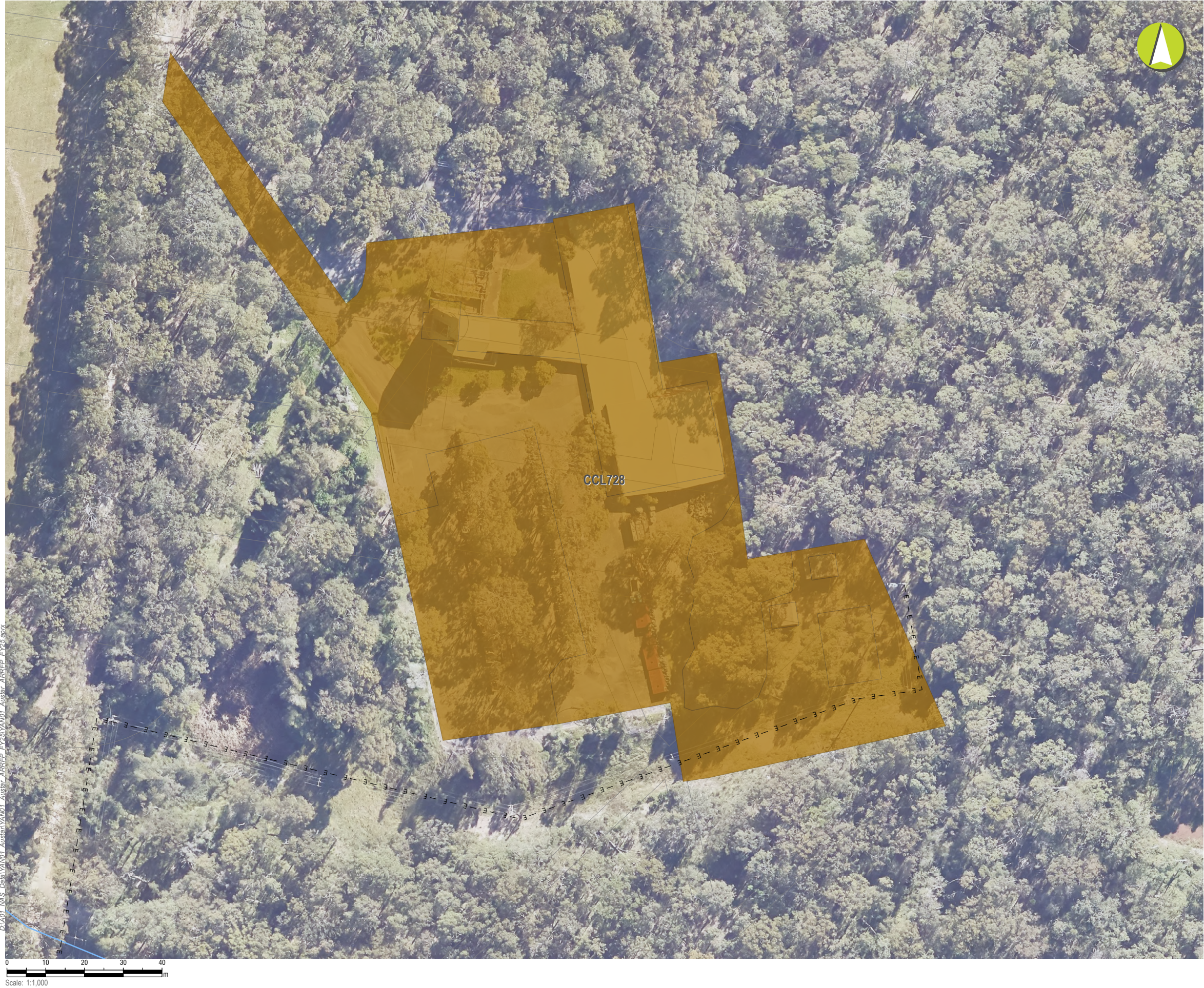
Austar Coal ARRFP

CMA 3 - No.1 Shaft - Inset

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025



LEGEND

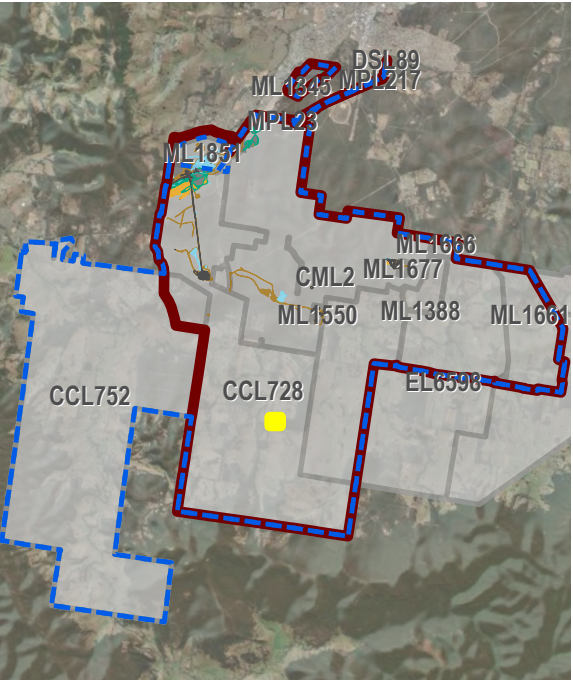
- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

