



Forward Program – 2026 to 2028

Mount Thorley Warkworth

DOCUMENT CONTROL

Version	Date	Revision Description	Author	Approver
1.0	30/03/2026	FP document prepared to satisfy Standard Conditions on Mining Leases	Bill Baxter Environmental Specialist Rehabilitation	Gary Mulhearn Environment & Community Manager

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DEFINITIONS / ABBREVIATIONS

AGS – Abbey Green South
CCC – Community Consultative Committee
CCL – Consolidated Coal Lease
CHPP – Coal Handling and Preparation Plant
CL – Coal Lease
CR – Centre Ramp
DPHI – NSW Department of Planning, Housing and Infrastructure
GDP – Ground Disturbance Permit
HTE – High Threat Exotics
LP – Loders Pit
ML – Mining Lease
MTO - Mount Thorley Operations
MTW - Mount Thorley Warkworth Coal Mine (combined operations)
NOOP – North Out-of-Pit Dam
RMP – Rehabilitation Management Plan
ROM – Run of Mine
TSF – Tailings Storage Facility
TWMS – Total Waste Management System
WML - Warkworth Mining Limited

Name of mine:	Mount Thorley Warkworth	
Forward Program Period:	START DATE:	END DATE:
	1 January 2026	31 December 2028
Forward Program revision dates and version numbers:	Version 1.0 30 March 2026	
Mining leases	No	Expiry
	CL 219	23 September 2044
	ML 1752	17 March 2038
	CCL 753	17 February 2034
	ML 1412	11 January 2038
	ML 1590	26 February 2028
	ML 1751	17 March 2038
	ML 1828	25 February 2043
Name of Lease holder(s)	Mt Thorley Operations Pty Ltd Warkworth Mining Limited Mount Thorley Coal Loading Ltd	
Date of Submission	30 March 2026	

1.0 THREE YEAR FORECAST – SURFACE DISTURBANCE ACTIVITIES

1.1 PROJECT DESCRIPTION

Mount Thorley Warkworth (MTW) is an integrated operation of two open cut mines, Warkworth Mining Limited (WML) and Mount Thorley Operations (MTO), managed by Coal & Allied (NSW) Pty Ltd, a wholly owned subsidiary of Yancoal Australia Limited (Yancoal). MTW is located 14 km south west of Singleton in the Hunter Valley region of New South Wales.

Development Consent for the Warkworth Continuation Project (SSD-6464) and Mount Thorley Operations 2014 Project (SSD-6465) was granted on 26 November 2015. A modification to the Warkworth Continuation Project (SSD-6464 MOD2) was granted on 27 May 2022.

The Projects are described in detail in the Environmental Impact Statements and supporting documents (EMGA Mitchell McLennan, June 2014), and the Modification Report (SSD-6464 MOD 2, September 2021).

1.2 DESCRIPTION OF SURFACE DISTURBANCE ACTIVITIES

1.2.1 Exploration Activities

MTW will continue to undertake exploration drilling to assess coal reserves. An Exploration Report is sent to Resources Regulator annually which outlines the status at site.

All exploration drilling activities are reviewed prior to commencement as part of MTW's Ground Disturbance Permit (GDP) process. Planned borehole locations and access tracks are assessed for environmental, cultural heritage, approval and mining title issues and necessary constraints and conditions are placed on drilling locations for each borehole location.

All boreholes are surveyed and if not required for monitoring purposes are cement sealed on completion. All casing is removed where practicable. However, in isolated holes, this may not be possible requiring the casing to be cut off below ground level. Borehole sites are then rehabilitated to an appropriate standard, as dictated by the GDP.

1.2.2 Construction Activities

Planned construction activities over the next three years will include:

Year 1 - 2026

- Construction of water management infrastructure ahead of mining in West Pit and North Pit.
- Extension of visual bund on northern side of Putty Road to limit view of Warkworth Pit.
- Construction of South Coal Handling and Preparation Plant (CHPP) Run of Mine (ROM) dust hoods.

Year 2 - 2027

- Construction of South Coal Handling and Preparation Plant (CHPP) Run of Mine (ROM) dust hoods.

Year 3 – 2028

- To be advised - updates will occur in future Forward Programs.

1.2.3 Mining Schedule

The proposed mining method within MTW is the same as that currently employed (drill & blast, truck and shovel/excavator, and dragline).

