CORE LITHIUM

ASX CXO

# Mining Management Plan
# BP33 Underground Mine

September 2025

## Operator Details

| Operator Name | Deemed Mining Licence | Date |
|---|---|---|
| **Lithium Developments (Grants NT) Pty Ltd** | 1138-01 | 19 September 2025 |

*Note: Lithium Developments Pty Ltd is a 100% owned subsidiary of Core Lithium Pty Ltd.*

## Document Control Record

| Rev | Prepared | Reviewed | Approved | Date |
|---|---|---|---|---|
| **1** | Suzanne Barber (EcOz) | Kylie Welch (EcOz) | Blair Duncan (Lithium Developments) | 12 May 2022 |
| **2** | Emma Gaunt (Lithium Developments) | Paul McHugh (Lithium Developments) | Doug Warden (Lithium Developments) | 31 May 2024 |
| **3** | Paul McHugh (Lithium Developments) | Anthony Kirke (Lithium Developments) | Paul Brown (Lithium Developments) | 19 Sept 2025 |

# Table of Contents

## Tables

## Figures



## Appendices

**Appendix A:** NT EPA Referral Self-Assessment – Project Amendments
**Appendix B:** Care and Maintenance Management – PlanBP33 Underground Mine
**Appendix C:** Finniss Lithium Project – BP33 Underground Mine – Mine Closure Plan
**Appendix D:** (1) Email trail between Core Lithium and NT Government
(2) Core Lithium Access – Traffic Impact Statement (Arrcos Consulting)
**Appendix E:** Erosion and Sediment Control Plan – BP33 Lithium Project – Core Lithium

**Appendix F:** BP33 Waste Rock and AMD Management Plan – September 2025 Rev 3
**Appendix G:** BP33 Underground Mine – Dust Management Plan
**Appendix H:** BP33 Underground Mine – Water Management Plan
**Appendix I**: BP33 Project Environmental Risk Assessment
**Appendix J:** Access Road Design Drawings
**Appendix K:** BP33 Security Calculation – DPIR
**Appendix L:** Heritage Desktop Study: Core Lithium, Finniss Lithium Operation 2024
**Appendix M:** BP33 Underground Mine – Flora, Fauna, Pest and Weed Management Plan
**Appendix N:** Technical Memorandum from CloudGMS re: BP33 Dewatering Assessment 2023

(Draft v0.1)

## Acronyms and Abbreviations

| Acronym | Meaning |
|---|---|
| **%S** | Percentage sulfur |
| **AAPA** | Aboriginal Areas Protection Authority |
| **AEP** | Annual Exceedance Probability |
| **AMD** | Acid and metalliferous drainage or Acid rock drainage |
| **ANC** | Acid Neutralising Capacity |
| **ANCOLD** | Australian National Committee on Large Dams |
| **ANZG** | Australian and New Zealand Guidelines for Fresh and Marine Water Quality |
| **ASX** | Australia Securities Exchange |
| **BCF** | Burrell Creek Formation. A geological formation in the Grants pit. |
| **BCM** | Bank cubic metres |
| **BoM** | Bureau of Meteorology |
| **CEC** | Cation Exchange Capacity |
| **CPESC** | Certified practitioner in erosion and sediment control |
| **CSM** | Conceptual site model |
| **CXO** | ASX code for Core Lithium |
| **DEPWS** | Department of Environment, Parks and Water Security |
| **DITT** | Department of Industry, Trade and Tourism |
| **DLPE** | Department of Lands, Planning and Environment |
| **DMS** | Dense media separation |
| **EAT** | Emerson Aggregate Test |
| **EIA** | Environmental Impact Assessment |
| **EIS** | Environmental Impact Statement |
| **EL** | Exploration Lease |
| **EMP** | Extractive Minerals Permit |
| **EMR** | Environmental Mining Report |
| **EMS** | Environmental Management System |
| **EP Act** | Environmental Protection Act (2019) (NT) |
| **EPBC Act** | Environment Protection and Biodiversity Conservation Act (1999) (Commonwealth) |
| **ESCP** | Erosion and Sediment Control Plan |
| **FoS** | Factor of Safety |
| **FSF** | Fines Storage Facility |
| **GARD** | Global Acid Rock Drainage Guide |
| **GDE** | Groundwater dependent ecosystems |
| **ha** | hectare |
| **HSE** | Health, Safety and Environment |

| | |
|---|---|
| **IECA** | International Erosion Control Association |
| **kL** | Kilolitres |
| **L** | Litres |
| **LCM** | Loose Cubic Meters |
| **LD** | Lithium Developments (Grants NT) |
| **$Li_20$** | Lithium oxide |
| **LoM** | Life of Mine |
| **m** | metre |
| **$m^3$** | cubic metres |
| **mAHD** | metres Australian height datum |
| **mBGL** | metres below ground level |
| **MCP** | Mine Closure Plan |
| **ML** | Mineral Lease |
| **ML** | megalitre |
| **mm** | Millimetres |
| **MMA** | *Mining Management Act* (NT) |
| **MMP** | Mining Management Plan |
| **MNES** | Matters of National Environmental Significance |
| **MIA** | Mine Infrastructure Area |
| **MRE** | Mineral Resource Estimate |
| **mRL** | Meters Relative Level |
| **MSD** | Mine Site Dam (C5 Dam) |
| **Mt** | megatonne (1,000,000 tonnes) |
| **MTA** | *Mineral Titles Act* (NT) |
| **NAF** | Non-acid Forming |
| **NAG** | Net Acid Generation |
| **NAPP** | Net acid production potential |
| **NATA** | National Association for Testing Authorities |
| **NGER Act** | National Greenhouse and Energy Reporting Act |
| **NMD** | Neutral Mine Drainage |
| **NT** | Northern Territory |
| **NT EPA** | Northern Territory Environment Protection Authority |
| **NTG** | Northern Territory Government |
| **OHD** | Observation Hill Dam |
| **PAF** | Potentially acid forming |
| **PAF-LC** | Potentially acid forming – low capacity |
| **PCoC** | Potential contaminants of concern |
| **QA/QC** | Quality Assurance/Quality Control |
| **RL** | Relative level |
| **ROM** | Run of Mine |

| | |
|---|---|
| **RWD** | Raw Water Dam |
| **s** | second |
| **SIA** | Social Impact Assessment |
| **SILO** | Scientific Information for Land Owners |
| **SIMP** | Social Impact Management Plan |
| **SD** | Saline Drainage |
| **SSGV** | Site specific guideline value |
| **SWL** | standing water level |
| **TARP** | Trigger Action Response Plan |
| **TIS** | Traffic Impact Statement |
| **TMP** | Tailings Management Plan |
| **ToR** | Terms of Reference |
| **TPWC Act** | *Territory Parks and Wildlife Conservation Act* (Northern Territory) |
| **VCL** | Vacant Crown Land |
| **WDL** | Waste Discharge Licence |
| **WoNS** | Weeds of National Significance |
| **WMP** | Water Management Plan |
| **WRD** | Waste rock dump |
| **WWTP** | Waste Water Treatment Plant |
| **yr** | year |

# Amendments

The BP33 Underground Mine (BP33) Mining Management Plan (MMP), currently approved under mining Authorisation 1138-01 (20 April 2023), has been reviewed and amended in accordance with Condition 5. This section summarises amendments made in response to additional information requests resulting from review of the May 2024 submission.

## BP33 Project Amendments Summary

For ease of reference, the key project amendments that have been Included In this MMP are summarised below. The proposed amendments have also been assessed using the Northern Territory Environmental Protection Authority (NT EPA) pre-referral screening tool (NT EPA, 2022) to confirm that the activities proposed are consistent with those approved In Environmental Approval EP2020/001-001 on 26 April 2022 (Appendix A).

| Proposed Project Amendment | Description |
|---|---|
| **Care and maintenance provision** | Care and maintenance provisions have been included to improve the operational flexibility of this MMP and allow transition into and out of periods of care and maintenance if required.<br>A Care and Maintenance Plan (CMMP) has been developed and provided as an appendix to this document. |
| **Box cut design and backfilling** | Reduction in the overall design footprint of the box cut |
| **Mine design and methodology** | Minor revision of the mine design and improved description of the mining methodology employed. |
| **Site access road extension and cox peninsula road intersection** | A new access point is proposed from Cox Peninsula Road (CPR) to access BP33 operations. This will comprise construction of an intersection and slip lane off CPR and extension of the existing site access road comprising an upgrade of an existing track into a dual lane access road. The existing construction access point will be barricaded. |
| **Removal of the raw water dam** | The raw water dam (not constructed) is proposed to be replaced by two, 600 kL tanks. |

## BP33 MMP Document Amendment Summary

This MMP has been updated to accurately represent current project status, eliminate duplication and improve clarity and consistency in relation to authorised activities. It has been prepared to reflect the current DLPE MMP template and the amendments made are as detailed in the table below.

| Section | Amendment |
|---|---|
| **Entire Document** | • Document updated to reflect current DLPE MMP template.<br>• Document updated to address information requests.<br>• Wording updated to accurately represent current project status, eliminate duplication, and improve clarity. |
| **Cover Page** | • Dates updated. |
| **Acronyms and Abbreviations** | • Updated. |
| **Amendment** | • Include additional table to detail key project amendments for ease of reference. |
| **All Figures** | • Updated with the refined site layout design and aerial imagery from December 2023. |
| **1. Application for Authorisation** | |
| 1.1 Operator Details | • Updated addresses and details of key contacts. |
| 1.2 Title Details | • Titles and status updated. |
| 1.3 Project Details | • Location and access point updated. |
| 1.4 Declaration | • Signed by CEO. |
| **2. Introduction** | • A new section to provide contextual information relating to the MMP and associated proposed project modifications. |
| 2.1 Scope and Objective | • New sections to define scope and objectives of the MMP amendment. |
| **3. Project Summary** | • The project summary has been extensively updated with key amendments provided below. |
| 3.1 Overview | • Included reference to proposed project amendments and NT EPA Pre-Referral Screening Tool.<br>• Update project phases and schedule.<br>• Update WRD details to specify WRD2 receiving underground mining waste.<br>• Remove reference to Raw Water Dam and update dam / sediment basins storage capacities.<br>• Inclusion of sediment basins as potential source of makeup water for mining.<br>• Inclusion of the Irrigation Management Plan.<br>• Remove reference to discharge into Grants pit and transfer of mine affected water between operations.<br>• Inclusion of bore field section.<br>• Inclusion of abstraction section to define water abstraction from OHD. |
| 3.2 Current and Proposed Disturbances | • Updated to consider existing, proposed and additional disturbance areas. |

| Section | Amendment |
|---|---|
| 3.3 Operational Organisational Structure | • Updated to align with Grants operational organisational structure. |
| **4.0 Site Conditions** | • The Site Conditions section has been extensively updated with key amendments provided below. |
| 4.1 Site Setting | • Information summarised throughout to give a concise description of site settings.<br>• Update summaries of geochemical characterisation including kinetic column leach testing.<br>• Update waste classification criteria to align with updated geochemistry.<br>• Include details on revised groundwater modelling.<br>• Update reference to correct current AAPA certificate.<br>• Update fauna and flora tables to reflect additional surveys undertaken to support proposed infrastructure changes |
| 4.2 Conceptual Site Model | • Revise Conceptual Site Model and remove CSM figure due to inconsistencies. |
| 4.3 Socio-Economic Status | • Update ongoing community and stakeholder engagement.<br>• Updated financial information. |
| **5. Legislation and Obligations** | |
| 5.1 Statutory Requirements | • Updated wording to consider NT environmental regulatory reform.<br>• Included additional information on matters of national environmental significance. |
| **6. Operational Activities** | |
| 6.1 Mine Infrastructure Area | • Defined mining infrastructure area zones.<br>• Provided as constructed and proposed infrastructure as per the revised general arrangement of surface infrastructure. |
| 6.2 Open Pits and Extractives | • Updated with current project information and IFC designs.<br>• Removed reference to water diversion bund. |
| 6.3 Underground Operations | • Updated underground mining information with revised mine design and improved description of the mining methodology employed.<br>• Provide details on cooling and ventilation |
| 6.4 Dams | • Updated with revised project information and IFC designs.<br>• Provide details of discharge point to the environment. |
| 6.5 Waste Rock Dumps | • Update location and dimensions of WRDs and provide design drawings.<br>• Update reference to WRD and AMD Management Plan.<br>• Increase mine production rate from 800,000t per annum to 1,000,000 t per annum. |

| Section | Amendment |
|---|---|
| | • Update waste classification criteria.<br>• Oxide waste material from the box cut and decline development to a depth of 70mBGL to be placed in WRD1.<br>• Transitional and fresh waste rock to be placed in WRD2. |
| 6.7 Haul and Access Roads | • Remove proposed haul road realignment and infrastructure corridor.<br>• Included proposed Cox Peninsula Road site intersection for site access.<br>• Updated definition of road types and update details to reflect updated project information and IFC designs. |
| 6.9 Other Activities | • Remove reference to the construction and operation of a paste plant for the production cemented paste backfill.<br>• Remove transfer of processing fines slurry from grants processing plant to the proposed BP33 paste plant.<br>• Remove transfer of mine affected water between Grants and BP33 mine water storages. |
| **7. Project Risk Assessment** | |
| 7.1 Risk Assessment Methodology | • Update to reflect correct standards and corporate risk assessment methodology. |
| 7.2 Risk Assessment Summary | • Updated to include a specific risk assessment summary for proposed project amendments.<br>• Revised the project risk assessment to reflect NT EPA environmental factors and provide greater detail on potential risks and controls. |
| **8. Management Systems** | • Updated to reflect current project and corporate information. |
| **9. Care and Maintenance Planning** | • New section added to detail care and maintenance activities should they be required.<br>• Provides a summary of key activities to be undertaken during care and maintenance |
| **11. Security** | • Security value updated to consider proposed activities within this MMP reporting period. |
| **12. References** | • Updated |
| **Appendices** | Updated to include provision of:<br>• NT EPA Self-Assessment Screening Tool<br>• Care and Maintenance Plan<br>• Revised Mine Closure Plan<br>• Revised Erosion and Sediment Control Plan<br>• BP33 Dust Management Plan<br>• Revised BP33 Water Management Plan and Water Balance<br>• Revised project risk assessment |

| Section | Amendment |
| --- | --- |
| | • Haul road / site access road design drawings<br>• Revised BP33 security calculator. |

# 1 Application for Authorisation

## 1.1 Operator Details

**Table 1.1 Operator Details**

| Item | Description |
|---|---|
| **Company:** | Lithium Developments (Grants NT) Pty Ltd |
| **ABN:** | 70 622 047 232 |
| **Web Page:** | www.corelithium.com.au |
| **Phone:** | 08 8317 1700 |
| **Email:** | info@corelithium.com.au |
| **Postal Address:** | PO Box 7890, Perth, Western Australia 6850 |
| **Street Address:** | Level 9, 2 Mill Street, Perth, Western Australia 6000 |

**Table 1.2 Contact**

| Primary Contact | | | |
|---|---|---|---|
| **Name:** | Paul Brown | Position: | Chief Executive Officer |
| **Phone (Business):** | +61 8317 1700 | Phone (Mobile) | - |
| **Email:** | pbrown@corelithium.com.au | | |

| Secondary Contact | | | |
|---|---|---|---|
| **Name:** | Paul McHugh | Position: | HSE Manager |
| **Phone (Business):** | +61 8317 1700 | Phone (Mobile) | 0437 001 040 |
| **Email:** | pmchugh@corelithium.com.au | | |

## 1.2 Title Details

**Table 1.3 Mineral Titles**

| Title Number | Title Holder | Expiry Date | Underlying Land Tenure | Use |
|---|---|---|---|---|
| **ML32346** | Lithium Developments (Grants NT) Pty Ltd | 12/01/2046 | Vacant Crown Land | Mine Infrastructure |
| **MLN16** | | 04/03/2026 | | Mine Infrastructure |
| **ML32074** | | 17/01/2039 | | Internal Haul Road / Access Roads |

## 1.3 Project Details

**Table 1.4 Application for Authorisation**

| Authorisation Type | | | | | | Authorisation Number |
|---|---|---|---|---|---|---|
| **New Authorisation** | Yes | ☐ | Authorisation Variation | Yes | ☒ | 1138-01 |
| | No | ☒ | | No | ☐ | |
| **Project Name** | Mine Site Name: BP33 | | | | | |
| **Location and Access Details** | **Location:** Approximately 2.5 km south-west of Cox Peninsula Road and 3.5 km south of the Grants Operations (part of the Finnis Lithium Project).<br>**Site Access:** A dual lane access road from Cox Peninsula Road via a dedicated intersection located approximately 460 m north of the existing Observation Hill Dam (OHD) access intersection.<br>**Nearest Towns:** Berry Springs township (33 km southeast), Belyuen Community (22 km northwest). | | | | | |
| **Target Commodity Details** | Spodumene (lithium bearing mineral) | | | | | |

## 1.4 Declaration

I hereby declare that the information provided in the Mining Management Plan is true and correct to the best of my knowledge and that I accept that the misrepresentation or omission of facts may delay assessment for authorisation under the *Mining Management Act 2001*.

**Table 1.5 Director Declaration**

| Chief Executive Officer | Signature | Date |
|---|---|---|
| **Paul Brown** | PBrown | 19 September 2025 |

# 2 Introduction

The BP33 Project is located 28 km southwest of Darwin, Northern Territory and is accessed via the Cox Peninsula Road, approximately 34 km west of Berry Springs Figure 2-1. It is operated by Lithium Developments (Grants NT), a wholly owned subsidiary of Core Lithium Ltd.

The mine is part of the broader Finniss lithium region which also includes Grants Operations, located approximately 6 km north of BP33, and numerous other spodumene bearing pegmatite deposits under various stages of exploration Figure 2-2.

Early works began at BP33 in May 2023, including excavation of the box cut, commencement of the Installation of the tunnel arch footing and commencement of construction of water management facilities. Due to a softening lithium market, early works were suspended in December 2023. A notice of intention to enter care and maintenance was provided to the Department of Lands, Planning and Environment (DLPE) in May 2024.

In response to improving market conditions and because of identified optimised operating and processing methodologies the site is proposed to be returned to an operational status. The remaining surface infrastructure and the development of the underground mine will resume.

## 2.1 Scope

This Mine Management Plan (MMP) has been developed as an integrated document that encompasses both operational activities and provision for transition into and out of periods of care and maintenance.

This document has been developed through ongoing dialogue with the Department of Lands, Planning and Environment (DLPE) and the Northern Territory Environmental Protection Authority (NT EPA) and aims to address additional information requests resulting from review of the May 2024 MMP submission and detail and assess project amendments related to the resumption of activities at the BP33 site.

## 2.2 Objective

The objective of this MMP is to:

- Incorporate care and maintenance activities including provision of a stand-alone Care and Maintenance Plan (CMMP);
- Align proposed activities with operational restart milestones and assessed and approved disturbance, actions, and associated management measures, commitments and safeguards; and
- Ensure the current project status Is accurately represented, eliminate duplication and improve clarity and consistency in relation to authorised activities.

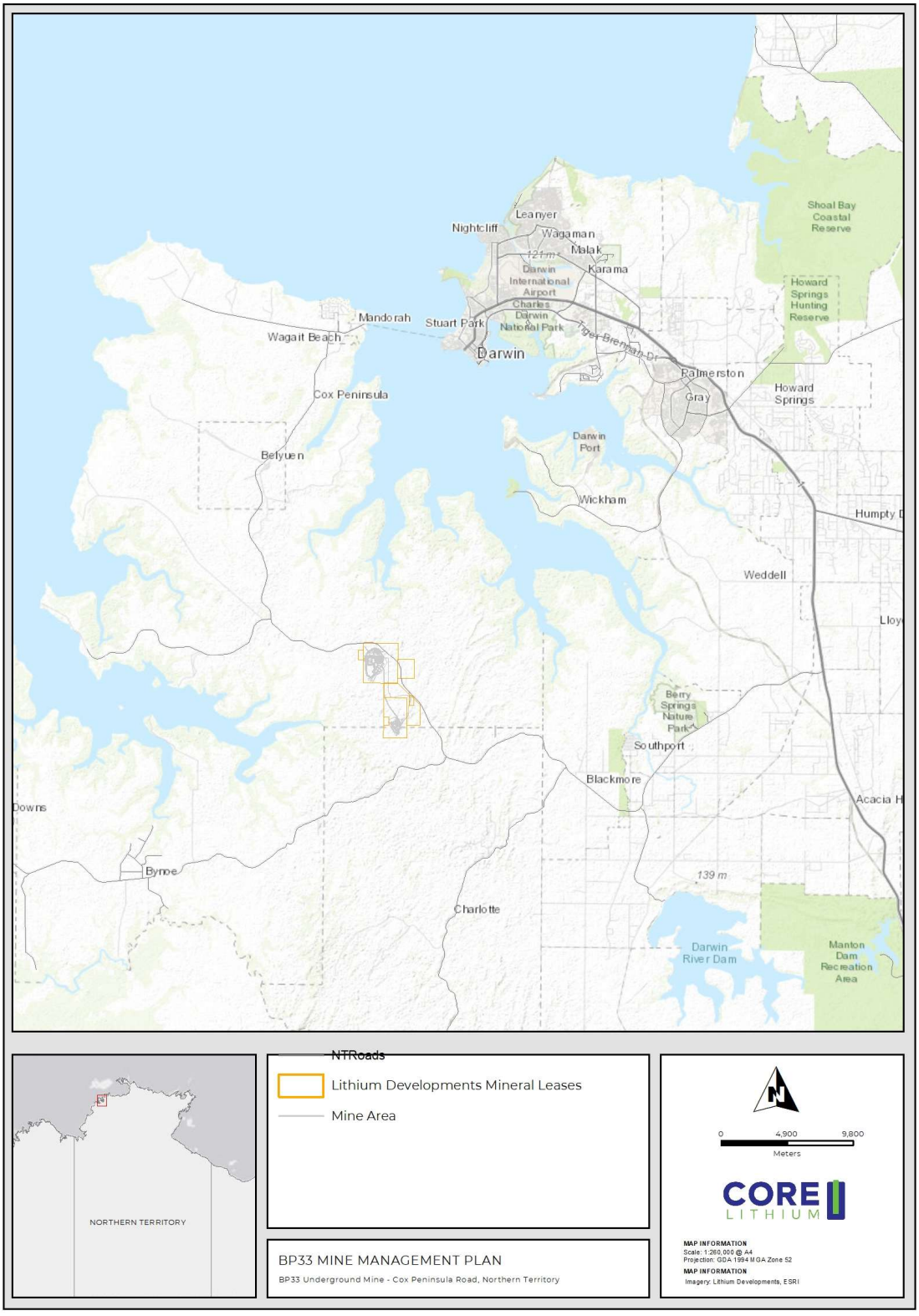



**Figure 2-1 BP33 Regional Location Map**

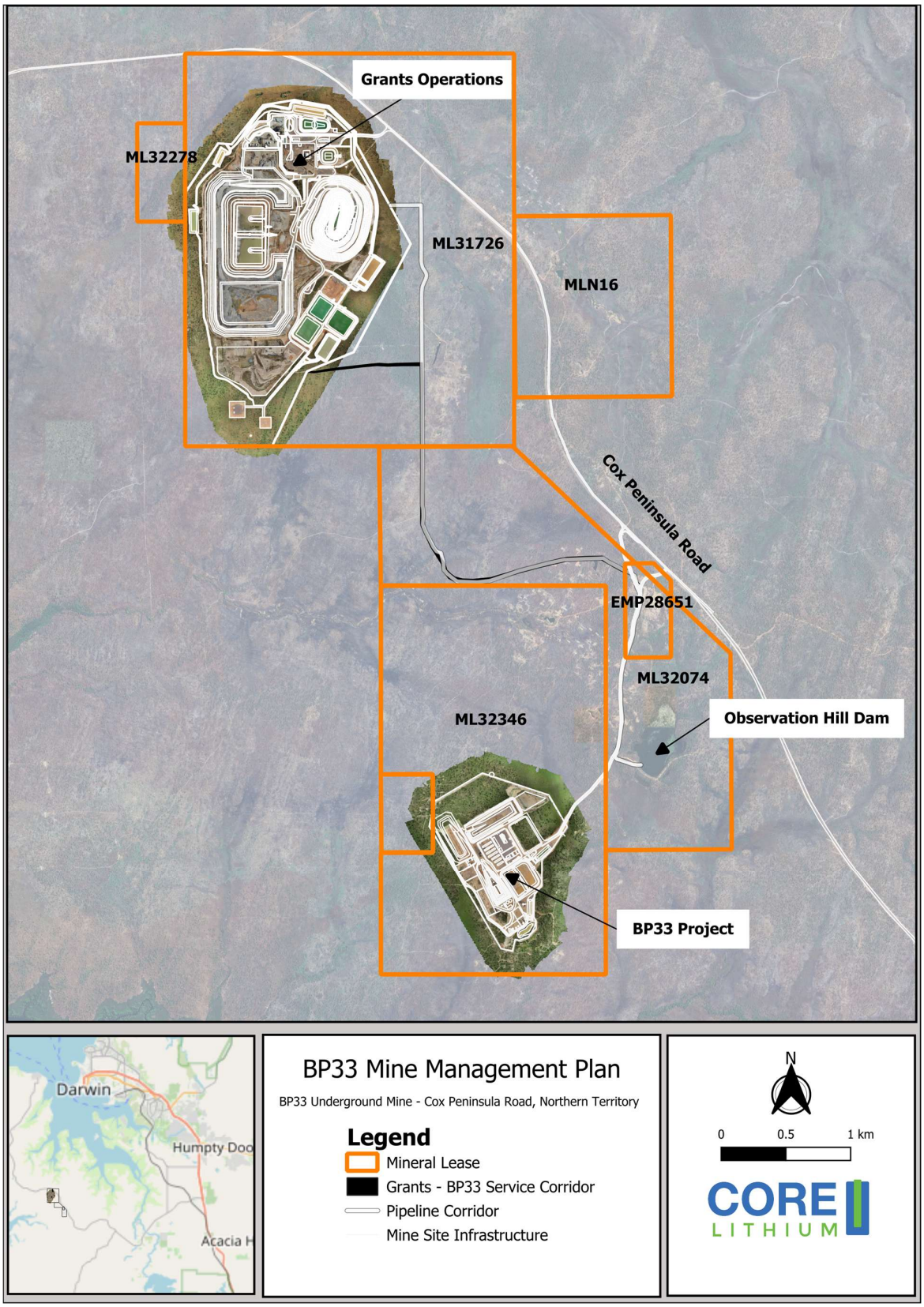



**Figure 2-2 BP33 and Grants Site Location Map**

### 2.2.1 Geology

**Table 2.1 BP33 Geology**

| Aspect | Description | References |
|---|---|---|
| **Regional Geology** | • Regional geology is in the Pine Creek Orogen of the Finniss River Group. Lithologies include greywacke, shale, siltstone, sandstone. | • Desktop Groundwater Study (Groundwater Enterprises, 2019) |
| **Local Geology** | • Local geology is almost identical to the Grants resource (located approximately 6 km to the north of BP33). Within the weathering zones there are two predominate lithologies, phyllite and pegmatite. The ore (spodumene) is located within the fresh pegmatite with phyllite comprising Burrell Creek Formation (BCF).<br>• Phyllite is a foliated rock, with foliation is striking approximately North-South (~010-015°). This is consistent with bedding trends mapped in outcropping BCF in regional geological maps. There are no mapped faults or significant geological structures in the vicinity of the BP33 project area. | • Groundwater Investigation Report (Groundwater Enterprises, 2020) |
| **Geochemical Characterisation** | **EGI (2020) Geochemical Characterisation – Waste Rock and Ore**<br>• Initial geochemical testing was undertaken to provide preliminary characterisation of BP33 waste rock and ore. Results indicated that most waste rock, including oxide and transitional rock excavated during installation of a box cut, transitional and fresh rock excavated during construction of the mine decline and ore that will be mined during the project, will present little risk of acid or saline drainage.<br>• Potential for some potentially acid forming (PAF) waste, particularly in fresh phyllite rock. Both oxide and fresh rock may contain aluminium, arsenic and zinc which could be leached during surface storage.<br>**EGI (2021) Static Geochemical Testing – Waste Rock**<br>• Representative samples were collected from oxide, transitional and fresh waste rock and subject to static geochemical testing. Results indicated:<br>  • Oxide rock excavated from the box cut is expected to be NAF.<br>  • Oxide waste rock stored in the Box Cut WRD (WRD1) or transition and fresh waste rock stored in the UG WRD (WRD2) would be unlikely to produce low pH saline seepage. | • BP33 Geochemical Characterisation of Waste Rock and Ore (EGI, 2020)<br>• BP33 Static Geochemical Testing (EGI, 2021<br>• BP33 Kinetic Geochemical Leach Testing (EGI, 2022)<br>• BP33 Waste Classification Criteria Advice (EGI, 2023)<br>• BP33 Paste Backfill Geochemical Characterisation |