- Coal - Current Titles

Mining Domain Type

- Domain 1: Infrastructure Area



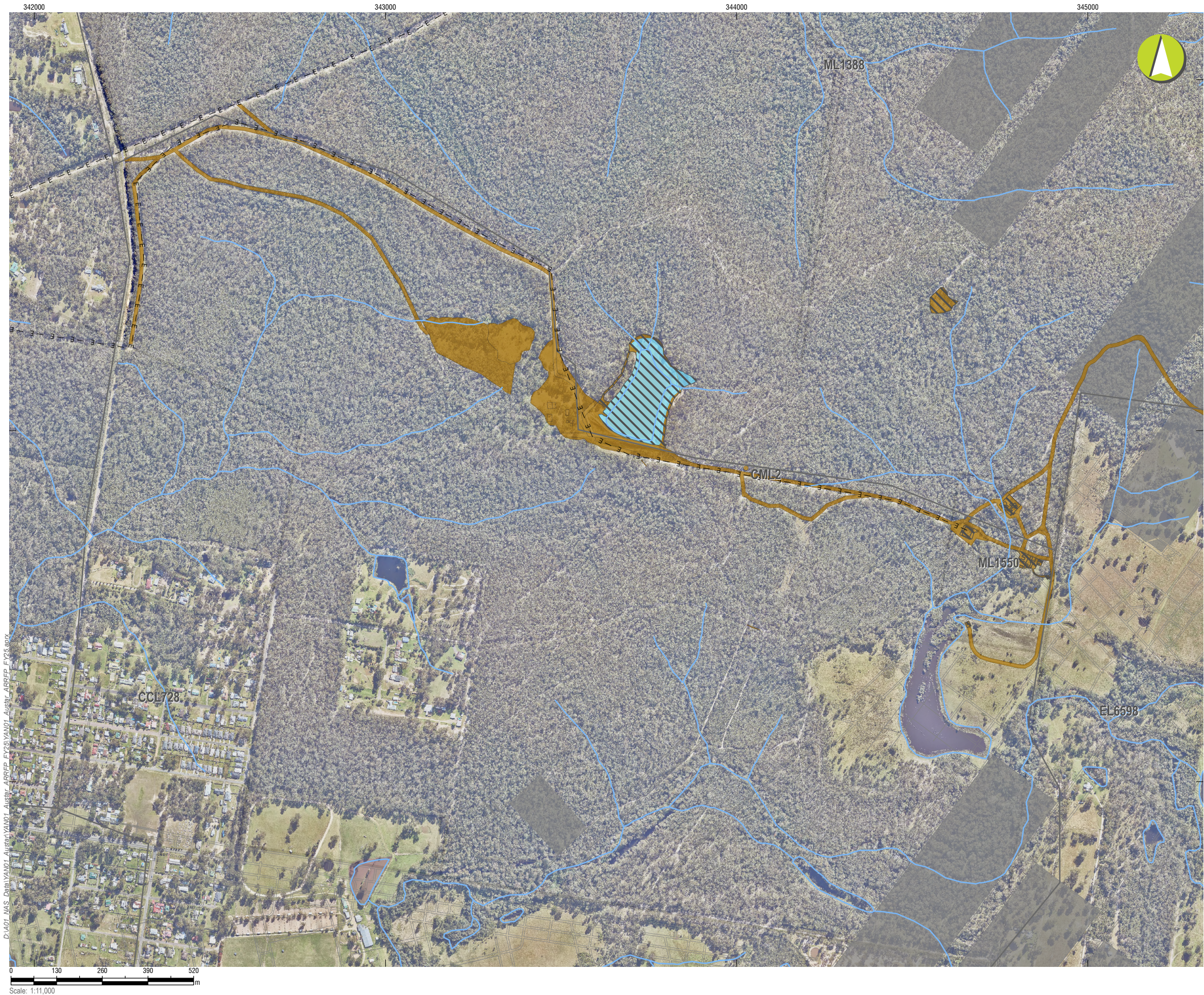
Austar Coal ARRFP

CMA 4 - No.2 Shaft - Inset

Current Status of Mining and Rehabilitation

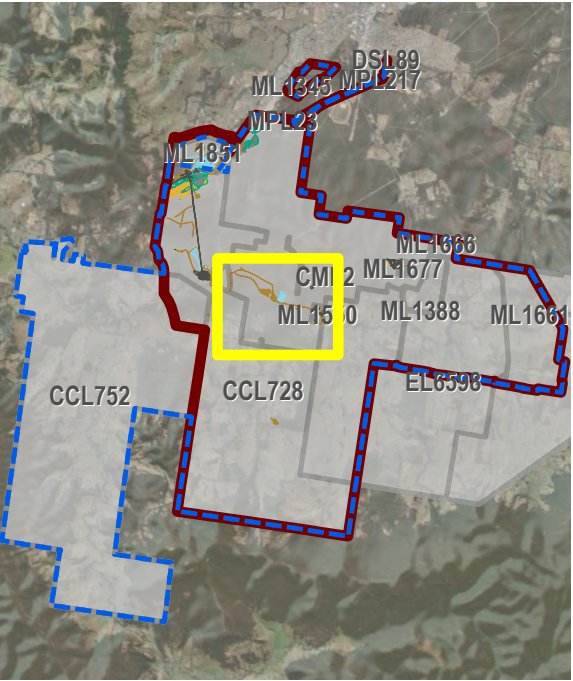
PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines
- Completed workings
- Current Authorisations**
 - Coal - Current Titles
- Rehabilitation Phase**
 - Decommissioning
- Mining Domain Type**
 - Domain 1: Infrastructure Area
 - Domain 3: Water Management Area



Austar Coal ARRFP