Pit progression will continue in a westerly direction in both North and West Pit at Warkworth. Mining is completed in Warkworth's South Pit and the South Pit void is currently being backfilled with overburden.

Describe the areas identified for emplacements, the sequencing of emplacements, construction, and management

Mining Domain 4 covers MTW's Overburden Emplacement Areas. Overburden is produced and disposed of within mined out sections of the open cut to create a final landform or designated out of pit emplacement area. Overburden material may be transferred to different areas at the site to assist in the creation of the final landform.

Mining progression in Warkworth's West and North Pits will provide overburden for continued construction of rehabilitation areas in North, West and South Pit overburden emplacements.

Overburden from West Pit will also be transferred to Mount Thorley to continue construction of rehabilitation areas in Mount Thorley and to construct a temporary stockpile of capping material for the Loders Pit Tailings Storage Facility (TSF) .

Capping of Tailings Dam 2 is planned to continue during the Forward Program period but will be dependent on geotechnical stability being suitable for the equipment undertaking the capping activities.

1.2.4 Infrastructure and Tailings Facilities

There are six tailings emplacements within the MTW mining area. These are:

- Tailings Dam No. 1, within CCL 753, currently nil activity for tailings emplacement. Capping and rehabilitation originally completed 2015. Partial disturbance of rehabilitated area in 2022 to allow dumping of NOOP excavation material. Rehabilitation of disturbed area was completed in 2025.
- Tailings Dam No. 2, within CCL 753, currently nil activity for tailings emplacement. Closure of the Redbank Power Station has resulted in cessation of ash disposal on Tailings Dam 2. Partial capping has been undertaken on Tailings Dam 2. Capping will continue with approximately 13.1ha planned to be rehabilitated during the Forward Program period.
- Centre Ramp Tailings Storage Facility (CR TSF), within CL 219, currently active.
- Ministrip Tailings Storage Facility, within CL 219, currently nil activity for tailings emplacement. Investigation of dredging the tailings out of this facility was conducted during 2025 but decision was made not to proceed. Further investigation into capping methods will be undertaken during the Forward Program period.
- Abbey Green South Tailings Storage Facility (AGS TSF), within CL 219, currently active.
- Eastern Tailings Dam, within CL 219, currently nil activity for tailings emplacement. Interim capping completed in 2023 with area now being used as a laydown/stockpile area.
- Loders Pit Tailings Storage Facility (LP TSF), within CL 219, currently active.

1.2.5 Waste Management

Waste disposal and materials handling operations over the next three years.

The handling and disposal of industrial and putrescible wastes generated from MTW is in accordance with the MTW Total Waste Management System (TWMS), local ordinances, and regulatory guidelines.

The site contains a specialised oil and grease storage facility which is a part of the fuel storage facility that meets Australian Standards. A licensed waste hydrocarbon disposal company removes and recycles waste hydrocarbons produced onsite. Soil material contaminated by hydrocarbons is treated in onsite bioremediation areas prior to disposal.

A licensed contractor removes recyclable wastes from site to a licenced recycling facility. Non-recyclable wastes are disposed of at a licenced waste facility. Heavy Mining Equipment tyres are disposed in pit as permitted by development consent and Environment Protection Licences.

The TWMS includes waste monitoring, particularly the recording of waste types, weight, and cost. These statistics are summarised and reported in the Annual Review, enabling MTW to assess waste management over long-term periods and identify opportunities to mitigate waste and contamination risks to rehabilitation.

1.3 KEY PRODUCTION MILESTONES

Table 1: Key Production Milestones (Three Year Forecast)

Material	Unit	Year 1 (2026)	Year 2 (2027)	Year 3 (2028)
Stripped Topsoil	(m3)	27,590	38,210	17,530
Rock / Overburden (Prime + Rehandle)	(m3)	117,887,550	114,762,719	123,571,366
Ore (Run of Mine (ROM))	(Mt)	17.40	17.60	17.50
Reject Material (Includes coarse rejects, tailings and any other wastes resulting from beneficiation)	(Mt)	5.5	5.6	5.7
Product	(Mt)	11.8	11.9	11.8

2.0 THREE-YEAR REHABILITATION FORECAST

Spatial depiction of progressive rehabilitation shown on **Figures 1 to 3** (Plans 2A to 2C).

