MALABAR

MAXWELL UNDERGROUND MINE

BIOREMEDIATION MANAGEMENT PLAN

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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) Mine (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, 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 (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).

Another modification was made to the development consent (Maxwell MOD3) on 22 September 2025 to allow for the transfer of tailings from Mt Arthur Coal to the Maxwell UG Mine East Void, and tailings and coarse rejects from the Maxwell CHPP to the North Void.

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 Mine (i.e. until 2047).

1.2 Purpose and Scope

The purpose of this Bioremediation Management Plan (BMP) is to detail statutory requirements and outline the controls to be implemented to manage hydrocarbon-contaminated soils on the site. The

preferred approach is to treat contaminated soils onsite, in preference to offsite disposal, wherever possible. This plan applies to all activities within the SSD 9526 development application area and the Antiene Rail Spur Development Consent DA 106-04-00 boundary. This plan is one of a series of Environmental Management Plans that together form the Environmental Management System for the site.

Any potentially contaminated material identified during construction will initially be managed in accordance with the Contaminated Materials Protocol (CMP). The CMP describes procedures for the testing, removal and disposal of potentially contaminated material which may include bioremediation.

The Protection of the Environment and Operations Act 1997 (POEO Act) defines contaminated soil as '*Soil or sediment that contains a substance at a concentration above the concentration at which the substance is normally present in soil or sediment from the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment, where harm to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment*.'

1.3 Objectives

The objectives of this BMP are to:

- Detail all relevant statutory requirements.
- Describe the process for hydrocarbon-contaminated soil to be bioremediated, including amelioration.
- Detail the appropriate criteria to be used when assessing hydrocarbon-contaminated soil.
- Describe the process for the disposal of hydrocarbon-contaminated soil once treated.