CMA 5 - Cessnock No.1 Colliery / Kalingo Infrastructure Area

Current Status of Mining and Rehabilitation

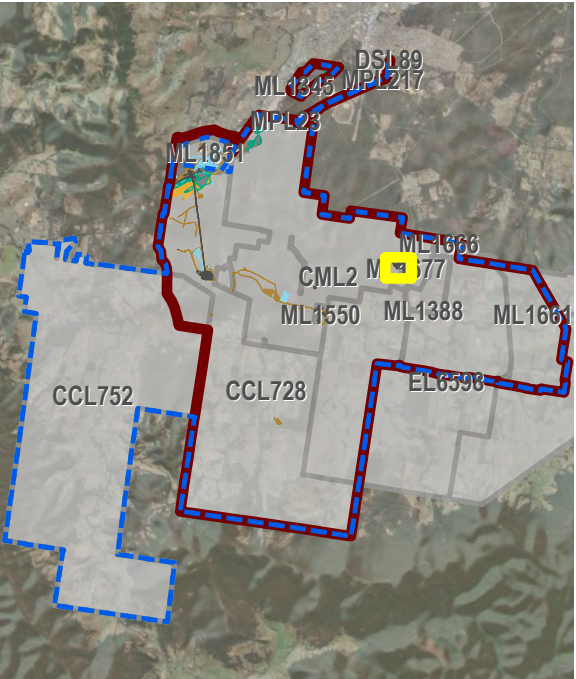
PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Austar Mine Plan
- Road
- Railway
- Electricity Transmission Line
- Creek lines
- Completed workings
- Current Authorisations**
- Coal - Current Titles
- Rehabilitation Phase**
- Decommissioning
- Mining Domain Type**
- Domain 1: Infrastructure Area
- Domain 3: Water Management Area
- Domain 4: Overburden Emplacement Area



