



ENVIRONMENTAL MANAGEMENT STRATEGY

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Environmental Management Strategy

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1 INTRODUCTION

1.1 Background

Maxwell Ventures (Management) Pty Ltd (Maxwell), a wholly owned subsidiary of Malabar Resources Limited (Malabar) owns and operates the Maxwell Underground (UG) Project (the site). The site is located in the Upper Hunter Valley of New South Wales (NSW), east-southeast of Denman and south-southwest of Muswellbrook. The site is approved to extract a maximum of 8 million tonnes of run-of-mine coal per year over a period of 26 years. The site boundary is shown in **Figure 1**.

The site consists of the following areas:

- Underground area comprising the proposed area of underground mining operations and the mine entry area (MEA) to support underground mining and coal handling activities and provide for personnel and materials access;
- Maxwell Infrastructure (formerly Drayton mine) comprising previous open cut mining areas, existing coal handling and preparation plant (CHPP), train load-out facilities and rail loop, Antiene rail spur and other infrastructure and services; and
- Transport and services corridor between the underground area and Maxwell Infrastructure comprising the proposed site access road, covered overland conveyor, power supply and other ancillary infrastructure and services.

The area within and surrounding the site, which has previously been known as Mt Arthur South, Saddlers Creek and Drayton South, has long been identified as having a significant in-situ coal resource. Prospecting for coal commenced in the late 1940s, with exploration intensifying during the 1960s and 1970s. Open cut coal extraction and mining activities commenced at Maxwell Infrastructure in 1983 and ceased in October 2016. The previous open cut mining area is currently in the rehabilitation phase of the mine operations.

The Development Consent for State Significant Development 9526 (Development Consent SSD 9526) was granted on 22 December 2020 under clause 8A of the *State Environmental Planning Policy (State and Regional Development) 2011* and section 4.5(a) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The development consent was modified on 19 November 2021 (Maxwell MOD1) to allow for the repositioning of infrastructure primarily at the MEA and realignment of a section of the site access road. The development consent was further modified (Maxwell MOD2) on 19 October 2022 to allow for the following:

- Re-orientation of the longwall panels in the Woodlands Hill, Arrowfield and Bowfield Seams resulting in a minor increase in the approved underground mining extent.
- Reduction in the width of some of the longwall panels in the Woodlands Hill Seam.
- Repositioning of the upcast ventilation shaft site and associated infrastructure.
- Other minor works and ancillary infrastructure components (e.g. access road and ancillary water management infrastructure for the repositioned ventilation shaft site).

The site also incorporates the development formerly authorised under the Maxwell Infrastructure Project Approval (PA) 06_0202. Development Consent DA 106-04-00 for the existing rail loop and Antiene Rail Spur was granted on 2 November 2000 under Section 76(A)9 and 80 of the EP&A Act. DA 106-04-00 was modified on 18 September 2023 (Antiene MOD1) to align with the approved operating life of the Maxwell Underground Project (i.e. until 2047).

1.2 Purpose and Scope

The purpose of this Environmental Management Strategy (EMS) is to provide the strategic framework for environmental management of the site. This EMS identifies the statutory approvals that apply to the site, including plans required under Development Consent SSD 9526 and Development Consent DA 106-04-00.

Plans and procedures for environmental monitoring, community and stakeholder engagement, complaints management, dispute resolution, management of non-compliances and incidents, and emergency response to ensure compliance with the Development Consent SSD 9526 and Development Consent DA 106-04-00 are included in this EMS. The role, responsibility, authority and accountability of all key personnel involved in the environmental management of the site are detailed in this strategy.

This EMS, along with a series of environmental management plans and associated documents, form the Environmental Management System for the site. This EMS applies to all activities within the SSD 9526 development application area and the Antiene Rail Spur Development Consent DA 106-04-00 boundary.

In Accordance with Schedule 2, Condition E2 of Development Consent SSD 9526, Maxwell will not commence construction until this EMS is approved by the Planning Secretary. Maxwell will notify the Department of Planning and Environment (DPE) in writing of the date of commencement of construction at least two weeks before the commencement date in accordance with Schedule 2, Condition A13(b) of Development Consent SSD 9526.

In accordance with Schedule 2, Part C, Condition C1(a) of DA 106-04-00, this EMS was submitted for approval within 6 months of the approval of Antiene MOD1.

1.3 Objectives

The objectives of this EMS are to:

- Provide the strategic framework for environmental management;
- Identify the statutory requirements that apply to the site;
- Describe in general how environmental performance will be monitored and managed;
- Describe the key environmental processes implemented at the site; and
- Describe the key roles, responsibilities, authorities and accountabilities involved in environmental management.

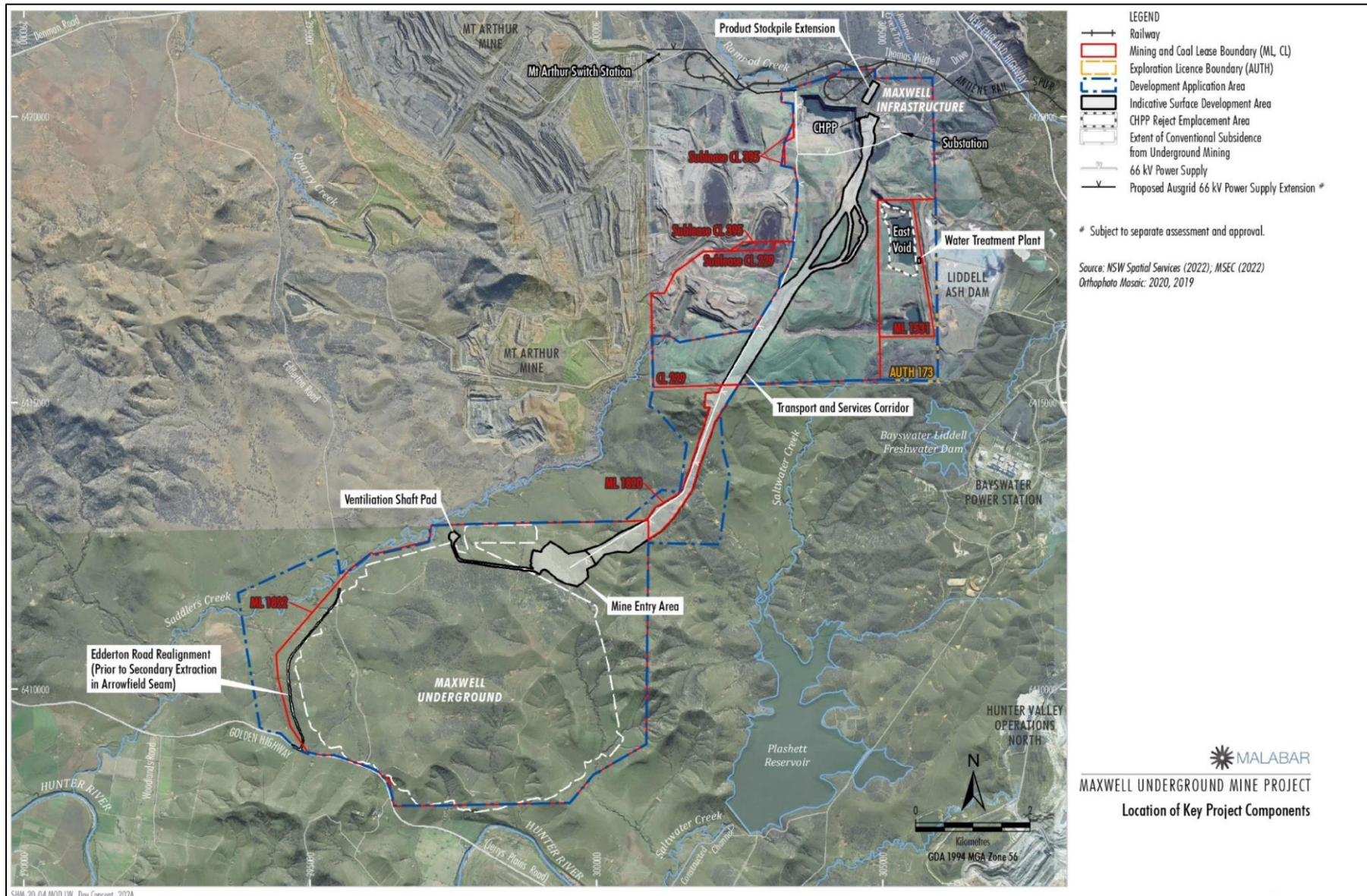


Figure 1. Maxwell Underground Project

Maxwell Complex

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2 PLANNING

2.1 Statutory Approvals

Statutory approvals that apply to the Maxwell UG Project are listed in **Table 1**.

