

ARR0001184

MAULES CREEK MINE COMPLEX ANNUAL REHABILITATION REPORT

Sunday 1 January 2023 to Sunday 31 December 2023

Contents

Summary table-1

Important-1

Mine details.....-1

 Project description.....-1

 Life of mine-1

 Current development consents, leases and licences.....-1

 Changes to land ownership and land use-1

Surface disturbance and rehabilitation activities during the reporting period-1

Disturbance and rehabilitation statistics-1

 Current disturbance and rehabilitation progression-1

 Rehabilitation key performance indicators (KPIs)-1

 Progressive achievement of established rehabilitation.....-1

 Variation to the rehabilitation schedule.....-1

Rehabilitation monitoring and research findings-1

 Rehabilitation monitoring.....-1

 Status of performance against rehabilitation objectives and rehabilitation completion criteria-1

 Outcomes of rehabilitation research and trials13

Attachment 1 – Reporting Definitions15

Attachment 2 – Definitions.....18

Attachment 3 – Rehabilitation Complaints.....24

Attachment 4 – Stakeholder consultation.....-1

Attachment 5 – Plans.....26

Summary table

DETAIL	
Mine	Maules Creek Mine Complex
Reference	ARR0001184
Annual report period commencement date	Sunday 1 January 2023
Annual report period end date	Sunday 31 December 2023
Forward program	FWP0001159
Mining leases	ML 1701 (1992), ML 1719 (1992), CL 375 (1973)
Lease holder(s)	ICRA MC PTY LTD, J-POWER AUSTRALIA PTY LTD, ASTON COAL 2 PTY LTD
Contact	Emma Bulkeley
Date of submission	Monday 5 February 2024

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

Maules Creek Coal Mine (MCCM) is an open cut coal mine located in the north-west of NSW, approximately 18 km north-east of Boggabri and 55km north of Gunnedah. MCCM is owned and operated by Maules Creek Coal Pty Ltd, a joint venture between Aston Coal 2 Pty Ltd (wholly owned subsidiary of Whitehaven), ITOCHU Coal Resources Australia Maules Creek Pty Ltd (wholly owned subsidiary of Itochu Corporation) and J-Power Australia Pty Ltd (wholly owned subsidiary of Electric Power Development Company). On 23 October 2012, NSW Planning Assessment Commission, a delegate of the NSW Minister for Planning and Infrastructure, issued approval for MCCM under PA 10_0138. The commonwealth minister for Sustainability, Environment, Water, Population and Communities granted the MCCM Commonwealth approval EPBC 2010/5566 on 11 February 2013. This Annual Rehabilitation Report (ARR) covers the 12-month period between 1 January 2023 and 31 December 2023.

Life of mine

10 years

Current development consents, leases and licences

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

PA100138
PA100138
PA100138
PA100138
PA100138
PA100138
PA100138

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

ML 1701 (1992), ML 1719 (1992), CL 375 (1973)

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

PA10-0138
EPBC No. 2010/5566
A346

AUTH346

EPL20221

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

MOD 8 was approved in 2022 relating to the burial of tyres and mobile crushing plant. MOD 9 is currently in the Assessment phase according to the NSW Planning, Major Projects portal. MCCM applied for MOD 9 (November 2022), seeking the Modification to authorise: • changes to the existing biodiversity offset strategy; and • construction and use of an electricity transmission line (ETL) to the Roma Bore.

Changes to land ownership and land use

No changes to land ownership and land use related to the land have occurred during the 2023 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

Exploration drilling (disturbance) has been undertaken to assess the coal reserves at MCCM. The focus on ongoing exploration drilling will most likely include:

- Exploration within ML 1701 and CL 375; and
- Delineation of outlying coal prospective areas.

Disturbance has occurred for ongoing mining activities as per the Forward Program with clearance managed as per the Biodiversity Management Plan and other site plans. MCCM disturbed a new area of approximately 31ha in the period between 1 January 2023 to 31 December 2023. This is consistent with the scheduled 31ha in the previous ARRF for the year. Rehabilitation continued in 2023, with a total of 297ha recorded as rehabilitated at MCCM as of December 2023. MCCM completed approximately 21ha of rehabilitation in the period between 1 January 2023 to 31 December 2023. The rehabilitation progress over 2023 was as scheduled in the previous ARRF for the year. During 2023 more topsoil was stripped than anticipated, this has been used as prime topsoil in rehabilitation works, or stockpiled in the north west for future rehabilitation works. Where possible MCC utilized direct placement of topsoil from the stripping areas. Less overburden and product coal was mined during the 2023 year, this was due to wet weather impacts resulting in mining not progressing as planned. Additionally an increase in rejects has been reported however the number reported accounts for water which is used in the coal washing process.