<table>
<tr><th>Aspect</th><th>Description</th><th>References</th></tr>
<tr><td></td><td>
<ul>
<li>Mobility of aluminium in all waste rock and arsenic in fresh waste rock on contact with water, may potentially result in elevated concentrations of these elements in seepage.</li>
<li>In the event substantial oxidation of fresh waste rock occurs during surface storage, concentrations of Al, As, Co, Cr, Cu and Zn may by elevated in comparison to baseline environmental conditions.</li>
</ul>
EGI (2022) Kinetic Geochemical Testing – Waste Rock
<ul>
<li>Following static leach testing, three kinetic leach column tests were established for oxide, transitional and fresh waste rock.</li>
<li>Results from leach column testing confirmed that acidic drainage from wastes stored in WRDs is unlikely, there is potential for water in contact with these materials to contain elevated concentrations of arsenic, copper, lead, zinc and possibly aluminium relative to local surface and groundwaters should significant oxidation of waste rock occur.</li>
<li>Results are summarised in the following table:</li>
</ul>
<table>
<tr><th>Rock Type</th><th colspan="2">Totals S (%)</th><th colspan="2">ANC (kg H2SO4/t)</th></tr>
<tr><td></td><td>Mean</td><td>Maximum</td><td>Mean</td><td>Maximum</td></tr>
<tr><td>Weathered phyllite</td><td><0.01</td><td><0.01</td><td>10</td><td>14</td></tr>
<tr><td>Partially weathered phyllite</td><td>0.05</td><td>0.51</td><td>15</td><td>19</td></tr>
</table>
</td><td>
<ul>
<li>Geochemical Characterisation of Cemented Paste Backfill Report (EGI, 2024)</li>
</ul>
</td></tr>
</table>

<table>
<tr><th>Aspect</th><th>Description</th><th>References</th></tr>
<tr><td></td><td>
Geochemical Classification of Waste Rock
<ul>
<li>EGI (2023) have provided the following criteria that can be used to classify the waste rock by ARD type:
<table>
<tr><th>Primary Geochemical Waste Type Class</th><th>Material</th><th>Total Sulphur Content</th></tr>
<tr><td>Non-Acid Forming (NAF)</td><td>Ore / Oxide waste rock / Transition and fresh waste rock</td><td>S <0.2%</td></tr>
<tr><td>Potentially Acid Forming-Low Concentration (PAF-LC)</td><td>Transition and fresh waste rock</td><td>S ≥0.2% and <0.4%</td></tr>
<tr><td>PAF</td><td>Transition and fresh waste rock</td><td>Total S ≥0.4%</td></tr>
</table>
</li>
</ul>
</td><td></td></tr>
</table>

# 3 Project Summary

## 3.1 Overview

**Table 3.1 BP33 Project Summary**

| Project Aspect | Description | References |
|---|---|---|
| **Currently Approved Activities** | Existing BP33 approvals permit the following:<br>• Clearing 100.9 ha of native vegetation<br>• Construction of site infrastructure, including a contractor's area (storage and maintenance), internal access roads and drainage infrastructure, water storages and Run of Mine (ROM) pad. ·<br>• Excavation of a box-cut portal to an approximate depth of 60-70 m to remove weathered waste rock and provide a stable foundation for construction of an underground portal. ·<br>• Construction of a decline from the base of the box-cut and development of the underground mine<br>• Underground mining of the resource to a depth of 320m over ten production levels over a LOM of approximately four years. ·<br>• Establishment of two onsite waste rock dumps (WRDs) for temporary storage of oxide waste rock from the box-cut and decline development through oxide material to a maximum depth of 70m (WRD1) and transitional/fresh waste rock from the underground (WRD2) prior to backfilling the material to the box-cut and underground. ·<br>• Transport of the mined ore approximately 7.3 km along the Cox Peninsula Road to the Grants processing plant. ·<br>• Source raw water from Observation Hill Dam (OHD). | • Lithium Developments (2024)<br>• BP33 MMP (EcOz, 2022) |

| Project Aspect | | Description | References |
|---|---|---|---|
| **Proposed Approval Activities** | | Proposed BP33 project amendments are itemised below and detailed within relevant sections of this MMP.<br>• Integration of care and maintenance provisions within the MMP, should the mine enter a period of care and maintenance.<br>• Reduction in the overall design footprint of the box cut with a reduced depth of approximately 40 meters below grade (mbg).<br>• Optimised mine design and adoption of Long Hole Open Stope mining methodology as preferred variant of Sub Level Open Stope mining to optimise operations.<br>• A new site access point is proposed from Cox Peninsula Road (CPR) to access BP33 operations. This will comprise construction of an intersection and slip lane off CPR and extension of the existing site access road comprising an upgrade of an existing track into a dual lane access road. The existing construction access point will be barricaded.<br>• Modification to WRD design footprints and confirmation of WRD2 foundation construction detail. An increase in temporary operational heights for WRDs.<br>• Replacement of the currently approved raw water dam (not constructed) by two, 600 kL tanks. | • Lithium Developments (2024) |
| **NT EPA Pre-Referral Screening Tool** | | • Proposed project amendments noted above were assessed using the NT EPA Pre-Referral Screening Tool (Appendix A) to predict and define potential for, and extent of, environmental impacts.<br>• The screening tool showed that proposed project amendments are entirely within the scope of those assessed in NT EPA Assessment Report 94.<br>• Environmental risks associated with the proposed project amendments have been considered in the project environmental risk assessment detailed in Section 6. | • Referring a proposal to the NT EPA. Environmental Impact Assessment Guidance for Proponents (NT EPA, 2022)<br>• Assessment Report 94 (NT EPA , 2022) |
| **Commodity** | Lithium | • Maximum total resource recovery currently approved is 2.1 million tonnes or 2,100 kt at approximately 1.4% lithium. | • Authorisation 1138-01<br>• Environmental Approval EP2020/001-001 |

| Project Aspect | Description | References |
|---|---|---|
| **Schedule** | **Phase 1 - Exploration / Planning: Complete**<br>• Core Lithium has undertaken exploration at BP33 since April 2016, contributing assay and geological data from Reverse Circulation (RC) and Diamond Drilling. Ongoing resource drilling undertaken in 2022 and 2023 was used to increase the Mineral Resource Estimate (MRE) from 2.1 million tonnes to a potential 10.5 million tonnes.<br>• A comprehensive review of the BP33 prefeasibility study was commissioned in early 2023 with a dedicated study group, comprising a range of subject matter experts, was established to plan construction and operation of BP33 Project. The study was completed in December 2023 has been used to inform this MMP amendment. | • Lithium Developments (2024)<br>• BP33 MMP (EcOz, 2022) |
| | **Phase 2 - Construction: 6 months**<br>• Construction of surface infrastructure commenced in July 2023 and comprised:<br>  • Excavation of the box cut.<br>  • Installation of primary sediment and erosion controls including drains and sediment basins.<br>  • Commenced construction of Mine Water Dam (MWD).<br>  • Construction and operation of WRD1 for the temporary storage of oxide waste from the box cut excavation.<br>  • Construction of ancillary contractor pads, roads and temporary construction laydowns, offices and amenities.<br>  • Improvement of existing tracks to facilitate construction and site access.<br>  • Establishment of internal access roads and topsoil stockpiles.<br>• Construction was postponed in December 2023 upon onset of the wet season and was suspended in January 2024 due a softening lithium market. Upon resumption of project activities the remaining infrastructure will be completed concurrently with operational activities and include:<br>  • Completion of the box cut.<br>  • Completion of construction of Mine Water Dam (MWD).<br>  • Construction of ventilation infrastructure.<br>  • Construction of operational WRDs.<br>  • Permanent contractor laydowns, administration and ablutions.<br>  • Installation of services including power, potable water, raw water and septic | • Lithium Developments (2024)<br>• BP33 MMP (EcOz, 2022) |

<table>
<tr><th>Project Aspect</th><th>Description</th><th>References</th></tr>
<tr><td></td><td>• Construction of a raw water pipeline from OHD to BP33 and raw water tanks<br>• Completion of internal access roads and site access roads to Cox Peninsula Road.</td><td></td></tr>
<tr><td></td><td>Phase 3 - Operations: 44 months<br>• The approved operational phase is 44 months and will occur concurrently with remaining construction activities detailed above. Operational activities include the following:<br>  • Development of the decline,<br>  • Extraction of development waste and ore,<br>  • Extraction of production ore; and<br>  • Rehabilitation trials / rehabilitation<br>• Care and maintenance activities have been considered in the MMP with inclusion of the Care and Maintenance Plan provided as Appendix B</td><td>• Lithium Developments (2024)<br>• BP33 MMP (EcOz, 2022)</td></tr>
<tr><td></td><td>Phase 4 - Closure: 5 months<br>• Closure earthworks and rehabilitation is expected to take 5 months. Ongoing monitoring will continue until the criteria for the relinquishment of the mining leases are met. BP33 Closure criteria are outlined in the BP33 MCP (Appendix C).</td><td>• Lithium Developments (2024)<br>• BP33 MMP (EcOz, 2022)</td></tr>
<tr><td>Schedule Summary:</td><td colspan="2">A high-level indicative schedule summary is provided below:
<table>
<tr><th>Stage</th><th colspan="4">Year 1<br>(Operations Restart)</th><th colspan="4">Year 2</th><th colspan="4">Year 3</th><th colspan="4">Year 4</th></tr>
<tr><td>Phase 1 Exploration / Planning</td><td colspan="16">Complete</td></tr>
<tr><td>Phase 2: Construction</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Phase 3: Operations</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Phase 4: Closure</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table></td></tr>
<tr><td>Mining:</td><td>Target resource</td><td>• Target resource is a pegmatite body, an intrusive igneous rock containing spodumene (LiAlSi2O6), a source of lithium. The BP33 pegmatite is interpreted to be</td><td>• BP33 Resource Estimation Report (Core Lithium, 2024)</td></tr>
</table>

| Project Aspect | | Description | References |
|---|---|---|---|
| | | approximately 350 m in strike length and up to approximately 40 m thick with a depth extent more than 800 m. | |
| | Mining Rate | • Mining production is expected to average at approximately 1,000,000 tonnes per annum. | • BP33 Mine Plan and Ore Reserves (AMC, 2023) |
| | Destination Port | • East Arm Port, Darwin | • BP33 Traffic Impact Statement (GHD, 2021) |
| | Mode of Transport | • Road haulage via public roadway. | |
| **Processing** | Not applicable | • Ore will be transported to and processed at the Grants processing facility. Environmental impacts associated with ore processing are addressed in the Grants Lithium Project EIS and managed under the Grants MMP. | • Grants Operations MMP ( Lithium Developments (2024)) |
| **Ancillary Activities** | Rehabilitation Trials | • Rehabilitation trials will be undertaken during the operational phase and will trial rehabilitation methods to be implemented during closure. | • BP33 Mine Closure Plan (MineEarth, 2024) |
| | Power Supply | • Onsite diesel generation. Options for future connection to the public grid as well as solar / battery array have been considered with some infrastructure allowances made. | • BP33 Power Supply Report (GHD, 2023) |
| | Existing BP33 Pit | • The existing BP33 pit will be retained for use as a supplemental source of water and has been incorporated into a revised water balance and water management plan. | • BP33 Water Management Plan (WRM, 2024) |
| | Geochemical Characterisation | • Ongoing geochemical characterisation of mine waste will be undertaken in accordance with sampling program and waste management strategies detailed in the BP33 WRD and AMD Management Plan. | • BP33 WRD and AMD Management Plan ( Lithium Developments (2024)) |
| **Waste Management** | WRDs | **Waste Rock Dump 1 (WRD1)**<br>• Temporary stockpiling of oxide waste from the box cut excavation and decline development to a maximum depth of 70 below ground surface.<br>**Waste Rock Dump 2 (WRD2)**<br>• Temporary stockpiling of waste rock from the underground operations before it is progressively consumed as backfill. | |

| Project Aspect | | Description | References |
|---|---|---|---|
| | Waste Water Dams | **Mine Water Dam (MWD)**<br>• Twin cell turkey nest type dam that receives mine affected water from underground operations. Discharge of excess mine affected water will occur from this structure. | • BP33 Water Balance (WRM, 2024)<br>• BP33 Water Management Plan (WRM, 2024) |
| **Water Use / Management** | Demand | • Operational water demands are detailed in the Water Management Plan provided as Appendix H. | |
| | Sources | **Observation Hill Dam**<br>• Raw water supply to BP33 and Grants Operations<br>• Contingency raw water top up to BP33 MWD for operational use if required.<br>**Sediment Basins SB1 and SB2**<br>• Sediment management and alternative supply to mine water demands prior to utilising OHD raw water.<br>**Underground Mine Dewatering**<br>• Primary source of mine water demands | |
| | Internal Water Storage Capacities | Surface water will be captured in the following structures:<br>• MWD (156 ML) - Mine affected water<br>• Sediment Basin SB1 (13.0 ML) - Surface water runoff<br>• Sediment Basin SB2 (10.6 ML) - Surface water runoff | |
| | Controlled Releases | • Controlled release from MWD will be undertaken in accordance with Waste Discharge Licence (WDL 253) | WDL 253 (NT EPA, 2024) |
| | Land Irrigation | • Irrigation of mine affected water is proposed as an action should excess mine affected water require disposal. Irrigation areas at BP33 have been Identified and appropriate land application rates established in the B33 Irrigation Management Plan. Irrigation of mine affected water will be undertaken in accordance with this document. | BP33 Irrigation Management Plan (EcOz, 2023) |
| | Bore Field | • Geotechnical investigations recommend a network of dewatering bores to facilitate construction of the decline, vent shafts and underground mine. A dewatering bore | • BP33 Groundwater Investigation Report |

| Project Aspect | | Description | References |
|---|---|---|---|
| | | field may need to be constructed prior to the commencement of construction with water from any proposed dewatering bore managed through the Mine Water Dam and potential impacts to the water balance assessed prior to construction.<br>• Existing groundwater bores comprise the following:<br>  • **Environmental Monitoring**: Seven nested and single bores used for the monitoring of groundwater within the shallow alluvial aquifer and deeper groundwater within the Burrill Creek Formation (BCF).<br>  • **Geotechnical Monitoring:** One multi-tip vibrating wire piezometer installed adjacent to the portal and Initial decline for assessing pore pressure and dewatering response to the box cut / decline development. | (Groundwater Enterprises, 2020)<br>• Geotechnical Model and Design Advice (PSM, 2024)<br>• High Level Estimated for Dewatering Bores for BP33 (CloudGMS, 2023) |
| | Abstraction | • BP33 and Grants Operations currently operate under Surface Water Extraction Licence (SWEL) 8151018 that permits the use of raw water from OHD. | • SWEL 8151018 (NT EPA, 2021) |
| **Flood Immunity** | Flood Mitigation Measures | • Flood mitigation measures, where required have been factored into infrastructure designs. Key flood immunities for specific infrastructure detailed below:<br>  • Underground Infrastructure: 1% AEP (1:100)<br>  • Haul Road: 5% AEP (1:20) - Minor / 1% AEP (1:100) - Major<br>  • Internal Roads: 10% AEP (1:10)<br>  • Site Access Roads: 5% AEP (1:20) | • BP33 Water Management Plan (WRM, 2024)<br>• BP33 Mine Surface Infrastructure Design Report (GHD, 2023) |
| **Site History** | | • The area has an extensive history of exploration and mining activity with tin and Tantalum historically mined. Notable mining activities in the area occurred in the 1980's / 1990's, when tin and tantalum were mined and processed at Observation Hill. Observation Hill Dam and nearby settling ponds were likely constructed during this period to facilitate processing of ore.<br>• Apart from sporadic exploration activities, the area has been largely used for recreational purposes since the 1990s. Unrestricted public access to the area has led to unauthorised rubbish dumping and intrusion of some weed species, notably Gamba Grass and Perennial Mission Grass to Isolated areas of Observation Hill. | • Grants Mine Management Plan (EcOz, 2022) |

| Project Aspect | Description | References |
|---|---|---|
| | • Core Lithium began exploration in 2016 and commenced early works construction on surface infrastructure at BP33 In June 2023. Construction was paused In December 2023 due to onset of the wet season and was suspended in January 2024 due to a softening lithium market. | |

## 3.2 Current and Proposed Disturbances

Existing and proposed disturbances of the BP33 Project are summarised in Table 3.2 and shown on Figure 3-1, Figure 2-4 and Figure 3-2. BP33 is currently approved 100.9 ha of vegetation for development of the mine and ancillary infrastructure.

**Table 3.2 Current and Proposed Disturbances**

| Disturbance Summary | Footprint (ha) | | | Description |
|---|---|---|---|---|
| | Existing | Proposed (This MMP) | Total | |
| **Administration / contractor areas and laydown yards** | 9.76 | 0.14 | 9.9 | • Temporary., to be rehabilitated post mining. |
| **Existing BP33 open cut pit** | 0.33 | 0 | 0.33 | • Historical disturbance |
| **Box cut** | 3.72 | 0 | 3.72 | • Temporary, to be backfilled on completion of mining operations. |
| **WRDs (WRD1 and WRD2)** | 7.76 | 0 | 7.76 | • Temporary, to be backfilled into the box cut and underground operations with foundations rehabilitated post mining. |
| **ROM Pad** | 3.25 | 0 | 3.25 | • Temporary., to be rehabilitated post mining. |
| **Mine Water Dam (MWD)** | 6.25 | 0 | 6.25 | • Temporary., to be rehabilitated post mining. |
| **Sediment Basins and drainage network** | 7.20 | 0 | 7.20 | • Temporary., to be rehabilitated post mining. |
| **Topsoil Stockpiles** | 3.01 | 0 | 3.01 | • Temporary., topsoil to be progressively consumed for rehabilitation. |
| **Internal road network** | 5.93 | 0 | 5.93 | • Temporary., to be rehabilitated post mining. |
| **Access Road from Cox Peninsula Road to BP33** | 5.09 | 1.32 | 6.41 | • Temporary., to be rehabilitated post mining. |

| Disturbance Summary | Footprint (ha) | | | Description |
|---|---|---|---|---|
| | Existing | Proposed (This MMP) | Total | |
| **BP33 to Grants haul road** | 0 | 0 | 12.5 | • Temporary., to be rehabilitated post mining. Contingency proposal, will not be constructed should required approvals be received for use of the Cox Peninsula Road. |
| **Site security fence / fire break** | 4.92 | 0 | 4.92 | • Temporary., to be rehabilitated post mining. |
| **Generator pad / vent shafts** | 3.36 | 0.68 | 4.04 | • Temporary., to be rehabilitated post mining. |
| **Cleared area** | 2.48 | 0 | 2.48 | • Temporary to be rehabilitated during operations. |
| **Total** | **63.06** | **2.14** | **65.2** | |

**NB:** Total figure does not include 12.5 ha of disturbance for BP33 to Grants Haul Road.

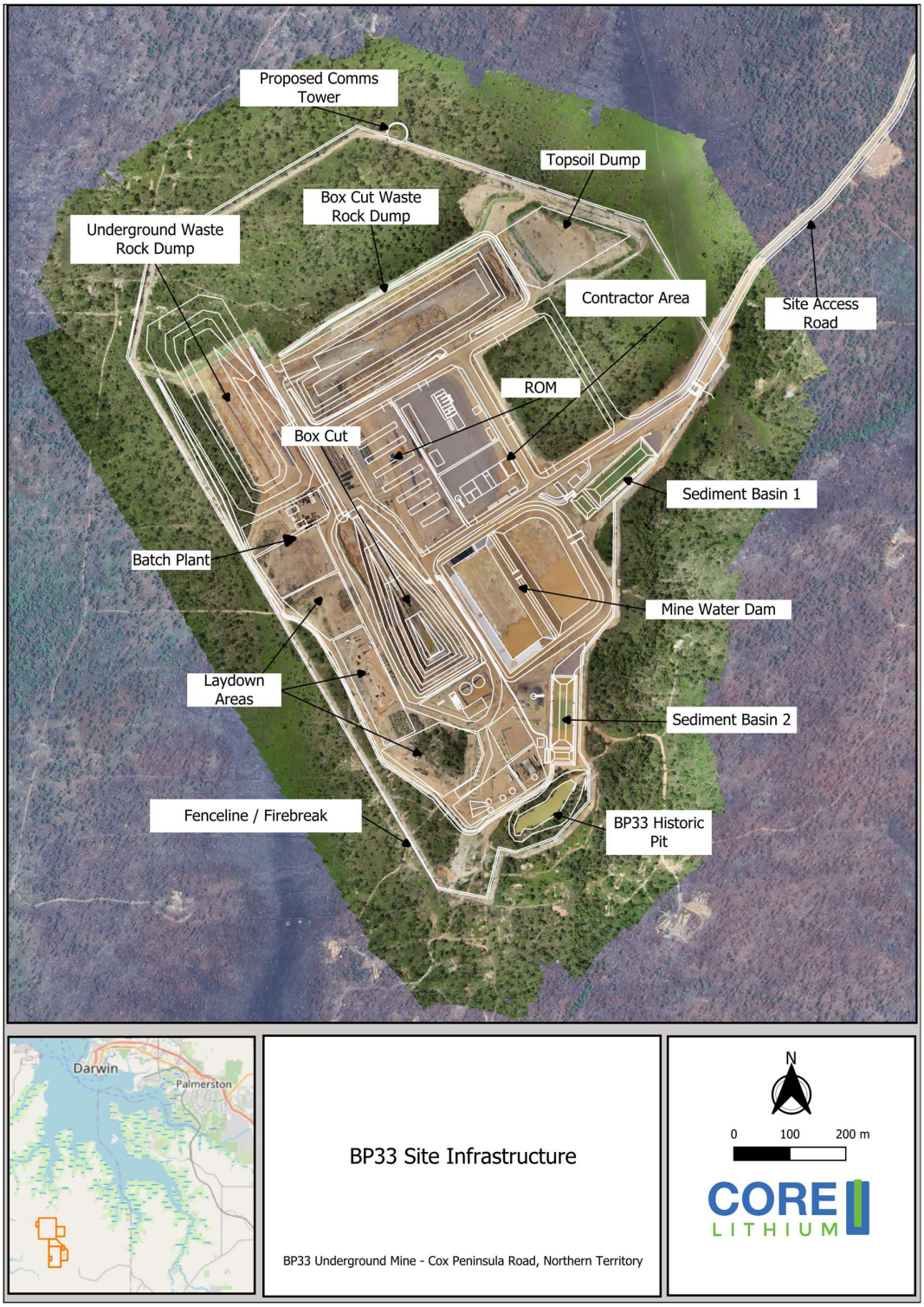



**Figure 3-1 - BP33 General Arrangement - Surface Infrastructure Area Site Layout Map**

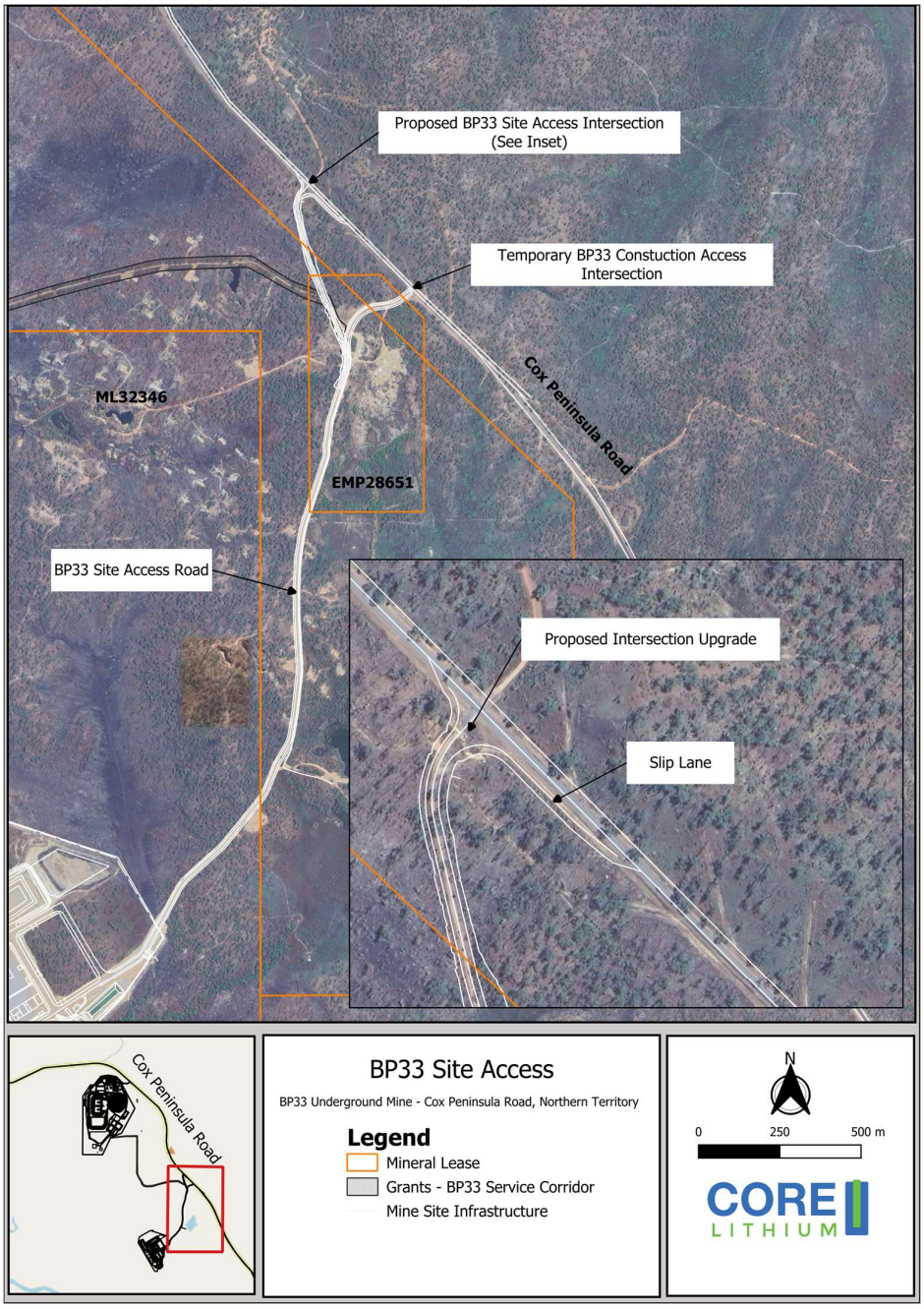



**Figure 3-2 - BP33 General Arrangement - BP33 Site Access Road Layout Map**

## 3.3 Operational Organisational Structure

BP33's proposed organisational structure that will implement applicable management systems detailed in this MMP is provided in Table 3.3 below.