Table 1. Statutory approvals

Statutory Approval	Description
Development Consent SSD 9526	Development Consent issued under Section 4.36 of the EP&A Act for the Maxwell UG Project.
Development Consent DA 106-04-00	Development Consent issued under Section 4.55(2) of the EP&A Act for use of the existing Drayton Rail Loop and Antiene Rail Spur.
EPBC 2018/8287	Approval under sections 130(1) and 133(1) of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
EPL1323	Environment Protection Licence (EPL) issued under Section 55 of the <i>Protection of the Environment Operations Act 1997</i> (POEO Act) for mining for coal and coal works.
ML 1531	Mining Lease issued under the <i>Mining Act 1992</i> .
CL 229	Coal Lease issued under the <i>Mining Act 1973</i> .
CL 395	Coal Lease issued under the <i>Mining Act 1973</i> .
ML 1820	Mining Lease issued under the <i>Mining Act 1992</i> for ancillary mining activities.
ML 1822	Mining Lease issued under the <i>Mining Act 1992</i> for underground coal mining.
A 173	Authorisation issued under the <i>Mining Act 1992</i> .
WAL 41559	Water Access Licence issued under the <i>Water Management Act 2000</i> for aquifer water extraction.
WAL 41491 ¹	Water Access Licence issued under the <i>Water Management Act 2000</i> for aquifer water extraction.
WAL 41234	Water Access Licence issued under the <i>Water Management Act 2000</i> for aquifer water extraction.
WAL 43166	Water Access Licence issued under the <i>Water Management Act 2000</i> for aquifer water extraction.
WAL 39739	Water Access Licence issued under the <i>Water Management Act 2000</i> for aquifer water extraction.
WAL 43160	Water Access Licence issued under the <i>Water Management Act 2000</i> for aquifer water extraction.
WAL 39792	Water Access Licence issued under the <i>Water Management Act 2000</i> for aquifer water extraction.
20BL171953	Bore licence issued under the <i>Water Act 1912</i> for a test bore.

Statutory Approval	Description
20BL171954	Bore licence issued under the <i>Water Act 1912</i> for a test bore.
20BL171955	Bore licence issued under the <i>Water Act 1912</i> for a test bore.
20BL171956	Bore licence issued under the <i>Water Act 1912</i> for a test bore.
20BL171957	Bore licence issued under the <i>Water Act 1912</i> for a test bore.
20BL174016	Bore licence issued under the <i>Water Act 1912</i> for a monitoring bore.
20BL174017	Bore licence issued under the <i>Water Act 1912</i> for a monitoring bore.
20BL174018	Bore licence issued under the <i>Water Act 1912</i> for a monitoring bore.

¹ WAL 41491 is held by AGL Macquarie Pty Ltd.

2.2 Regulatory Requirements for the EMS

This EMS is required in accordance with Schedule 2, Condition E1 of Development Consent SSD 9526 and Schedule 2, Condition C1 of Development Consent DA 106-04-00. This EMS describes monitoring and management to meet relevant statutory requirements within Development Consent SSD 9526 and Development Consent DA 106-04-00. The various conditions that relate to this EMS and where they are addressed in this document are detailed in **Appendix 1**.

2.3 Maxwell Project EIS and Supporting Document Commitments

The Maxwell UG Project Environmental Impact Statement (EIS) was published on 14 August 2019. There are no commitments in the EIS and supporting documents that specifically relate to this EMS.

2.4 Preparation and Consultation

The EMS was prepared in consultation with the Maxwell Community Consultative Committee (CCC).

3 IMPLEMENTATION

In accordance with Schedule 2, Condition E3 of Development Consent SSD 9526, Maxwell will implement this EMS, following approval by the Planning Secretary. A copy of the approval from the Planning Secretary is included in **Appendix 2**.

3.1 Environmental Management Framework

3.1.1 Malabar Environmental Policy

Maxwell is guided by the Malabar Environmental Policy. The policy confirms Malabar's commitment to minimising our impacts and conserving ecological processes in the communities that we share, by operating in an environmentally responsible manner. The Malabar Environmental Policy commits to the following key principles:

- Establishing and promoting good environmental practices into all activities and decision-making processes;
- Maintaining a risk-based approach to managing environmental impacts to achieve a level as low as reasonably practical; and
- Promoting a culture of sustainability and social responsibility within our operations and surrounding communities.

3.1.2 Management Plans and Strategies

Underpinning the Malabar Environmental Policy are the environmental management plans and strategies. Environmental management plans and strategies have been developed to identify potential environmental impacts and specify how they will be managed, to meet the requirements of Development Consent SSD 9526 and Development Consent DA 106-04-00. The management plans will also be consistent with the conditions of any Environment Protection Licence (EPL) issued for the site.

Where appropriate, procedures or forms are also in place to support their implementation. Together, these documents form the Environmental Management System for the site. The framework of the environmental management system to meet the requirements of the Development Consent SSD 9526 and Development Consent DA 106-04-00 is shown in **Table 2**.

Table 2. Environmental Management Documents

Plan or Strategy	Requirement	Approval Authority	Timing
Rehabilitation Management Plan Includes Rehabilitation Objectives, Rehabilitation Completion Criteria and the Final Landform and Rehabilitation Plan.	SSD 9526	Resources Regulator	Prior to construction
Biodiversity Management Plan Describes the Offset Strategy. Establishes baseline data for threatened species and provides for the adaptive management of potential impacts and environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna.	SSD 9526	DPE	Prior to construction
Spontaneous Combustion Management Plan Outlines controls for the management of spontaneous combustion.	SSD 9526	DPE	Prior to construction
Noise and Blast Management Plan Outlines controls for the management of noise and blasting.	SSD 9526	DPE	Prior to construction
Air Quality and Greenhouse Gas Management Plan Outlines controls for the management of air quality and greenhouse gases and includes a Centralised Gas Management Plan.	SSD 9526	DPE	Prior to construction
Water Management Plan Outlines controls for the management of water. Incorporates the Site Water Balance, Salt Balance, Erosion and Sediment Control Plan, Brine Management Plan, Surface Water Management Plan, Groundwater Management Plan.	SSD 9526	DPE	Prior to construction
Visual Impact Management Plan Outlines measures to minimise lighting impact and a landscaping strategy.	SSD 9526	DPE	Prior to construction
Aboriginal Cultural Heritage Management Plan Outlines controls for the management of Aboriginal cultural heritage.	SSD 9526	DPE	Prior to construction
Exploration Activities and Minor Surface Infrastructure Management Plan Describes measures to be implemented for exploration activities associated with the	SSD 9526	DPE	Prior to construction