Rehabilitation planning activities that were conducted, including any specialist studies

There were no specific changes to rehabilitation planning activities. Rehabilitation planning was completed as per Section 6 of the RMP. This includes details of the different rehabilitation phases including:

- Active mining;
- Decommissioning;
- Landform establishment (including planning);
- Growing medium development;
- Ecosystem and land use establishment; and
- Ecosystem and land use development.

Quality assurance and record keeping was completed as per Section 7 of the RMP. There were no specific studies relating to closure.

Overview of subsidence repair and/or remediation works undertaken

This section is not applicable. MCCM does not have any subsidence or underground workings at the site.

Overview of rehabilitation management and maintenance activities

Rehabilitation continued on the northern overburden emplacement area. In particular the 2023 rehabilitation was in the north west. Maules Creek completed the following maintenance and corrective actions over the reporting period:

- Weed and feral animal control of rehabilitation;
- Erosion control works;
- Maintenance fertilising;
- Re-seeding (approximately 30 hectares).
- Seeding of temporary topsoil stockpiles

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

No government actions or directives.

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

No areas were relinquished during the 2023 reporting period.

Key production milestones

MATERIAL	UNIT	FWP0001159 YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m ³)	97,000	178,670
Rock/overburden	(m ³)	75,000,000	62,178,549
Ore	(Mt)	12,500,000	11,653,467
Reject material¹	(Mt)	2,600,000	2,961,698
Product	(Mt)	8,800,000	7,217,970

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
A Total surface disturbance footprint	(ha)	1,888.96
B Total active disturbance	(ha)	1,591.87
C Land prepared for rehabilitation	(ha)	0
D Ecosystem and land use establishment	(ha)	297.09
E Ecosystem and land use development	(ha)	0
F Rehabilitation completion	(ha)	0

Rehabilitation key performance indicators (KPIs)

ELEMENT	UNIT	THIS REPORT
G Total new active disturbance area	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
H New rehabilitation commenced during annual reporting period	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
I Established rehabilitation	(ha)	0
J Annual rehabilitation to disturbance ratio	%	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
K Rehabilitated land to total mine footprint	%	0

Progressive achievement of established rehabilitation

ELEMENT		UNIT	THIS REPORT
L	Established rehabilitation - agricultural final land uses	%	0
M	Established rehabilitation - native ecosystem final land uses	%	0
N	Established rehabilitation - 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

No variation to Rehabilitation schedule. MCCM completed approximately 21ha of rehabilitation in the period between 1 January 2023 to 31 December 2023, as per the previous Forward Program schedule.

Key factors that delayed progressive rehabilitation

Wet weather during 2022/2023 has resulted in the out of pit dump not progressing as quickly as previously scheduled. As a result the 2024 rehabilitation schedule has been reduced as not all previously scheduled areas will be available in 2024. No other variation to the rehabilitation schedule.

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

The site will endeavour to complete works as per the Forward Program. This includes regular discussion on mining progress, life of mine planning and ensuring the site has experienced staff and contractors to implement the rehabilitation program. The goal is to maximise rehabilitation and minimise disturbance.

Rehabilitation monitoring and research findings

Rehabilitation monitoring

The rehabilitation monitoring carried out in the annual reporting period

As per previous inputs regarding the rehabilitation monitoring program. There have been no specific specialist reports relating to ecology, water quality, agronomy. Monitoring conducted in 2023 indicated that rehabilitation is progressing positively. Fourth year rehabilitation has met all mean and minimum completion criteria requirements. First, second and third year's rehabilitation has also met all completion criteria requirements with the exception mean percentage of the over-story canopies. All sites achieved the minimum requirements for each completion criteria parameter. Another positive trend has been the reduction in exotic species cover, from a total average of 47.55% recorded in 2022 to 8.94% in 2023. Feral animal activity in the rehabilitation areas has increased in 2023, subsequent culling programs have been implemented to reduce occurrences.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