**Table 3.3 BP33 Operational Organisational Structure**

| Role | Responsibility under EMS |
|---|---|
| **General Manager** | Over-arching accountability for compliance with:<br>• Applicable NT and Commonwealth legislation.<br>• Authorisation and associated MMP and Environmental Approval (EA).<br>• Finnis Lithium Project Environmental Management System; and<br>• Commitments and conditions associated with the environmental and mining approvals, permits and licences. |
| **Mining Manager** | Responsible for compliance with:<br>• Applicable NT and Commonwealth legislation; and<br>• MMP Authorisation, MMP and Environmental Approval (EA)<br>The mining manager will be supported in compliance management and monitoring by the Health, Safety and Environment (HSE) manager. |
| **HSE Manager** | Key person responsible for:<br>• Maintaining and implementing the EMS in accordance with applicable NT and Commonwealth legislation; and<br>• Ensuring all commitments and conditions associated with the environmental and mining approvals, permits and licences are adhered to. |
| **Environmental Superintendent** | Key person responsible for:<br>• Providing support to the Manager HSE to maintaining and implement the EMS to address all commitments and conditions associated with the environmental and mining approvals, permits and licences; and<br>• Implementing, coordinating and overseeing compliance monitoring.<br>• Accountable to ensure implementation of EMPs. |

| Role | Responsibility under EMS |
|---|---|
| **Health and Safety Superintendent** | Key person responsible for:<br>• Providing support to the Manager HSE for maintaining and implementing the Safety Management and Critical Risk Management systems.<br>• Oversight of contractor activities and reporting.<br>• Implementation, coordination, and oversight of Incident investigation and reporting, fitness for work testing, and high risk permitting. |
| **Environmental Officer** | Key person responsible for:<br>• Conducting compliance monitoring programs<br>• Providing support to the Environmental Superintendent and HSE Manager; and<br>• Implementation of EMPs |
| **HSE Officer** | Key person responsible for:<br>• Conducting site health, safety and environmental compliance monitoring<br>• Providing support to the Superintendent Environmental and Manager HSE |
| **Emergency Services Officers (ESO's)** | Key person responsible for:<br>• Providing emergency response capacity including for environmental incidents.<br>• Implementation of the Emergency Management Plan; and<br>• Providing support to the HSE Manager |

# 4 Site Conditions

## 4.1 Site Setting

### 4.1.1 Climate

**Table 4.1 BP33 Climate Statistics**

| Climatic Conditions | | | | | | |
|---|---|---|---|---|---|---|
| **Climate Type** | Wet / Dry Tropics ☒ | | Arid ☐ | | Other: | |
| **Temperature (°C)** | **Min** | 17.7 | **Month** | July | | |
| | **Max** | 34.4 | **Month** | October | | |
| **Rainfall (mm)** | **Min** | 0.9 | **Month** | July | **Annual Average** | 1624.8 |
| | **Max** | 411.1 | **Month** | January | | |
| **Evaporation (mm)** | **Min** | 150.3 | **Month** | February | **Annual Average** | 2327.3 |
| | **Max** | 240.3 | **Month** | September | | |

*Source: Department of Environment and Science (DES) SILO (Scientific Information for Land Owners) database – January 1957 to November 2021*

### 4.1.2 Landscape and Soils

**Table 4.2 BP33 Landscape and Soils**

| Aspect | Description | References |
|---|---|---|
| **Topography** | • Regional topography is generally flat, with a maximum slope of 5%, except for short, occasional sections of steep ridges in isolated areas. Locally, BP33 is situated in a subtle valley with a south to south-west orientation. | • BP33 MMP (EcOz, 2022)<br>• Grants – BP33 Infrastructure Threatened Species Assessment (Epic Environmental, 2024) |
| **Land Units** | • The surveyed project area which broadly comprises well-drained low hills and rises, intersected by seasonally waterlogged drainage systems and alluvial plains.<br>• The BP33 mining area occurs predominately on land characterised as low rises with gravelly well-drained soils (land unit 2a1) with portions of the site including contractor areas and the MWD located on broad drainage floors (land unit 6b). A small section of the haul road and the contractors' area is located on narrow alluvial plains and upland terrain (land unit 5a). Both land units 6b and 5a are classified as having 'severe level of seasonal water logging'.<br>• OHD is located on narrow upland alluvial plains (land unit 5a), which are associated with ephemeral drainage lines. The pre-existing OHD to Grants raw water pipeline corridor traverses mainly low rises with gravelly well-drained soils (land unit 2a1) and broad drainage floors (land unit 6b). Short sections of the route traverses' steep ridges (land unit 1b) and narrow alluvial plains (land unit 5a). | |
| **Soil Types** | • There are predominantly two soil groups in the BP33 proposed disturbance area - Rudosols and Hydrosols. Rudosols are very shallow soils or those with minimal development. Hydrosols are seasonally inundated and generally occur on coastal floodplains, swamps and drainage lines. | |
| **Soil Characterisation** | • Soil characterisation results suggest that the soil at the site is an infertile, gravelly sandy loam. The Emerson test indicates that the soil should be nondispersive but given the low organic matter level and sandy texture the soil likely has poor structure and limited water-holding capacity and therefore could be susceptible to erosion under wet conditions. It is expected successful rehabilitation will require increasing the physical and chemical fertility of the soil to some extent, consistent with the proposed end use (EGi, 2020). | |

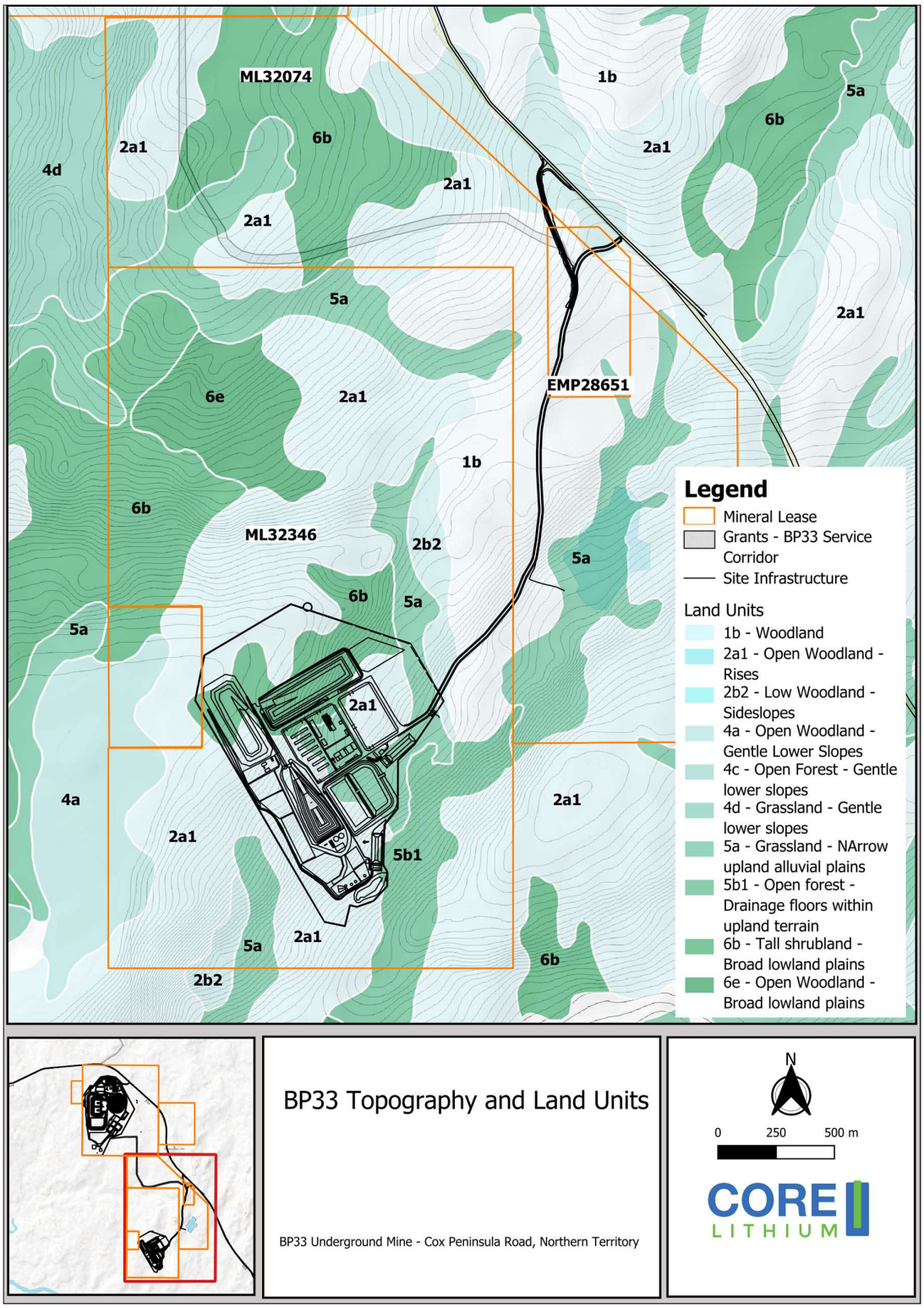



**Figure 4-1 - BP33 Topography and Land Unit Map**

### 4.1.3 Hydrogeology

**Table 4.3 BP33 Hydrogeology**

| Aspect | Description | References |
|---|---|---|
| **Aquifer** | **Burrell Creek Formation**<br>• Principal aquifer across the BP33 site.<br>• It is a marginal fractured rock aquifer with groundwater typically intersected at the base of the weathering zone/transition into fresh Burrell Creek Formation.<br>• The Burrell Creek Formation is largely fine grained and characteristically weathers to clay. Where heavily weathered, the Burrell Creek Formation is less permeable.<br>• Drill logs Indicate groundwater was encountered in most bores at approximately 45 mBGL.<br>**Alluvial Aquifer**<br>• Minor occurrence shallow groundwater in localised alluvial deposits. Expected to operate at a local scale, being of both limited lateral extent (200 – 300 m) and thickness (up to 6 m). Groundwater flow directions within the alluvial aquifer are likely to be consistent with the surface water gradient and generally flow from north to south. | • BP33 Groundwater Investigation Report (Groundwater Enterprises 2020)<br>• BP33 Groundwater Modelling Report (CloudGMS, 2021)<br>• GDE Management Plan (2022)<br>• BP33 Dewatering Assessment (CloudGMS, 2023) |
| **Yield** | • Typical bore yields in the BCF were less than 0.5 L/s due to the lack of primary porosity and open fracturing. Yields up to 2L/s can occur where bores Intersect fracture zones or quartz veining. | |
| **Groundwater Flow Direction** | • Groundwater flow directions reflect the topographic gradient with groundwater moving from higher groundwater elevations in the north-east around OHD to lower elevations around Bynoe Harbour south-west of BP33.<br>• The existing BP33 pit does not appear to be hydraulically linked to regional groundwater as recharge was not observed when dewatered during construction in 2023. | |
| **Groundwater Quality** | • Baseline groundwater quality monitoring has been undertaken at 13 groundwater monitoring bores in seven locations since their installation in September 2020 | |

| Aspect | Description | References |
|---|---|---|
| | • A combination of shallow (<36mBGL) and deep bores (>36mBGL) were installed to provide data representative of the range of groundwater quality conditions encountered as the mine progresses deeper underground.<br>• Results Indicate shallow and deep aquifers have distinct water quality characteristics with the deep groundwater aquifer being naturally elevated in arsenic, iron, lithium, and phosphorous. Groundwater quality is summarised in the BP33 Water Management Plan. | |
| **Groundwater Users** | **Beneficial Use Declaration**<br>• The project area is within the Darwin Rural Water Control District declared under the NT Water Act 1992. The district declared beneficial uses Including agriculture, aquaculture, public water supply, environment, cultural, industry, rural stock and domestic, mining activity and petroleum activity.<br>**Existing Groundwater Users**<br>• No existing groundwater users were Identified downgradient of BP33 project area. The nearest registered groundwater bore Is RN041993 (domestic supply bore) located 4.6 km south and cross-gradient to BP33. This bore is unlikely to be impacted by BP33 mining activities. | |
| **Groundwater Dependent Ecosystems (GDEs)** | • The Bureau of Meteorology (BOM) Groundwater Dependent Ecosystems (GDE) Atlas maps an area of medium GDE potential along the drainage lines to the immediate east and south of BP33. Small pools have been observed to persist in the watercourse into the late dry season (EcOz, 2019) and a narrow zone of riparian rainforest occurs, suggests a level of groundwater dependence. These ecosystems are likely facultative GDEs, with an infrequent or partial dependence on groundwater (CloudGMS, 2021).<br>• Review of the GDE Atlas indicates portions of BP33 mine infrastructure area is located on areas of low potential GDE. | |
| **Groundwater Drawdown** | • The original modelled extent of groundwater drawdown around the BP33 mine Indicates a drawdown cone extending approximately 2 km from the underground mine and a recovery time of three years post mining. | |

| Aspect | Description | References |
|---|---|---|
| | • Revised groundwater modelling, calibrated with observed box cut and Grants pit groundwater inflow rates, indicate that the extent of the drawdown is consistent with the 2021 study.<br>• Updated hydraulic parameters of the fresh basement rock using dewatering data from the Grants pit resulted in reduced decline in groundwater levels at all sites around BP33. This is attributable to the lower hydraulic conductivity of the basement rock, which allows for a much greater vertical gradient to form between the shallow and deep portions of the groundwater system.<br>• The Grants and BP33 drawdown cones do not interact, indicating that groundwater impacts are localised around each of the mine sites. | |

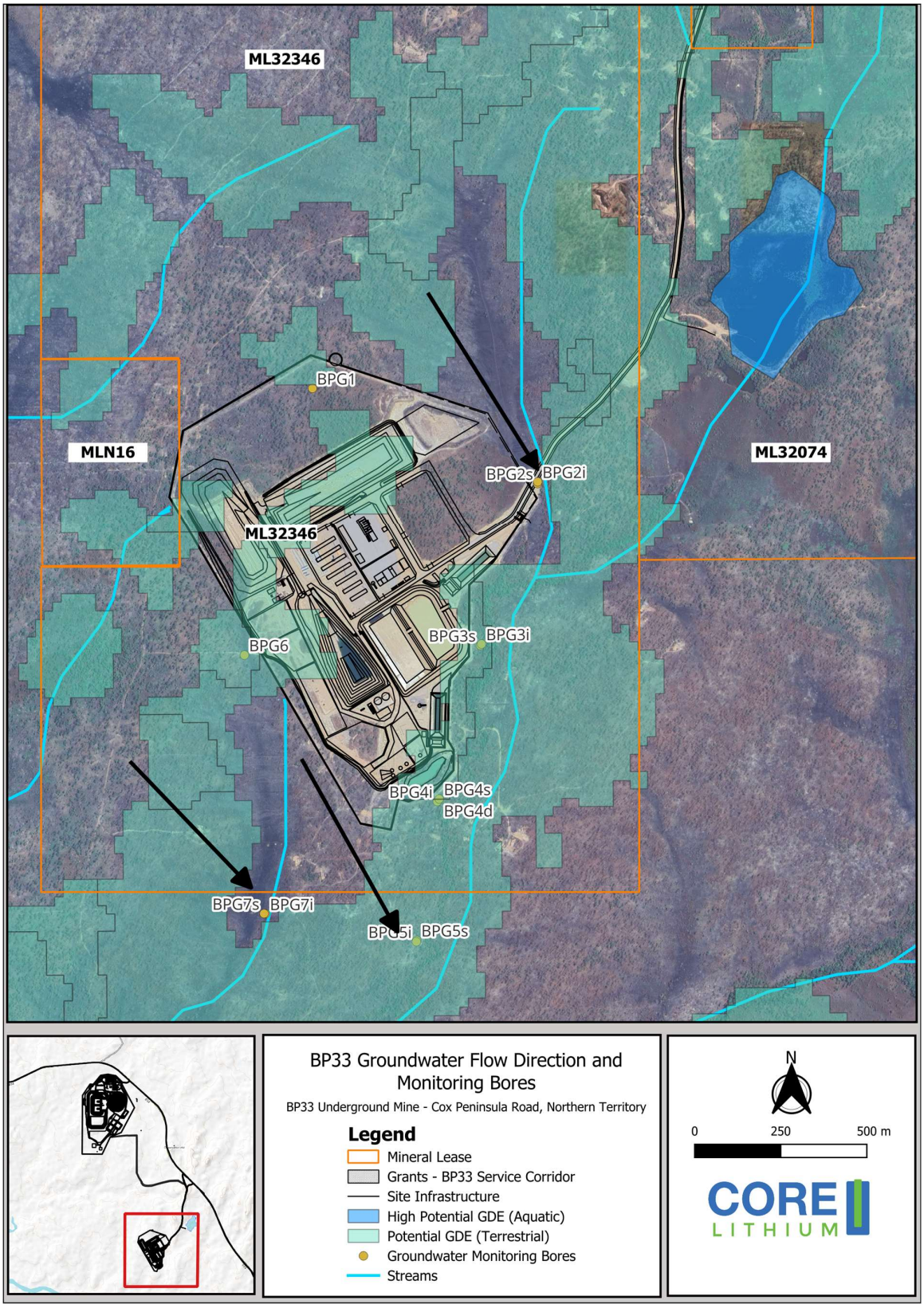



**Figure 4-2 - Groundwater Flow Direction and Monitoring Bore Locations**

### 4.1.4 Hydrology

**Table 4.4 BP33 Local Hydrology**

| Aspect | Description | References |
|---|---|---|
| **Catchment Name / ID** | • Bynoe Harbour - Charlotte River catchment | • Surface Hydrology and Flood Inundation Report (EnviroConsult, 2020)<br>• BP33 Underground Flood Study Assessment (WRM, 2023)<br>• BP33 Water Management Plan (WMP, 2024) |
| **Stream Order (Number / Type)** | • A minor ephemeral watercourse (stream order 1) flows along the eastern boundary of BP33 and discharges off lease into an unnamed ephemeral tributary (stream order 3) to the Charlotte River.<br>• The BP33 to Grants haul road crosses one minor ephemeral watercourse (stream order 1) that discharge off lease into unnamed tributaries of the Charlotte River. | |
| **Surface Water Flow Direction** | • Surface water follows regional topography and flows to the southwest towards the Charlotte River and Bynoe Harbour. | |
| **Declared Users** | • Bynoe Harbour and surface waters within the BP33 project area are captured under the Fog Bay area, which has declared beneficial use under the NT *Water Act* for aquatic ecosystem protection and recreational water quality aesthetics. | |
| **Surface Waer Quality** | • Baseline water quality has been collected from water storages (OHD and existing BP33 Pit) and surface water creek sites between 2017 and 2023. A summary of baseline surface water quality Is provided in the BP33 Water Management Plan. | |
| **Existing Water Storages** | **Observation Hill Dam (345.3 ML)**<br>• OHD is a permanent waterbody used to supply raw water demands during construction and operation and provide contingency raw water top up to BP33 MWD for operational use if required.<br>**Existing BP33 Pit (16.9 ML)**<br>• BP33 pit is a seasonal waterbody used to supplement existing raw water supplies for construction activities. | |
| **Flooding** | • Flood modelling undertaken indicates minimal flood impact with flood extents used in the basis of design for site infrastructure. | |

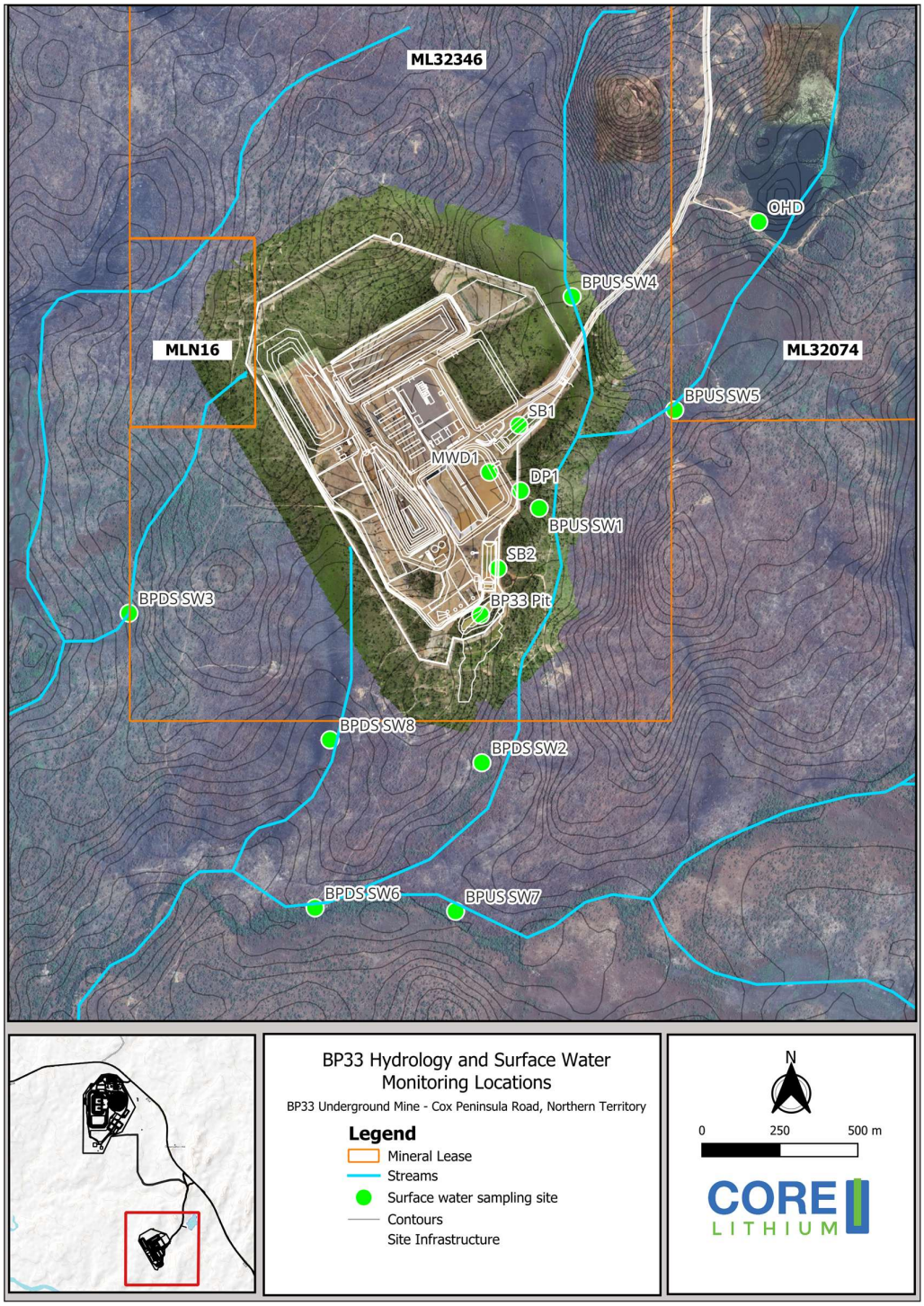



Figure **4-3 - BP33 Hydrology and Surface Water Monitoring Location Map**

### 4.1.5 Sacred Sites

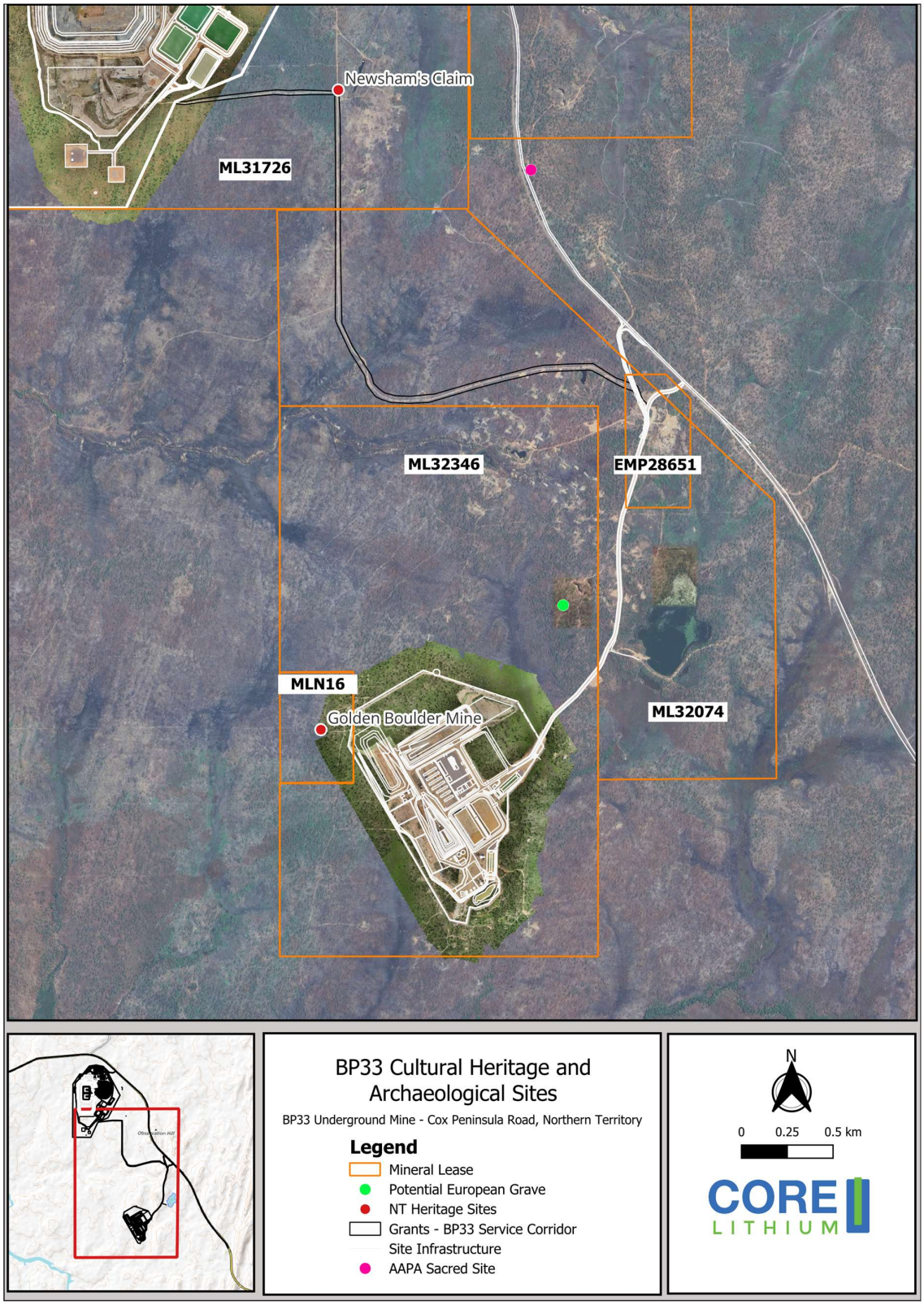
**Table 4.5 Sacred Sites - BP33**

| Description | References |
|---|---|
| • The current Aboriginal Areas Protection Authority (AAPA) certificate (C2022-049) does not identify any sacred sites or restricted areas within the BP33 development footprint.<br>• The nearest recorded sacred site is located approximately 4.5 km northeast of BP33 beyond Cox Peninsula Road and will not be impacted by activities detailed in this MMP. | • AAPA Certificate (C2022-049) |

### 4.1.6 Other Heritage / Cultural Sites

**Table 4.6 Other Heritage and Cultural Sites - BP33**

| Description | References |
|---|---|
| • Review of the NT Heritage Register identified the nearest site protected under the NT Heritage Act is 'Site 5', a previously recorded Aboriginal archaeological site located approximately 6 km to the north-west of the proposed mine site beyond Grants operations. and will not be impacted by activities detailed in this MMP<br>• Several historic mining sites, listed on the NT Heritage Register but not protected under the NT Heritage Act, were identified (Appendix L).. The closest site is the Goulden Boulder Mine which will not be impacted by activities detailed in this MMP. | • Grants Draft EIS Report (EcOz, 2019)<br>• BP33 Infrastructure Heritage Assessment (EarthSea, 2024) |


Newsham's Claim
ML31726
ML32346
EMP28651
MLN16
Golden Boulder Mine
ML32074
BP33 Cultural Heritage and Archaeological Sites
BP33 Underground Mine - Cox Peninsula Road, Northern Territory
Legend
Mineral Lease
Potential European Grave
NT Heritage Sites
Grants - BP33 Service Corridor
Site Infrastructure
AAPA Sacred Site
N
0
0.25
0.5 km
CORE LITHIUM

**4-4 - BP33 Cultural Heritage and Archaeological Site Location o**

### 4.1.7 Flora

Desktop searches and field surveys were undertaken by EcOz (2020) to support assessment of the BP33 project. Using results of their assessment it was concluded that the project was unlikely to significantly impact threatened flora (*Typhonium praetermissium* and *Sylidium ensatum*) potentially occurring within the development footprint (Appendix M).