Plan or Strategy	Requirement	Approval Authority	Timing
underground mining operations that would cause temporary surface disturbance, or the construction and/or upgrade of minor surface infrastructure on the site.			
Traffic Management Plan Outlines controls to minimise safety issues and disruption, protocols for repairs.	SSD 9526	DPE	Prior to construction
Bushfire Management Plan Outlines asset protection measures and assistance to the RFS in the event of a fire in the vicinity.	SSD 9526	None	Prior to construction
Contaminated Materials Protocol Describes the procedures to be implemented in the event that potentially contaminated material is identified during construction.	SSD 9526	DPE	Prior to construction
Rehabilitation Strategy Includes a life of mine rehabilitation and mining schedule which outlines the key progressive rehabilitation milestones from the commencement of operations through to decommissioning and mine closure.	SSD 9526	DPE	Prior to first workings
Social Impact Management Plan Outlines measures to minimise negative social impacts and secure and enhance positive impacts.	SSD 9526	DPE	Prior to first workings
Extraction Management Plan Provides for the management of potential impacts and environmental consequences of the proposed underground workings on watercourses and aquifers. Outlines controls for the management of riparian vegetation, surface water and groundwater.	SSD 9526	DPE	Prior to second workings
Subsidence Monitoring Program Describes the ongoing conventional and non-conventional subsidence monitoring program.	SSD 9526	DPE	Prior to second workings
Built Features Management Plan Describes management of the potential subsidence impacts of the proposed underground workings on built features.	SSD 9526	DPE	Prior to second workings
Water Management Plan Provides for the management of potential impacts and environmental consequences of the proposed underground workings on watercourses and aquifers. Outlines controls for the management of riparian vegetation, surface water and groundwater.	SSD 9526	DPE	Prior to second workings
Biodiversity Management Plan Establishes baseline data for threatened species, populations and their habitats. Provides for adaptive management of potential impacts of proposed second workings and the active management of <i>Diuris tricolor</i> .	SSD 9526	DPE	Prior to second workings
Land Management Plan Provides for the management of potential impacts and/or environmental consequences of the	SSD 9526	DPE	Prior to second workings

Plan or Strategy	Requirement	Approval Authority	Timing
proposed underground workings on land in general, with a specific focus on steep slopes.			
Historic Heritage Management Plan Outlines controls for the management of non-Aboriginal cultural heritage.	SSD 9526	DPE	Prior to second workings
Public Safety Management Plan Ensures public safety and manages access on the site.	SSD 9526	DPE	Prior to second workings
Trigger Action Response Plan/s Includes appropriate triggers to warn of increased risk of exceedance of any performance measure and specific actions to respond to high risk of exceedance of any performance measure.	SSD 9526	DPE	Prior to second workings
Contingency Plan Provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure listed in Development Consent SSD 9526.	SSD 9526	DPE	Prior to second workings

3.1.3 Management Plan Requirements

In accordance with Schedule 2, Condition E5 of Development Consent SSD 9526, management plans will be prepared in accordance with relevant guidelines, and will include:

- a) a summary of relevant background or baseline data.
- b) details of:
 - (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - (ii) any relevant limits or performance measures and criteria; and
 - (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures.
- c) any relevant commitments or recommendations identified in the document/s listed in condition A2(c).
- d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria.
- e) a program to monitor and report on the:
 - (i) impacts and environmental performance of the development; and
 - (ii) effectiveness of the management measures set out pursuant to condition E5(d).
- f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible.
- g) a program to investigate and implement ways to improve the environmental performance of the development over time.
- h) a protocol for managing and reporting any:
 - (i) incident, non-compliance or exceedance of any impact assessment criterion or performance criterion;
 - (ii) complaint; or
 - (iii) failure to comply with other statutory requirements.
- i) public sources of information and data to assist stakeholders in understanding environmental impacts of the development.
- j) a protocol for periodic review of the plan.

3.1.4 Staging of Management Plans and Strategies

In accordance with Schedule 2, Condition A24(a) of Development Consent SSD 9526, Maxwell have obtained approval from the Planning Secretary to stage the Air Quality and Greenhouse Gas Management Plan and Water Management Plan and these plans have been prepared for stage 1 activities only. Stage 1 activities include early preparatory works, construction and first workings (as defined in SSD 9526). The Air Quality and Greenhouse Gas Management Plan and Water Management Plan will be updated prior to the commencement of second workings.

3.1.5 Environmental Management Objectives

For all relevant environmental aspects, Maxwell's objectives are to:

- Identify potential impacts;
- Implement controls to minimise potential impacts;
- Determine appropriate criteria to assess environmental performance;
- Monitor environmental performance;
- Manage community complaints in a timely and effective manner; and
- Ensure relevant statutory requirements are met.

These objectives and how they are to be achieved are detailed for individual environmental aspects in the corresponding environmental management plans.

3.1.6 Document Structure

For ease of review and implementation, all environmental management plans, including this document, are structured as follows:

1. Introduction
2. Planning
3. Implementation
4. Measurement and evaluation
5. Audit, review and improvement
6. Information, training and instruction
7. Responsibilities
8. Document Information
9. Appendices

The content of each section remains as consistent as possible in all plans.

3.1.7 Access to Management Plans and Strategies

In accordance with Schedule 2, Condition E17(a) of Development Consent SSD 9526 and Schedule 2, Part C, Condition C11(a) of DA 106-04-00, approved strategies, plans and programs required under Development Consent SSD 9526 will be publicly available on Malabar's website at:

<https://malabarresources.com.au/corporate-governance/>.

4 MEASUREMENT AND EVALUATION

4.1 Monitoring Plan

Maxwell undertakes monitoring to confirm baseline conditions for later assessment of performance and impacts and to determine compliance with regulatory requirements. All monitoring to be undertaken to meet conditions of Development Consent SSD 9526 and Development Consent DA 106-04-00 is summarised in **Table 3**. The rationale, performance criteria and methodology for each aspect monitored are detailed in the relevant management plan (refer to **Table 2**).

Table 3. Monitoring Plan

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Rehabilitation	Topsoil	Every five years	To confirm that the growth media is not likely to inhibit the sustainable development of a vegetative cover.	Rehabilitation Management Plan
Rehabilitation	Land and soil capability assessment	Every five years	To assess whether land is suitable for the intended final land use.	Rehabilitation Management Plan
Rehabilitation	Feed sample analysis on pasture rehabilitation	Prior to and during grazing activities	To monitor pasture health and assist with determining the carrying capacity of the land.	Rehabilitation Management Plan
Rehabilitation	Landform stability monitoring	Every five years	To identify any significant areas of active erosion.	Rehabilitation Management Plan
Rehabilitation	Post rainfall inspections	Following rainfall greater than 25 mm in 24 hours	To check for scouring of diversion drains (and their outlets) and accumulation of sediment in sediment traps (including sediment fences, sediment basins, etc.)	Rehabilitation Management Plan
Rehabilitation	Spontaneous combustion of rehabilitation areas.	Annually	To prevent the development or to control the spread of spontaneous combustion.	Rehabilitation Management Plan
Rehabilitation	Flora: - BAM vegetation sampling - Walkover inspections	Annually in Spring	Comparison with reference sites to assess achievement of completion criteria.	Rehabilitation Management Plan, Biodiversity Management Plan
Rehabilitation	Fauna	Every two years	To determine if vegetation has structure suitable to support fauna.	Rehabilitation Management Plan, Biodiversity Management Plan
Rehabilitation	Pest fauna	Annually	To assist with the implementation of any control programs (i.e. baiting or trapping).	Rehabilitation Management Plan, Biodiversity Management Plan
Spontaneous combustion	Inspection of spontaneous combustion in active areas.	Daily inspection during any rehabilitation or construction activities.	To identify any spontaneous combustion outbreak that is new or has increased in intensity, or any landform stability issues associated with the oxidation of carbonaceous material and inform remediation actions.	Spontaneous Combustion Management Plan