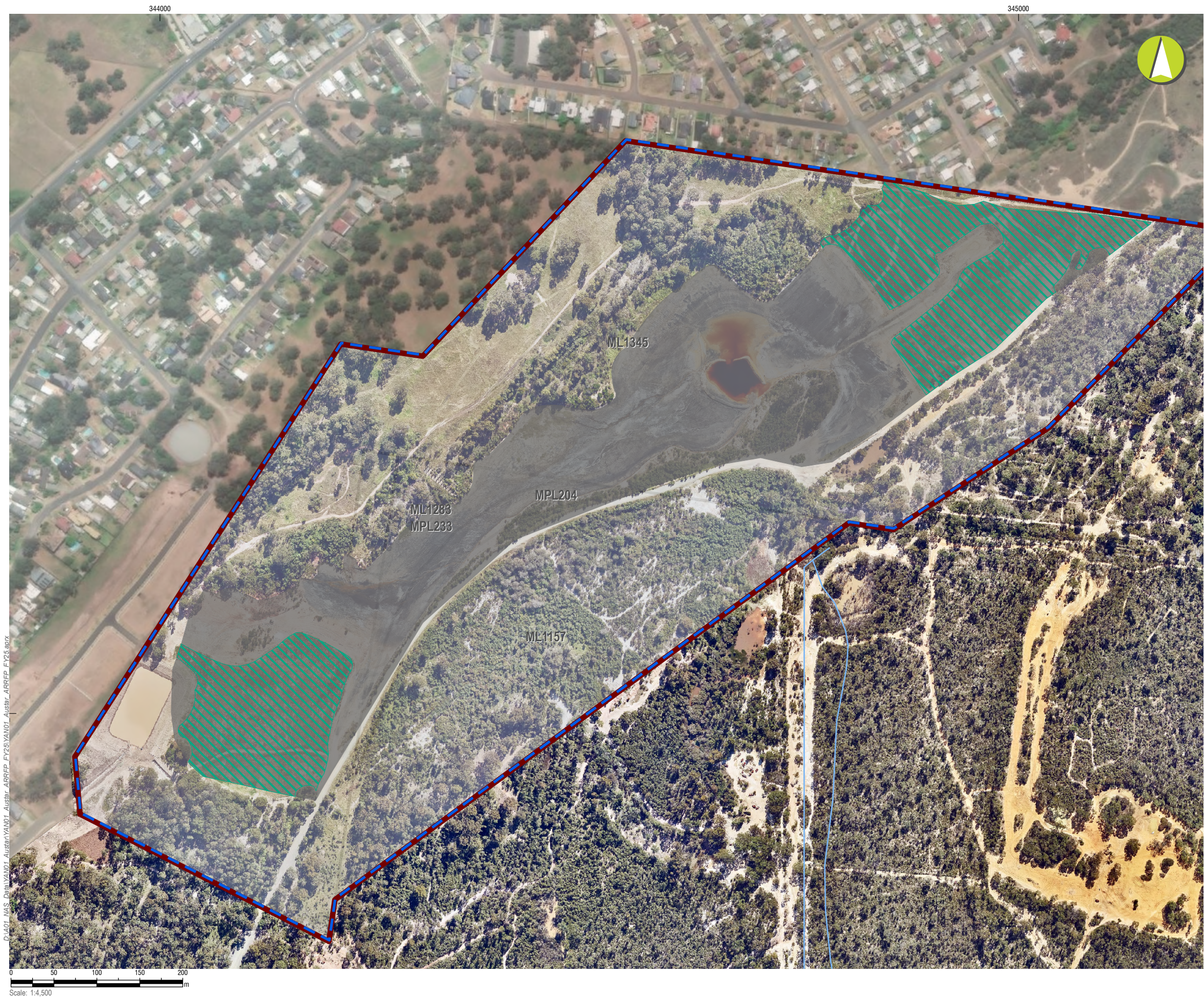
Austar Coal ARRFP

CMA 6 - Kitchener Surface Infrastructure Site

Current Status of Mining and Rehabilitation

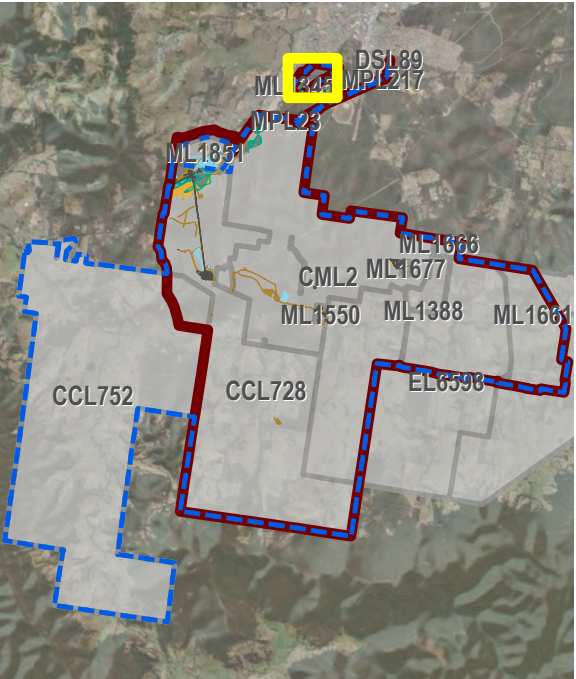
PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Road
- Railway
- Electricity Transmission Line
- Creek lines
- Current Authorisations**
- Coal - Current Titles
- Rehabilitation Phase**
- Ecosystem and Land Use Establishment
- Mining Domain Type**
- Domain 2: Tailings Storage Facility