Given the nature of previously proposed amendments to BP33 surface infrastructure, including the addition of a site access intersection, additional desktop and field surveys were commissioned. These surveys sought to identify potential for threatened flora and associated habitat to be located within the proposed BP33 development footprint. Results of the survey are provided in the Table below.

**Table 4.7 Flora**

| Description | References |
|---|---|
| **Vegetation**<br>Dominant vegetation types within the mine infrastructure and site access areas comprise:<br>• Open woodland typically consisting of Darwin Woolybutt (*Eucalyptus miniata*) and Darwin Stringybark (*E. tetrodonta*) (Land unit 2a1).<br>• Tall shrubland to low open woodland consisting of *Grevillea* sp. *Melaleuca* sp. over annual sorghum grasses (Land unit 6b).<br>• Grasslands of *Sorghum stipoideum*, *Arachne buriti*, *Paspalum strobiculatum* with emergent trees (Land unit 5a)<br>• Woodland consisting of Darwin Woolybutt (E. miniata) and Darwin Box (*E. tectifica*), Broad-leaved Bloodwood (*C. foelscheana*) over *Sorghum plumosum*. (Land unit 1b)<br>• Land units 2b2, 4d and 6e are also variously found within the proposed haul road realignment and site access intersection.<br>**Significant or sensitive vegetation:**<br>• The only sensitive vegetation type relevant to the project is a narrow fringe of riparian vegetation (land unit 5b1) along an ephemeral watercourse downstream of OHD and east of the BP33 mine infrastructure area. The well-developed riparian vegetation indicates some level of groundwater dependence supporting this vegetation community throughout the dry season; however, there is no evidence of spring-fed surface water flows.<br>• Riparian vegetation is surveyed annually in accordance with the requirements of SWEL Monitoring Plan (EcOz, 2022). | • BP33 Ecology Report (EcOz, 2020)<br>• BP33 Stylidium ensatum survey report (EcOz, 2020)<br>• Pre-Clearance Survey - Grants Mine Site (EcOz, 2021)<br>• Surface Water Extraction Licence Monitoring Plan - OHD (EcOz 2022)<br>• Grants BP33 Threatened Species Assessment (Epic Environmental, 2024) |

| Description | References |
|---|---|
| **Threatened species:**<br>• Two listed plant species with a high or medium likelihood of occurring within the project footprint were identified including *Typhonium praetermissum* (vulnerable under the TPWC Act) and *Stylidium ensatum* (endangered under the EPC Act)<br>• Areas within the project footprint, modelled as being moderate likelihood habitat for *T. praetermissum* were surveyed in February 2020 with no target species identified.<br>• It is noted that Typhonium sp. recorded during previous field surveys at Grants also identified Typhonium species which were found to be *Typhonium sp. Charles Darwin* as confirmed through genetic analysis.<br>• Areas within the project footprint, modelled as being potentially suitable habitat for *Stylidium ensatum* were surveyed in July 2020 with no individuals identified. Based on the results of the February 2024, previous targeted surveys for the species in 2018 and 2020 and the lack of any records in the wider area it is considered that further survey for *S. ensatum* within the proposed disturbance footprint associated with the study area is not warranted.<br>**Invasive species:**<br>• Three declared weed species have been observed within the disturbed areas of the BP33 project area and include Gamba Grass, Perennial Mission Grass and Hyptis. Of these, Gamba grass is a weed of national significance (WONS). These species have been subject to active management within the BP33 project area since 2021.<br>• Other weed species observed within the project area include Annual Mission grass (Cenchrus pedicellatus), Stylos (Stylosanthes sabra), Red Natal grass (Melinis repens), Wild Passionfruit vine (Passiflora). | |

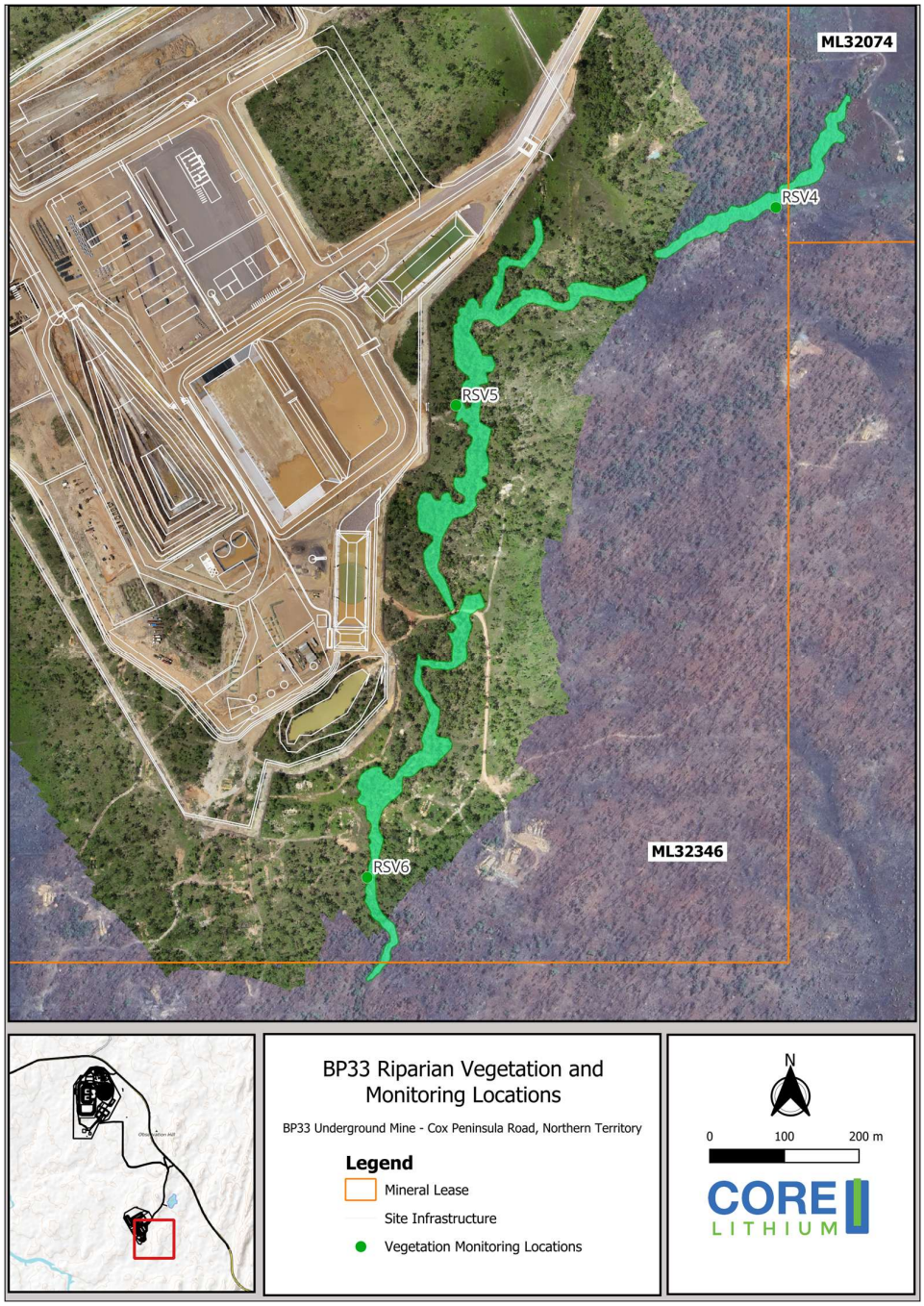



Figure **4-5 - Riparian Vegetation and**

### 4.1.8 Fauna

Desktop fauna searches were undertaken by EcOz (2020) to support assessment of the BP33 project which concluded there was unlikely to be significant impact to threatened species potentially occurring within the development footprint.

Given nature of previously proposed amendments to BP33 surface infrastructure, including the addition of a site access intersection, additional desktop searches and field surveys were commissioned. These surveys sought to identify potential for threatened species and associated habitat to be located within the proposed BP33 development footprint. Results of the survey and subsequent significant impact assessment are provided in the Table below.

**Table 4.8 Fauna**

| Description | References |
|---|---|
| **Threatened species:**<br>• Desktop fauna studies undertaken in January 2024 identified Seven threatened fauna species and five migratory species listed under the EPBC are either known or have potential to occur within the BP33 development footprint. These include:<br>**Known to occur:**<br>• Merten's Water Monitor – Endangered<br>• Bare-rumped Sheath-tailed Bat – Vulnerable<br>**Likely to occur:**<br>• Partridge Pigeon (eastern) – Vulnerable<br>**Possibly occurs:**<br>• Red Goshawk – Endangered<br>• Northern Brush-tailed Phascogale – Vulnerable<br>• Northern Brush-tailed Possum - Vulnerable<br>• Black-footed Tree-rat (Kimberley and mainland NT) – Endangered<br>**Migratory species:** | • BP33 Ecology Report (EcOz, 2020)<br>• Grants BP33 Threatened Species Assessment (Epic Environmental, 2024) |

| Description | References |
|---|---|
| • Saltwater Crocodile - possible<br>• Oriental Cuckoo - possible<br>• Fork-tailed Swift - possible<br>• Barn Swallow - possible<br>• Red-rumped Swallow – possible<br>• Subsequent fauna surveys undertaken in February 2024 identified several species include three species listed as threatened under Commonwealth or NT legislation. These included the Partridge Pigeon, Merten's Water Monitor and the Bare-rumped Sheath-tailed Bat.<br>• An assessment of significant impacts resulting from project activities was undertaken only on MNES and threatened species listed under the TPWC Act considered as potentially subject to substantial impacts from proposed works: These species included the Partridge Pigeon, Northern Brush-tailed Phascogale, Northern Brush-tailed Possum, Black-footed Tree-rat and Bare-rumped Sheath-tailed Bat.<br>• Results of the significant impact assessment identified that given the relatively minor area of clearing required in the context of extensive vegetation remaining in the surrounding landscape it is considered unlikely the Project will cause a significant impact on any of the fauna and flora species identified as potentially occurring within the Project area or surrounds. | |

### 4.1.9 Historical Mining Developments and Disturbances

**Table 4.9 BP33 Historical Mining Developments and Disturbances**

| Description | References |
|---|---|
| • The area has an extensive history of exploration and mining activity with tin and tantalum mined from the Bynoe Pegmatite Field for over 100 years. A summary of relevant historical mining development and disturbances are provided below:<br>• 1979: Greenbushes commenced exploration in the Bynoe pegmatite district.<br>• 1980 - 1989: Tin-tantalum mining footprint expanded with a short, sporadic mine life. | • BP33 Mine Management Plan (EcOz, 2022)<br>• Lithium Developments (2024) |

| Description | References |
|---|---|
| • 1995 - 1999: Greenbushes commenced mining several new pegmatites in the Observation Hill area, including small open-cut mines (Booths South, Lees, Yan Yams, Hang Gong, Highland, BP33, Rubiks and Carlton). Material was processed through their Observation Hill trial plant. Observation Hill Dam nearby settling ponds were likely constructed during this time.<br>• 2016 - 2017: Liontown Resources identified highly weathered and leached spodumene mineralisation from dump samples and significant lithium mineralisation at depth in many prospects.<br>• 2016: Core Exploration commenced exploration for lithium mineralisation<br>• 2023: Lithium Developments (Grants NT) Pty Ltd commence early works construction on Core Lithium's BP33 underground mine.<br>• 2024: BP33 early works construction paused due to a softening lithium market.<br>• The area has extensive existing disturbance in the form of historical open cut mining pits, exploration activities and publicly accessible tracks. The largest area of existing disturbance occurs at the former Greenbushes processing area located at the entrance to BP33. This area comprises cleared land with various stockpiles of sand and gravel with numerous weed species present. | |

### 4.1.10 Underlying Land Use

**Table 4.10 Underlying Land use - BP33**

| Description | References |
|---|---|
| • The primary underlying land-use is mineral exploration with Core Lithium holding approximately 400 km2 of granted exploration tenements across the Bynoe Pegmatite Field including across the BP33 Mineral Leases. | • BP33 Mine Management Plan (EcOz, 2022) |

### 4.1.11 Surrounding Land Use

**Table 4.11 Surrounding Land use - BP33**

| Description | References |
|---|---|
| • The project area is surrounded by undeveloped Vacant Crown Land (VCL) owned by the NT Government (Section 1 Hundred of Parsons and Section 2746 Hundred of Hughes). The local Government area is the Unincorporated (Cox-Daly) area. | • BP33 Mine Management Plan (EcOz, 2022) |

### 4.1.12 Nearest Towns(s)

**Table 4.12 Nearest Towns - BP33**

| Description | References |
|---|---|
| • Berry Springs is the closest township, located 24 km east of BP33 (33 km via road) and with a population of approximately 820 people (ABS, 2022).<br>• The nearest community is Belyuen, located approximately 21 km northwest of the project (27km by road) with a population of approximately 165 (ABS, 2022). | • NR Maps (2024)<br>• Australian Bureau of Statistics (2022) |

### 4.1.13 Regional Infrastructure

**Table 4.13 Regional Infrastructure**

| Description | References |
|---|---|
| • BP33 is accessed via Northern Territory Government (NTG) controlled main roads that pass through the areas of Litchfield, Palmerston and Darwin municipalities. | • BP33 Mine Management Plan (2022) |

| Description | References |
|---|---|
| • The project area is not serviced by mains power, water or sewage. The closest police and fire emergency services are located at Humpty Doo (60 km by road). Emergency services have advised LD that they have limited capacity to respond to the BP33 in event of emergency due to distance and operational commitments.<br>• Medical general practitioner services are available in Berry Springs. The closest hospital is the Palmerston Regional Hospital (70 km by road). | |

## 4.2 Conceptual Site Model

The BP33 Conceptual Site Model (CSM) provided in Table 4.14 has been developed to describe key project risks and assesses the suitability of Finnis Lithium Project EMS.

**Table 4.14 BP33 Conceptual Site Model**

| Disturbance / Source | Contaminant of Potential Concern (CoPC) | Pathway | Receptor | Comments |
|---|---|---|---|---|
| Early works civil construction and bulk earthworks including dewatering | • Turbidity (TSS)<br>• Hydrocarbons<br>• Aluminium<br>• Nutrients | • Transport in surface water runoff.<br>• Seepage into soils and groundwater | • Surface water<br>• Groundwater<br>• Riparian habitat<br>• Aquatic fauna<br>• Soils | • Surface runoff quality managed via implementation of the ESCP and high-efficiency sediment (HES) basins.<br>• Hydrocarbons routinely monitored in surface water and groundwater as per WMP.<br>• Box cut water quality monitored as per WMP to determine management.<br>• Riparian vegetation and aquatic ecology monitored annually as per requirements of WDL 253 and SWEL 8151018 |

| Disturbance / Source | Contaminant of Potential Concern (CoPC) | Pathway | Receptor | Comments |
|---|---|---|---|---|
| Underground mine development and operation including dewatering | • Turbidity (TSS)<br>• Hydrocarbons<br>• Heavy metals<br>• Nutrients (TN, TP) | • Migration in groundwater<br>• Mine water discharge.<br>• Seepage to soils and groundwater | • Surface water<br>• Groundwater<br>• Riparian habitat<br>• Aquatic fauna<br>• Soils | • Hydrocarbons and metals routinely monitored in surface water and groundwater as per WMP.<br>• Discharge water quality undertaken in in compliance with the requirements of WDL 253<br>• Mine affected water quality routinely monitored as per WMP and treated as required.<br>• Riparian vegetation and aquatic ecology monitored annually as per requirements of WDL 253 and SWEL 8151018 |
| Waste rock storage | • Turbidity (TSS)<br>• Hydrocarbons<br>• Heavy metals<br>• Nutrients (TN, TP) | • Surface water runoff<br>• Seepage to soil and groundwater | • Surface water<br>• Groundwater<br>• Riparian habitat<br>• Aquatic fauna<br>• Soils | • Kinetic leach geochemical test works indicates potential for some metals to be mobilised with further modelling recommended to further quantify risk.<br>• Routine ground and surface water monitoring undertaken in accordance with the WMP.<br>• Riparian vegetation and aquatic ecology monitored annually as per requirements of WDL 253 and SWEL 8151018 |
| ROM operation and haulage to Grants processing plant | • Turbidity (TSS)<br>• Hydrocarbons<br>• Heavy metals<br>• Nutrients (TN, TP) | • Surface water runoff<br>• Seepage to soil and groundwater | • Surface water<br>• Soils | • Surface runoff quality managed via implementation of the ESCP and high-efficiency sediment (HES) basins. |

| Disturbance / Source | Contaminant of Potential Concern (CoPC) | Pathway | Receptor | Comments |
|---|---|---|---|---|
| | | | | • Hydrocarbon leaks / spills to be managed in accordance with existing emergency management plans / procedures.<br>• Hydrocarbons, metals and nutrients routinely monitored in surface water and groundwater as per WMP. |
| Mine Water Dam | • Turbidity (TSS)<br>• Hydrocarbons<br>• Heavy metals (Arsenic)<br>• Nutrients (TN, TP)<br>• Electrical conductivity | • Seepage to groundwater<br>• Spill to the environment | • Surface water<br>• Groundwater<br>• Aquatic fauna<br>• Soils | • Mine affected fines leaks / spills to be managed in accordance with existing emergency management plans / procedures.<br>• Physical parameters, hydrocarbons, metals and nutrients routinely monitored in surface water and groundwater as per WMP. |
| Irrigation of mine affected water | • Hydrocarbons<br>• Heavy metals (Arsenic)<br>• Nutrients (TN, TP)<br>• Electrical conductivity | • Surface water runoff<br>• Seepage to soil and groundwater<br>• Evapoconcentration<br>• Uptake by and deposition on plants | • Surface water<br>• Groundwater<br>• Vegetation<br>• Soils | • Irrigation of mine affected water an excess water contingency measure that will be managed in accordance with the application rates and monitoring requirements of the Irrigation Management Plan. |
| Sediment Basins | • Turbidity (TSS)<br>• Hydrocarbons<br>• Heavy metals (Arsenic)<br>• Nutrients (TN, TP) | • Passive release to the environment | • Surface water<br>• Groundwater<br>• Aquatic fauna<br>• Sediment | • Surface and groundwater routinely monitored in accordance with the WMP.<br>• Sediment basins employ auto dosing flocculant technology where practicable.<br>• Drones used for rapid aerial deployment of flocculant when required. |

| Disturbance / Source | Contaminant of Potential Concern (CoPC) | Pathway | Receptor | Comments |
|---|---|---|---|---|
| | • Electrical conductivity | | | |

## 4.3 Socio-economic Status

**Table 4.15 BP33 Socio-economic Status**

| Item | | Description | References |
|---|---|---|---|
| **Workforce** | **Construction** | • Approximately 60 people during construction | • BP33 Mine Management Plan (EcOz, 2022) |
| | **Operation** | • Approximately 125 to 150 people during operation | |
| | **Closure** | • Approximately 20 people during closure and rehabilitation activities | |
| **Economic Output** | | • Pre-Production Capital: $A175 - 200M<br>• Operating Costs: $A690 - 785 / tonne concentrate produced<br>• Updated Closure and Rehabilitation (including monitoring / post-closure management): $3.8M | • Draft BP33 Study Report (Core Lithium, 2024) |
| **Stakeholder Engagement** | | • Stakeholder engagement activities for BP33 have been undertaken throughout the approvals and early works construction phases with key activities including:<br>  • Information fact sheets and letters to residents.<br>  • Community information stalls, posters and social media posts<br>  • Targeted briefings and interviews with stakeholders holding a key interest in the project.<br>• Ongoing stakeholder engagement comprises:<br>  • Monitoring of a dedicated 24-hour community hotline and contact email | • BP33 Social Impact Assessment (TrueNorth, 2021) |

| Item | Description | References |
|---|---|---|
| | • Established process to respond to community / stakeholder complaints and grievances<br>• Posting of regular updates and community reports on the Core Lithium website<br>• Sharing community focused updates on Core Lithium's LinkedIn and X (Twitter) profiles<br>• Established a community grant program<br>• Distribution of regular community newsletters<br>• Engagement with regional councils, industry bodies<br>• Presence at industry conferences and key events.<br>• Stakeholder feedback received is generally positive with support for potential employment and economic benefits.<br>• Some concerns raised consider road safety and degradation from increased traffic and haulage. Environmental and cumulative impacts were also raised as a concern. Details of stakeholder engagement and community feedback are provided in the BP33 Social Impact Assessment (True North, 2021)<br>• Proposed amendments to the BP33 project do not alter the project community and stakeholder profile addressed in the BP33 Social Impact Assessment. | |

# 5 Legislation and Obligations

## 5.1 Statutory Requirements

The statutory requirements of the BP33 project are summarised in the Table below.

**Table 5.1 BP33 Statutory Requirements**

| Legislation /Requirement | Relevant Information | When |
|---|---|---|
| **Commonwealth** | | |
| Environment Protection and Biodiversity Conservation (EPBC) Act 1999 | • As originally assessed, the BP33 project did not trigger referral under the EPBC Act.<br>• A significant impact assessment (SIA) was undertaken (Epic Environmental, 2024) to assess potential impact from proposed changes to the BP33 project outlined in this MMP. The SIA did not identify a risk of significant impact with proposed changes not triggering referral under the EPBC Act<br>• Core Lithium met with representatives of the Department of Climate Change, Energy, the Environment and Water in April 2024 to provide an update in relation to the BP33 project and discuss generally potential future activities and EPBC reform. | • During planning and approvals for additional land disturbance activities not assessed under existing approvals. |
| Native Title Act 1993 | • The project area is not located on land subject to native title claim. | • Not applicable |
| National Greenhouse and Energy Reporting Act 2007 | • Core Lithium report annually under NGER requirements for cumulative emissions from Grants Operations and BP33 | • Annually |
| **Northern Territory** | | |
| Environmental Protection Act 2019 | • A Supplementary Environmental Report (SER) was submitted to the NT EPA for assessment. | • During planning and approvals for additional land disturbance |

| Legislation /Requirement | Relevant Information | When |
|---|---|---|
| | **Commonwealth** | |
| | • NTEPA assessed the SER and issued Assessment Report 94 which summarises its findings and provides recommendations and draft approval conditions.<br>• Environmental Approval EP2020/001-001 was issued 8 April 2022 and approved by the Minister on 26 April 2022.<br>• On 28 November 2023 the Northern Territory Legislative Assembly passed the Environment Protection Legislation Amendment Act 2023 (Amendment Act). The Amendment Act establishes a new environmental licensing framework for managing environmental impacts of mining activities under the Environment Protection Act 2019. | activities not assessed under existing approvals. |
| Mining Management Act 2001 | • Grant of mining Authorisation 1138-01 approved by the Minister on 20 April 2023.<br>• Legislation due to be repealed 1 July 2024. | • During planning and approvals for additional land disturbance activities not assessed under existing approvals. |
| Mineral Titles Act 2010 | • Granted mineral titles: ML32346, ML32074 and MLN16 | • During planning and approvals |
| Water Act 1992 | • Management of water extraction from OHD under SWEL 8151018<br>• Management of groundwater extraction from proposed dewatering bores under a groundwater extraction licence.<br>• Management of wastewater disposal offsite from the MWD under WDL 253.<br>• Construction of waterway crossings requiring a permit to interfere with a waterway. | • Prior to or amending requirements for abstracting ground or surface water. |
| NT Aboriginal Sacred Sites Act 1989 | • An AAPA Authority Certificate (C2022-049) has been provided by the Aboriginal Areas Protection Authority to ensure the protection of sacred sites throughout the project. | • During planning and approvals for additional land disturbance activities not assessed under existing approvals. |

| Legislation /Requirement | Relevant Information | When |
|---|---|---|
| **Commonwealth** | | |
| Bushfires Management Act 2016 | • The project area is located within the declared Northern Fire Protection Zone, with permits to burn required. A firebreak has been established in conjunction with the site security fencing. | • Prior to undertaking controlled burns. |
| Building Act 1993 | • The mine site is located within the Darwin Building Control Area. Building and occupancy permits will be required. A registered certified plumber will conduct any upgrades required to the wastewater management system (septic). | • Approvals required |
| Crown Lands Act 1992 | • Mineral Leases (ML) are located on Vacant Crown Land (VCL). | • Not applicable |
| Dangerous Goods Act 1998 | • The storage and transport of explosives requires an approval to be obtained from NT Worksafe ..<br>• All fuel storages must meet Australian Standard 1940: Storage and Handling of Flammable and Combustible Liquids | • Prior to explosive or dangerous goods storage. |
| Heritage Act 2011 | • All sites on the NT Heritage Register and archaeological sites are protection under this Act. The proposal will not affect any sites listed on the NT Heritage Register. | • When planning / proposing land disturbance. |
| Territory Parks and Wildlife Conservation (TPWC) Act 1976 | • Requires a permit to be obtained prior to interference with threatened species listed under the Act. | • Prior to undertaking regulated activities. |
| Soils Conservation and Land Utilisation Act 1969 | • Implementation of the ESCP will be required to comply with the requirements of this Act. | • Prior to and during land disturbance activities |
| Waste Management and Pollution Control Act 1998 | • For waste removed for offsite disposal.<br>• Waste management contractors facilities accepting listed wastes must be licensed under this Act. | • When engaging waste management contractors |

| Legislation /Requirement | Relevant Information | When |
|---|---|---|
| **Commonwealth** | | |
| Weeds Management Act 2001 | • Landholders and occupiers have statutory obligations to manage declared under the Act. Implementation of the Weed Management Plan will be required for this project to facilitate compliance with this Act. | • Life of project |
| Work Health and Safety (National Uniform Legislation) Act 2011 | • Mine sites in the NT must not permit any mining activity or a related mining activity to be carried out unless the mine operator has given to the regulator a Risk Management Plan that has been certified. | • Life of project |

## 5.2 Non-Statutory Requirements

Mine planning and design have considered the following standards, guidelines and codes of practice relevant to avoiding or minimising environmental and social impacts.