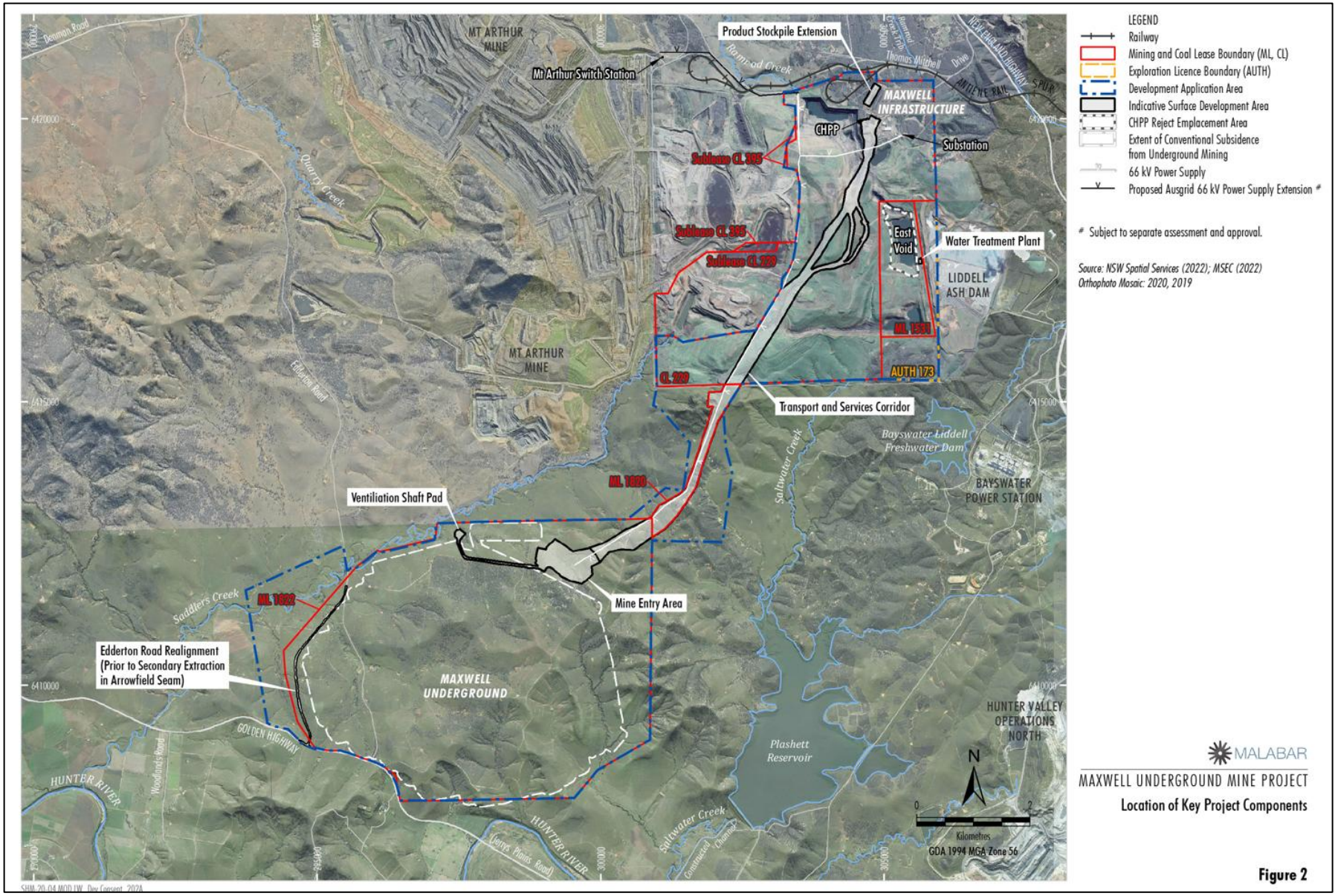

Figure 1. Maxwell Underground Mine

2 PLANNING

2.1 Regulatory Requirements

As shown in **Appendix 1**, Schedule 2, Condition B66 of Development Consent SSD 9526 requires that '*The Applicant must implement the BMP for the Maxwell Infrastructure site dated April 2014 (or latest version approved by the Planning Secretary), to the satisfaction of the Planning Secretary*'.

This version of the Plan represents an update to the April 2014 version and has been issued to the Planning Secretary for approval. Evidence of approval is shown in **Appendix 2**.

The management and treatment of contaminated soils in NSW is governed by the the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (Waste) Regulation 2005*. The *Protection of the Environment Operations (Waste) Regulation 2005* makes requirements relating to non-licensed landfill sites, non-licensed waste activities and non-licensed waste transportation.

The bioremediated soil is buried in pit or placed into the East or North Voids, which are designated as tailings storage facilities. There are no relevant ecological screening levels (ESLs) for organic compounds for such a land end-use. Hence, the target criteria from the previous approved version of this management plan have been retained.

In accordance with Schedule 2, Condition A1 of Development Consent SSD 9526 and DA 106-04-00, in addition to meeting the specific performance measures and criteria established under this consent, Maxwell shall implement all reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under the consent.

2.2 Maxwell Project EIS and Supporting Document Commitments

A land contamination assessment was undertaken by JBS&G (2019) for the Maxwell UG Project Environmental Impact Statement (Maxwell EIS) (2019) for SSD 9526. The assessment of the Maxwell Underground area and surface development area comprised a Stage 1 – Preliminary Investigation, as described in the *Managing Land Contamination Planning Guidelines: SEPP 55 –Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998). The Stage 1 Preliminary Investigation included a desktop review of previous land uses and aerial photographs, and a site inspection to identify any potentially contaminated areas.

JBS&G (2019) concluded that there was a low potential for gross or widespread contamination within the surface development area and Maxwell Underground area as a result of historical and or current site uses. Based on the review of available information and site inspection, no contamination was identified that would preclude the development of the site as an underground mine.