Austar Coal ARRFP

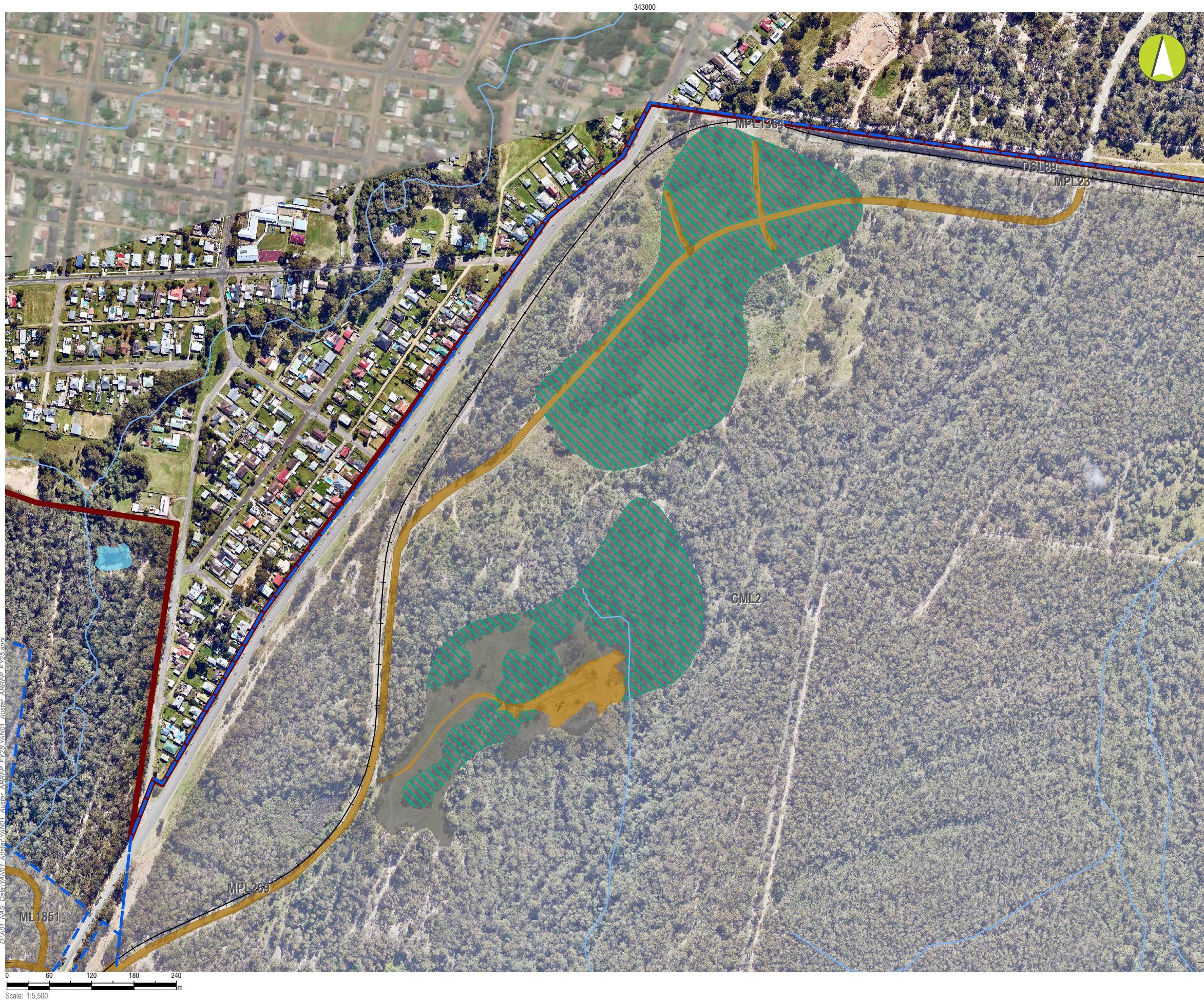
CMA 7 - Aberdare Extended Emplacement Area

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025

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LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Road
- Railway
- Electricity Transmission Line