2.1 REHABILITATION PLANNING SCHEDULE

Mining and rehabilitation will continue at MTW, with the majority of work completed at the North Pit, West Pit and Loders Pit areas. Mining will progress towards the west, with rehabilitation to occur behind this, as shown in the staged plans. The site undertakes a mining design process to maximise progressive rehabilitation.

Relevant stakeholder consultation that will be carried out over the next three years

Consultation with NSW Department of Planning, Housing and Infrastructure (DPHI), Water NSW, Conservation Programs, Heritage and Regulation (CPHR), Singleton Council, MTW Community Consultative Committee (CCC) and federal Department of Climate Change, Energy, the Environment and Water (DCCEEW) will occur with updates to the Rehabilitation Management Plan (RMP), as required by state and federal planning approvals. MTW will liaise with Resources Regulator and other relevant stakeholders on proposed rehabilitation completion criteria and changes to the Final Landform and Rehabilitation Plan.

As rehabilitation progresses, MTW will continue to consult with all relevant stakeholders regarding rehabilitation. Updates relating to rehabilitation will be outlined to the CCC.

Provide an overview of rehabilitation studies, risk assessments that will be carried out over the next three years

The rehabilitation risk assessment was updated by MTW in November 2025. Details of these risks and how they are managed are provided in the RMP. The rehabilitation risk assessment will be reviewed as required during the Forward Program period.

MTW are planning to undertake the following during the Forward Program period:

- Develop and submit site rehabilitation completion criteria.
- Investigate the potential for sharing reference site data collected by other mining operations in the Hunter Valley.
- Review the rehabilitation monitoring program and associated components of the RMP to be in line with the approved completion criteria.
- Development of rehabilitation records/quality assurance process.
- Conduct study to determine the source of overburden/interburden that has performed well as growth medium in previous rehab, investigate use as a topsoil substitute.
- Develop a LOM growth media strategy to optimise the whole of site rehab.
- Conduct an analysis of the final landform stability using a landform evolution model.
- Implement process (ArcGIS based) to be able to utilise the topofactor methodology to check the erosional risk of constructed landforms.
- Implementation of an extended water quality monitoring program in rehabilitation areas to assess the suitability of rehabilitation runoff compared to background water quality in local watercourses.
- Develop Property Management Plan for rehabilitation areas returning to grazing.
- Review seed mixes to ensure that appropriate species and rates are being applied to rehabilitation areas.

2.2 REHABILITATION MAINTENANCE AND CORRECTIVE ACTIONS

The following maintenance and corrective action activities will be undertaken to progress rehabilitation areas to final land use:

Zone A1 Sugar Gum Forest and Zone A2 Sugar Gum and Mixed Native Forest - weed management *Acacia saligna* and High Threat Exotics (HTEs); felling/mulching of sugar gum to make clearings for local species; soil testing and amelioration/fertiliser application; seeding/tubestock planting local species; seek expert advice on value of Sugar gum as foraging habitat for Regent Honeyeater and Swift Parrot in Hunter Valley.

Zone A3 Spotted Gum Forest (High Stem Density) - Mulching tracks and other areas to provide access and clearings for mid/understorey species; weed wiping/cut and paint in mulched areas to control regrowth; selective thinning canopy species; soil testing and amelioration/fertiliser application; seeding native seed mix (mid/low strata only).

Zone B1 Grassland - weed management *Acacia saligna* and HTEs (non-pasture species); soil testing and amelioration/fertiliser application; repair contour bank/tunnel erosion; install/maintain grazing infrastructure; introduce grazing.

Zone D1 Early Phase Woodland EEC and Zone D2 Intermediate Phase Woodland EEC - weed management *Galenia pubescens*, *Acacia saligna* and exotic grasses; inspections/monitoring results to determine interventions.

Zone D3 Poor Establishment (Topsoil) Woodland EEC - Boom spray trial areas; soil testing to check suitability of spoil as growth medium and amelioration required; trial topsoil scalping/smothering; seeding native seed mix (all strata); follow-up weed management of exotic grasses.

Zone D4 Poor Establishment (Spoil) Woodland EEC - weed management galenia and exotic grasses; trial repeated amelioration/ripping to improve soil structure; soil testing; seeding native seed mixes.