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Spontaneous combustion	Inspection of known spontaneous combustion outbreaks and areas where spontaneous combustion remediation works have been undertaken in the previous twelve months.	Monthly	Determine requirement for remediation actions.	Spontaneous Combustion Management Plan
Spontaneous combustion	Inspection of known spontaneous combustion outbreaks and areas where spontaneous combustion remediation works have been undertaken in the previous twelve months.	One to two weeks following a rain event, where more than 20mm of rainfall is recorded in one day or more than 50mm is recorded in three days	Determine requirement for remediation actions.	Spontaneous Combustion Management Plan
Spontaneous combustion	Thermal aerial survey	Annually	To identify areas of heating on a site-wide basis and assess the integrity of existing capping. Determine requirement for remediation actions.	Spontaneous Combustion Management Plan
Noise	Attended noise	Monthly	To assess compliance with operational noise criteria.	Noise and Blasting Management Plan
Noise	Real-time noise	Continuous	To allow the site to respond to high level noise events or community complaints.	Noise and Blasting Management Plan
Meteorology	Meteorological stations. Wind speed and direction, temperature, relative humidity, precipitation, atmospheric pressure, solar radiation, sigma theta.	Continuous	Provides the site with information to allow for the most appropriate response (noise and air quality controls) to changes in weather conditions.	Noise and Blasting Management Plan, Air Quality and Greenhouse Gas Management Plan
Blasting	Blast vibration and overpressure for surface construction blasting via temporary blast monitors	Each surface construction blast	Compliance with blasting criteria.	Noise and Blasting Management Plan
Air Quality	Deposited dust	Monthly	Compliance with deposited dust criteria.	Air Quality and Greenhouse Gas Management Plan

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Air Quality	Airborne particulate matter	Continuous	Compliance with PM _{2.5} , PM ₁₀ and TSP criteria.	Air Quality and Greenhouse Gas Management Plan
Air Quality	Airborne particulate matter	Continuous	PM ₁₀ for internal management to inform requirement for additional dust controls.	Air Quality and Greenhouse Gas Management Plan
Site water balance and salt balance	Monitoring includes • Site rainfall. • Dam and void water levels. • Pump rates between storages. • Water quality of storages. • Actual demand rates for dust suppression, vehicle washdown and construction activities. • Volume estimates for any off-site uncontrolled overflows.	Site water balance and salt balance will be reviewed annually	Assess compliance with water performance measures in Development Consent SSD 9526.	Water Management Plan - Water Balance and Salt Balance sub-plan.
Erosion and sediment control	Inspections of erosion and sediment control structures and rehabilitated areas.	At least weekly inspections during construction. Post-rainfall inspections after 25 mm of rain in a 24-hour period (25 mm within 24 hours, midnight to midnight, with a new rainfall event considered to have commenced if there has not been a rainfall event in the previous 48 hours).	Identify potential erosion and sediment control issues requiring remediation.	Water Management Plan - Erosion and Sediment Control sub-plan.
Surface water quality	Water quality of mine water storages.	Quarterly	Assess compliance with water performance measures in Development Consent SSD 9526.	Water Management Plan - Surface Water Management sub-plan.

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Surface water quality	Inspections of high-risk water storage.	Following storm events of more than 25 mm in a 24-hour period (25 mm within 24 hours, midnight to midnight, with a new rainfall event considered to have commenced if there has not been a rainfall event in the previous 48 hours). These inspections continue until the effects of the rainfall event have subsided.	To confirm that no uncontrolled overflows of mine-affected water off-site have occurred.	Water Management Plan - Surface Water Management sub-plan.
Surface water quality	Depth, flow rate, temperature, total flow in Saddlers Creek.	Continuous	Provide data to support a water quality data and water management related activities.	Water Management Plan - Surface Water Management sub-plan.
Surface water quality	Sample collection at monitoring sites on watercourses upstream and downstream of the underground area.	Quarterly (if the waterway is flowing) and following 25 mm of rain over a 24-hr period. Within 24 hours of commencement of overflow from a sedimentation dam or mine water dam.	Comparison with water quality trigger values. Trigger values are values that trigger further investigation or management action.	Water Management Plan - Surface Water Management sub-plan.
Geomorphological monitoring	Geomorphological baseline monitoring.	Baseline LiDAR surveys of the underground area have already been undertaken.	Baseline geomorphology prior to the commencement of second workings, to determine the impact of second workings on stream morphology and compliance with water performance measures in Development Consent SSD 9526.	Water Management Plan - Surface Water Management sub-plan. (Further information on subsidence monitoring will be included in the subsequent Water Management Plan that would form part of the Extraction Plan).

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Stream health	Extent of riparian vegetation, the extent of erosion and sedimentation deposits and Swamp Oak health.	Quarterly	Indicator of baseline stream health and to provide supplementary information on potential geomorphic impacts to drainage lines, to determine the impact of second workings on stream morphology and compliance with water performance measures in Development Consent SSD 9526.	Water Management Plan - Surface Water Management sub-plan. (Further information on subsidence monitoring will be included in the subsequent Water Management Plan that would form part of the Extraction Plan).
Groundwater quality	Analysis of groundwater samples.	pH, electrical conductivity, redox potential and temperature quarterly, full chemical analysis biennially. Except bore DS1 which has pH, electrical conductivity and total dissolved solids monitored monthly.	To determine impacts of Maxwell Infrastructure and first workings and compliance with water performance measures in Development Consent SSD 9526. Baseline data to determine the impact of second workings on groundwater quality. DS1 monitoring is in accordance with EPL 1323 Condition U1.1.	Water Management Plan - Groundwater Management sub-plan.
Groundwater levels	Groundwater level determined manually, or via sensor and data logger.	Monthly for standpipes, continuous for bores with data loggers.	To determine impacts of Maxwell Infrastructure and first workings and compliance with water performance measures in Development Consent SSD 9526. Baseline data to determine the impact of second workings on groundwater levels.	Water Management Plan - Groundwater Management sub-plan.
Groundwater yield, quality and levels	Privately owned bores potentially impacted by cumulative MAC mining activities and second workings at site.	Annually	To assess if cumulative MAC mining activities and second workings at site are impacting privately owned bores.	Water Management Plan - Groundwater Management sub-plan.
Groundwater model	Hydrogeological data will be collected, including details on lithology, groundwater intersection and intersection of structures (i.e. faults and dykes) and made available as required for future groundwater investigations and/or updates to the model.	Every three years the validity of the groundwater model predictions will be assessed. An updated groundwater simulation model will be developed if required.	Compliance with Project EIS commitment and management plan commitment. The groundwater model will be used to assess compliance with water performance measures in Development Consent SSD 9526.	Water Management Plan - Groundwater Management sub-plan.

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Aboriginal cultural heritage	Visual subsidence monitoring inspections during and post-secondary workings.	Monthly visual inspections of potentially affected Aboriginal archaeological sites when the longwall face is approaching within 100 metres and continuing until at least 200 metres past that point. Visual inspections of potentially affected archaeological sites once the longwall face has retreated at least 500 metres past that point.	To measure the subsidence impacts or loss of heritage values against predictions in the document/s listed in condition Schedule 2, Part A, Condition A2(c) of SSD 9526. Monitoring will also be undertaken to determine if any Aboriginal archaeological sites have or will be impacted above the underground mining area	Aboriginal Cultural Heritage Management Plan.
Aboriginal cultural heritage	Visual inspections of Aboriginal archaeological sites surrounding the CHPP and train loading facility that were conserved under preceding PA 06_0202 and stone quarry AHIMS site 3-37-2-1954 and the previously recorded location of stone quarry AHIMS site 37- 2-1955. Check the boundary fence/temporary fencing installed along the southern portion of the transport and services corridor and mine entry area.	Every three years	To determine if any Aboriginal archaeological sites have been impacted. Confirm condition of fencing and signage associated with Aboriginal archaeological sites to confirm it is adequate and functional in restricting any unauthorised access.	Aboriginal Cultural Heritage Management Plan.
Bushfire	Inspection of asset protection zones and access tracks that can be used as fire trails.	Annually in August or as needed.	To ensure the grass is mown and leaves and vegetation debris are removed from the asset protection zones around the site. To assess if there are sufficient tracks for fire-fighting access and if tracks require maintenance.	Bushfire Management Plan