A preliminary site investigation of the Maxwell Infrastructure area was completed by ERM in 2017. The investigation included a desktop review of available information and preliminary sampling of potential areas of concern. With regards to the Maxwell Infrastructure area, there were no requirements for remediation measures to be undertaken to make the site suitable for supporting underground mining (JBS&G 2019). Preferential pathways, where they exist, are controlled by the implementation of site environmental management and monitoring plans. JBS&G (2019) noted that remediation may be required with a change of land use (after mining ceases) however this will be assessed as part of the mine closure planning process.

There are no specific commitments in the Maxwell EIS, Environmental Assessments, Maxwell MOD1, Maxwell MOD2 or Maxwell MOD3 Assessment Reports or Antiene MOD1 relating to the bioremediation facility.

2.3 Context

The existing bioremediation facility (at Maxwell Infrastructure) was utilised during previous open cut operations. The facility was upgraded in 2014 to include general design improvements. This included the division of existing cells into two to provide for the separation of loads of contaminated soil (into A and B cells). The upgrade together with a Management Plan was approved by the NSW Trade and Investment – Division of Resources and Energy. The design and Management Plan remained unchanged. The approval of the Maxwell Underground Mine in December 2020 afforded the opportunity to align aspects of the BMP to the project. Key aspects such as the target criteria for remediated soils remain unchanged.

3 IMPLEMENTATION

3.1 Location and Design

At the existing facility, there are ten bioremediation cells, consisting of five matched pairs. The bioremediation cells forming each matched pair are denoted “A” and “B”. This has been done to segregate materials at different stages in the bioremediation process. This facility is primarily used for Maxwell Infrastructure.

A new facility is proposed to be constructed within the old open cut area. This facility will be set out similar to the existing facility and primarily used for hydrocarbon-contaminated soils from the MEA and underground. The new facility would be managed in accordance with this BMP.

Each bioremediation cell has a volume of approximately 350 square metres and a depth of 1.5 metres. Bioremediation cells are clay lined to reduce the risk of groundwater contamination. The barrier walls are designed to allow equipment to traverse them in order to provide access to each of the bioremediation cells for the purpose of spreading and aerating material within the bioremediation area.

The accumulation of water in the bioremediation cells is not conducive to bioremediation. To mitigate this risk, the laydown area is graded so that runoff drains to the east. The area is bunded to divert clean runoff away from the cells. To manage any water that enters the cells via direct rainfall, the floors are graded so that runoff drains towards a corner of the cell where it is allowed to evaporate.

The location of the existing bioremediation facility is shown in **Figure 2** and a more detailed site plan is shown in **Figure 3**. Additional figures will be provided in this BMP once the new facility is constructed.

3.2 Procedure for Bioremediation

3.2.1 Identification of Suitable Material

For contaminated soil to be suitable for bioremediation it must meet the following criteria:

- No liquid hydrocarbon-contaminated material (these are to be removed by a licensed waste contractor for offsite processing and disposal); and
- Material should not contain any rubbish or large rocks as they will interfere with treatment and aeration processes.

Contaminated liquid materials will be managed under the Water Management Plan, Section 4.4 Mine Water Management System (Chemical and Hydrocarbon Management).

3.2.2 Source of Material

Most of the material required to be treated in the bioremediation process will be generated from the following sources:

- the Oil Pollution Control Dam sump;
- apron drains surrounding the workshop and refuel areas;
- diesel storage tank and refuelling sumps; and
- any other soils contaminated by hydrocarbon spills, e.g. vehicle washdown bays.

Material that cannot be remediated on-site will be disposed of off-site via a licensed contractor.

Figure 2. Location of the bioremediation area relative to the Maxwell Underground Mine Development Application Area

Figure 3. Site plan of the bioremediation area

3.2.3 Placing Soil

Prior to placing contaminated soils in the bioremediation cells, operators will notify the Land and Property Coordinator that material is being sent to the bioremediation area. The contact details for the Land and Property Coordinator will be displayed on signs near the cells. The Land and Property Coordinator will record the volume and source of material to be deposited in the bioremediation cells.