2.3 REHABILITATION SCHEDULE

MTW's progressive rehabilitation schedule is provided in **Figure 1 to 3** (Plans 2A – 2C). Mining continues to progress towards the west with rehabilitation occurring behind this.

Year 1 - 2026

- Continuation of rehabilitation of overburden emplacements in North Pit, West Pit, South Pit and Loders Pit.
- Continuation of capping activities on Tailings Dam 2, in accordance with geotechnical specifications.
- Progressive filling of South Pit from lower levels, dump heights restricted to ensure stability. Expected to generate rehabilitation areas in 2029.
- Progressive emplacement of capping material for Loders Pit TSF in temporary stockpile.

Year 2 - 2027

- Continuation of rehabilitation of overburden emplacements in North Pit, West Pit and Loders Pit.
- Continuation of capping activities on Tailings Dam 2.
- Progressive filling of South Pit.
- Progressive emplacement of capping material for Loders Pit TSF in temporary stockpile.

Year 3 – 2028

- Continuation of rehabilitation of overburden emplacements in North Pit, West Pit and Loders Pit.
- Continuation of capping activities on Tailings Dam 2, with rehabilitation on completed areas in the eastern portion.
- Progressive filling of South Pit.
- Progressive emplacement of capping material for Loders Pit TSF in temporary stockpile.

2.4 SUBSIDENCE REMEDIATION FOR UNDERGROUND OPERATIONS

There are no underground workings in the project approval areas.

2.5 REHABILITATION RESEARCH AND TRIALS

MTW will undertake the trials listed in Table 2 during the Forward Program period:

Further details on the outcomes of the trials will be reported in the Annual Rehabilitation Report, through the Resources Regulator's Portal.

Table 2: List of Active Rehabilitation Research and Trials (Three Year Forecast)

No.	Project/Trial Name	Objective of Project/Trial	Methodology	Expected Date of Completion	Completion Date Update	Status	On Track
1	Transition to Native Trees/Shrub Using Selective Grass Herbicide (RRT0001149)	Transition areas that are dominated with exotic grasses to native vegetation.	Utilise selective grass herbicides to control exotic grasses, follow up sowing with native tree/shrub seed mixes to increase native vegetation establishment.	31/12/2027	31/12/2027	Ongoing	Yes
2	Compost Type Trial (Spoil/Compost Application) (RRT0001150)	Rehabilitation trials to test if different types of compost result in improved native vegetation establishment in spoil/compost applications.	Application of 2 types of compost: Bettergrow (with Biosolids) and LOOP Biomix to a rehabilitation area with mine spoil as growth medium. Trial areas seeded with diverse native seed mix and monitored to detect differences in native vegetation establishment.	31/12/2027	31/12/2027	Ongoing	Yes
3	Topsoil Scalping/Smothering (RRT0001165)	Transition areas that are dominated with exotic grasses to native vegetation.	<p>Soil testing to determine suitability of spoil as a growth medium.</p> <p>If spoil is suitable conduct trial of topsoil scalping: scalp topsoil to remove weed seed load; ameliorate/fertilise spoil; rip/cultivate spoil; seed native seed mix in scalped area.</p> <p>If spoil is unsuitable conduct trial of topsoil smothering: import suitable subsoil/spoil material to provide 100mm cover over weed affected topsoil; ameliorate/fertilise spoil, seed native seed mix in covered areas.</p> <p>Weed control of exotic grasses.</p>	31/12/2028	31/12/2028	Not started	N/A