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Visual Impact	Tree screen establishment monitoring for the mine entry area tree screen and the Edderton Homestead tree screen (if requested to be planted by the landowner or tenant). Monitor survival rate, tree height, tree width, screening capability and identify any impacts from weeds, feral animals and grazing (where appropriate).	At least annually for at least the first five years after installation. Once the tree screen has been established (i.e. five years after planting), annual monitoring will be undertaken.	To assess the survival rate, tree height, tree width and identify any impacts from weeds, feral animals and grazing (where appropriate). To measure the visual impact and determine the effectiveness of the tree screen.	Visual Impact Management Plan
Visual Impact	Visual impact monitoring from representative viewpoints.	Annually	To determine any discrepancies between the predicted and actual view.	Visual Impact Management Plan
Lighting	During construction only (i.e. when mobile lighting plants are more likely to be used) night time lighting impact inspections will be undertaken.	Monthly during construction	To determine if there are any direct lighting impacts (i.e. lights shining off site and towards sensitive receptors).	Visual Impact Management Plan
Lighting	Inspection of the MEA, transport and services corridor, and infrastructure at Maxwell Infrastructure.	Annually	An annual inspection of the MEA, transport and services corridor, and infrastructure at Maxwell Infrastructure, to ensure lighting mitigation measures described in Section 3.4.2 Visual Impact Management Plan are being implemented.	Visual Impact Management Plan
Traffic	Light and heavy vehicle movements to and from the site and on Thomas Mitchell Drive to the east and west of the Site Access Road.	During the peak of the initial construction stage, during the peak operational stage in the short term (Project Year 6), and during the peak operational stage in the longer term (Project Year 13).	To evaluate traffic volumes against the relevant assumptions and predictions in the Project EIS.	Traffic Management Plan

Aspect	Monitoring type	Minimum frequency of monitoring	Purpose	Further details
Traffic	Road dilapidation surveys of the transport route.	Pre-construction and post-construction (within one month of the completion of construction).	To establish increase in traffic load and the change in pavement condition due to construction traffic.	Traffic Management Plan
Social impact	Social impacts, in accordance with Social Impact Management Plan (SIMP). Number of complaints, evidence of liaison with landholders and engagement with government agencies.	Ongoing, as described in the SIMP	To determine effective of mitigation measures	Social Impact Management Plan

4.2 Cumulative Impact Management

Details on the management of cumulative impacts are detailed in the environmental management plans. This includes protocols for communications between neighbouring mines to allow cumulative impacts to be managed. Details are provided in the:

- Noise and Blasting Management Plan
- Air Quality and Greenhouse Gas Management Plan

4.3 Complaints Handling

The Maxwell UG Project maintains a 24-hour community hotline (1800 653 960) for any issues or enquiries. In addition to the community hotline, the site can also be contacted by emailing info@malabarresources.com.au.

In accordance with Schedule 2, Condition B12(e)(iv) and Condition E5(h)(ii) of Development Consent SSD 9526, if a complaint or enquiry is received regarding environmental impacts, it is investigated as soon as reasonably practicable and managed in accordance with Maxwell's *Community Complaints and Enquiries Procedure*. Details such as complainant name, contact details, nature of concern, date, time and method of receipt are recorded. While details of the enquiry vary depending on the nature and source of the enquiry, the following actions will be undertaken:

- Confirmation of whether the complainant would like the matter raised as a complaint or an enquiry.
- Identify further details which may assist in determining the cause of the complaint.
- Carry out an inspection of the site or conduct an assessment of monitoring results to identify the source.
- Identify if there is an exceedance or non-compliance with any consent or licence condition.
- Identify, where necessary and practical, methods to manage the source of the complaint and minimise the chance of a recurrence or the potential to generate further complaints.

All enquiries and/or complaints are recorded in an enquiries database. A summary of complaints is presented to the CCC and included in the Annual Review and EPL Annual Return. In accordance with Schedule 2, Condition E17(a)(x) a complaints register, updated monthly will be publicly available on Malabar's website at <https://malabarresources.com.au/corporate-governance/>.

4.4 Dispute Resolution

Maxwell will take all reasonable steps to resolve concerns raised by members of the community. However, in the instance that an issue regarding compliance with Development Consent SSD 9526 or DA 106-04-00 is raised by a community member and cannot be resolved, the matter will be referred by either party to the Planning Secretary for resolution in accordance with the relevant consent conditions.

In this instance, the Planning Secretary may require an independent review to be undertaken to determine if Maxwell is complying with impact assessment criteria at a landowner's property. Depending on the findings of the review, Maxwell may implement further reasonable and feasible measures, carry out further monitoring or secure a written agreement with the landowner.

4.5 Compensatory Water Supply

Should monitoring or an investigation show greater than 2 metres of drawdown at a privately-owned bore, and the drawdown is directly attributable to the Maxwell UG Project, compensatory water supply measures for the affected groundwater user will be implemented, and may include:

- deepening the affected groundwater bore;
- construction of a new groundwater bore; and/or
- provision of an alternative water supply of suitable quality and quantity.

Any compensatory water supply will be provided in consultation with DPE Water and to the satisfaction of the Planning Secretary. The compensatory water supply measures shall provide an alternative long-term supply of water that is equivalent, in quality and volume, to the loss attributable to the development. Equivalent water supply should be provided (at least on an interim basis) as soon as practicable after the loss is identified, unless otherwise agreed with the landowner. If Maxwell and the landowner cannot agree on whether the loss of water is to be attributed to the development or the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution. If Maxwell is unable to provide an alternative long-term supply of water, then Maxwell shall provide compensation, to the satisfaction of the Planning Secretary.

In the event of any complaint relating to a privately-owned licensed groundwater bore which may, in the opinion of the Planning Secretary, have been adversely and directly impacted as a result of the development (other than an impact that is minor or negligible), Maxwell shall, as soon as practicable, facilitate the provision of a temporary water supply, pending the outcome of any groundwater investigation and/or the provision of an alternative long-term supply of water, to the satisfaction of the Planning Secretary.

4.6 Independent Review by Landowner

In accordance with Schedule 2, Condition D7 of Development Consent SSD 9526, if a landowner considers the development to be exceeding any relevant air quality or noise criterion in PART B of the Development Consent SSD 9526, they may ask the Planning Secretary in writing for an independent review of the impacts of the development on their residence or land.

In accordance with Schedule 2, Condition D8 of Development Consent SSD 9526, if the Planning Secretary is not satisfied that an independent review is warranted, the Planning Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 21 days of the request for a review.

In accordance with Schedule 2, Condition D9 of Development Consent SSD 9526, if the Planning Secretary is satisfied that an independent review is warranted, within three months, or other timeframe agreed by the Planning Secretary and the landowner, of the Planning Secretary's decision, Maxwell shall:

- commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to;
 - consult with the landowner to determine their concerns;
 - conduct monitoring to determine whether the development is complying with the relevant criteria in PART B or PART C of Development Consent SSD 9526; and
 - if the development is not complying with the relevant criterion, identify measures that could be implemented to ensure compliance with the relevant criterion; and
- give the Planning Secretary and landowner a copy of the independent review; and
- comply with any written requests made by the Planning Secretary to implement any findings of the review.

4.7 Incident and Non-Compliance Response

An incident is defined in Development Consent SSD 9526 and DA 106-04-00 as an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance.