**Table 5.2 BP33 Non-Statutory Requirements**

| Requirement | Relevant Information | When |
|---|---|---|
| • Best Practice Erosion and Sediment Control (International Erosion Control Association, 2008) | • The BP33 ESCP (Appendix E) has been developed in accordance with IECA (2008) by a certified CPESC. | • ESCP has been developed for bulk earthworks, construction and operation and will be implemented over the life of the project. |
| • Global Acid Rock Drainage (GARD) Guide (International Network for Acid Prevention, 2014)<br>• Environmental Assessment Guidelines on Acid and Metalliferous Drainage (NT EPA, 2013)<br>• Preventing Acid and Metalliferous Drainage – Leading Practice Sustainable Development Program for the | • The BP33 WRD and AMD Management Plan (Appendix F) has been developed in consideration of applicable standards and guidelines using detailed geochemical classification of waste rock and ore. | • Over the life of the project including care and maintenance and closure periods. |

| Requirement | Relevant Information | When |
|---|---|---|
| Mining Industry (Department of Foreign Affairs and Trade 2016a) | | |
| • Airborne Contaminants, Noise and Vibration – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade, 2009) | • BP33 Dust Management Plan (Appendix G) has been developed in consideration of applicable standards and guidelines. | • Over the life of the project including closure / rehabilitation.<br>• Requirements during care and maintenance periods to be assessed as needed. |
| • Water Stewardship – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade 2016c)<br>• Water Accounting Framework for the Australian Minerals Industry (Minerals Council of Australia, 2014). | • BP33 Water Management Plan (Appendix H) has been developed in accordance with best practice guidelines. | • Over the life of the project including care and maintenance and closure periods. |
| • Australian National Committee on Large Dams (ANCOLD) Guidelines | • Design and construction of water storages in accordance with ANCOLD guidelines with oversight provided by an Independent Certifying Engineer (ICE) | • Over the life of the project including planning, construction and operation as well as care and maintenance and closure periods. |
| • Australian Dangerous Goods Code 7.6 AS1940:2017 The Storage and Handling of Flammable and Combustible Liquids (Standards Australia, 2017) | • Storage and handling of hazardous substances and dangerous good will be undertaken in accordance with best practice guidelines. | • Over the life of the project. |
| • Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade 2016d)<br>• Mine Closure – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade 2016)<br>• Mine Closure Plan Guidance - How to prepare a mine closure plan in accordance with Part 1 of the Statutory | • BP33 Mine Closure Plan (Appendix C) and Care and Maintenance Plan (Appendix B) have been developed in accordance with best practice guidelines. | • During mine closure planning and progressive rehabilitation during operational phases.<br>• During periods of care and maintenance were required. |

| Requirement | Relevant Information | When |
|---|---|---|
| guidelines for mine closure plans" (the guidelines) (DMIRS 2020).<br>• Integrated Mine Closure, Good Practice Guide, 2ND Edition. International Council on Mining and Metals (ICMM 2019). | | |

# 6 Operational Activities

## 6.1 Mine Infrastructure Area

The mine infrastructure areas are divided into zones based on spatial and environmental management areas. The BP33 project has two zones which are summarised below in Table 6.1 and Table 6.2.

**Table 6.1 BP33 Infrastructure Zones**

| Zone | Infrastructure Details | Zone | Infrastructure Details |
|---|---|---|---|
| **A** | **Mining Support Infrastructure**<br>• Site entry security and operations buildings.<br>• Crib and ablutions block.<br>• Change house.<br>• Septic system.<br>• Potable water treatment system and tanks<br>• Firewater tanks<br>**Operations / Maintenance Infrastructure**<br>• LV / HV Maintenance Workshop.<br>• Maintenance warehouse / stores.<br>• Vehicle wash bay.<br>• Lubrication bay. | **B** | **Site access road corridor**<br>• Dual lane site access road<br>• Intersection with Cox Peninsula Road<br>• Raw water pipe from OHD |

| Zone | Infrastructure Details | Zone | Infrastructure Details |
|---|---|---|---|
| | • Diesel storage and refuelling facility.<br>• Concrete batch plant.<br>• Tyre change area<br>• Equipment laydown areas<br>**Miscellaneous Infrastructure**<br>• Core shed<br>• Go-line<br>• Bus shelter and emergency vehicle shelters<br>• Footpaths / car parking areas<br>• Communication tower<br>• Ventilation shafts / fans<br>• Raw water tanks<br>**Mining Infrastructure**<br>• Waste Rock Dumps<br>• Mine Water Dam<br>• Sediment Basins / ESC structures<br>• Internal access / haul roads<br>• Topsoil dumps<br>• Box cut | | |

**Table 6.2 BP33 Mine Infrastructure Summary**

| Title | Infrastructure | Total No. Structures | Development Details | |
|---|---|---|---|---|
| | | | Sequence | Details |
| **Zone A** | | | | |
| ML32346 | • Site entry security and operations buildings.<br>• Muster area.<br>• Crib and ablutions block.<br>• Change house. | Multiple temporary structures | Secondary Construction | • Multiple demountable structures, supported by concrete footings with structural tie-down elements. |
| | • Septic / Sewer System | 1 | | • Waste disposal contractor will initially be engaged to remove wastewater from site.<br>• Installation of a single no-release septic system may occur later during operations. |
| | • Potable water tanks. | 2 | | • Potable water to be supplied from Grants Operations or town water. |
| | • Fire water tanks | 3 | | • 3 x 6,000 KL storage tanks |
| | • Core Shed And Go-Line Shelter | 1 | | • Portal frame and sheeted construction, with compacted road base floor |
| | • Emergency Response Store | 1 | | • Reinforced concrete foundation and portal frame shed |
| | • Bus Shelter And Emergency Vehicle Shelters | 2 | | • Reinforced concrete foundation and roof structure, with power for lighting |
| | • Footpaths / Car Parking Areas | Multiple | | • Concrete footpaths<br>• Carparking compacted road base with lighting where required. |

| Title | Infrastructure | Total No. Structures | Development Details | |
|---|---|---|---|---|
| | | | Sequence | Details |
| | • LV / HV Maintenance Workshop / Office<br>• Maintenance Warehouse / Stores.<br>• Lubrication Bay.<br>• Tyre Change Area | Multiple structures | Secondary Construction | • Various structures comprising either a portal frame and sheeted construction or freestanding prefabricated shelters with reinforced concrete slabs or compacted road base. |
| | • Vehicle Wash Bay. | 1 | | • Bunded reinforced concrete<br>• Designed to cater up to 72 t axel load with silt and oily water separation / collection systems. |
| | • Diesel Storage and Refuelling Facility. | 5 | | • Up to 4 x 70.2 kL bulk fuel tanks<br>• 1 x 1 kL day tank for fuel farm power.<br>• All tanks internally bunded with bunded concrete refuelling areas with capture drains and sumps. |
| | • Concrete Batch Plant. | 1 | | • Package concrete batch plant for production of shotcrete concrete |
| | • Equipment Laydowns. | 3 | | • Compacted road base surface. |
| | • Communication Tower | 2 | | • 1 x 19 m guyed mast<br>• 2 KV solar kit |
| | • Ventilation Shafts / Fans | 2 | | • 1 x primary intake fresh air raise (FAR) and 2 x primary return air raises (RAR) on two pads constructed above 1% AEP flood levels. |
| | • Raw Water Tanks | 2 | | • 2 x 600 KL tanks |

| Title | Infrastructure | Total No. Structures | Development Details | |
|---|---|---|---|---|
| | | | Sequence | Details |
| | • Power Generation Pad | 15 | | • Up to 10 x 2 MW containerised diesel generators<br>• Up to 4 x 70.2 kL bulk fuel tanks<br>• 1 x 1 kL day tank for each generator set. |
| | • Waste Rock Dumps | 2 | Primary / Secondary Construction | • Details provided in Table 6.23 and Table 6.17 |
| | • Mine Water Dams | 1 | Primary Construction | • Details provided in Table 6.17 |
| | • Sediment Basins And ESC Structures | 2 | Primary Construction | • Sediment basins have been sized for the site disturbance footprint and comprise 2 HES Type B basins. |
| | • Internal access / haul roads | Various | Primary / Secondary Construction | • n/a |
| | • Topsoil dump | 1 | Primary construction | • Topsoil collected during initial clearing works is stockpiled in a dedicated storage area to the East of WRD1. |
| | • Box cut | 1 | Primary Construction | • Details provided in Table 6.7 |
| | • Irrigation Area | 1 | As required | • Footprint dependent on volumes requiring irrigation.<br>• Three areas identified (land unit 2a1) identified in the Irrigation Management Plan. |
| | • Monitoring Bore Field | 14 | Complete | • 13 groundwater monitoring bores |

| Title | Infrastructure | Total No. Structures | Development Details | |
|---|---|---|---|---|
| | | | Sequence | Details |
| | | | | • 1 geotechnical monitoring piezometer. |
| | • Dewatering Bore Field | TBC | Secondary construction | • Number and location of dewatering bores not yet defined and will be finalised prior to construction. |
| | • ROM Pad | 0 | Secondary construction | • ROM pad will receive ore from underground operations prior to haulage to Grants processing. |
| MLN16<br>ML32346 | • Fire Break / Security Fencing | 1 | Primary Construction | • Site security fencing comprises three strand wire fencing with steel pickets and strainer posts. Access gates have been installed around the perimeter to enable environmental monitoring activities outside of the disturbance area. |
| **Zone B** | | | | |
| ML32346<br>ML32074 | Site Access Road | 1 | Primary Construction | • Additional area proposed comprises extension of the site access road to new site intersection with Cox Peninsula Road. |
| | Raw Water Pipeline | 1 | | • To be located within the existing disturbance footprint of the site access road. |
| ML32074 | Site Access Intersection | 1 | Secondary construction | • Includes area within Gazetted Road Corridor.<br>• To be constructed following receipt of required approvals and permits. |

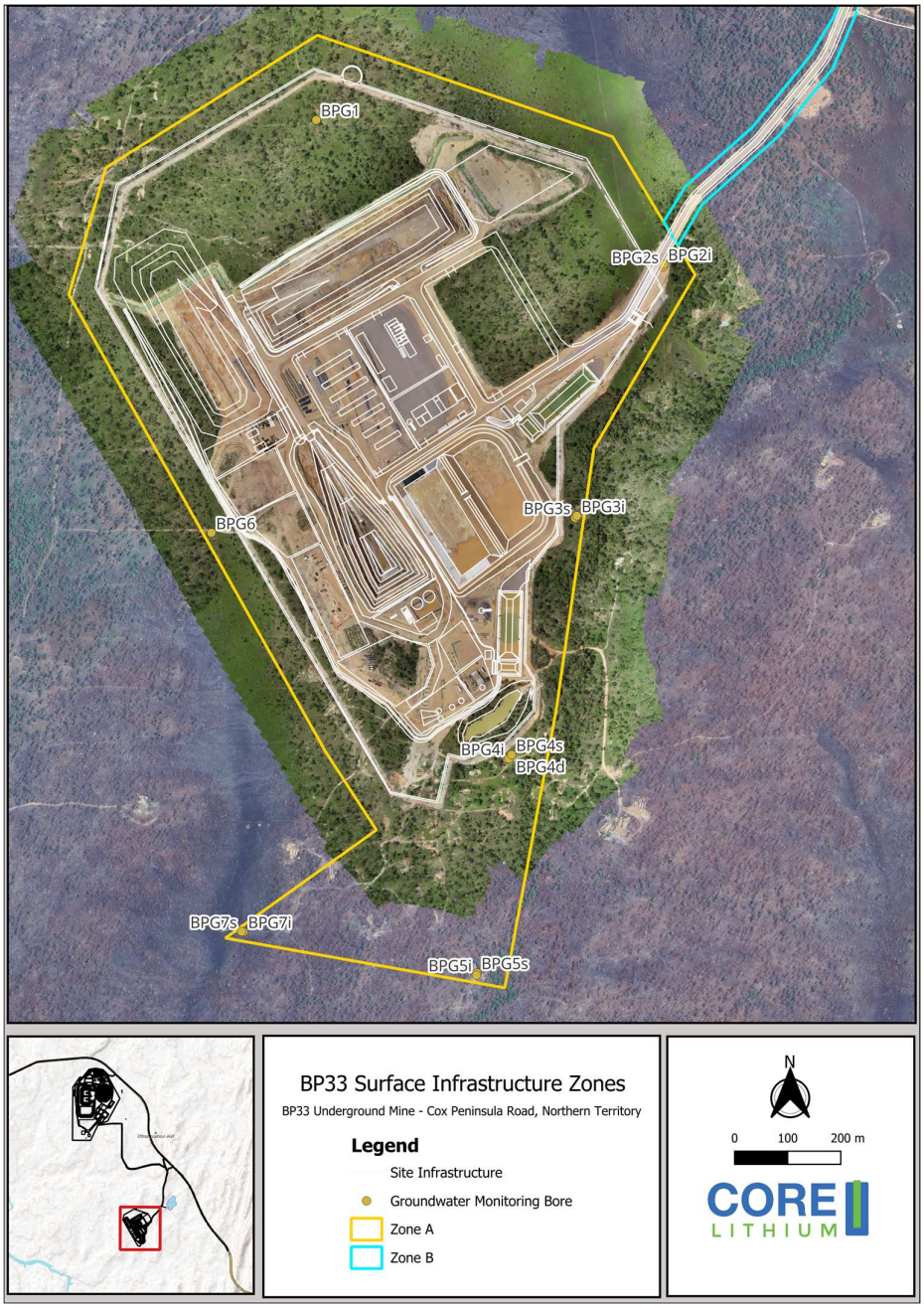

BPG1
BPG2s
BPG2i
BPG3s
BPG3i
BPG6
BPG4i
BPG4s
BPG4d
BPG7s
BPG7i
BPG5i
BPG5s
BP33 Surface Infrastructure Zones
BP33 Underground Mine - Cox Peninsula Road, Northern Territory
Legend
Site Infrastructure
Groundwater Monitoring Bore
Zone A
Zone B
N
0
100
200 m
CORE
LITHIUM

**Figure 6-1 -**

**Table 6.3 Mine Infrastructure Area Risk, Controls and Management**

| Step | Phase | Sequence | Performance and Monitoring | Risks, Controls and Management |
|---|---|---|---|---|
| **1** | Clearing | 1 ESCP developed.<br>2 Area surveyed and pre-clearance survey completed.<br>3 Machinery and fuel supplies for clearing mobilised to site and inspected (mechanical and weed hygiene).<br>4 Clearing ESC measures implemented / constructed.<br>5 Internal clearing / Ground Disturbance Permits obtained Clearing phase ESC implemented.<br>6 Clearing undertaken with fauna spotter as required. | • Clearing within approved boundaries<br>• Clearing does not exceed approved 100.9 ha<br>• Adherence to ESCP<br>• Downstream waterways not impacted by sedimentation (quality within applicable trigger values)<br>• Dust generation within applicable limits as per Dust Management Plan. | • Refer to project risk assessment provided in Section 7. |
| **2** | Construction | 1 Development of IFC designs<br>2 Plant and equipment inspection checks completed on all mobilised construction machinery.<br>3 Mobilise construction equipment supplies to site.<br>4 Strip and stockpile topsoil.<br>5 Construction of required infrastructure.<br>6 Engineer sign-off on construction as per IFC | • Dams meets ANCOLD design criteria.<br>• Certification of design and construction by ICE as required.<br>• Conformance to design and geotechnical criteria.<br>• Monitoring undertaken in accordance with applicable management plans and manuals.<br>• Water within the dam during construction is managed in accordance with the WMP.<br>• Adherence to ESCP<br>• Downstream waterways not impacted by sedimentation (quality within applicable trigger values)<br>• No new introduced or spread of existing weeds | |

| Step | Phase | Sequence | Performance and Monitoring | Risks, Controls and Management |
|---|---|---|---|---|
| | | | • Dust generation within applicable limits as per Dust Management Plan. | |
| **3** | Commissioning / Operations | 1. Commissioning of facilities and infrastructure<br>2. Operation of facilities including surveillance and maintenance<br>3. Monitoring as per applicable plans and procedures | • Engineering sign-off that the dam has been constructed installed as per IFC and ANCOLD standards.<br>• No seepage from dam walls observed.<br>• Water volumes managed in accordance with the WMP and or WDL with no uncontrolled discharge occurring.<br>• Surface water and groundwater water quality is monitored in accordance with the WMP and meets applicable trigger values or performance criteria for appropriate management.<br>• Building occupancy permits obtained. | |
| **4** | Unplanned Closure | 1. Assess the optimal and most cost-effective methods related to rehabilitation, decommissioning and closure.<br>2. Define key objectives that require management at closure, specifically:<br>2.1 Minimising impacts to surface and groundwater resources.<br>2.2 Establish secure and non-polluting landforms in the event of unplanned closure.<br>2.3 Stabilised disturbance areas to control erosion rates.<br>3. Determine set completion criteria and monitoring program. | • Adherence to Conceptual Mine Closure Plan (Appendix C) and associated management plans and procedures. | |

**Table 6.4 Mine Infrastructure Area - Summary of Environmental Performance**

| Zone | Performance Summary |
|---|---|
| **A, B, C** | A summary of performance against environmental risks detailed in Table 6.3 is provided in the 2024 LD Environmental Mining Report (available on request). |

**Table 6.5 Independent Expert**

| Question | Details | | |
|---|---|---|---|
| **1** | Will an independent expert be engaged by the operator? | Yes ☒ (Go to Q2) | No ☐ (Explain why below) |
| | • Surface infrastructure has been designed by suitably qualified engineers (GHD and JBU Group) | | |
| **2** | Will detailed designs be prepared and reviewed by an independent expert? | Yes ☐ (Go to Q3) | No ☒ (Explain why below) |
| | • Surface infrastructure has been designed by suitably qualified engineers (GHD, JBU Group, Topo) | | |
| **3** | Will a detailed management plan be developed that describes in detail the operator's maintenance, surveillance and closure requirements of the structure? | Yes ☐ | No ☒ (Explain why below) |
| | • No operational or surveillance management plan required for infrastructure identified within this mine infrastructure area. Construction of the infrastructure will be undertaken by suitable qualified and experienced personnel.<br>• An ESCP has been prepared by a qualified CPESC practitioner (Appendix E) provides an overview of surveillance and management of the sediment basins.<br>• A mine closure plan (Appendix C) addresses decommissioning, closure and rehabilitation of mine infrastructure within this area. | | |

**Table 6.6 Mine Infrastructure Area - Closure**

| Closure | Objective | References |
|---|---|---|
| **Unplanned** | **Temporary Suspension**<br>• Maintained as safe, stable and non-polluting.<br>**Unforeseen Closure**<br>• Rehabilitated as safe, stable, non-polluting and erosion resistant landform. | Closure criteria, knowledge gaps and applicable timelines to completion are addressed in the following documents:<br>• BP33 Mine Closure Plan (MineEarth, 2024).<br>• BP33 Care and Maintenance Plan ( Lithium Developments (2024). |
| **Planned** | • Rehabilitated as a geotechnically stable, non- polluting and erosion resistant landform.<br>• Rehabilitated landform supports self-sustaining native vegetation and fauna comprising local species.<br>• Rehabilitated domain supports fauna recolonisation not significantly different to that of surrounding ecosystems.<br>• Surface water quality is protected to maintain environmental values and beneficial uses. | |

## 6.1 Pits and Extractives

**Table 6.7 Pits Summary**

| Item | | Pertinent information | | | |
|---|---|---|---|---|---|
| **No. of pit operations** | | One (box cut for underground access) | | | |
| **Open pit or extractive** | | Temporary open pit (to be backfilled on completion of underground mining) | | | |
| **Titles** | | ML32346 | | | |
| **Target material/commodity** | | Oxide waste material for backfill and construction | | | |
| **LOM year of construction** | | 6 - 8 months. | | | |
| **Pit** | Proposed Box Cut Dimensions (m) | Length: 332 | Width: 12 - 124 | Depth: 40 | |
| | Current Dimensions (m) | Length: 332 | Width: 12 - 124 | Depth: 40 | |
| | Waste types to be encountered | Oxide waste comprising phyllite with interbeds of sandstone and minor shallow dipping sills of pegmatite | | | |
| **Pit wall Competency** | Rock Type | Code | RQD* (%) | Strength | Weathering State |
| | Soil and laterite cover | - | - | • Red/ brown soils and weakly-cemented laterite.<br>• Depth ranges from 1 m to 3 mBGL | Oxide |
| | Phyllite | Py-W (S) | - | • Intact strength varies from soil strength (<=R0) to very weak rock (R1).<br>• Weathered (oxide) material depth up to 40 mBGL. | Oxide |
| | Pegmatite | Pg-W (S) | - | | |
| | Sandstone | Sst-W (S) | - | | |
| | References** | • Underground Geotechnical Study for BP33 deposit (SRK Consulting, 2020) | | | |
| **Benches/Berms** | Bench height (m): | • 10 | | | |

| Item | | Pertinent information |
|---|---|---|
| | Bench width (m) | • 7 |
| | Bench angle (degrees) | • 50 |
| | Factor of Safety (FoS) | • 1.1 - 1.5 |
| | References** | • Summary of BP33 Box Cut Design Changes (PSM, 2024)<br>• Geotechnical Model and Design Advice BP33 Underground Project (PSM, 2024) |
| **Dewatering/pit stabilisation** | Standing Water Level (SWL) | • SWL in the deep BCF bore has ranged from 5.4 – 9.3 m.<br>• SWL in the shallow bores ranged from 3.1 – 5.5 m. |
| | Aquifers to dewater | • Burrel Creek Formation |
| | No of bores | • In-pit dewatering will occur via a box cut sump (BCS).<br>• Horizontal depressurisation bores were drilled into the walls of the box cut to alleviate pore pressure that was impacting geotechnical slope performance during construction. Water passively seeping from the bores is collected in the BCS prior to management. |
| | Extraction rate (ML/yr) | • n/a (passive depressurisation bores) |
| | Cone of depression distance (m) from pit at 0.5m contour | • No cone of depression was recorded in surrounding monitoring bore network during construction. |
| | Water management requirements | • Water management is undertaken in accordance with the WMP. |
| | References** | • BP33 Water Management Plan (WRM, 2024)<br>• Summary of BP33 Box Cut Design Changes (PSM, 2024) |
| **Flood immunity (ARI)** | 1:10 and 1:100 | • Flood modelling indicates the box cut will not be impacted by a 1% AEP event (1:100). |
| | References** | • BP33 Underground Flood Study Assessment (WRM, 2023)<br>• BP33 Underground Mining Proposal: Surface Hydrology and Flood Inundation Report (Surface Water and Erosion Solutions (2020) |

| Item | | Pertinent information |
|---|---|---|
| **Pit development method** | Rationale | • The box-cut will be excavated by free dig using conventional truck and shovel methods, with drill and blast required where necessary.<br>• Backfill of the box cut will occur using oxide waste rock originally removed from the excavation. Material will be backfilled and compacted upon completion of underground mining activities. |
| | Safety bund | • A safety bund will be constructed and maintained around the box cut. It will be removed at the completion of mining and backfilling to facilitate surface water drainage and rehabilitation activities. |
| **Design Drawings** | | • Box cut designs and ancillary infrastructure drawings have previously been provided |