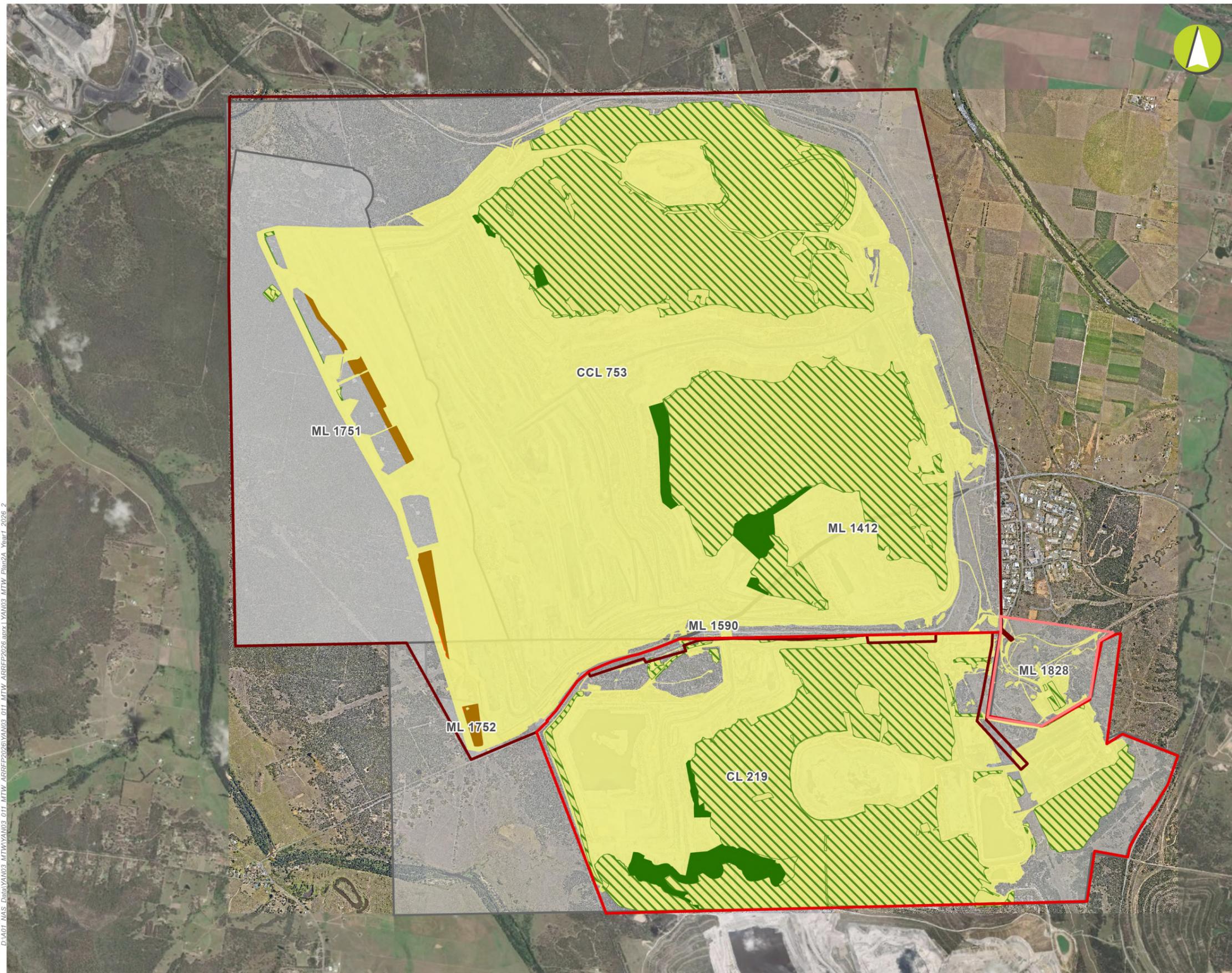
4	Spoil Growth Medium Amelioration (RRT0001166)	Ameliorate spoil with poor agronomic properties to establish native vegetation.	<p>Weed management to prevent ingress of galenia and exotic grasses.</p> <p>Trial repeated application of gypsum/compost to improve soil structure. Deep ripping with each ameliorant application to aerate spoil and incorporate ameliorants.</p> <p>Soil testing following each amelioration application to measure improvements in spoil properties.</p> <p>Conduct annual seeding of native seed mixes to gauge if soil improvements translate into improved native species germination.</p>	31/12/2028	31/12/2028	Not started	N/A
5	Soil Preparation Methods (RRT0001167)	Assess soil preparation methods for erosion stability and establishment of native vegetation	<p>Undertake soil preparation using different methods i.e. aerator, contour ripping and cultivation within gently sloping and steep rehabilitation areas.</p> <p>Monitor rehabilitation in early establishment phase to measure erosional stability and native vegetation establishment.</p>	30/06/2028	30/06/2028	Not started	N/A

Table 3: List of Inactive Rehabilitation Research and Trials

No.	Project/Trial Name	Objective of Project/Trial	Methodology	Expected Date of Completion	Status	On Track
1	Bursaria spinosa Germination	Germination testing: 1) if freezing pre-treatment of seed	Subject seed to freezing temps pre-treatment and run a germination trial with the following treatments:	30/11/2023	Complete	Yes