There is signage at each of the bioremediation cells to indicate whether the cell is open for depositing material or closed. Only one cell will be open at any given time. Once the open cell has reached 75 per cent capacity, it will be closed, recorded in a register and another cell will be opened.

Contaminated soils will be deposited into the bioremediation cells by suitable equipment. Contaminated material will only be deposited into the “A” cell that is open at the time.

All spillages of material during placement will be reported to the site Land and Property Coordinator who will arrange a clean-up immediately. All material that is spilt onto the laydown area will be returned to the bioremediation cells immediately.

3.2.4 Drying of Material

The “A” cells will be utilised as drying cells for the material to partially dry out and be aerated. Once material in the open “A” cell has dried, it will be moved to the corresponding “B” cell for further aeration and amelioration.

The grade of the laydown area and presence of bunds around the cells reduces the risk of pooling in the cells. If pooling occurs during periods of high rainfall, water will be removed by a vacuum truck and transferred to the site Oil Pollution Control Dam via the MIA wash bay sump .

The long-term average evaporation at the bioremediation cells significantly exceeds average rainfall. Hence the management of excessive moisture is not anticipated to be a major issue.

3.2.5 Aeration of Material

Material in the “B” cells will be maintained in a damp condition in order to sustain microbial activity. It is important to note that the material should not be saturated as this will inhibit the flow of oxygen. The “B” cells will also be spread and turned as required to promote contact between contaminants and organisms and to aerate the soil. Soils will be turned when soil moisture is low (i.e. not directly following any significant rainfall). The excavator sitting on the barrier wall will turn the material over and shape the material to maximise aeration.

3.2.6 Amelioration of Material

Ameliorants will be added as required to material within the cells to assist in the bioremediation process. The ameliorants to be utilised will include, but are not limited to, micro-organisms to break down hydrocarbons, nitrates and bulking agents.

4 MEASUREMENT AND EVALUATION

4.1 Monitoring

All material that enters the bioremediation cells is assumed to be contaminated and treated accordingly until laboratory analysis results show bioremediation treatment has been completed. Initially three (3) soil samples will be taken from the “A” cells by the site Land and Property Coordinator to provide baseline contaminant concentrations prior to treatment. This will enable the progress of the remediation to be tracked. Once the material is moved to the “B” cells, samples will be taken every three to six months to allow tracking of progress.

The parameters that will be recorded include:

- name of the person taking the sample;
- location of the sample; and
- date and time of the sample.

Sampling of the stockpiled material within both “A” and “B” Cells will involve the excavation of a small hole/excavation, using a shovel or bucket of the excavator to a depth of approximately 300mm below the stockpile surface. Soil samples will be collected directly from the face of the excavation face using disposable nitrile gloves worn at all times, with material placed directly into clean glass jars for contaminant testing.

Samples will be immediately placed into a chilled container for transportation under chain-of-custody documentation to a NATA accredited laboratory for the analysis of the contaminants listed in **Table 1**.

Soils that are recorded below the target criteria in **Table 1** will be classified as suitable for placement in pit or within the East Void prior to capping and closure. The bioremediation process will target levels below those listed in **Table 1**. The targeted time for achieving these targets is within 12 months.

The criteria remain unchanged from the previous approved version of the plan. They are derived from EPA Waste Classification Guidelines Part 1: Classifying waste (2014).

The treatment for soils which do not meet the target criteria is described in **Section 4.2**.

Table 1 – Target Criteria for Bioremediated Soils

Contaminant	Soil Contaminant Concentration limit (mg/kg)
Benzene	10
Lead	100
Toluene	288
Ethylbenzene	600
C6-C9 petroleum hydrocarbons	650
Xylene	1000
C10-C36 petroleum hydrocarbons	10000

4.2 Process for treatment of soils that do not meet the target criteria

Where soil contaminant concentrations have not been reduced below the adopted limits in **Table 1** following 12 months of treatment an option may be to increase the aeration process to be undertaken on a fortnightly basis. If the criteria have still not been met, a further option may include drying the contaminated material and taking it offsite by a licenced waste contractor for offsite processing and disposal. If offsite disposal is undertaken, a waste classification report will be prepared in accordance with NSW EPA (2014) - *Waste Classification Guidelines part 1: Classifying Waste* and transported to a NSW EPA licensed waste facility licensed to accept the waste.