In accordance with Schedule 2, Condition E9 of Development Consent SSD 9526 and Schedule 2, Part C, Condition C5 of DA 106-04-00, Maxwell shall notify DPE and the EPA, immediately after it becomes aware of an incident. The notification shall be in writing via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

A *Pollution and Incident Response Management Plan* (PIRMP) is maintained in accordance with the requirements of the Part 5.7A of the POEO Act and Chapter 7, Part 3A of the *Protection of the Environment Operations* (General) Regulation 2009. Any pollution incident that causes actual or potential material harm will be reported to the relevant agencies immediately after it is identified, as described in the PIRMP. A copy of the PIRMP is located on Malabar's website at: <https://malabarresources.com.au/corporate-governance/>.

In accordance with Schedule 2, Condition E10 of Development Consent SSD 9526 and Schedule 2, Part C, Condition C6 of DA 106-04-00, Maxwell shall notify DPE within seven days of becoming aware of a non-compliance. The notification shall be in writing via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of Development Consent SSD 9526 that the Project is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

In accordance with Schedule 2, Condition D5 of Development Consent SSD 9526, as soon as practicable and no longer than seven days after obtaining monitoring results showing an exceedance of any noise or air quality criterion in PART B of Development Consent SSD 9526, Maxwell will provide the details of the exceedance to any affected landowners, tenants and the Community Consultative Committee (CCC). In accordance with Schedule 2, Condition D6 of Development Consent SSD 9526, affected landowners and tenants will be provided with a copy of the fact sheet "Mine Dust and You" (NSW Health, 2017), as soon as practicable and no longer than seven days after obtaining monitoring results showing an exceedance of any of the criteria in Table 3 of the Development Consent for SSD 9526.

4.8 Adaptive Management and Contingency Plan

In accordance with Schedule 2, Condition E4 of Development Consent SSD 9526 and Schedule 2, Part C, Condition C2 of DA 106-04-00, where any exceedance of performance measures has occurred, Maxwell shall, at the earliest opportunity:

- Take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- Consider all reasonable and feasible options for remediation (where relevant) and submit a report to DPE describing those options and any preferred remediation measures or other course of action; and
- Implement reasonable remediation measures as directed by the Planning Secretary.

In accordance with Schedule 2, Condition E5 (f) of Development Consent SSD 9526, the following contingency plan is used to manage any unpredicted impacts and their consequences, and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible:

- Review the unpredicted impact with consideration of any relevant activities and monitoring data;
- Identify the most likely source of the unpredicted impact;
- Review the existing process and current controls; and
- Implement appropriate mitigation measures.

4.9 Emergency Response

An Emergency Response Plan (ERP) has been developed for the site and provides a framework to allow the efficient and effective management of incidents, regardless of their size, type or complexity. This ERP has been prepared to meet the requirements of the *Work Health and Safety Act 2011*, *Work Health and Safety Regulations 2011*, *Work Health and Safety (Mines) Act 2013* and the *Work Health and Safety (Mines) Regulations 2014*.

The ERP includes the emergency protocol for the sites (including initiation, evacuation, first aid facilities and emergency equipment), incident classifications and how to manage an incident in particular the activation of an incident management team.

The Maxwell UG Project does not have an on-site emergency response team and therefore if additional emergency services are required, a call to '000' should be made immediately. All personnel will be trained in emergency response relevant to their role, including safe operation of relevant equipment. If external services are required, a Malabar escort vehicle should be sent to the front gate to ensure any external emergency services can promptly travel into the site and or to the incident location.

5 AUDIT, REVIEW AND IMPROVEMENT

5.1 Review Schedule

The suitability of this EMS will be reviewed in accordance with Schedule 2, Condition E7 of Development Consent SSD 9526 and Schedule 2, Part C, Condition C3 of DA 106-04-00, that is within three months of:

- The submission of an incident notification under condition E9/C5;
- the submission of an Annual Review under condition E11;
- the submission of an Independent Environmental Audit under condition E13/C7;
- the approval of any modification of the conditions of Development Consent SSD 9526 or DA 106-04-00; or
- notification of a change in development phase under condition A13.

In accordance with Schedule 2, Part E, Condition E8 of SSD 9526 and Schedule 2, Part C, Condition C4 of DA 106-04-00, if necessary, to improve the environmental performance of the site, cater for a modification or comply with a direction, this plan will be revised. The revised plan will be submitted to DPE for approval within six weeks of the review.

5.2 Reporting, Auditing and Access to Information

In accordance with Schedule 2, Condition E17 of Development Consent SSD 9526 and Schedule 2, Part C, Condition C11 of DA 106-04-00, before the commencement of construction and within 3 months of the approval of Antiene MOD1 until the completion of all rehabilitation required under Development Consent SSD 9526 and DA 106-04-00, Maxwell will make the following information and documents publicly available on Malabar's website (<https://malabarresources.com.au/corporate-governance/>):

- The documents listed in Table 2 of this document.
- All current statutory approvals for the development.
- The proposed staging plans for the development.
- Minutes of CCC meetings.
- Regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent.
- A comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs.
- A summary of the current phase and progress of the development.
- Contact details to enquire about the development or to make a complaint.
- A complaints register, updated monthly.
- The Annual Reviews of the development.
- Audit reports prepared as part of any Independent Environmental Audit of the development and the Maxwell's response to the recommendations in any audit report.

This information shall be kept up to date, to the satisfaction of the Planning Secretary.

5.2.1 Annual Review

Preparation and publishing of the Annual review will be a key part of Maxwell's strategy to keep the community and relevant agencies informed about the operation and environmental performance of the development. In accordance with Schedule 2, Condition E11 of Development Consent SSD 9526, by the end of March in each year after the commencement of the development, or other timeframe agreed by the Planning Secretary, an Annual Review report will be submitted to DPE. The Annual Review will include the following:

- A description of the development that was carried out in the previous calendar year and the development proposed to be carried out over the current calendar year.
- A comprehensive review of air quality and greenhouse gas results and complaints over the previous calendar year.
- A description of non-compliances which occurred in the previous calendar year and actions that were (or are being) taken to rectify the non-compliance and avoid reoccurrence.
- Evaluation of the effectiveness of air quality and greenhouse gas management measures.
- Trends in monitoring data and any discrepancies between predicted and actual impacts.
- Measures to be implemented over the next calendar year to improve the environmental performance of the development.

In accordance with Schedule 2, Condition E12 of Development Consent SSD 9526 copies of the Annual Review shall be submitted to Muswellbrook Shire Council and the CCC and made available to and any interested person upon request.

In accordance with Schedule 2, Condition E17(a) of Development Consent SSD 9526, the Annual Review will be publicly available on Malabar's website at <https://malabarresources.com.au/corporate-governance/>.

5.2.2 Independent Environmental Audits

Preparation and publishing of Independent Environmental Audits of the development will also be a key part of Maxwell's strategy to keep the community and relevant agencies informed about the operation and environmental performance of the development. In accordance with Schedule 2, Condition E13 of Development Consent SSD 9526 and Schedule 2, Part C, Condition C7 of DA 106-04-00, within one year of commencement of development under SSD 9526 and within one year of approval of Antiene MOD1, and every three years after, unless the Planning Secretary directs otherwise, Maxwell will commission and pay the full cost of an Independent Environmental Audit of the development. The audit shall:

- (a) be led by a suitably qualified, experienced and independent auditor whose appointment has been endorsed by the Planning Secretary;
- (b) be conducted by a suitably qualified, experienced and independent team of experts (including any expert in field/s specified by the Planning Secretary) whose appointment has been endorsed by the Planning Secretary;
- (c) be carried out in consultation with the relevant agencies and the CCC;
- (d) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent, water licences and mining leases for the development (including any assessment, strategy, plan or program required under these approvals);
- (e) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals and this consent;
- (f) recommend appropriate measures or actions to improve the environmental performance of the development and any assessment, strategy, plan or program required under the abovementioned approvals and this consent; and
- (g) be conducted and reported to the satisfaction of the Planning Secretary.