	Trial (RRT0001088)	improves germination rates; and 2) if germination rates in MTW topsoil's and spoils are comparable to seed raising mix.	Provenance 1(Hunter Valley) control/seed raising mix; Prov. 1 freeze treatment/seed raising mix; Prov. 1 freeze treatment/typical MTW topsoil; Prov. 1 freeze treatment/typical MTW spoil/ameliorant. Provenance 2(Coonabarabran) control/seed raising mix; Prov. 2 freeze treatment/seed raising mix; Prov 2 freeze treatment/typical MTW topsoil; Prov. 2 freeze treatment/typical MTW spoil/ameliorant.			
2	Compost Type Trial (Spoil/Compost Application) (RRT0001089)	Rehabilitation trials to test if different types of compost result in improved native vegetation establishment in spoil/compost applications.	Application of 3 types of compost: Remondis (coarse), Remondis (with fines), Bettergrow (with Biosolids) to a rehabilitation area with mine spoil as growth medium. Trial areas seeded with diverse native seed mix and monitored to detect differences in native vegetation establishment.	30/06/2024	Complete	Yes

Figure 1: Plan 2A: Mining and Rehabilitation - Year 1 (2026)



LEGEND

Project Approval Number

- SSD 6464 - Warkworth
- SSD 6465 - Mount Thorley
- ML 1828 - Mount Thorley Coal Loader

Current Authorisations

- Relevant Minerals Title

Forecast Area Type - Year 1 (2026)

- Forecast Disturbance (2026)
- Forecast Land Prepared for Rehabilitation (2026)
- Rehabilitation to be Disturbed (2026)
- Previous Rehabilitation
- Previous Disturbance

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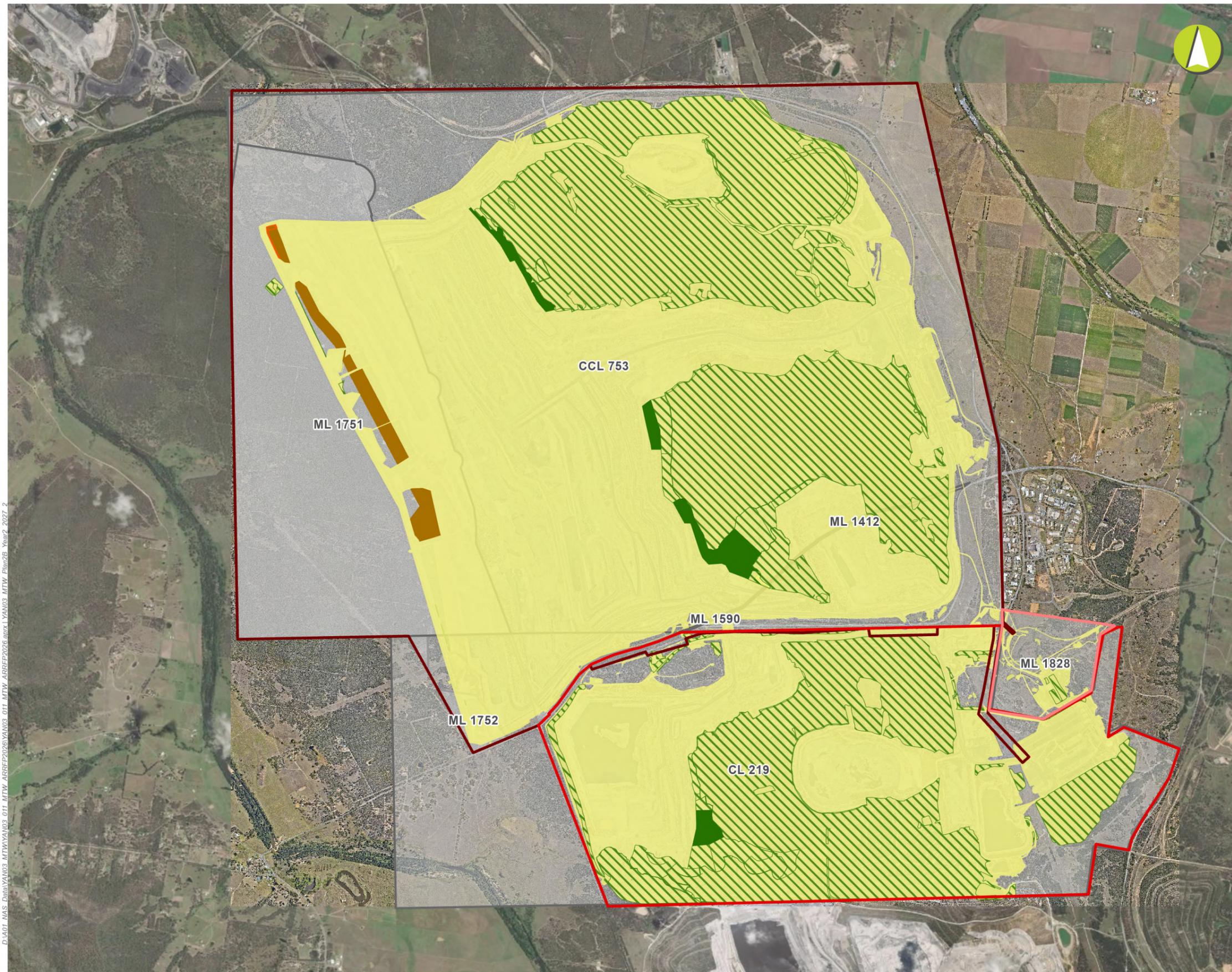
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Mount Thorley Warkworth Complex