- Creek lines

Current Authorisations

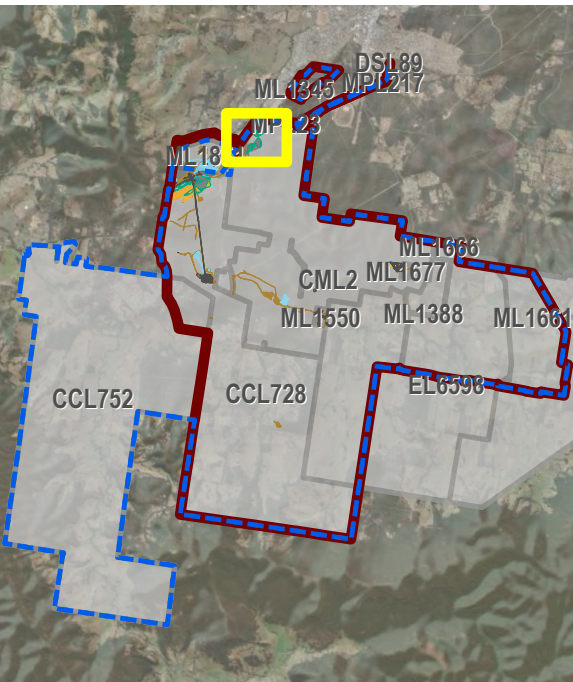
- Coal - Current Titles

Rehabilitation Phase

- Ecosystem and Land Use Establishment

Mining Domain Type

- Domain 1: Infrastructure Area
- Domain 2: Tailings Storage Facility
- Domain 3: Water Management Area