**Table 6.8 Pits and Extractives Design Rationale**

| Aspect | | Details | References |
|---|---|---|---|
| **Reasons for choosing this location (complete all that apply)** | Statutory | • Located within the mining lease | |
| | Flora | • No significant or sensitive flora within disturbance area | • BP33 Ecology Report (EcOz) 2020<br>• BP33 Ecology Report (Epic Environmental, 2024) |
| | Fauna | • No impact to threatened fauna within disturbance area | |
| | Sacred Sites | • No sacred sites within disturbance area | • AAPA Certificate (C2022-049) |
| | Heritage | • No heritage sites within disturbance area | • BP33 Heritage Assessment (EarthSea, 2024)<br>• BP33 Referral Supporting Document (EcOz, 2020) |
| | Water | • Box-cut planned location was relocated by TME Mine Consulting, from original design location to reduce risk from surface water drainage as well as optimise the position with considerations given to the Underground (UG) designs, surface Waste Rock Dumps (WRD's), surface haul roads and the Run of Mine (ROM) stockpile (TME 2019). | • Underground Geotechnical Study for BP33 Deposit (SRK, 2021)<br>• BP33 Underground Portal Boxcut and Supporting Mine Designs (TME Mine Consulting, 2019) |

| Aspect | | Details | References |
|---|---|---|---|
| | Other | • n/a | |
| **Reasons for choosing this design (design basis)** | Geotechnical / engineering | • Initial slope stability analysis identified batter angles of 60 degrees additional geotechnical assessment reduced the batter angle to 50 degrees for better stability during construction.<br>• Pore pressure was identified as a potential contributor to slope stability issues during excavation. Several horizontal depressurisation bores were installed to mitigate this risk. | • Underground Geotechnical Study for BP33 Deposit (SRK, 2021)<br>• BP33 Box Cut Geotechnical Study and Design (Zanterra Solutions, 2022)<br>• Summary of BP33 Box Cut Design Changes (PSM, 2024)<br>• Geotechnical Model and Design Advice BP33 Underground Project (PSM, 2024) |
| | Waste/water management | • The box cut redesign (40 m depth) will reduce the volume of surface and groundwater requiring management during construction and operation through a reduction in available catchment area and reduction in groundwater inflow within the oxide phyllite.<br>• Design of the box cut has been revised so it no longer requires the installation of a contour diversion drain to divert surface water.<br>• Water encountered during construction of the box cut will be assessed and managed in accordance with the WMP.<br>• Water will be collected in box cut sump from where it will be directed to the mine water dam. | • BP33 Box Cut Geotechnical Study and Design (Zanterra Solutions, 2022)<br>• BP33 Water Management Plan (WRM, 2025) |
| | Other | n/a | |
| **Regulatory** | Existing Authorisation | • Existing Authorisation considers a larger open box cut excavated to a depth between 60 - 70 mBGL and approximate dimensions of 580 m long x 160 m wide. | |
| | NT EPA | • NT EPA Assessment Report 94 (AR94) and Environmental Approval (EA) EP2020/001-001 issued 8 April 2022 outlines BP33 EA conditions | |
| | EPBC Act | • Project does not trigger referral under the EPBC Act. | |

| Aspect | | Details | References |
|---|---|---|---|
| | Water Act | • No water extraction licencing required for dewatering the construction excavation of accumulated stormwater. An application for a Groundwater Extraction Licence for dewatering the underground mine will be submitted prior to commencement of mining.<br>• Water removed from the box cut requires management as mine affected water, offsite discharge of water will be undertaken in accordance with WDL 253. | |
| | References | • MMA Authorisation 1138-01 (DITT, 2023)<br>• NT EPA Assessment Report 94 (AR94) (NT EPA, 2022)<br>• Environmental Approval EP2020/001-001 (NT EPA, 2022) | |

**Table 6.9 Pits and Extractives Risk, Controls and Management**

| Step | Phase | Sequence | Risks | Controls | Management performance and monitoring | Additional information |
|---|---|---|---|---|---|---|
| **1** | **Clearing** | • See Table 6.3 above. | | | | |
| **2** | **Construction** | 1. Development of IFC design.<br>2. Mobilise construction equipment supplies to site.<br>3. Strip and stockpile topsoil.<br>4. Excavation of oxide waste and transport to WRD1 using drill and blast where required.<br>5. Review and installation of geotechnical controls where required.<br>6. Engineer sign-off on construction as per IFC | | | • Conformance performance criteria and monitoring objectives withing the BP33 Box Cut Slope Stability Management Plan and TARP.<br>• Water quality within the BCS is managed in accordance with the WMP.<br>• Downstream waterways not impacted by sedimentation (quality within applicable trigger values)<br>• Adherence to ESCP<br>• No new introduced or spread of existing weeds<br>• Dust generation within applicable limits as per Dust Management Plan. | |
| **3** | **Commissioning / operations** | 1. Commissioning and operation of box cut upon engineering sign-off.<br>2. Management of groundwater seepage or surface water into the box cut if required. | | | • Water quality within the BCS is managed in accordance with the WMP.<br>• No excess surface water enters the box cut tunnel. | |

**Table 6.10 Pits Independent Expert**

| Question | Details | | |
|---|---|---|---|
| 1 | Will an independent expert be engaged by the operator? | Yes ☒ (Go to Q2) | No ☐ (Explain why below) |
| | • The box cut has been designed and refined by suitably qualified engineers (TME Mine Consulting, Zanterra Solutions, SRK Consulting, JBU Group, PSM) with construction undertaken by a suitably qualified civil contractor (North Australian Civil). Ongoing geotechnical monitoring and advice during construction has been provided by specialist consultants to create a safe and stable excavation. | | |
| 2 | Will detailed designs be prepared and reviewed by an independent expert? | Yes ☒ (Go to Q3) | No ☐ (Explain why below) |
| | • See PSM above. | | |
| 3 | Will a detailed management plan be developed that describes in detail the operator's maintenance, surveillance and closure requirements of the structure? | Yes ☒ | No ☐ (Explain why below) |
| | | | |

**Table 6.11 Pits and Extractive - Summary of Environmental Performance.**

| Performance Summary |
|---|
| • A summary of performance against environmental risks detailed in Table 6.3 is provided in the 2024 LD Environmental Mining Report. |

**Table 6.12 Pits and Extractive - Closure**

| Closure | Objective | References |
|---|---|---|
| **Unplanned** | **Temporary Suspension**<br>• Maintained as safe, stable and non-polluting.<br>**Unforeseen Closure** | Closure criteria, knowledge gaps and applicable timelines to completion are addressed in the following documents:<br>• BP33 Mine Closure Plan (MineEarth, 2024) |

| Closure | Objective | References |
|---|---|---|
| | • Rehabilitated as safe, stable, non-polluting and erosion resistant landform. | • BP33 Care and Maintenance Plan (Lithium Developments (2024) |
| **Planned** | • Rehabilitated as a geotechnically stable, non- polluting and erosion resistant landform.<br>• Rehabilitated landform supports self-sustaining native vegetation and fauna comprising local species.<br>• Rehabilitated domain supports fauna recolonisation not significantly different to that of surrounding ecosystems.<br>• Surface water quality is protected to maintain environmental values and beneficial uses. | |

## 6.2 Underground Operations

**Table 6.13 Underground Operations Summary**

| Identifier for UG operations | | UG area 1 (BP33 Underground Mine) | |
|---|---|---|---|
| **Titles** | | • ML32346 | |
| **LOM year of construction** | | • TBC. Construction has been suspended. | |
| **Mine Depth** | | • 320 m (current approval)<br>• The underground mine design is provided in<br>• Figure 6-2. It is noted that these designs consider a larger resource depth which may be subject to future approval. Mining will not extend beyond the currently approved 320 m. | |
| **Access (Portals)** | No. of portals | • 1 | |
| | Locations | • Located in the southern wall of the BP33 box cut at a depth of approximately 30 mBGL. | |
| | Dimensions (m) | Height: 6 | Width: 5.5 |

| Identifier for UG operations | | UG area 1 (BP33 Underground Mine) | | |
|---|---|---|---|---|
| **Access (Decline)** | Location | • Extends from the box cut portal to the approved depth target ore body (320 m) | | |
| | Gradient | • 1:7 | | |
| | Dimensions Upper Decline (m) | Length: 660 | Width: 5.5 | Height: 6 |
| | Dimensions Lower Decline (m) | Length: 2,553 | | |
| **Vents** | Number | • 1 x primary intake fresh air raise (FAR)<br>• 2 x primary return air raises (RAR) | | |
| | Location | • Locations shown in Figure 3-1. | | |
| | FAR Dimensions (m) | Length: 110 | Diameter: :4.5 | |
| | RAR Dimensions (m) | Length: 100 | Diameter: :3.5 | |
| **References** | • BP33 Project LOM Ventilation Review (BBE Consulting, 2023)<br>• BP33 Mining Method Assessment (AMC Consultants, 2023)<br>• BP33 Mine Plan and Ore Reserves (AMC, 2023) | | | |
| **Dewatering** | Standing Water Level (SWL) | • SWL in the deep BCF bore ranges from 5.4 – 9.3 m.<br>• SWL in the shallow bores ranges from 3.1 – 5.5 m. | | |
| | Aquifer | • Burrel Creek Formation | | |
| | Dewatering Bore and Rates | • Number of required bores to be confirmed.<br>• Dewatering ahead of decline and underground construction has been recommended by PSM (2024). The number and location of dewatering bores has not been defined and will be confirmed prior to the recommencement of construction.<br>• Indicative yields from existing monitoring bores at BP33 range between 1.8 and 2 L/s | | |

| Identifier for UG operations | | UG area 1 (BP33 Underground Mine) |
|---|---|---|
| | Dewatering Sumps and Rates | • Operational dewatering will occur via sumps within underground workings.<br>• Modelled groundwater inflows have been estimated at an initial 0.60 ML/day, increasing over the life of mine to an estimated 3.97 ML/day. |
| | Cone of depression distance (m) from pit at 0.5 m contour | • Previous model indicated the drawdown cone extends approximately 2 km from the underground mine. Once mining ceases, the water table is predicted to recover to pre-mining levels within three years.<br>• Revised groundwater modelling, calibrated with observed box cut and Grants pit groundwater inflow rates, indicate a substantial reduction in groundwater inflows. However, it is anticipated that the drawdown cone and recovery time of the BFC aquifer will be in line with the previous assessment. |
| | Water management requirements | • Underground operations will require dewatering to prevent flooding. Inflows will be pumped to the mine water dam (MWD) as mine affected water. Water may be treated to remove sediments and any other contaminants if required and will make up the majority of mine water demands.<br>• Excess water will be managed via irrigation or discharged offsite under WDL 253. Should excess water not be able to be managed via these methods, underground operations may be flooded as a contingency. |
| | References | • BP33 Pumping Test Report (Groundwater Enterprises, 2021)<br>• Geotechnical Model and Design Advice BP33 Underground Project (PSM, 2024)<br>• High Level Estimated for Dewatering Bores for BP33 (CloudGMS, 2023) (Appendix N)<br>• BP33 Dewatering Assessment 2023 (CloudGMS, 2023) (Appendix N) |
| **Flood immunity** | 1:100 (ARI) | **Peak Flood Depth (m):**<br>• Flood inundation modelling indicates that underground workings will not be impacted in a 1% AEP event (1:100). Modelled flood extents do not encroach on the box cut / portal and ventilation infrastructure and as such do not indicate a risk of flooding to underground operations.<br>**Flood Mitigation Required:**<br>• No |

| Identifier for UG operations | | | UG area 1 (BP33 Underground Mine) |
|---|---|---|---|
| | References | | • BP33 Underground Flood Study Assessment (WRM, 2023)<br>• BP33 Underground Mining Proposal: Surface Hydrology and Flood Inundation Report (Surface Water and Erosion Solutions (2020) |
| **UG development method** | Rationale | | • The preferred mining method is long hole open stoping (LHOS). Ore body width, vertical orientation and competent host rock ground conditions allows this to be considered as a suitable mining method. The proposed method provides:<br>  • Favourable production profile over Life of Mine (LOM)<br>  • Delivers early access to stope production, minimising ore production gaps<br>  • All waste rock can be returned underground as stope backfill.<br>  • Enables production from several mining areas concurrently.<br>• Drill and blast methods will be used to extract the ore, which will be removed by underground production loaders.<br>• Mined material is to be stockpiled on the production level or loaded directly into underground mining trucks and hauled to the surface ROM via the decline.<br>• The mine will extend to a nominal depth of 320 m as currently approved, however the mine design also considers a larger 10.5 million tonne resource that may be subject to future approval. |
| | Geotechnical | | • The preferred design has been guided by geotechnical investigations by PSM (2024) which provided advice and recommendations on<br>  • Geotechnical parameters to support mine design, including decline and drives.<br>  • Geotechnical assessment of the portal, shafts and stopes. |
| | References | | • Geotechnical Model and Design Advice (PSM, 2024)<br>• BP33 Mining Method Assessment (AMC Consultants, 2023)<br>• BP33 Mine Plan and Ore Reserves (AMC, 2023) |
| | Regulatory | Existing Authorisation | • The existing Authorisation describes the mining method as sublevel open stope mining with pillar support. The proposed mining method will conform to existing approved depth and duration. |

| Identifier for UG operations | | | UG area 1 (BP33 Underground Mine) |
|---|---|---|---|
| | | NT EPA | • NT EPA Assessment Report 94 (AR94) and Environmental Approval (EA) EP2020/001-001 issued 8 April 2022 outlines BP33 EA conditions and specifies total resource recovery of 2.1 million tonnes of ore. |
| | | EPBC Act | • n/a |
| | | Water Act | • Groundwater Extraction Licence required for mine dewatering.<br>• Excess water from underground operations may require discharge to the environment under WDL 253.<br>• Raw water from OHD may be required as make up water should there be a deficit in the mine water demand. Raw water extracted from OHD will be undertaken in accordance with SWEL 8151018. |
| | | References | • MMA Authorisation 1138-01 (DITT, 2023)<br>• NT EPA Assessment Report 94 (AR94) (NT EPA, 2022)<br>• Environmental Approval EP2020/001-001 (NT EPA, 2022) |
| **Backfill Methodology** | Backfill Material | | • A combination of waste rock from underground operations and eventually cemented paste backfill comprising a blend of processing fines from Grants operations and cement.<br>• It is anticipated all waste rock from surface WRDs will be consumed as backfill. |
| | Geochemical Characterisation | | • Geochemical assessment of waste rock does not indicate a risk of saline or acidic drainage when used as backfill underground. |
| | Methodology | | • Paste fill methodology to be confirmed in future submission. |
| | References | | • BP33 Paste Backfill Geochemical Characterisation Interim Report (EGI, 2024)<br>• BP33 Backfill Pre-Feasibility Study (MineFill Services, 2024) |
| **Ancillary structures** | Fan Station / Cooling Structures | | • The primary fan unit will be sized based on the airflow determined by ventilation specialist prior to installation.<br>• Cooling will initially be provided by modular rental cooling units. |

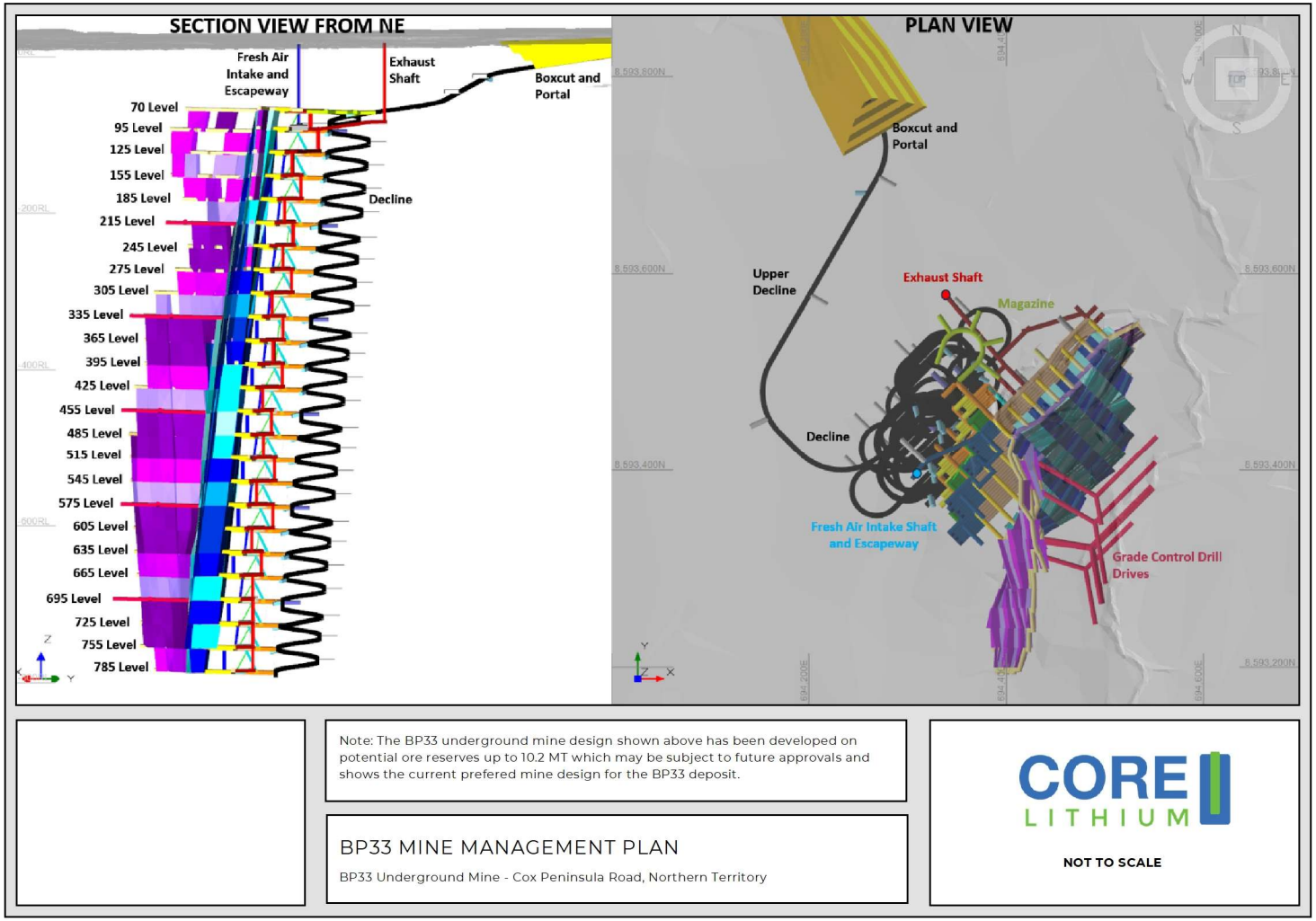



**Figure 6-2 BP33 Underground Mine Design**

**Table 6.14 Underground Operations Risk, Controls and Management**

| Step | Phase | Sequence | Risks | Controls | Management Performance and Monitoring | References |
|---|---|---|---|---|---|---|
| **1** | Clearing | • N/a | | | | |
| **2** | Construction | 1. Finalise underground mine design and methodology<br>2. Development of IFC designs for underground infrastructure.<br>3. Mobilise construction equipment supplies to site.<br>4. Commence excavation of the decline with oxide waste materials to 70mBGL transported to WRD1<br>5. Completion of the decline with transitional waste materials transported to WRD2.<br>6. Excavation of underground infrastructure and commencement of ore removal<br>7. Installation of services, ancillary infrastructure / structures<br>8. Engineering signoff on construction activities. | | | • Conformance to performance criteria and monitoring objectives within applicable underground geotechnical management plans and TARPs.<br>• Water quality dewatered from underground is managed in accordance with the WMP and meets applicable trigger values for appropriate management. | |

| Step | Phase | Sequence | Risks | Controls | Management Performance and Monitoring | References |
|---|---|---|---|---|---|---|
| **3** | Commissioning / Operations | 1. Commissioning and operation of underground workings upon engineering sign-off.<br>2. Use of drill and blast methods to extraction of ore and haulage to surface ROM<br>3. Backfilling of stopes with use of waste rock from WRD1 / WRD2.<br>4. Ongoing inspection underground workings as per applicable management plans, TARPs and other manuals.<br>5. Management of groundwater inflows into the mine | | | • Engineering sign-off that the underground works, services and ancillary infrastructure are safe and stable.<br>• Water quality dewatered from underground is managed in accordance with the WMP and meets applicable trigger values for appropriate management.<br>• Conformance to performance criteria and monitoring objectives within applicable underground | |

**Table 6.15 Underground Operations Independent Expert**

| Question | Details | | |
|---|---|---|---|
| **1** | Will an independent expert be engaged by the operator? | Yes ☒ (Go to Q2) | No ☐ (Explain why below) |
| | • The mine has been designed by a suitably qualified mining engineer (AMC Consultants)<br>• Geotechnical study for BP33 deposit has been used to advise the mine design and methodology. Geotechnical investigations were initially conducted by SRK Consulting and further expanded and refined by PSM Consulting, both suitably qualified geotechnical professionals. | | |
| **2** | Will detailed designs be prepared and reviewed by an independent expert? | Yes ☒ (Go to Q3) | No ☐ (Explain why below) |
| | • See above, detailed designs will be prepared by AMC Consulting. A third-party independent expert may be engaged should AMC Consulting or PSM Consulting require further technical advice. | | |

| Question | Details | | |
|---|---|---|---|
| 3 | Will a detailed management plan be developed that describes in detail the operator's maintenance, surveillance and closure requirements of the structure? | Yes ☐ | No ☒ (Explain why below) |
| | • Not required for underground operations.<br>• A ground control management plan may be developed that details application geotechnical surveillance and controls required for safe operation of underground workings. | | |

**Table 6.16 Underground Operations Closure**

| Closure | Objective | References |
|---|---|---|
| **Unplanned** | **Temporary suspension**<br>• Maintained as safe and stable.<br>**Unforeseen closure**<br>• Rehabilitated as safe and stable. | Closure criteria, knowledge gaps and applicable timelines to completion are addressed in the following documents:<br>• BP33 Mine Closure Plan (MineEarth, 2024)<br>• BP33 Care and Maintenance Plan ( Lithium Developments (2024)<br>• BP33 Rehabilitation Management Plan (EcOz, 2022) |
| **Planned** | • Rehabilitated as safe and stable. | |

## 6.3 Dams

**Table 6.17 Dams Summary**

| Aspect | Dam 1 Mine Water Dam | | |
|---|---|---|---|
| **No of Cells** | • 2 x 78 ML cells. Total 156 ML capacity. | | |
| **Titles** | • ML32346 | | |
| **Footprint (ha)** | Existing: 6.62 | Proposed: 0 | Total 6.62 |
| **Characteristics and volume of waste stored** | • Proposed maximum operating volume 104.2 ML.<br>• Mine affected water sourced from dewatering underground operations.<br>• Top up raw water from OHD should there be a deficit in the mine water demand.<br>• Top up surface water runoff from the site sediment basins should there be a deficit in the mine water demand.<br>• Dam will be constructed of inert oxide material excavated from the box cut. | | |
| **LOM year of construction** | • 2023 (ongoing)<br>• Construction of the MWD civils has been completed. Installation of ancillary structures (pumps, piping, etc.) will be completed prior to operation. | | |
| **Ancillary Structures (e.g dams, sumps etc) and Sizes** | • MWD discharge point comprising a 40 m x 7 m rock-lined channel that directs water into the adjacent creek.<br>• Pump / generator pad and syphon bank. These will be located on the wall dam with syphon pipes entering the rock lined discharge point.<br>• | | |

**Table 6.18 Dams Design Rationale**

| Closure | Objective | Criteria | Knowledge Gaps |
|---|---|---|---|
| **ANCOLD Guidelines:**<br>• ANCOLD, 2000. Guidelines on Selection of Acceptable Flood Capacity for Dams.<br>• ANCOLD, 2003. Guidelines on Dam Safety Management.<br>• ANCOLD, 2003. Guidelines on Risk Assessment.<br>• ANCOLD, 2012. Guidelines on the Consequence Categories for Dams.<br>• ANCOLD, 2019. Guidelines on Tailings Dams: Planning, design, construction, operation and closure.<br>• ANCOLD, 2019. Guidelines for Design of Dams for Earthquake. | • Undertake consequence category assessments. | • Designed to meet ANCOLD Guidelines – assessment of consequence categories undertaken.<br>• Undertaking geotechnical and geochemical assessments to support the basis of design (BOD).<br>• BOD to suit topographic conditions and operational requirements | • BP33 Box Cut and Mine Infrastructure Basis of Design (JBU Group, 2023) |

**Table 6.19 Dams Design Components**

| Design Item | | Dam 1 MWD - Key information |
|---|---|---|
| **Key design considerations** | Philosophy/rationale | • Twin cell turkey nest type<br>• Design to suit topographic conditions and operational requirements. Footprint restricted by adjacent infrastructure.<br>• Permanent standpipe for dust suppression utilisation.<br>• Efficient discharge of mine affected water from WDL 253 licensed discharge point DP1. |
| | Flood immunity requirements | • Spillway design flood capacity - 1:100 AEP. |
| | Containment method | • Off-stream above-ground paddock impoundment. Low permeability in-situ material treated and compacted. |

| Design Item | | | Dam 1 MWD - Key information | |
|---|---|---|---|---|
| | | | • Contingency for HDPE liner for geotechnical purposes should it be required. | |
| | Projected annual throughput | | • n/a | |
| | Project LOM | | • 44 months operations | |
| **Construction Details** | Perimeter length (m) | | Cell 1: 680 | Cell 2: :640 |
| | Crest width (m) | | • 8 (to allow for light vehicle access and safety bunds, as well as safety during construction) | |
| | Embankment geometry | | • 1:3 to facilitate lining of internal batter slope if required. | |
| | Construction materials | Zone 1 | • Low permeability earth fill core. | |
| | | Zone 2 | • n/a | |
| | | Zone 3 | • Weathered earth and rockfill won from cut for dam excavation or Open Pit | |
| | Total height (m) | | • 5.5 | |
| | Raise type and total no of lifts | | • n/a | |
| **Key Design Parameters (ANCOLD, 2012)** | Dam failure consequence category (ANCOLD 2012) | | • Low | |
| | Factor of Safety (FoS) | | • Drained Condition - Full Supply Level or Flooded | • 1.5 |
| | | | • Undrained Condition - Full Supply Level or flooded | • 1.3 |
| | Design earthquake loading (OBE / MDE) | | • OBE: 1 in 475 AEP | • MDE: 1 in 1,000 AEP |
| | Buttressing requirements | | • n/a | |
| | Spillway level (mRL) | | • 19.36 | |
| | Decant pond requirements | | • n/a | |
| | Liner details | | • Welded 2.0mm HDPE In the western cell (If required). | |

| Design Item | | Dam 1 MWD - Key information |
|---|---|---|
| | Discharge method | • Pump or syphon to dedicated discharge point (WDL 253 licenced discharge point DP1) |
| | Storage capacity/Allowance (ANCOLD, 2012) | • 156 ML |
| | Minimum Operating Allowance (MOL) | • 104.2 ML. |
| | Minimum extreme storm storage allowance | • Cell 1 and Cell 2 combined storage exceeds 125ML or 80% full storage volume with inflows still occurring (Table B.2 in the BP33 WMP [WRM, 2025]). |
| | Contingency freeboard | • 10% AEP (1:10) wave run-up |
| | Performance | • Dam performance to be provided in annual EMR. |
| **Ancillary Structures** | Pipe network | • Inlet: Rock armoured wall pipe inlet<br>• Outlet: Anchored floating intake<br>• Discharge Method: Pump or syphon with flow meter and volume control.<br>• Pipe specifications: TBC |
| | Haul roads/access tracks | • 8 m light vehicle access allowance on dam crest, accessed via the site access road to the north. |
| | Reference | • BP33 Water Management Plan (WRM, 2025)<br>• BP33 MWD Detailed Designs IFC (JBU Group, 2023) |