Mining and Rehabilitation Year 1 - 2026 PLAN 2A

Mine name	Mount Thorley Warkworth Complex
Plan name	Mount Thorley Warkworth FP
Year of anticipated relinquishment	To be determined closer to closure
Data theme submission ID No.	TBD
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	26/03/2026

Figure 2: Plan 2B: Mining and rehabilitation - Year 2 (2027)



LEGEND

Project Approval Number

- SSD 6464 - Warkworth
- SSD 6465 - Mount Thorley
- ML 1828 - Mount Thorley Coal Loader

Current Authorisations

- Relevant Minerals Title

Forecast Area Type - Year 2 (2027)

- Forecast Disturbance (2027)
- Forecast Land Prepared for Rehabilitation (2027)
- Rehabilitation to be Disturbed (2027)
- Previous Rehabilitation
- Previous Disturbance

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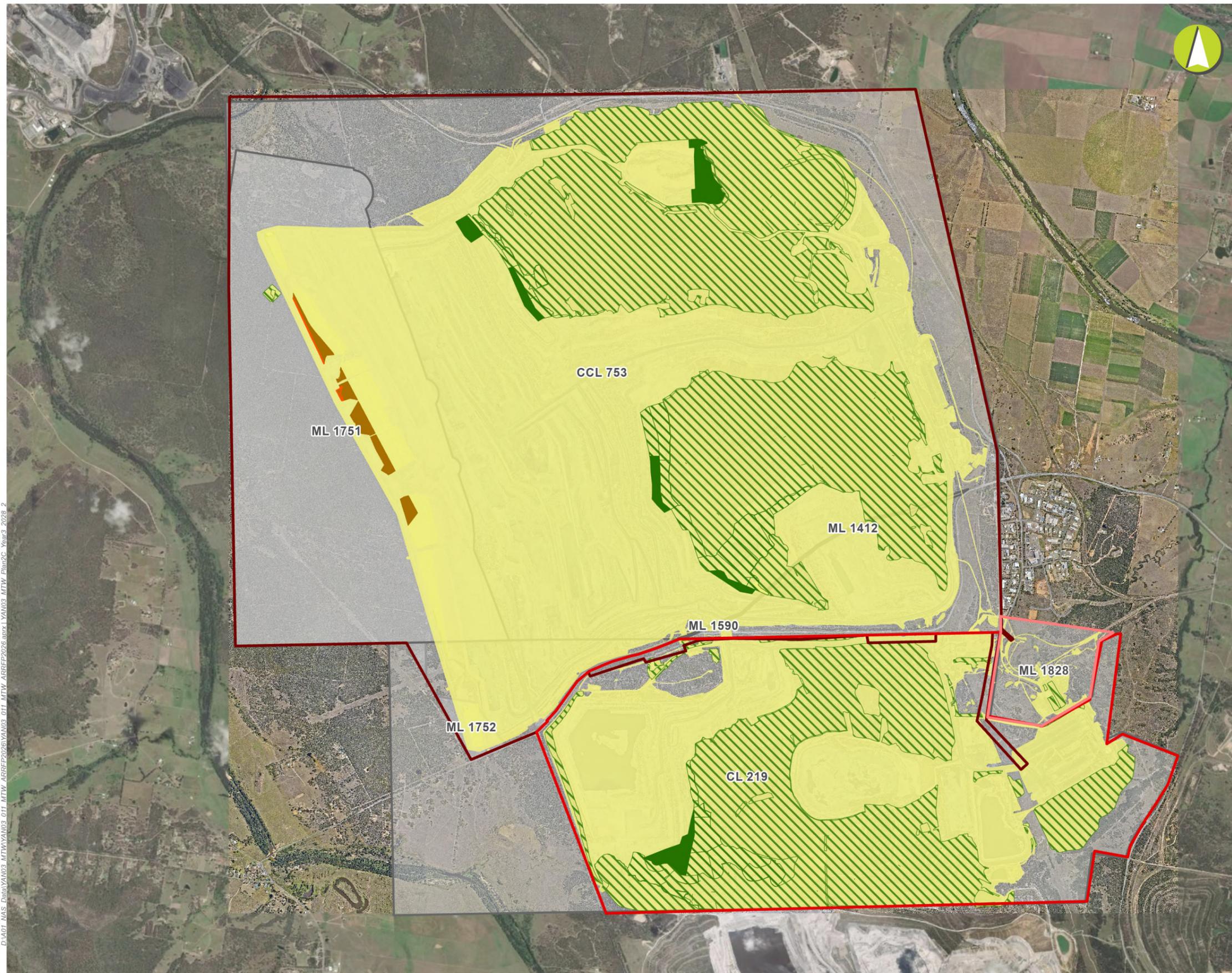
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Mount Thorley Warkworth Complex