From monitoring conducted in 2023, results indicate that rehabilitation is progressing positively. Fourth year rehabilitation has met all mean and minimum completion criteria requirements. Third, second and first year's rehabilitation has also met all completion criteria requirements with the exception of the over-story canopies mean percentage. All sites achieved the minimum requirements for each completion criteria parameter. A reduction in exotic species cover has been identified in 2023, from a total average of 47.55% recorded in 2022 to 8.94% in 2023. Following monitoring conducted in 2022, monitoring site MR5 was considered to be performing below expectations with poor ground cover and a high percentage of exotic cover. 2023 results indicate MR5 has improved, with an increase in native ground cover from 10% in 2022 to 38% in 2023 and a reduction in exotic cover from 42% in 2022 to 19% in 2023. Rilling and minor gully erosion still persists, however further deterioration has not occurred.

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 rehabilitation monitoring report results the site is trending against the objectives and unapproved completion criteria.

Appraisal description

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

Rehabilitation monitoring program findings

The site completes a sign off process for the different rehabilitation phases. Greenfields Agricultural and Environmental Services (2023) completed rehabilitation monitoring and is summarised below. Plots and transects are established randomly, or stratified randomly within the rehabilitation, accounting for the level of variation. Establishing or stratifying plots and transects randomly may be done by: (a) marking points randomly on the map of rehabilitation in the assessment area and establishing plots and transects at all or some of these points, or (b) pacing a random distance into the rehabilitation. The survey data is subsequently collected from that point, with the process repeated elsewhere within the rehabilitation (BBAM, OEH 2014). A total of 16 sites were selected as monitoring locations for the 2023 monitoring program, which were established in previous monitoring rounds. Five new sites were established as part of the 2023 monitoring program. Analysis of the 2023 monitoring results indicate a positive progression in rehabilitation with total average increases in mid-storey cover percentage, over-storey cover percentage and total ground cover percentage. Total average for mid-storey cover increased 11.64%, over-storey cover increased .45% and native ground cover increased 10.18% from monitoring results in 2022. Another positive progression were the results for exotic cover, which recorded a decrease of 38.61%, from 47.77% recorded in 2022 to 8.94% in 2023. A decline in native species richness occurred in 2023 from 28.64% in 2022 to 17.25% in 2023. This result is expected as vegetation matures, woody vegetation (mid and over-storey species) and dominant grasses become more prevalent decreasing diversity. As with previous monitoring MR11 recorded the highest values across most parameters. MR11 recorded the highest ground cover percentage with 90%, tied lowest exotic cover with 2%, 21% native species richness, 38% mid-storey cover and 6% over-storey cover. The most recent completed rehabilitation sites namely MR14, MR15 and MR16 recorded the lowest percentages across most parameters, recording no mid or over storey species present and very low ground cover percentages. Monitoring conducted in 2023 recorded a total of 176 species within the 16 monitoring plots, including 117 native species and 59 exotic species. This is a reduction of 23 species from the previous year's monitoring. Following review of the supplementary soils sampling report, rehabilitation

areas that do not contain the appropriate growth media (topsoil) to support and maintain native vegetation, MCCM must also consider implementing appropriate remediation protocols.

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

Nil, otherwise than normal rehabilitation maintenance.

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
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A
RR0001184