In accordance with Schedule 2, Condition E14 of Development Consent SSD 9526 and Schedule 2, Part C, Condition C8 of DA 106-04-00, within three months of commencing an Independent Environmental

Audit, or other timeframe agreed by the Planning Secretary. Maxwell shall submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations shall be implemented to the satisfaction of the Planning Secretary.

In accordance with Schedule 2, Condition E17(a) of Development Consent SSD 9526, the Independent Environmental Audit will be publicly available on Malabar's website at <https://malabarresources.com.au/corporate-governance/>.

5.2.3 Community Consultative Committee

Maxwell operates a CCC for the site, which meets quarterly. Information on site activities and environmental performance is provided to the CCC and feedback and concerns raised are utilised by Maxwell to help assess impacts and improve environmental performance.

In accordance with Schedule 2, Condition E17(a) of Development Consent SSD 9526, CCC minutes will be publicly available on Malabar's website at <https://malabarresources.com.au/corporate-governance/>.

5.2.4 Stakeholder Consultation

Maxwell is committed to proactive consultation with community and stakeholders to ensure the Maxwell UG Project can co-exist with the local community, neighbours and other local industries. Since the announcement to acquire the Maxwell UG Project in early 2017, Maxwell has hosted community information sessions, consulted local community groups, met regularly with the CCCs, engaged directly with representatives of the Aboriginal community and met with stakeholders onsite and distributed community newsletters.

A Social Impact Management Plan (SIMP) which describes the management of social impacts to meet relevant requirements in Development Consent SSD 9526 will be submitted to the Planning Secretary within six months of commencing development under Development Consent SSD 9526. The SIMP includes a Stakeholder Engagement Plan which details engagement tools and activities to proactively engage stakeholders and the community.

The objective of stakeholder engagement is to provide transparent, consistent and inclusive stakeholder engagement and access to current and sufficient information about the Maxwell UG Project, its activities, workforce and schedule to support impact management and monitoring. Stakeholder engagement activities include, but are not limited to:

- distributing construction notices to landholders within 2.5 km of project;
- liaison as agreed with landowners;
- conducting community information sessions commencing prior to construction and continuing during at least the first three years of operation to provide updates and address potential issues or concerns; and
- offering to meet regularly with representatives of the Coolmore Stud, Godolphin Woodlands Stud and Hollydene Estate Wines.

5.3 Records Management

All environmental monitoring and management data is maintained on the premises for a period of at least five years.

5.4 Continuous Improvement

Feedback from the monitoring results and any complaints will be used to assess impacts and determine where improvements or mitigation measures are required. These measures will be reported on in the Annual Review.

5.5 Document Review History

A summary of the document history is outlined in **Table 4**.

Table 4. Document Revision Status

Issue	Issue Date	Review Team	Details of Change / Communication
1	June 2021	Alex Newton Robyn Skinner Donna McLaughlin	Document prepared following approval of SSD Consent 9526 for the Maxwell UG Project.
1.1	July 2021	Robyn Skinner Donna McLaughlin	Document updated following feedback from DPE.
2	April 2022	Robyn Skinner Donna McLaughlin	Document updated following approval of Modification 1 and to align with approved management plans.
3	December 2022	Robyn Skinner Donna McLaughlin	Document updated following approval of Modification 2 and to reflect amendments to the <i>Mining Act 1992</i> .
4	December 2023	Donna McLaughlin	Document updated following approval of Modification 1 of development consent DA 106-04-00 for the Drayton Rail Loop and Antiene Rail Spur.

6 INFORMATION, TRAINING AND INSTRUCTION

6.1 Competent Persons

Suitably qualified, competent and experienced persons shall be involved in the design, planning and implementation of this plan and related procedures.

6.2 Training

Environmental management training is provided to all employees and contractors through the Site Familiarisation process. From time to time, workforce communication and toolbox talks allow for discussion of the objectives and requirements of Management Plans.

All site personnel involved in supervisory roles will undertake a more detailed awareness training package to assist in the effective implementation of environmental management controls relevant to their role. Records of training will be kept and maintained in a site database.

7 RESPONSIBILITIES

Responsibilities associated with this EMS are outlined **Table 5**.

Table 5. Responsibilities

Position	Responsibilities
General Manager	- Responsible for overall environmental performance of the Maxwell UG Project. - Provide adequate resources for the implementation of all plans and strategies listed in Table 2.
HSEC Manager	- Oversee the implementation of all plans and strategies listed in Table 2. - Notify regulatory authorities and affected stakeholders of incidents in accordance with this EMS. - Coordinate periodic reviews of this EMS. - Facilitate training in accordance with this EMS and all plans and strategies listed in Table 2.

Position	Responsibilities
Environmental Coordinator	- Assist the HSEC Manager as required in the implementation of all plans and strategies listed in Table 2. - Coordinate investigations of environmental incidents or complaints. - Coordinate the implementation of the monitoring plan detailed in Table 3. - Coordinate the management of records and reporting of environmental monitoring and management data. - Manage environmental complaints in accordance with the complaints management procedure. - Provide training to all relevant personnel.
All Supervisors	- Notify the Environmental Coordinator of any incidents and exceedances involving environmental impacts. - Implement control measures as defined in the plans and strategies listed in Table 2.
All Personnel	- Perform tasks in an environmentally responsible manner. - Undertake works in accordance with the objectives and principles of the plans and strategies listed in Table 2. - Report any environmental incidents and exceedances. - Participate in all environmental training.

8 DOCUMENT INFORMATION

8.1 References

Community Complaints and Enquiries Procedure

Development Consent 106-04-00

Environment and Protection Licence 1323

NSW Government Health (2017) Mine Dust and You

Pollution and Incident Response Management Plan

State Significant Development 9526

8.2 Definitions and Abbreviations

Term	Definition
Antiene MOD1	Drayton Rail Loop and Antiene Rail Spur (DA 106-04-00) Modification 1
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
DA	Development Approval
DPE	NSW Department of Planning and Environment
EPA	NSW Environment Protection Authority
EP&A	Environmental Planning and Assessment
EPL	Environment Protection Licence
Maxwell MOD1	Maxwell Underground Project (SSD 9526) Modification 1

Term	Definition
Maxwell MOD2	Maxwell Underground Project (SSD 9526) Modification 2
MEA	Mine Entry Area
NSW	New South Wales
PA	Project Approval
PIRMP	Pollution Incident Response Management Plan
PM _{2.5}	Particulate matter less than 2.5 micrometres in diameter
PM ₁₀	Particulate matter less than 10 micrometres in diameter
SSD	State Significant Development
SMS	Short message service
TEOM	Tapered Element Oscillating Microbalance
Toolbox Talk	A forum where information is presented to the crews
TSP	Total suspended particulate

APPENDIX 1 – REGULATORY REQUIREMENTS

State Significant Development Consent 9526

Clause	Requirement	Section of Plan
D5	As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any noise or air quality criterion in PART B of this consent, the Applicant must provide the detail of the exceedance to any affected landowners, tenants and the CCC.	4.7
D6	For any exceedance of any air quality criterion in PART B of this consent, the Applicant must also provide to any affected land owners and tenants a copy of the fact sheet “ <i>Mine dust and You</i> ” (NSW Health, 2017).	4.7
E1	The Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:	3.1
	(a) Provide the strategic framework for environmental management of the development;	
	(b) Identify the statutory approvals that apply to the development;	2.1
	(c) Set out the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	7
	(d) Set out the procedures to be implemented to:	
	i) Keep the local community and relevant agencies informed about the operation and environmental performance of the development;	5.2
	ii) Receive, record, handle and respond to complaints;	4.3
	iii) Resolve any disputes that may arise during the course of the development;	4.4, 4.5, 4.6
	iv) Respond to any non-compliance and any incident;	4.7
	v) Respond to emergencies; and	4.9
	(e) Include:	
	i) References to any strategies, plans and programs approved under the conditions of this consent; and	Table 2
	ii) A clear plan depicting all the monitoring to be carried out under the conditions of this consent.	Table 3
E2	The Applicant must not commence construction until the Environmental Management Strategy is approved by the Planning Secretary.	1.2
E3	The Applicant must implement the Environmental Management Strategy as approved by the Planning Strategy.	3
E4	Where any exceedance of these criteria or performance measures has occurred, the Applicant must, at the earliest opportunity:	4.8
	(a) Take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;	