Mining and Rehabilitation Year 2 - 2027 PLAN 2B

Mine name	Mount Thorley Warkworth Complex
Plan name	Mount Thorley Warkworth FP
Year of anticipated relinquishment	To be determined closer to closure
Data theme submission ID No.	TBD
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	26/03/2026

Figure 3: Plan 2C: Mining and Rehabilitation - Year 3 (2028)



LEGEND

Project Approval Number

- SSD 6464 - Warkworth
- SSD 6465 - Mount Thorley
- ML 1828 - Mount Thorley Coal Loader

Current Authorisations

- Relevant Minerals Title

Forecast Area Type - Year 3 (2028)

- Forecast Disturbance (2028)
- Forecast Land Prepared for Rehabilitation (2028)
- Rehabilitation to be Disturbed (2028)
- Previous Rehabilitation
- Previous Disturbance

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Mount Thorley Warkworth Complex

Mining and Rehabilitation Year 3 - 2028 PLAN 2C

Mine name	Mount Thorley Warkworth Complex
Plan name	Mount Thorley Warkworth FP
Year of anticipated relinquishment	To be determined closer to closure
Data theme submission ID No.	11966
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	27/03/2026

3.0 PROGRESSIVE MINING AND REHABILITATION STATISTICS

Table 4: Predicted Cumulative Disturbance and Rehabilitation Progression

	Item	Year 1 (2026)	Year 2 (2027)	Year 3 (2028)
A	Total disturbance footprint – surface disturbance (Ha)	4,302.81	4,341.03	4,358.55
B	Total active disturbance (Ha)	2,633.55	2,627.56	2,605.26
P	Rehabilitation – land preparation (Ha)	75.51	119.71	159.54

Note: the figures presented in Table 4 are outputs from the Mine Rehabilitation (GIS) Portal.

Table 5: Progressive Rehabilitation Key Performance Indicators

	Item	Year 1 (2026)	Year 2 (2027)	Year 3 (2028)
O	Total new active disturbance area during reporting period (Ha)	28.38	38.21	17.53
P	Total new area of land proposed for active rehabilitation during the reporting period (Ha)	75.51	44.2	39.83
Q	Annual Rehabilitation to disturbance ratio (Ha)	2.66	1.16	2.27

Note: the figures presented in Table 5 are outputs from the Mine Rehabilitation (GIS) Portal.