4.3 Inspections

The Land and Property Coordinator will be responsible for conducting monthly inspections of the bioremediation area and documenting the findings. To prevent the risk of groundwater contamination, the Land and Property Coordinator will inspect the condition of the clay lining for signs of damage and record the results of these inspections in a register which will be available to third parties as requested. Any actions requiring attention are to be entered into the site corrective action register, to be tracked.

4.4 Reporting

Information and data collected throughout the bioremediation process will be compiled for reporting purposes. Maxwell will report the following parameters in the Annual Review:

- Volume of material entered into the bioremediation cells;
- Ameliorants added to bioremediation cells;
- Volume of material bioremediated and disposed of in pit or in the East Void; and
- Volume of material bioremediated and taken offsite to an accredited waste facility.

4.5 Incident and Non-Compliance Notification

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, Part E, Condition E9 of SSD 9526 and Schedule 2, Part B, Condition C5 of DA 106-04-00, Maxwell must notify the Department within 24 hours of becoming aware of an incident. The notification must be made via the NSW planning portal (Major Projects) and address details of the incident including:

a) date, time and location;

b) a brief description of what occurred and why it has been classified as an incident;

c) a description of what immediate steps were taken in relation to the incident; and

d) identifying a contact person for further communication regarding the incident.

Maxwell shall provide the DPHI with a subsequent incident report in accordance with Appendix 7 of Development Consent SSD-9526.

A *Pollution and Incident Response Management Plan* (PIRMP) is maintained in accordance with the requirements of the Part 5.7A of the *Protection of the Environment Operations Act 1997* 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 DPHI 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 SSD 9526 that the site 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, and when, 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.

4.6 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, Maxwell shall assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in the consent. 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 DPHI 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.

4.7 Complaints Handling

The site 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.

If a complaint or enquiry is received, 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 receival are recorded. While details of the enquiry vary depending on the nature and source of the enquiry, the following actions may result:

- 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 Community Consultative Committee (CCC) and included in the Annual Review and Environment Protection Licence Annual Return.

5 AUDIT, REVIEW AND IMPROVEMENT

5.1 Review Schedule

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

5.2 Reporting

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 DPHI. The Annual Review will include, but not be limited to, 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 any monitoring undertaken over the past year, including a comparison of these results against the requirements of this plan and the criteria contained in this plan.
- An evaluation of the effectiveness of management measures.
- A comprehensive review of any complaints records over the past year, including a description of the manner in which complaints were addressed.
- 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.
- Identify any trends in any monitoring data over the life of the development.
- Where applicable, measures that will be implemented over the next reporting year to improve the environmental performance of the development with respect to the bioremediation process.

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 made available to the CCC 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 the site's website at https://malabarresources.com.au/corporate-governance/.

5.3 Auditing

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.

Internal audits will be undertaken annually to ensure that the actions detailed in this plan have been carried out.

5.4 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 SSD 9526 and DA 106-04-00, Maxwell will make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of Development Consent SSD 9526 and DA 106-04-00) that are relevant to this plan publicly available on Malabar's website (https://malabarresources.com.au/corporate-governance/):

- this BMP;
- all current statutory approvals for the development;
- the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged;
- 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; and
- 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.

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

5.5 Records Management

All bioremediation management data is maintained in accordance with the Environmental Management Strategy and maintained on the premises for a period of at least five years.

5.6 Continuous Improvement

Feedback from implementation of this plan and any complaints will be used to assess impacts and determine where improvements or further mitigation measures are required. These measures will be reported on in the Annual Review.