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

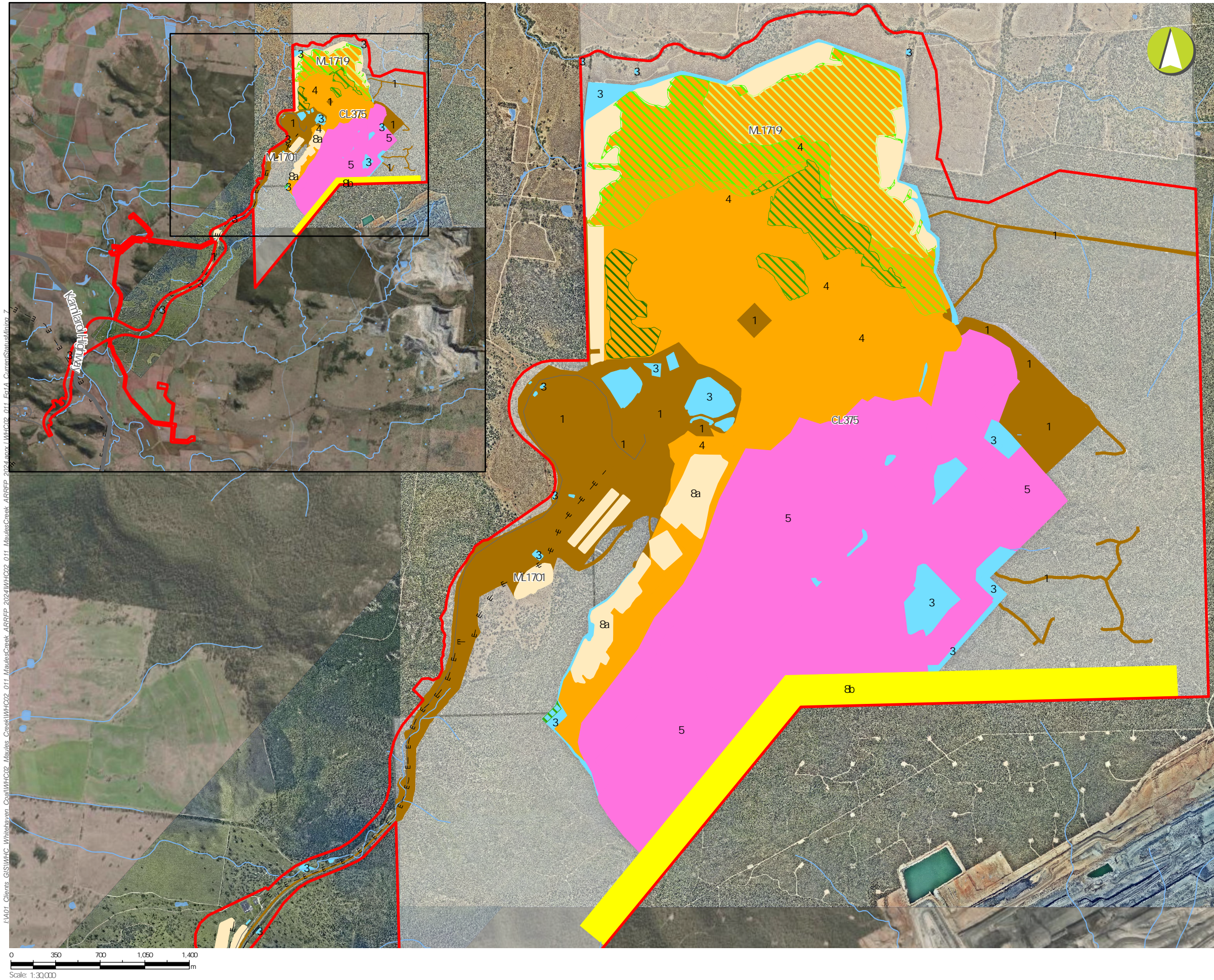
DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
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Attachment 5 – Plans