**Table 6.20 Dams Risk, Controls and Management**

| Step | Phase | Sequence | Performance and Monitoring | Risks, Controls and Management |
|---|---|---|---|---|
| **1** | Clearing | • See Table 6.3 above. | | |
| **2** | Construction | • Development of IFC design.<br>• Mobilise construction equipment supplies to site.<br>• Strip and stockpile topsoil.<br>• Remediation of any geotechnical matters<br>• Construction of wall foundations and progressive placement, treatment and compaction of oxide waste<br>• Geotechnical testing of compaction layers to confirm construction standard.<br>• Installation of HDPE liner (if required)<br>• Installation of rock armouring and spillway<br>• Installation of LV running track and safety berms<br>• Engineer sign-off on construction as per IFC<br>• Installation of pump and pipe infrastructure | • Dam meets ANCOLD design criteria<br>• Certification of design and construction by ICE<br>• Conformance to design and geotechnical criteria.<br>• Monitoring undertaken in accordance with applicable management plans.<br>• Water within the dam during construction is managed in accordance with the WMP.<br>• Adherence to ESCP<br>• Downstream waterways not impacted by sedimentation (quality within applicable trigger values)<br>• No new introduced or spread of existing weeds<br>• Dust generation within applicable limits as per Dust Management Plan. | • BP33 Project Risk Assessment (Section 6, Appendix I) |
| 3 | Commissioning / operations | 1. Commissioning and operation of MWD | • Engineering sign-off that the dam has been constructed installed as per IFC and ANCOLD standards. | |

| Step | Phase | Sequence | Performance and Monitoring | Risks, Controls and Management |
|---|---|---|---|---|
| | | 2. Ongoing inspection and surveillance of structure including regular monitoring of water volumes.<br>3. Monitoring of mine wastewater quality as per WMP. | • No seepage from dam walls observed.<br>• Water volumes managed in accordance with the WMP and or WDL with no uncontrolled discharge occurring.<br>• Surface water and groundwater water quality is monitored in accordance with the WMP and meets applicable trigger values or performance criteria for appropriate management. | |

**Table 6.21 Dams Independent Expert**

| Question | Details | | |
|---|---|---|---|
| **1** | Will an independent expert be engaged by the operator? | Yes ☒ (Go to Q2) | No ☐ (Explain why below) |
| | | | |
| **2** | Will detailed designs be prepared and reviewed by an independent expert? | Yes ☒ (Go to Q3) | No ☐ (Explain why below) |
| | | | |
| **3** | Will a detailed management plan be developed that describes in detail the operator's maintenance, surveillance and closure requirements of the structure? | Yes ☒ | No ☐ (Explain why below) |
| | | | |

**Table 6.22 Dams Closure**

| Closure | Objective | References |
|---|---|---|
| **Unplanned** | **Temporary Suspension**<br>• Maintained as safe, stable and non-polluting.<br>**Unforeseen Closure**<br>• Rehabilitated as safe, stable, non-polluting and erosion resistant landform. | Closure criteria, knowledge gaps and applicable timelines to completion are addressed in the following documents:<br>• Grants Mine Closure Plan (MineEarth, 2024)<br>• Grants Care and Maintenance Plan ( Lithium Developments (2024) |
| **Planned** | • Decommissioning and removal of infrastructure<br>• Dams returned to pre-mining topography.<br>• Domain supports self-sustaining native vegetation comparable to that of the surrounding ecosystems.<br>• Domain supports fauna recolonisation comparable to that of surrounding ecosystems.<br>• Surface water quality is protected to maintain environmental values and beneficial uses. | |

## 6.4 Waste Rock Dumps

**Table 6.23 WRD Summary**

| Aspect | | WRD 1 (Temporary Box Cut. Stage 2 Underground) | WRD 2 (Underground) |
|---|---|---|---|
| **WRD Approval Summary** | | • Authorisation 1138-01 permits only WRD2 be used for underground mining waste and requires construction of a low-permeability foundation to limit basal migration of leachate.<br>• An updated waste rock dump design, inclusive of low permeability foundation (leachate barrier fill), will be submitted to the Department three months prior to commencement of dumping on WRD2. | |
| **WRD Risk Profile Summary** | | • Extensive geochemical assessment of BP33 waste rock and ore indicates the generation of saline or acidic leachate from waste rock storage is unlikely, however several soluble metals may be found in leachate water at concentrations above background in ground and surface waters.<br>• Further quantitative and qualitative risk assessment and modelling has been recommended to assess the risk of migration of leachable metal contaminants and identify potential pathways by which leachable metals may migrate into the environment.<br>• Geotechnical investigations undertaken by PSM (2024) assessed WRD foundation stability and characterised the nature of onsite materials for potential use as WRD leachate barrier fill. Appropriate material will be sourced and utilised in the construction of the WRD leachate barrier fill in accordance with approved designs. Detail designs to be provided to the DLPE 3 months prior to construction in accordance with authorised conditions.<br>• Drawings and information provided with this MMP are typical and represent design intent which will be developed and detailed in final designs prior to construction. The leachate barrier / WRD foundation will be constructed in accordance with the final WRD design. | |
| **Scheduled year of construction** | | • Year 1 | |
| **Existing – year of construction** | | • 2023 (Box Cut Stockpile) | • N/a |
| **Titles** | | • ML32346 | • ML32346 |
| **Footprint** | Existing area | • 5.68 ha | • 2.54 ha |
| | Proposed area | • 0 | • 0 |

| Aspect | | WRD 1<br>(Temporary Box Cut. Stage 2 Underground) | WRD 2<br>(Underground) |
|---|---|---|---|
| | Total area | • 5.68 ha | • 2.54 ha |
| **Waste stored and volume** | | **Stage 1: Box Cut WRD** | **Underground WRD** |
| | | **Purpose**<br>WRD 1 will be used for the temporary storage of box cut waste prior to being used for backfill of the box cut excavation.<br>**Waste:**<br>• NAF oxide waste from box cut excavation.<br>**Volume:**<br>• 510,000 $m^3$<br>**Material Use:**<br>• Construction fill / box cut backfill | **Purpose**<br>• WRD 2 will be used as the primary WRD for the temporary placement of underground waste rock.<br>**Waste:**<br>• NAF transitional and fresh waste rock with potentially minor quantities of PAF-LC (3.1% volume) and PAF (0.3% volume).<br>**Volume:**<br>• Up to 250,000 $m^3$<br>**Material Use:**<br>• Underground mine fill. |
| **Existing Approved Dump Configuration / Capacity** | Height | 15 m (43 mRL) | • 10 m (37 mRL) |
| | Width | 400 m | • 100 m |
| | Length | • 400 m | • 300 m |
| | Capacity | • 2,000,000 LCM | • 229,000 LCM |
| **Proposed Dump Configuration / Capacity** | Height | 20 m (48 mRL) | • 12 m (39 mRL) |
| | Width | 140 m | • 100 m |
| | Length | 450 m | • 300 m |
| | Capacity | 510,000 $m^3$ | • 250,000 $m^3$ |

| Aspect | | WRD 1<br>(Temporary Box Cut. Stage 2 Underground) | WRD 2<br>(Underground) |
|---|---|---|---|
| **Design Change Rationale** | | • Reduced design dimensions and capacity required due to smaller box cut excavation.<br>Design capacity allows temporary storage of up to 510,000 $m^3$ of waste rock with a maximum height of 20 | • WRD2 design footprint is under review to ensure capacity to store modelled underground waste rock volumes.<br>• Dump to be constructed sequentially for efficient storage and management of PAF material. Final engineered designs to be submitted to the Department 3 months prior to the commencement of decline development. |
| **Dump slopes** | Batter angle | 33 (1:1.5) | • 37 (1:1) |
| | FoS | • n/a | • n/a |
| **Flood immunity (ARI)** | 1:100 | • Flood modelling indicates WRD1 and WRD2 will not be impacted by a 1% AEP event (1:100). | |
| | References | • BP33 Underground Flood Study Assessment (WRM, 2023)<br>• BP33 Underground Mining Proposal: Surface Hydrology and Flood Inundation Report (Surface Water and Erosion Solutions (2020) | |
| **Method of construction** | | • Paddock dumping of oxide waste in 3 x 10 m lifts to a height of 15 m (43 mRL)<br>Ramp gradient 10% (1 in 10) | • Compaction of box cut oxide waste to create a low-permeability foundation with leachate management.<br>• Paddock dumping of transitional and fresh waste in 3 x 5 m lifts to a height of 20 m (37 mRL)<br>• Ramp gradient 10% (1 in 10)<br>• Provision for encapsulation of PAF and PAF-LC in WRD structure. |
| **Phreatic conditions** | | • SWL in BP33 monitoring bore typically ranged from 3.1 – 9.3 mBGL..<br>• Results from geochemical testing (Table 2.1) suggest that while acidic drainage from wastes stored in WRD(s) is unlikely, there is potential for water in contact with these materials to contain elevated concentrations arsenic, copper, lead, zinc and possibly aluminium relative to baseline surface and groundwater quality. | |

| Aspect | WRD 1<br>(Temporary Box Cut. Stage 2 Underground) | WRD 2<br>(Underground) |
|---|---|---|
| | • Particle tracking presented in the BP33 SER indicates the majority of solutes from WRDs would migrate along the hydraulic gradient before terminating at underground operations where it would be likely dewatered from underground operations and managed through the site mine water network. A small proportion of solutes were shown to migrate to the west of the proposed footprint.<br>• Monitoring of groundwater Standing Water Levels (SWL) and chemistry will assist in the identification of potential impacts from the operation of these WRDs. | |
| **Design Drawings** | • WRD designs are provided with the BP33 WRD and AMD Management Plan provided as Appendix F. | |
| **References** | • BP33 Groundwater Modelling Report (CloudGMS, 2021)<br>• BP33 Groundwater Database ( Lithium Developments (2024))<br>• BP33 Geochemical Characterisation of Waste Rock and Ore (EGI, 2020)<br>• BP33 Static Geochemical Testing (EGI, 2021<br>• BP33 Kinetic Geochemical Leach Testing (EGI, 2022)<br>• BP33 Waste Classification Criteria Advice (EGI, 2023) | |

**Table 6.24 WRD Design Considerations**

| Statutory / Other Considerations | Condition Requirement | How it's Addressed | References |
|---|---|---|---|
| • DITT Authorisation 1138-01. | • Condition 17 requires the construction of a low permeability foundation for WRD2 to limit basal seepage of leachate to groundwater. | • WRD2 will be used for storage of NAF transitional and PAF underground waste rock. WRD2 will be constructed sequentially with low permeability foundations that conforms with design requirements of approved waste rock dump designs. | • Draft Waste Rock Dump Foundation Geotechnical Report (PSM, 2024)<br>• Authorisation 1138-01 |

**Table 6.25 Waste Rock Classification Criteria**

| Material | Criteria | Volume (% of waste) | Management requirements | References |
|---|---|---|---|---|
| **PAF** | Total S ≥0.4% | 0.3% | • Ongoing geochemical characterisation of waste rock to inform dump placement and encapsulation (if required).<br>• Construction of a low permeability compacted foundation with leachate system to mitigate potential seepage of leachate to groundwater.<br>• Additional management requirements are provided in the BP33 WRD and AMD Management Plan (Appendix F). | • BP33 WRD and AMD Management Plan (Appendix F).<br>• BP33 Geochemical Characterisation of Waste Rock and Ore (EGI, 2020)<br>• BP33 Static Geochemical Testing of Waste Rock (EGI, 2021<br>• BP33 Kinetic Geochemical Leach Testing of Waste Rock (EGI, 2022)<br>• BP33 Waste Classification Criteria Advice (EGI, 2023) |
| **PAF-LC** | S ≥0.2% and <0.4% | 3.1% | | |
| **NAF** | S <0.2% | 96.6% | | |

**Table 6.26 WRD Material Quality and Beneficial Re-use**

| Material classification | Lithology / waste type | Properties | Suitability for re-use | References |
|---|---|---|---|---|
| • Oxide (Weathered) Waste Rock | • Weathered phyllite (BCF) | • See Table 2.1. | • Yes | • BP33 Geochemical Characterisation of Waste Rock and Ore (EGI, 2020)<br>• BP33 Static Geochemical Testing of Waste Rock (EGI, 2021<br>• BP33 Kinetic Geochemical Leach Testing of Waste Rock (EGI, 2022)<br>• BP33 Waste Classification Criteria Advice (EGI, 2023) |
| • Transitional or Fresh Waste Rock | • Transitional to fresh phyllite (BCF) | | • Yes - Material classified as NAF (<0.2 S%) | |

**Table 6.27 WRD Design Rationale**

| Aspect | | Details |
|---|---|---|
| **Reasons for choosing this location (complete all that apply)** | Statutory | • Located with the mining lease |
| | Flora | • No significant or sensitive flora within disturbance area |
| | Fauna | • No impact to threatened fauna within disturbance area |
| | Sacred Sites | • No sacred sites within disturbance area |
| | Heritage | • No heritage sites within disturbance area |
| | Water | • WRDs do not intersect any waterways. |
| **Reasons for choosing this design (design basis)** | Geotechnical engineering | • n/a |
| | Geotechnical | • Geotechnical assessment of in situ material required to establish ground conditions for low permeability foundation stability.<br>• Geotechnical assessment of box cut oxide waste and other onsite material to establish suitable compaction and infiltration rates of low permeability foundation. |
| | Waste/water management | • Leachate management required as per condition of existing Authorisation. |
| | Additional information | • Proximity to box-cut and underground for economical removal and backfill of waste rock. |
| | Performance | • A summary of performance against environmental risks detailed in Table 6.3 is provided in the 2024 LD Environmental Mining Report (available on request). |

**Table 6.28 WRD Risk, Controls and Management**

| Step | Phase | Sequence | Performance and Monitoring | Risks, Controls and Management |
|---|---|---|---|---|
| **1** | **Clearing** | See Table 6.3. | | |
| **2** | **Construction** | 1. Development of IFC design.<br>2. Mobilise construction equipment supplies to site. | 1. Conformance to design and geotechnical criteria.<br>2. Adherence to ESCP | • Refer to project risk assessment provided in Section 7 |

| Step | Phase | Sequence | Performance and Monitoring | Risks, Controls and Management |
|---|---|---|---|---|
| | | 3. Strip and stockpile topsoil.<br>4. Remediation of any geotechnical matters within foundation footprints.<br>5. Construction low permeability foundations<br>6. Geotechnical testing of compaction layers to confirm compaction and infiltration standards met.<br>7. Construction of leachate drains and sumps.<br>8. Engineer sign-off on foundations as per IFC. | 3. Downstream waterways not impacted by sedimentation (quality within applicable trigger values)<br>4. No new introduced or spread of existing weeds.<br>5. Dust generation within applicable limits as per Dust Management Plan. | |
| **3** | Commissioning / operations | 1. Commissioning and operation of WRD foundations<br>2. Ongoing inspection and surveillance of structure including conformance to dump plan.<br>3. Regular monitoring of leachate and surface waters as per WMP<br>4. Monitoring of mine wastewater quality as per WMP.<br>5. Management of groundwater seepage or surface water into the tunnel if required. | 1. Surface water, groundwater and leachate monitored and managed in accordance with the WMP and meets applicable trigger values or performance criteria for appropriate management.<br>2. WRD structure is safe and stable with no slumping, cracking or other signs of instability identified. | |

**Table 6.29 WRD Independent Expert**

| Question | Details | | |
|---|---|---|---|
| 1 | Will an independent expert be engaged by the operator? | Yes ☒ (Go to Q2) | No ☐ (Explain why below) |
| | • Geochemical characterisation of waste and ore has been undertaken by Environmental Geochemistry International, who are suitably qualified practitioners.<br>• Characterisation has identified low risk of Acid Rock Drainage (ARD); potential risk of metals/metalloids leaching under neutral conditions (Neutral Mine Drainage) to be managed.<br>• Geotechnical assessment of materials has been undertaken to establish appropriate compaction and infiltration rates for the foundation.<br>• WRDs have been designed by AMC Consulting. | | |
| 2 | Will detailed designs be prepared and reviewed by an independent expert? | Yes ☒ (Go to Q3) | No ☐ (Explain why below) |
| | • Designs have been developed by a suitably qualitied engineer (GHD).<br>• WRD designs have been prepared by AMC consulting. | | |
| 3 | Will a detailed management plan be developed that describes in detail the operator's maintenance, surveillance and closure requirements of the structure? | Yes ☒ | No ☐ (Explain why below) |
| | • BP33 WRD and AMD Management Plan provided as Appendix F. | | |

**Table 6.30 WRD Additional Details**

| Design Stage | | WRD1 | WRD2 |
|---|---|---|---|
| **Site Investigation** | Bores | • 13 monitoring bores at seven locations have been installed across the project area. They provide adequate coverage to characterise and monitor groundwater downgradient of both WRDs. | |
| | Geotechnical Investigations | • Geotechnical assessment has been undertaken with the footprints of WRD1 and WRD2 to:<br>  • Characterise subsurface conditions for foundation stability,<br>  • Assess geotechnical properties of onsite materials.ls<br>  • Characterise competency of waste materials to assess dump stability and erosivity. | |

| Design Stage | | WRD1 | WRD2 |
|---|---|---|---|
| | Particle Tracking | • Particle tracking analysis (CloudGMS, 2021) indicated most solutes from WRDs would migrate along the hydraulic gradient before terminating at underground operations were it would be dewatered from underground operations and managed through the site mine water network. A minor proportion of solutes were shown to migrate to the west of the proposed footprint (Appendix N). | |
| **Key Design Elements** | | | |
| **Objective and Criteria** | Objective | • A safe, stable, non-polluting and erosion resistant landform over the life of waste storage prior to use as backfill in underground operations. | |
| | Criteria | • Waste rock dump is built in accordance designs and best practice guidelines.<br>• When all waste has been reclaimed as backfill, WRD foundations are returned to natural topography and rehabilitated. | |
| **Design considerations** | Geochemical | • Results from geochemical testing (Table 2.1) suggest that while acid and saline drainage from wastes stored in WRD(s) is unlikely, there is potential for water in contact with transitional and fresh waste rock to contain elevated concentrations arsenic, copper, lead, zinc and possibly aluminium relative to baseline surface and groundwater quality. | |
| | Geotechnical | • Proposed WRD design specifications have drawn upon existing geotechnical information from Grants operations to manage stability issues. SMEC (2022) recommended the following for Grants operations and have been adopted at BP33.<br>  • Direct tipping can be carried out on firm ground, ensuring vehicles do not cause rutting.<br>  • Dump short and doze when dumping onto soft ground and saturated materials.<br>  • Paddock dumped materials and dump surface should be graded and contoured as soon as practicable to promote drainage, reduce water ponding and material saturation.<br>• Geotechnical investigations have been ongoing to understand the potential compaction and Infiltration rates that can be achieved for the WRD foundations with the materials available on site. Detail of test work to be included in final design submission. | |
| | Water Management | • Water will be managed in accordance with requirements and applicable performance criteria in the WMP. | |

| Design Stage | | | WRD1 | WRD2 |
|---|---|---|---|---|
| | Dump Configuration | | • Located to the north of the contractor services / administration pad | • Located to the north of the box-cut entrance |
| | Dump Volume | | • See Table 6.23 above. | |
| | Dump Slope | | | |
| | Degree of Confinement | | | |
| | Foundation Type | | **Box Cut WRD**<br>Paddock dumped base lift of oxide waste to create level dumping surface | **Underground WRD**<br>Compacted oxide waste foundation to create level surface with 1% fall to perimeter leachate drain. |
| **Method of Construction** | | | • See Table 6.23. | |
| **Piezometric and Climatic Conditions** | | | • See Table 6.23 and Table 4.1. | |
| **Dump Rate** | | | • Mining production is expected to average at approximately 1,000,000 tonnes per annum. | |
| **Seismicity** | | | • The 0.0 s Spectral Acceleration (SA) peak ground acceleration hazard value in the area for return period of 500 years is estimated as low at between 0.03 g and 0.04 g (Leonard et al., 2013) (SA for Darwin is 0.0370 g in a 500 year return period). The Project area is consequently at low risk from seismic activity. | |
| **Construction Sequence and Design Description** | Construction | Clearing | • Prior to placement of any waste material, WRD footprints have been cleared of vegetation and stripped of topsoil. Topsoil has been placed in the designated topsoil stockpile area. | |
| | | Foundation | **Box Cut WRD**<br>No specific foundation treatments were required for the temporary storage of oxide waste from the box cut. | **Underground WRD**<br>A compacted oxide phyllite waste rock foundation layer will be constructed with a 1% fall to create a level dump area. |

| Design Stage | | | WRD1 | WRD2 |
|---|---|---|---|---|
| | | Base | **Box Cut WRD**<br>Base lift of 1-3 m required to create a flat dumping surface for the placement of oxide waste from the box cut. | **Underground WRD**<br>Base lift up to 5 m incorporating the low permeability material placed atop the level compacted oxide phyllite foundation |
| | Operations | Halo | • Both paddock dumping and tipping at several heads to develop a halo comprising transitional and fresh rock characterised as NAF (Table 6.25). | |
| | | PAF cell | • Any waste characterised as PAF will be placed within an inner halo of NAF material. | |
| | | Halo | • NAF halo surrounding cell of all encountered potentially problematic material. | |
| | | Capping | • All waste will be used progressively consumed as backfill material. | |
| **References** | • BP33 Geochemical Characterisation of Waste Rock and Ore (EGI, 2020)<br>• BP33 Static Geochemical Testing (EGI, 2021<br>• BP33 Kinetic Geochemical Leach Testing (EGI, 2022)<br>• BP33 Waste Classification Criteria Advice (EGI, 2023)<br>• BP33 WRD and AMD Management Plan (Appendix F).<br>• Waste Rock Dump Foundation Geotechnical Report (PSM, 2024)<br>• BP33 WRD Designs (IEA, 2024) | | | |
| **Environmental Management** | | | | |
| **Environmental Management** | Key risks and triggers/management actions | | • Key risks and management actions are addressed in the BP33 WRD and AMD Management Plan (Appendix F) and detailed in Section 7 of this document. | |

**Table 6.31 WRD Closure**

| Closure | Objective | References |
|---|---|---|
| **Unplanned** | **Temporary suspension:**<br>• A geotechnically stable and non- polluting landform.<br>**Unforeseen closure:**<br>• A geotechnically stable and non- polluting landform which supports self-sustaining native vegetation and fauna comprising local species. | Closure criteria, knowledge gaps and applicable timelines to completion are addressed in the following documents:<br>• BP33 Mine Closure Plan (MineEarth, 2024)<br>• B33 Care and Maintenance Plan ( Lithium Developments (2024)) |
| **Planned** | • Waste rock backfilled in underground mining.<br>• Foundations to pre-mining topography. | |
| | • Rehabilitated domain supports self-sustaining native vegetation and fauna comprising local species. | |
| | • Rehabilitated domain supports fauna recolonisation not significantly different to that of surrounding ecosystems. | |
| | • Surface water quality is protected to maintain environmental values and beneficial uses. | |
| | • Beneficial uses are not adversely affected by altered groundwater levels or flows. | |

## 6.5 Exploration

Exploration activities are addressed in the Core Lithium Exploration MMP (EMMP).

## 6.6 Haul and Access Roads

Haul and access roads details are summarised in the following tables.

**Table 6.32 BP33 Haul and Access Road Details**

| Aspect | | External Haul Road | Site Access Road | Internal Haul / Mine Roads |
|---|---|---|---|---|
| **Name / Identifier** | | • Cox Peninsula Road | • BP33 site access from Cox Peninsula Road. | • Internal access roads |
| **Location** | | • Zone C | • Zone B | • Zone A |
| **Proposed / Existing** | | • The Cox Peninsula Road is proposed to be used as the primary haulage route between the BP33 and Grants sites. Core have commenced discussions with the Department of Logistics and Infrastructure and will obtain all necessary approvals and permits prior to commencing operations.<br>• An alternative haul road connecting the BP33 and Grants sites is proposed along the route of the existing Carlton track should the primary option not be approved. This would be constructed within the clearance boundaries considered in the Environmental Approval and designs submitted to the Department for review and approval prior to construction commencing. | • The mine site access road has been constructed and intersects Cox Peninsula Road at the existing construction site access.<br>• The site access road is proposed to be extended an additional 450 m to intersect Cox Peninsula road North of the existing Early Works site entrance to provide greater site distance criteria enabling safer interaction with public traffic. The intersection design has been upgraded for operational requirements and provides a bitumen sealed road surface within the Gazetted Road Corridor (Appendix D).<br>• Core have commenced discussions with the Department of Logistics and Infrastructure and will obtain all necessary approvals and permits prior to commencing construction. | • Most internal roads have been constructed with smaller service roads still proposed. |
| **Titles** | | • ML32346, ML23074, ML31726 | • ML32346, ML23074 | • ML32346, MLN16 |
| **Details** | Length (m) | • 6250 | • 2,212 (existing)<br>• 2,461 (total proposed) | • 1,000 (internal haul roads)<br>• 1,500 (internal mine roads) |

| Aspect | | External Haul Road | Site Access Road | Internal Haul / Mine Roads |
|---|---|---|---|---|
| | Width (m) | • 10.8 (road surface)<br>• 20 (clearing corridor) | • 10 (road surface)<br>• Up to 20 m (clearing corridor) | • Various |
| **Disturbance Footprint (ha)** | | • 12.5 | • 6.2 (including preexisting road disturbance) | • n/a. Within the mine operations area disturbance footprint. |
| **Materials** | Source | • Cut and fill balance will provide most material for construction with other in situ materials and benign oxide / NAF waste.<br>• Allowances have been made in the clearing allocation for the establishment of borrow pits should they be required and will be confirmed prior to construction.<br>• Running surface and other material requirements not available onsite may be sourced from offsite quarried material. | • In situ material and benign oxide / NAF waste from the box cut.<br>• Running surface and other material requirements not available onsite may be sourced from offsite quarried material. | |
| | Geochemical Classification | • To be confirmed prior to construction. | • See Table 4.2 and Table 2.1. | |
| | Volume | | • n/a | • n/a |
| | Engineering Properties | • Material to meet suitable compaction and other construction standards for LV and heavy machinery use. | | |
| **Performance of Existing Roads** | | • Existing roads performed reasonably during the 2023 / 2024 wet season with minor rectification required. Performance of existing site infrastructure is provided in the 2024 LD Environmental Mining Report (available on request). | | |
| **General Description of Works** | | • External Haul Roads are designated haul roads outside the | • The Site Access Road is to provide access to the BP33 site via Cox-Peninsular Road | • Internal Haul Roads are designated haul roads within |

| Aspect | External Haul Road | Site Access Road | Internal Haul / Mine Roads |
|---|---|---|---|
| | BP33 Operational Area and convey underground ore material from the BP33 ROM pad to Grants Mine ROM pad.<br>• The haul road is proposed to be dual lane road within the clearance boundaries assessed in the Environmental Approval.<br>• Cut and fill requirements for the haul road will be determined during detailed design. Where fill is required, materials are expected to be sourced locally from existing borrow areas on Core's leases or the from Grants and BP33 oxide waste rock. or waste classified as NAF.<br>• During construction, roadside drainage and watercourse crossings will be constructed according to the engineered design specifications. Temporary and permanent erosion and sediment control requirements are specified in the ESCP.<br>• Watercourse crossings will include the installation of culverts that provide 5% AEP flood immunity with no overtopping during a 1% AEP. | and is to convey LV/HV vehicles arriving from the Grants mine to the North and site delivery vehicles from Darwin arriving from the south.<br>• The location of the proposed entrance is north of the existing Early Works site entrance to provide greater site distance criteria enabling safer interaction with public traffic. The intersection design has been upgraded for operational requirements and provides a bitumen sealed road surface within the Gazetted Road Corridor.<br>• The site access road was constructed along an existing access track which was widened between 13 to 20 m to facilitate upgrade to heavy vehicle standard.<br>• During construction, roadside drainage and watercourse crossings were constructed according to the engineered design specifications. Temporary and permanent erosion and sediment control requirements are specified in the ESCP.<br>• The proposed extension to the site access road and uprate of the intersection with Cox Peninsula Road will be undertaken in accordance with the above and applicable DLI standards and guidelines following receipt of all required permits. | the BP33 Operational Area and convey underground Ore material to the ROM and Waste material to the WRDs.<br>• Internal mine road are all other internal access roads to service functional areas within the operational area. |
| **Statutory requirements** | • If the haul road is required, a permit to interfere with a waterway issued by the NT EPA will be obtained for the proposed alignment water crossings prior to commencing construction. | | |

| Aspect | External Haul Road | Site Access Road | Internal Haul / Mine Roads |
|---|---|---|---|
| | • The proposed intersection upgrade comprising a bitumen sealed road surface within the Gazetted Road Corridor of Cox Peninsula Road is subject to the review and approval by the NT Department of Infrastructure, Planning and Logistic (DIPL) with a road access permit required. | | |
| **Design Drawings** | • Typical design drawings of the site access road and CPR intersection is provided at Appendix J | | |