5.7 Document Review History

A summary of the document history is outlined in **Table 2**.

Table 2. Document Revision Status

Version	Issue Date	Review Team	Details of Change / Communication
1	November 2021	Alex Newton Robyn Skinner Donna McLaughlin	Management Plan updated following approval of SSD Consent 9526 for the Maxwell UG Project.
2	February 2023	Donna McLaughlin	Document updated following approval of Modification 1 and Modification 2.
3	October 2023	Donna McLaughlin Alex Newton	Document updated following approval of Modification 1 of development consent DA 106-04-00 for the Drayton Rail Loop and Antiene Rail Spur.
4	December 2025	Donna Tiananga Tas Willis	Updated following submission of Independent Environmental Audit report and approval of Maxwell MOD3.

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 this and any other relevant Management Plans.

To ensure the effective management of contamination on site, all site personnel involved in supervisory roles will undertake a more detailed awareness training package.

7 RESPONSIBILITIES

Responsibilities associated with this management plan are outlined **Table 3**.

Table 3. Responsibilities

Position	Responsibilities
General Manager	• Provide adequate resources for the implementation of this Plan.
Environment, Community and Approvals (EC&A) Manager	• Oversee the implementation of this Plan. • Notify regulatory authorities and affected stakeholders of incidents in accordance with this Plan. • Coordinate periodic reviews of this Plan. • Ensure all personnel are trained in accordance with this Plan.
Land and Property Coordinator	• Assist the EC&A Manager as required in the implementation of this Plan. • The day-to-day management and maintenance of the bioremediation area. • Maintaining a register of material inputs and outputs of the bioremediation area. • Aeration of contaminated soils. • Adding required ameliorants to bioremediation cells. • Soil sampling and classification in accordance with the Waste Classification Guidelines NSW EPA (2014) for any soil to be disposed of offsite.

Position	Responsibilities
	• Recording soil analysis results and filing these for a period of at least 5 years. • Inspecting the bioremediation area on a monthly basis.
Operators	• Reporting contaminated material outside the bioremediation cells. • Reporting incidents of hydrocarbon contamination. • Notifying the Maintenance Supervisor prior to placing material into the bioremediation cells.
All Personnel	• Undertake works in accordance with the objectives and principles of this Plan.

8 DOCUMENT INFORMATION

8.1 References

Community Complaints and Enquiries Procedure

Environmental Management Strategy

Pollution and Incident Response Management Plan

Spill Response Procedure

Training and Competence Standard

8.2 Definitions and Abbreviations

Term	Definition
CCC	Community Consultative Committee
DA	Development Approval
DPE	(NSW) Department of Planning and Environment
DPHI	NSW Department of Planning, Housing and Infrastructure
EC&A	Environment, Community and Approvals
EPA	(NSW) Environment Protection Authority
EP&A	Environmental Planning and Assessment
EPL	Environment Protection Licence
ESL	Ecological screening level
Malabar	Malabar Resources Limited
Maxwell	Maxwell Ventures (Management) Pty Ltd
Maxwell MOD1	Maxwell Underground Project (SSD 9526) Modification 1
Maxwell MOD2	Maxwell Underground Project (SSD 9526) Modification 2
Maxwell MOD3	Maxwell Underground Project (SSD 9526) Modification 3

Term	Definition
NEPM	National Environmental Protection Measure
NSW	New South Wales
PA	Project Approval
SSD	State Significant Development
TRH	Total recoverable hydrocarbons
Toolbox Talk	A forum where information is presented to site crews

APPENDIX 1 – REGULATORY REQUIREMENTS

State Significant Development Consent 9526

Condition	Detail	Relevant BMP Section
B66	The Applicant must implement the Bioremediation Management Plan for the Maxwell Infrastructure site dated April 2014 (or latest version approved by the Planning Secretary), to the satisfaction of the Planning Secretary.	**1.2, 2.1**