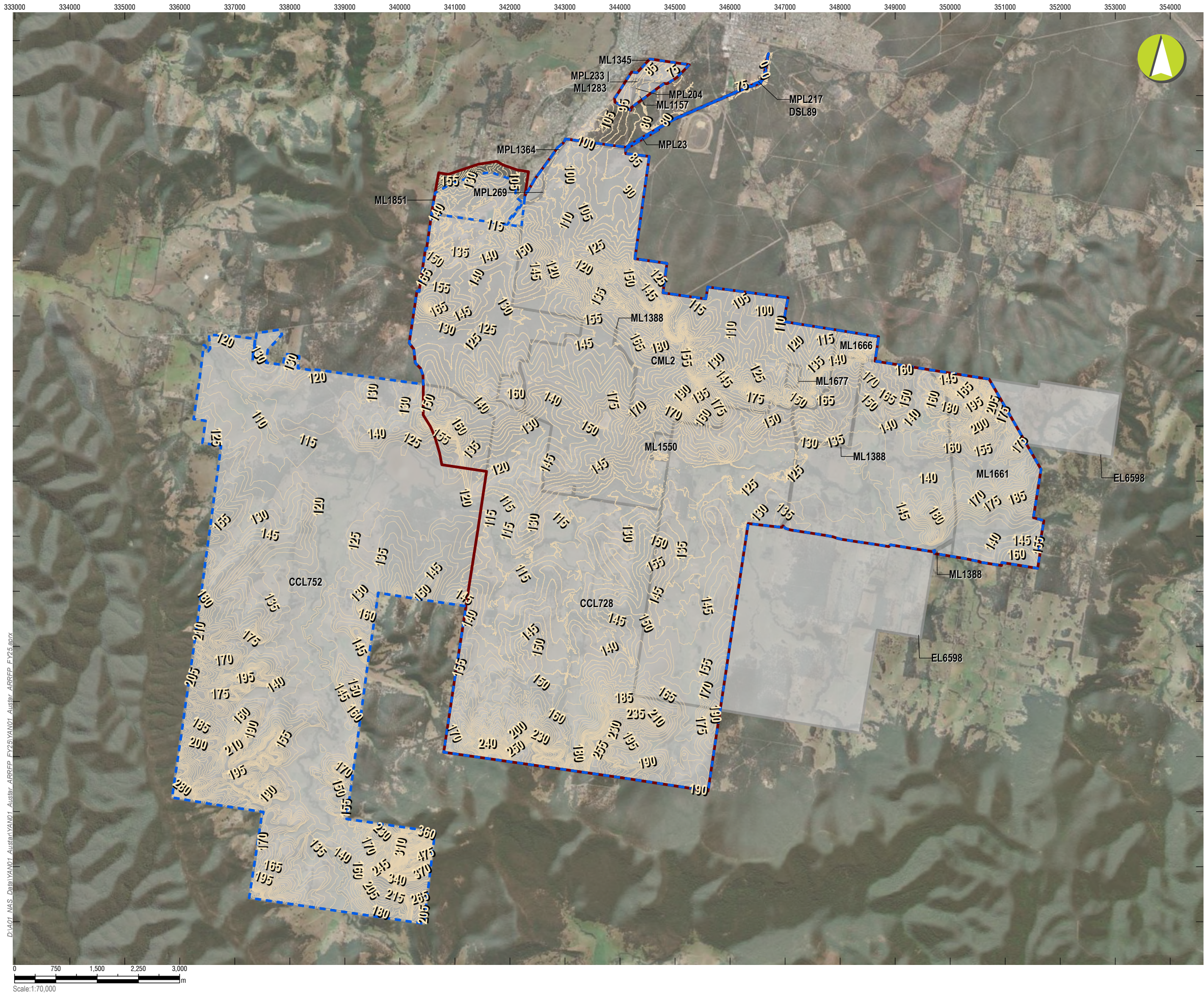
Austar Coal ARRFP

CMA 8 - Bellbird Areas 12 and 13 - Inset

Current Status of Mining and Rehabilitation

PLAN 1A

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine ARRFP
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	15/09/2025



LEGEND

- Project Approval Boundary
- Colliery Holding Boundary
- Current Landform Contours (5m)

Current Authorisations

- Coal - Current Titles

Austar Coal ARRFP

Current Landform Contours

Plan 1B

Mine name	Austar Coal Mine
Plan name	Austar Coal Mine
Year of anticipated relinquishment	TBA on final submission
Data theme submission ID No.	xxxx
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	2/09/2025