Clause	Requirement	Section of Plan
	(b) Consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and (c) Implement reasonable remediation measures as directed by the Planning Secretary.	
E5	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (a) a summary of relevant background or baseline data; (b) details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) any relevant commitments or recommendations identified in the document/s listed in condition A2(c); (d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; (e) a program to monitor and report on the: (i) impacts and environmental performance of the development; and (ii) effectiveness of the management measures set out pursuant to condition E5(c); (f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (g) a program to investigate and implement ways to improve the environmental performance of the development over time; (h) a protocol for managing and reporting any: (i) incident, non-compliance or exceedance of any impact assessment criterion or performance criterion); (ii) complaint; or (iii) failure to comply with other statutory requirements; (i) public sources of information and data to assist stakeholders in understanding environmental impacts of the development; and (j) a protocol for periodic review of the plan. Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	1.1 2.1, 2.2, Appendix 1 3.1.5, 4.1 3.1.5, 4.1 2.3 4.1 4.1, 5.2 4.8 5.4 4.7 4.3, 4.4, 4.6 4.7 5.2 5.1
E6	The Applicant must ensure that management plans prepared for the development are consistent with the conditions of this consent and any EPL issued for the site.	3.1.2
E7	Revision of Strategies, Plans and Programs Within three months of: (i) the submission of an incident report under condition E9; (ii) the submission of an Annual Review under condition E11;	5.1

Clause	Requirement	Section of Plan
	(iii) the submission of an Independent Environmental Audit under condition E13; (iv) the approval of any modification of the conditions of this consent (unless the conditions require otherwise); or (v) notification of a change in development phase under condition A13; The suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.	
E8	If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.	5.1
E9	The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name) and set out the location and nature of the incident.	4.7
E10	Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	4.7
E13	Within one year of commencement of development under this consent, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must: (a) be led by a suitably qualified, experienced and independent auditor whose appointment has been endorsed by the Planning Secretary; (b) be conducted by a suitably qualified, experienced and independent team of experts (including any expert in field/s specified by the Planning Secretary) whose appointment has been endorsed by the Planning Secretary; (c) be carried out in consultation with the relevant agencies and the CCC; (d) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent, water licences and mining leases for the development (including any assessment, strategy, plan or program required under these approvals); (e) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals and this consent; (f) recommend appropriate measures or actions to improve the environmental performance of the development and any assessment, strategy, plan or program required under the abovementioned approvals and this consent; and (g) be conducted and reported to the satisfaction of the Planning Secretary.	5.2.2

Clause	Requirement	Section of Plan
E14	Within three months of commencing an Independent Environmental Audit, or other timeframe agreed by the Planning Secretary, the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.	5.2.2
E17	Before the commencement of construction until the completion of all rehabilitation required under this consent, the Applicant must: (a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website: (i) the documents referred to in condition A2(c) of this consent; (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged; (v) minutes of CCC meetings; (vi) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; (vii) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; (viii) a summary of the current phase and progress of the development; (ix) contact details to enquire about the development or to make a complaint; (x) a complaints register, updated monthly; (xi) the Annual Reviews of the development; (xii) audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; (xiii) any other matter required by the Planning Secretary; and (b) keep such information up to date, to the satisfaction of the Planning Secretary.	5.2

Development Consent 106-04-00

Clause	Requirement	Section of Plan
C1	The Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must: (a) be submitted for approval within 6 months of the approval of Mod 1; (b) provide the strategic framework for environmental management of the development; (c) identify the statutory approvals that apply to the development; (d) set out the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (e) set out the procedures to be implemented to: (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development; (ii) receive record, handle and respond to complaints; (iii) resolve any disputes that may arise during the course of the	1.2 3.1 2.1 7 5.2 4.3 4.4, 4.5, 46

Clause	Requirement	Section of Plan
	development; (iv) respond to any non-compliance and any incident; (v) respond to emergencies; and (f) include: (i) references to any strategies, plans and programs approved under the conditions of this consent; and (ii) a clear plan depicting all the monitoring to be carried out under the conditions of this consent.	4.7 4.9 Table 2 Table 3
C2	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in this consent. Where any exceedance of these criteria or performance measures has occurred, the Applicant must, at the earliest opportunity: (a) Take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur; (b) Consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and (c) Implement reasonable remediation measures as directed by the Planning Secretary.	4.8
C3	Within three months of: (a) the submission of an incident report under condition C5 or C6; (b) the submission of an Independent Environmental Audit under condition C7; (c) the approval of any modification of the conditions of this consent (unless the conditions require otherwise); the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.	5.1
C4	If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review. Note: <i>This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.</i>	5.1
C5	The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident	4.7
C6	Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. Note: <i>A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</i>	4.7

Clause	Requirement	Section of Plan
C7	Within one year of approval of Mod 1, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must: (a) be led by a suitably qualified, experienced and independent auditor whose appointment has been endorsed by the Planning Secretary; (b) be conducted by a suitably qualified, experienced and independent team of experts (including any expert in field/s specified by the Planning Secretary) whose appointment has been endorsed by the Planning Secretary; (c) be carried out in consultation with the relevant agencies; (d) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent, water licences and mining leases for the development (including any assessment, strategy, plan or program required under these approvals); (e) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals and this consent; (f) recommend appropriate measures or actions to improve the environmental performance of the development and any assessment, strategy, plan or program required under the abovementioned approvals and this consent; and be conducted and reported to the satisfaction of the Planning Secretary.	5.2.2
C8	Within three months of commencing an Independent Environmental Audit the Applicant must submit a copy of the audit report to the Planning Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.	5.2.2
C11	Within 3 months of the approval of Mod 1, until the completion of all rehabilitation required under this consent, the Applicant must: (a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website: (i) the documents listed in condition A2(c) of this consent; (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) a summary of the current phase and progress of the development; (v) contact details to enquire about the development or to make a complaint; (vi) a complaints register, updated monthly following the receipt of any complaints; (vii) audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; (viii) any other matter required by the Planning Secretary; and (b) keep such information up to date, to the satisfaction of the Planning Secretary	5.2

Department of Planning and Environment



Our ref: SSD-9526-PA-87

Donna McLaughlin
HSEC Manager
Maxwell Ventures (Management) PTY LTD
Thomas Mitchell Drive
Muswellbrook, NSW 2333

13/01/2023

Subject: Maxwell Underground Environment Management Strategy (EMS)

Dear Mrs. McLaughlin

I refer to the EMS submitted in accordance with Condition E1, of Schedule 2 of the Conditions of Consent for the Maxwell Underground (SSD-9256).

The Department has reviewed the document and is satisfied that it generally meets the requirements of the relevant conditions.

Accordingly, as nominee of the Planning Secretary, I approve the EMS (Revision 3, dated 14 December 2022).

You are reminded that if there are any inconsistencies between the EMS and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Ellena Tsanidis at ellena.tsanidis@planning.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read "R. Hawkeswood".

Rose-Anne Hawkeswood
A/Director
Resource Assessments

As nominee of the Planning Secretary