WHC02_011_Fg1A_CurrentStatusMining_V02.pdf

WHC02_011_Fg1B_CurrentLFContours.pdf

Annual Report (LARGE MINE) v1.6



LEGEND

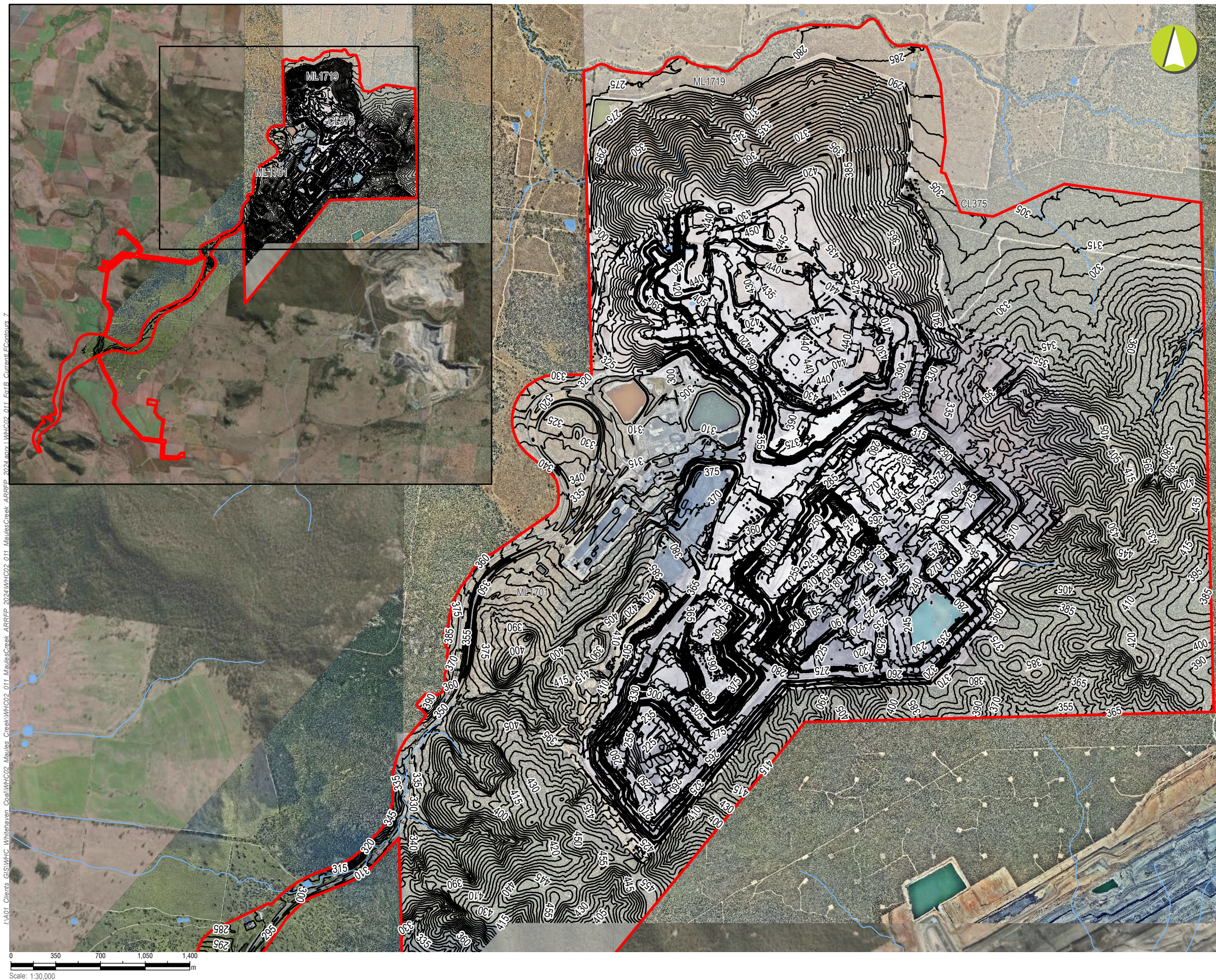
- Project Approval Boundary
- Road
- Watercourse
- Waterbody
- Electricity Transmission Line
- Current Authorisations
 - Coal - Current Titles
- Rehabilitation Phase and Year Landform Established
 - Ecosystem and Land Use Establishment (2019)
 - Ecosystem and Land Use Establishment (2020)
 - Ecosystem and Land Use Establishment (2021)
 - Ecosystem and Land Use Establishment (2022)
 - Ecosystem and Land Use Establishment (2023)
- Mining Domain Type
 - Domain 1 - Infrastructure Area
 - Domain 3 - Water Management Area
 - Domain 4 - Overburden Emplacement Area
 - Domain 5 - Active Mining Area (Open cut void)
 - Domain 8a - Other (Stockpile Material)
 - Domain 8b - Other (Biodiversity Corridor)

Maules Creek Mine

Current Status of Mining and Rehabilitation
PLAN 1A

Mine name	Maules Creek Mine
Plan name	Maules Creek Mine
Year of anticipated relinquishment	TBA following Portal Submission
Data theme submission ID No.	TBA following Portal Submission
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	1/02/2024

\\A01.Clients.GIS\\MHC.Whitehaven.Coal\\MHC02.MaulesCreek\\MHC02.011.MaulesCreek.ARREP.2024.mxd\\MHC02.011.MaulesCreek.CurrentContours.7



LEGEND

- Project Approval Boundary
- Current Landform Contours (5m)
- Road
- Watercourse
- Waterbody
- Current Authorisations
- Coal - Current Titles

Maules Creek Mine

Current Landform Contours PLAN 1B

Mine name	Maules Creek Mine
Plan name	Maules Creek Mine
Year of anticipated relinquishment	TBA following Portal Submission
Data theme submission ID No.	TBA following Portal Submission
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	9/09/2022