**Table 6.33 Haul and Access Risk, Controls and Management**

| Step | Phase | Sequence | Risks | Controls | Management Performance and Monitoring | References |
|---|---|---|---|---|---|---|
| **1** | **Clearing** | See Table 6.3. | | | | |
| **2** | **Construction** | 1. Development of IFC design and assessment of geotechnical requirements.<br>2. Mobilise construction equipment supplies to site.<br>3. Strip and stockpile topsoil.<br>4. Install temporary and permanent ESC structure.<br>5. Remediation of any geotechnical matters within road alignments<br>6. Installation / construction of waterway crossings.<br>7. Construction of roads, drainage and other associated infrastructure.<br>8. Application of bitumen and other surface treatments where required.<br>9. Installation of road furniture.<br>10. Engineer sign-off as per IFC. | | | 1. Conformance to design and geotechnical criteria.<br>2. Adherence to ESCP<br>3. Downstream waterways not impacted by sedimentation (quality within applicable trigger values)<br>4. No new introduced or spread of existing weeds<br>5. Dust generation within applicable limits as per Dust Management Plan. | • BP33 Project Risk Assessment (Section 6, Appendix I) |

| Step | Phase | Sequence | Risks | Controls | Management Performance and Monitoring | References |
|---|---|---|---|---|---|---|
| **3** | **Commissioning / operations** | 1. DIPL inspection and signoff<br>2. Ongoing inspection and maintenance of roads including culvert performance and remediation of any issues. | | | 1. Conformance to design and geotechnical criteria.<br>2. Adherence to ESCP<br>3. Downstream waterways not impacted by sedimentation (quality within applicable trigger values) or erosion from waterway crossings. | |

**Table 6.34 Haul and Access Road Independent Oversight**

| Question | Details |
|---|---|
| **1** | What standard guidelines/standards to be followed? |
| | • Applicable DLI required standards and guidelines have been implemented for the slip lane from Cox Peninsula Road. Internal standard and guidelines implemented for internal access roads outside of the DLPE road reserve. |
| **2** | Will detailed designs be prepared and reviewed by an independent expert, or will the operator be using their own engineers? |
| | • Detailed designed have been prepared by a suitably qualified engineer (GHD and JBU Group). |
| **3** | If independent engineers not engaged, demonstrate consideration of risks, if any |
| | • See risk assessment (Section 7) |

**Table 6.35 Haul and Access Road Closure**

| Closure | Objective | References |
|---|---|---|
| **Unplanned** | **Temporary suspension:**<br>• A geotechnically stable and non- polluting landform.<br>**Unforeseen closure:**<br>• A geotechnically stable and non- polluting landform which supports self-sustaining native vegetation and fauna comprising local species. | Closure criteria, knowledge gaps and applicable timelines to completion are addressed in the following documents:<br>• BP33 Mine Closure Plan (MineEarth, 2024)<br>• B33 Care and Maintenance Plan ( Lithium Developments (2024)) |
| **Planned** | • Haul road is returned to pre-mining topography. | |
| | • Rehabilitated domain supports self-sustaining native vegetation and fauna comprising local species. | |
| | • Rehabilitated domain supports fauna recolonisation not significantly different to that of surrounding ecosystems. | |

| Closure | Objective | References |
|---|---|---|
| | • Surface water quality is protected to maintain environmental values and beneficial uses. | |
| | • Beneficial uses are not adversely affected by altered groundwater levels or flows. | |

## 6.7 Diversions

No diversions are proposed for the BP33 project.

# 7 Project Risk Assessment

## 7.1 Environment Risk Assessment Methodology

A whole-of-project impact analysis and risk assessment has been undertaken. C&M risks have been assessed in the attached BP33 C&M Management Plan (Appendix B) with planned and unplanned closure risks as well as social impacts / opportunity risks have been assessed separately and are in the BP33 Mine Closure Plan (MCP) in Appendix C and The BP33 Social Impact Assessment (True North, 2021).

The risk assessment framework was developed in accordance with the principles of qualitative risk management described in the AS/NZS 31000:2018 Risk Management Guidelines. Risk consequence and likelihood matrices used to assess project risks are provided in Table A1 and Table A2 in Appendix I.

Risk identification and impact assessment was informed by approval documents, supporting technical studies and numerous additional studies, investigations and operating knowledge undertaken at the site since the commencement of operations in 2023. Risk, impacts and controls were assessed for the following environmental factors:

- Terrestrial environmental quality (land and soils);
- Terrestrial ecosystems;
- Hydrological processes;
- 
- Inland water environmental quality;
- Aquatic Ecosystems;
- Coastal processes, marine environmental quality and marine ecosystems;
- Air quality and atmospheric processes;
- Communities and economy;
- Culture and Heritage; and
- Human health

For each environmental factor, activities with potential direct and indirect impacts to environmental values were identified. The severity of each potential impact was assessed according to scale, intensity, duration and frequency. Results of the risk assessment are provided in Appendix I and summarised in Section 7

## 7.2 Environmental Risk Assessment Summary

Risks associated with proposed project amendments presented in this MMP have been assessed separately for ease of reference and are summarised in the Table below and detailed in Table A3 in Appendix I.

Assessment of risks and impacts for proposed project amendments did not generate any high or extreme residual risks (Table 7.1). All risk associated with proposed amendment can be managed using existing management plans / controls and are considered within the bounds of impacts assessed in NT EPA Assessment Report 94 (see NT EPA Pre-referral Screening Tool provided in Appendix A). All other risks can be appropriately managed and controlled through existing systems and processes.

**Table 7.1 BP33 Project Amendments Environmental Risk Summary (Residual Risk)**

| Environmental Factor | Low | Medium | High | Extreme | Total | High Residual Risk Impacts |
|---|---|---|---|---|---|---|
| Terrestrial environmental quality | 6 | 1 | 0 | 0 | 7 | 0 |
| Terrestrial ecosystem | 4 | 1 | 0 | 0 | 5 | 0 |
| Hydrological processes | 2 | 2 | 0 | 0 | 4 | 0 |
| Inland water environmental quality | 3 | 5 | 0 | 0 | 8 | 0 |
| Aquatic Ecosystems | 1 | 3 | 0 | 0 | 4 | 0 |
| Coastal processes, marine environmental quality and marine ecosystems | 1 | 1 | 0 | 0 | 2 | 0 |
| Air quality and atmospheric processes | 1 | 0 | 0 | 0 | 1 | 0 |
| Communities and economy | 2 | 0 | 0 | 0 | 2 | 0 |
| Culture and Heritage | 1 | 1 | 0 | 0 | 2 | 0 |
| Human health | 1 | 1 | 0 | 0 | 2 | 0 |
| **Total** | **22** | **15** | **0** | **0** | **37** | |

Assessment of risks and impacts for the whole BP33 project generated one high residual risk (Table 7.2) which was for the introduction and spread of weed species. High residual risk was attributed to the ongoing possibility of weed introduction and the significant and widespread impacts Weeds of National Significance (WONS) such as Gamba Grass (*Andropogon gayanus*) can have on terrestrial ecosystems. All other risks can be appropriately managed and controlled through existing systems and processes.

**Table 7.2 BP33 Full Project Environmental Risk Summary**

| Environmental Factor | Low | Medium | High | Extreme | Total | High Residual Risk Impacts |
|---|---|---|---|---|---|---|
| Terrestrial environmental quality | 13 | 1 | 0 | 0 | 14 | 0 |
| Terrestrial ecosystem | 16 | 2 | 1 | 0 | 19 | Introduction and spread of weed species |
| Hydrological processes | 8 | 3 | 0 | 0 | 11 | 0 |
| Inland water environmental quality | 13 | 6 | 0 | 0 | 19 | 0 |
| Aquatic Ecosystems | 12 | 4 | 0 | 0 | 16 | 0 |
| Coastal processes, marine environmental quality and marine ecosystems | 10 | 0 | 0 | 0 | 10 | 0 |
| Air quality and atmospheric processes | 6 | 0 | 0 | 0 | 6 | 0 |
| Communities and economy | 6 | 1 | 0 | 0 | 7 | 0 |
| Culture and Heritage | 3 | 1 | 0 | 0 | 4 | 0 |
| Human health | 7 | 2 | 0 | 0 | 9 | 0 |
| **Total** | **94** | **20** | **1** | **0** | **115** | |

Implementation of the Finniss Lithium Project EMS detailed in Section 8 established the systems and processed by which risks associated with the BP33 project and its proposed amendment can be mitigated.

# 8 Management system

## 8.1 Environmental Management System

Finniss Lithium Project EMS (available on request) has been developed and implemented to appropriately manage all environmental risks detailed in Section 7.

### 8.1.1 Environmental Policy

An Environmental Policy has been established to communicate the company's commitment to understanding and managing environmental and social impacts and risks associated with its proposed activities. This policy guides the development of the EMS, processes, plans and procedures for the Finniss Lithium Project. A copy of the Environmental Policy is included in the EMS. Roles and responsibilities are identified in section 2.3. Project risks and opportunities have been identified in section 6.

### 8.1.2 Environmental Commitments

Lithium Developments is committed to ongoing review of the environmental impacts and risks associated with the operation of Finniss Lithium Project with the objective that all risks are identified, managed and subject to continuous review throughout the mining operation and post-closure.

To achieve this objective LD has made a range of commitments through the environmental approvals process and in this MMP. The NT EPA has also provided their recommendations, following completion of the environmental impact assessment (EIA) process, in relation to actions required to avoid significant or unacceptable environmental impacts and risks. The sections below document all commitments and recommendations, cross-reference the section in this MMP where it is addressed and provides an updated assessment of performance against the commitment.

### 8.1.3 Environmental Training and Induction

All new site personnel, contractors and unaccompanied visitors will attend a site induction program, which will include an environmental awareness component. The induction will include an explanation of the environmental policy and requirements of management plans, including this MMP. Each person will be made aware of and understand their obligations and duties and all personnel will receive training of a type and level of detail that is appropriate for the environmental aspects of their role. Inductions will include the health, safety, environment and community risks and management requirements associated with the project and the project area. Induction and training activities will be reviewed regularly to ensure they contain the most up-to-date information and procedures.

Pre-start meetings each day will be used to communicate current and emerging environmental issues at the site and ensure that personnel maintain awareness of how these must be managed, monitored and reported.

Scheduled regular toolbox meetings will be used to provide more detailed training on specific environmental aspects, such as storage and handling of hazardous substances, dust control, water-use efficiency, incident response and reporting.

Personnel requiring job or task-specific environmental training are identified below:

- Land clearing, pipeline and civil works contractors.
- Personnel responsible for management of water storages, water treatment and discharges.
- Personnel responsible for monitoring and sampling of waste rock characteristics and appropriate placement within the WRD.
- Personnel with environmental compliance monitoring and reporting obligations.

Records of all training will be maintained in accordance with the site EMS and available for inspection by the appropriate Regulator.

### 8.1.4 Environmental Emergency Preparedness and Response

Environmental emergency preparedness and response is managed in accordance with the site Emergency Response Plan. The plan is subject to regular review and update should onsite activities or risks change. occurring at the site at the time.

### 8.1.5 Overarching Environmental Objectives

Overarching environmental objectives are discussed in section 3 of the LD EMS (available on request).

### 8.1.6 Environmental Management

The project risk assessment summarised in Section 7 outlines the project risks and mitigating actions. The below environmental management plans (EMP) have been developed in consideration of the project risk assessment and provide a framework for managing, monitoring and minimising environmental impacts and risks identified.

Where a higher level of operational detail is required to address identified risks to environmental or social values, or in response to a specific regulatory requirement (i.e. MMP Guidelines and/or NT EPA Recommendations), the EMP's cross-reference other plans/procedures as listed below.

**Table 8.1 BP33 Management Plans**

| Management Plan | Document ID | Version |
|---|---|---|
| **BP33 Mine Management Plan 1138-01** | LD-ENV-MP-021 | Variation 3 |
| **Flora, Fauna, Pest and Weed Management Plan** | LD-ENV-MP-003 | Revision 2 |
| **Land and Soils Management Plan** | LD-ENV-MP-004 | Revision 1 |
| **BP33 WRD1 Box Cut Waste Rock and AMD Management Plan** | LD-ENV-MP-015 | Revision 1 |
| **BP33 Underground WRD and AMD Management Plan** | LD-ENV-MP-020 | Revision 3 |
| **BP33 Mine Closure Plan** | LD-ENV-MP-014 | Revision 3 |
| **BP33 Rehabilitation Management Plan** | LD-ENV-MP-018 | Revision 2 |

| Management Plan | Document ID | Version |
|---|---|---|
| **BP33 Water Management Plan** | LD-ENV-MP-016 | Revision 4 |
| **BP33 Erosion and Sediment Control Plan** | LD-ENV-MP-013 | Revision 4 |
| **BP33 Irrigation Management Plan** | LD-ENV-MP-013 | Revision 1 |
| **BP33 Dust Management Plan** | LD-ENV-MP-012 | Revision 2 |
| **BP33 GDE Management Plan** | LD-ENV-MP-017 | Revision 2 |
| **BP33 Water Storage Facilities OMS Manual** | *to be developed prior to commissioning of water storages* | |
| **BP33 Social Impact Management Plan** | LD-ENV-MP-019 | Revision 1 |

# 9 Care and Maintenance

## 9.1 Care and Maintenance Plan

Temporary suspension has been addressed in the updated MCP with a Care and Maintenance Plan developed (Appendix B). The Plan has been prepared to ensure ongoing environmental obligations are met, and where necessary, site infrastructure is maintained, and risks appropriately managed during periods of care and maintenance.

The plan describes key care and maintenance activities for:

- Site management
- Operational infrastructure including the mine pit, integrated waste rock dump / fines storage facility and crushing / processing facilities; and
- Environmental management

In the event BP33 enters a period of care and maintenance, the Care and Maintenance Plan appended to this MMP will be enacted. Should operational activities recommence, sufficient formal notification will be provided to the regulator to recommence operations, as outlined within this MMP.

The following table summarises the care and maintenance activities to be undertaken to reduce the risk of significant environmental harm occurring. Refer to the Care and Maintenance Plan provided as Appendix B for greater detail.

**Table 9.1 BP33 Care and Maintenance Activities Summary**

| Aspect | Description |
|---|---|
| **Site Management** | |
| **Fuel** | • The temporary fuel farm will be demobilised during care and maintenance with refuelling proposed to be undertaken at Grants Operations. |
| **Power Generation** | • Portable power generating units will be rationalised or removed during care and maintenance and be maintained and used as required. |
| **Security** | • The site perimeter fence and other applicable CCTV and security systems will be maintained. |
| **Construction Materials** | • The box cut tunnel liner and foundation steel frames and mine exhaust fan components will be stacked and secured and be subject to regular inspection to assess for potential damage or loss.<br>• Mine Water Dam materials will be stockpiled onsite and be subject to regular inspection to assess for potential damage or loss. |
| **Infrastructure** | |
| **Box Cut** | • The BP33 box cut pit will continue to be monitored through visual inspections and survey prisms.<br>• Dewatering of the box cut may be undertaken as required to enable safe access and water management infrastructure is maintained. |

| | |
|---|---|
| | • Wall competency will continue to be monitored with technical assistance provided by consulting geotechnical engineers.<br>• Some civil works may be required for wall stability and enable safe access. |
| **Water Management Infrastructure** | • Water management infrastructure aligns with the construction phase of the project and will operate as intended.<br>• Water in the MWD will require management to keep levels as low as reasonably practicable. |
| **Waste Rock Dump** | • WRD1 will not be utilised but will be subject to routine inspection with minor civil works potentially required to maintain access and dump stability. |
| **Access and Haul Roads** | • Internal access and haul roads will be maintained as required with assistance from an appropriate civil contractor. |
| **Environmental Management** | |
| **Water Management** | • A Care and Maintenance Water Management Plan has been developed by WRM and details commitments to water monitoring and management.<br>• The plan provides details on infrastructure protection, maintenance, water management and wet season preparation works appropriate to manage water during care and maintenance. |
| **Water Supply** | • OHD will not be utilised during care and maintenance with pump infrastructure transferred to the Grants site for asset protection.<br>• The existing BP33 pit will be allowed to refill and may be used as a possible water source if required. |
| **Water Discharge** | • Mine affected water will be managed in accordance with the Water Management Plan and Waste Discharge Licence WDL253. |
| **Erosion and Sediment Control** | • Erosion and sediment controls will be implemented and maintain as required in accordance with the Grants primary and progressive ESCP. |
| **Water Monitoring and Treatment** | • Ground and surface water monitoring will be undertaken in accordance with the Grants Care and Maintenance Water Management Plan.<br>• Treatment of water to manage turbidity and nutrients will be undertaken as required during care and maintenance. |
| **Weed Management** | • Weed management will be undertaken in accordance with requirements of the Weed and Pest Management Plan. |
| **Fire Management** | • Hazard reduction / asset protection burning will be undertaken to protect key infrastructure from fire. Burning will be undertaken under permits granted by BushfiresNT. |

## 9.2 Care and Maintenance Risk Assessment Summary

Results of the care and maintenance risk assessment are detailed in the detailed in the appended BP33 Care and Maintenance Plan (Appendix B). The plan provides appropriate controls to manage residual risks.

# 10 Closure planning

A Mine Closure Plan (MCP) for BP33 is provided Appendix C. The plan was reviewed and submitted for approval in January 2022 prior to the commencement of operations and has been updated to support this MMP amendment. The plan is structured in accordance with the *WA Guidelines for Preparing Mine Closure Plans* and references leading-practice guidelines.

# 11 Security

The NT Mines Departments 'Security Calculation Tool' has been used to derive the Security allocation for BP33 (Appendix K)

The security has increased since the 2023 MMP security calculation, due to proposed project amendments and post closure management (now for 10 years) and increased disturbance footprint to 252.4 ha.

**Table 11.1 BP33 Security**

| Security | |
|---|---|
| **Total security amount** | $4,384,326 |
| **Document reference for the security calculation** | NT Mines Departments 'Security Calculation Tool' provided as Appendix K. |

# 12 References


Aboriginal Areas Protection Authority (AAPA) (2022) AAPA certificate C2022-049.

AMC Consultants (2023) BP33 Mine Plan and Ore Reserves. Prepared for Core Lithium [unpublished]

AMC Consultants (2023) BP33 Mining Method Assessment. Prepared for Core Lithium [unpublished}

ANCOLD (2000). Guidelines on Selection of Acceptable Flood Capacity for Dams, Australian National Committee on Large Dams Incorporated, 2000.

ANCOLD (2003). Guidelines on Dam Safety Management, Australian National Committee on Large Dams Incorporated, Australia, August 2003.

ANCOLD (2003). Guidelines on Risk Assessment, Australian National Committee on Large Dams Incorporated, 2003.

ANCOLD (2012). Guidelines on the Consequence Categories for Dams, Australian National Committee on Large Dams Incorporated, October 2012.

ANCOLD (2019) Guidelines for Design of Dams for Earthquake, Australian National Committee on Large Dams Incorporated, 2019.

ANCOLD (2019) Guidelines on Tailings Dams: Planning, design, construction, operation and closure, Australian National Committee on Large Dams Incorporated, 2019.

Standards Australia (2018) AS/NZS 31000:2018 Risk Management Guidelines.

Australian Bureau of Statistics (2022). Population statistics (online) www.abs.gov.au/statistics/people/population

BBE Consulting (2023) BP33 Project LOM Ventilation Review

CloudGMS (2021) BP33 Groundwater Modelling Report

CloudGMS (2023) BP33 Dewatering Assessment.

CloudGMS (2023) High Level Estimated for Dewatering Bores for BP33

Core Lithium (2024) BP33 Care and Maintenance Plan

Core Lithium (2024) Draft BP33 Study Report

Core Lithium (2024) BP33 Environmental Mining Report (Lithium Developments)

Core Lithium (2024) BP33 Groundwater Database (Lithium Developments)

Core Lithium (2024) BP33 Resource Estimation Report

Core Lithium (2024) BP33 WRD and AMD Management Plan (Lithium Developments)

Core Lithium (2024) Emergency Management Plan (Lithium Developments)

Core Lithium (2024) Grants Operations MMP (Lithium Developments)

Department of Environment and Science (DES) SILO (Scientific Information for Land Owners) database – January 1957 to November 2021

DITT (2023) Mining Management Act Authorisation 1138-01

EarthSea (2024) BP33 Infrastructure Heritage Assessment, May 2024

EcOz (2018) Environmental Impact Statement Supplement Report. Prepared for Lithium Developments – (2018) [unpublished]

EcOz (2018) Grants Draft Environmental Impact Statement. Report Prepared for Lithium Developments (2018) [unpublished]

EcOz (2018) Typhonium praetermissum survey report. Prepared for Core Lithium (2018) [unpublished]

EcOz (2022) BP33 Mine Management Plan. Prepared for Lithium Developments (2023) [unpublished]

EcOz (2022) BP33 Mine management Plan (Revision 1)

EcOz (2023) Irrigation Management Plan. Prepared for Lithium Developments (2023) [unpublished]

EcOz, (2020) BP33 Geochemical Characterisation of Waste Rock and Ore. Prepared for Lithium Developments (2020) [unpublished]

EcOz, (2020) Grants BP33 Referral Supporting Document. Prepared for Lithium Developments (2020) [unpublished]

EcOz, (2021) Grants Pre-Clearance Survey. Prepared for Lithium Developments (2021) [unpublished]

EcOz, (2022) Grants BP33 Rehabilitation Management Plan. Prepared for Lithium Developments (2022) [unpublished]

EcOz, (2022) Grants Lithium Project – Mining management Plan. Prepared for Lithium Developments (2022) [unpublished]

EcOz, (2022) Surface Water Extraction Licence Monitoring Plan - OHD. Prepared for Lithium Developments (2022) [unpublished]

EcOz, (2023) BP33 Waste Classification Criteria Advice. Prepared for Lithium Developments (2023) [unpublished]

EGI (2024) BP33 Paste Backfill Geochemical Characterisation Interim Report

EnviroConsult (2020) Surface Hydrology and Flood Inundation Report

Epic Environmental (2024) BP33 Threatened Species Assessment

GDE (2022) Core Lithium. BP33 GDE Management Plan.LD-ENV-MP-017.Revision 1

GHD (2021)BP33 Traffic Impact Statement

GHD (2023) BP33 Mine Surface Infrastructure Design Report

GHD (2023a) BP33 Power Supply Report

Groundwater Enterprises (2019) Desktop Groundwater Study

Groundwater Enterprises (2020) BP33 Groundwater Investigation Report

Groundwater Enterprises (2021) BP33 Pumping Test Report

JBU Group (2023) BP33 Box Cut and Mine Infrastructure Basis of Design

JBU Group (2023) BP33 MWD Detailed Designs IFC

MineEarth (2024) BP33 Mine Closure Plan

MineFill Services (2024) BP33 Backfill Pre-Feasibility Study

Northern Territory Government (2024) NR Maps (online) https://nrmaps.nt.gov.au/

NT EPA (2021) Surface Water Extraction Licence 8151018

NT EPA (2022a) NT EPA Environmental Approval EP2020/001-001

NT EPA (2022b) NT EPA BP33 Assessment Report 94 (AR94)

NT EPA (2022c) NT EPA Environmental Impact Assessment Guidance for Proponents

NT EPA (2024) Waste Discharge Licence 253

PSM (2024a) Geotechnical Model and Design Advice BP33 Underground Project

PSM (2024b) Summary of BP33 Box Cut Design Changes

SRK (2021) Underground Geotechnical Study for BP33 Deposit

Surface Water and Erosion Solutions (2020) BP33 Underground Mining Proposal: Surface Hydrology and Flood Inundation Report

TME Mine Consulting (2019) BP33 Underground Portal Boxcut and Supporting Mine Designs

Topo (2024) BP33 Erosion and Sediment Control Plan

True North (2021) BP33 Social Impact Assessment. Prepared for Core, 2021 [unpublished].

WRM (2024a) BP33 Underground Flood Study Assessment, prepared for Lithium Developments – 2024. [unpublished]

WRM (2024b) BP33 Water Balance, prepared for Lithium Developments –2024. [unpublished]

WRM (2024c) BP33 Water Management Plan, prepared for Lithium Developments 2024. [unpublished]

Zanterra Solutions (2022) BP33 Box Cut Geotechnical Study and Design

# Appendix A

NT EPA Pre-Referral Screening Report

# Appendix B

Care and Maintenance Management Plan BP33 Underground Mine

# Appendix C

Finniss Lithium Project

BP33 Underground Mine – Mine Closure Plan

# Appendix D

(1) Email trail between Core Lithium & NT Government

(2) Core Lithium Access – Traffic Impact Statement (Arrcos Consulting)

# Appendix E

Erosion and Sediment Control Plan

BP33 Lithium Project – Core Lithium

# Appendix F

BP33 Waste Rock and AMD Management Plan

September 2025 Rev 3

# Appendix G

BP33 Underground Mine

Dust Management Plan

# Appendix H

BP33 Underground Mine

Water Management Plan

# Appendix I

BP33 Project Environmental Risk Assessment

# Appendix J

Access road Design Drawings

# Appendix K

BP33 Security Calculation – DPIR

# Appendix L

Heritage Desktop Study:

Core Lithium, Finniss Lithium Operation 2024

# Appendix M

BP33 Underground Mine

Flora, Fauna, Pest and Weed Management Plan

# Appendix N

Technical Memorandum from CloudGMS

re:

BP33 Dewatering Assessment 2023 (Draft v0.1)