Mining Management Plan Amendment

Grants Operations

November 2025

Operator Details

Written	Deemed Mining Licence	Date
Lithium Developments (Grants NT) Pty Ltd	1021-01	5 November 2025

Document Control Record

Rev	Prepared	Reviewed	Approved	Description	Date
1	Suzanne Barber (EcOz)	Kylie Welch (EcOz)	Blair Duncan (LDGNT)	Construction and operation Approved	28/06/2019
2	Suzanne Barber (EcOz)	Sean Buxton (LDGNT)	Blair Duncan (LDGNT)	Operation Reviewed	01/04/2022
3	Suzanne Barber (EcOz)	Sean Buxton (LDGNT)	Blair Duncan (LDGNT)	Respond to DITT comments Approved	02/10/2022
4	Suzanne Barber (EcOz)	Tim Gunns Melissa Winks (LDGNT)	Mike Stone (LDGNT)	Amendment for provision of updated project information and plans. Reviewed	28/04/2023
5	Claire Jones (EcOz)	Paul McHugh (LDGNT)	Mike Stone (LDGNT)	Amendment for proposed pit expansion and to respond to DITT comments Reviewed	05/10/2023
6	Emma Gaunt (LDGNT)	Paul McHugh (LDGNT)	Doug Warden (LDGNT)	Amendment to expand WRD and TSF wall lift	31/05/2024
7	Jaime Marr (Savannah Roots)	Anthony Kirke (LDGNT)	Anothony Kirke (LDGNT)	Respond to DLPE comments, remove significant changes in 2024 submission	05/11/2025

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1 Preface

The Grants Project, operated by Lithium Development ([Grants NT] LDGNT; the Company), underwent formal assessment under the then *Environmental Assessment* Act to a Draft Environmental Impact Statement. An assessment report (AR 89) prepared by the Northern Territory Environmental Protection Authority (NT EPA) provided recommendations to the Minister for its decision for environmental approval. The Grants operation, a relatively new mine, received approval to clear, construct and operate under the *Mining Management* Act 2001 (Authorisation 1021-03, now Deemed Mining Licence [DML]1021-03) in 2020.

The Grants Operation is a strategic asset with advanced processing infrastructure and established logistics, well- positioned for Asian markets. Within five years, LDGNT have successfully established a state of the art mine with new technologies and design to operate, manage risks and process. Currently the Grants Project has been in a care and maintenance phase in response to the rapid and sharp fall in the lithium price, LDGNT took the difficult decision to pause operations at Grants to preserve the value of the asset in January 2024 resulting in the grant deposit being partly mined. The operation currently has a small, specialist team overseeing its security, safety and ensuring the infrastructure remains in a restart ready condition. LDGNT have worked closely with NT regulators to ensure the company continues to comply with all licence operations and maintains high environmental standards.

This Mine Management Plan (MMP) has been created as an integrated document that includes both operational activities and provision for transition into and out of periods of care and maintenance. This document has been developed with ongoing communication with the Department of Lands Planning and Environment (DLPE) and the NT EPA and aims to focus on restart of operations and provide clarity of the sites proposed activities and disturbance.

Specifically, this MMP will address the Departments responses (M2018/0500-0145; Table 1-1 DLPE responses to the 2024 AMMP (reference: M2018/0500-0145)) and remove reference to the following activities (proposed in 2024 MMP) as they are not required for the current operational context. These activities will be assessed against approval conditions prior to inclusion in future submissions:

- The infrastructure corridor including the haul road, slurry pipeline and mine affected water pipeline
- Fines Storage Facility (FSF) wall lift
- The OHD wall lift
- The construction of the C5 Dam
- The construction of the drainage sump
- The satellite Run of Mine (RoM)
- The Waste Rock Dam (WRD) extension.

This MMP will also provide clarification on the activities that were proposed in the 2024 MMP that remain in this 2025 submission, these include:

- Revised proposed Pit Design and clarification of timeline of events for the Grants open cut pit expansion
- Clarification of the current mine disturbance footprint including the pit expansion and firebreak/ fence line
- Improvements to the existing Grants Process Plant and supporting infrastructure.

Changes throughout the document have been highlighted as **Improvement/ Updated** and relevant sections are identified in Table 1-1.

1.1 Location and Surrounding Land Use

Table 1-1) addresses LDGNT response to the DLPE review of the 2024 AMMP. It should be noted all references to documents have been updated correctly, changes to the Department name have been updated and changes to the Authorisation and Deemed Mining Licence (DML) were also made throughout the document.

Table 1-1 DLPE responses to the 2024 AMMP (reference: M2018/0500-0145)

Reference	Comments	LDGNT Response/link
Open-cut Pit – proposed shell increase	The 2024 MMP currently under assessment describes the open cut pit as having increased to 660m long and 520m wide (increase of 60m and 115m respectively). October 2023 AMMP and March 2024 AMMP proposed an increase to 665m long by 490m wide. Actual pit increase occurred in 2023 and in accordance with recommendations from [consultant] PSM in 2023 – without the required ministerial/delegate approval under the former Mining Management Act 2001 (MMA). The Pit increase has resulted in a pit disturbance of 31.71ha, compared to the 24.3ha approved under Assessment Report 89 (AR89). However, itemised disturbance exceedances are not stated in the NT EPA self-referral tool. The timeline and change in dimensions are confusing and inconsistent amongst submitted documents. <u>Department Requirement</u> 1. Clarify the apparent inconsistencies associated with the pit re-design by providing clear details regarding the timeline, geotechnical advice and MMP submissions.	Several revisions of the Grants Pit increase have been included in the October 2023 MMP (27.1ha) and again in the May 2024 MMP (31.71ha). The current dimensions of the Pit are reflective of those mentioned in the 2024 MMP submission. The pit void has been expanded for LDGNT personnel safety and to improve the pit shell structural integrity, following advice from geotechnical recommendations (SMEC, 2023; PSM, 2023). As such, changes included: • L 660m x W 520m • Overall increase of 7.41ha. Though the Pit disturbance remains within the overall mining footprint (255ha) Section 6.2 clarifies the re-design of the Grants open cut pit. Table 6.11 provides a timeline of events regarding redesign. The pit expansion has also been included in a revised NT EPA self-referral tool (Appendix A.) and Environmental Risk Assessment (Appendix B).
Open-cut pit – proposed depth increase	Section 6.2: Dimensions –as designed, Depth 205mBG. Currently open pit is 100mBG. A depth of 205m has not been approved by the department, will therefore require assessment, and needs to be listed accordingly as a proposed activity. It is noted that under EIS and AR89, the approved maximum depth is 200m. The proposed increase in depth was not outlined in the NT EPA self-referral tool. <u>Department Requirement</u> 2. Update revised MMP to clearly identify all proposed activities.	A depth of 205m Below Ground (BG) is no longer required under the revised Grants Pit design. Revised Pit designs are included in Table 6.7 which remain within the existing pit shell. The Revised design extends to a depth of 145m BG which is within the approved depth of 200m BG (EIS Supplement).

Reference	Comments	LDGNT Response/link
Groundwater Drawdown	"Groundwater inflow into the Grants Pit has been observed to be significantly less than modelled. This will likely result in a smaller drawdown cone than modelled by CloudGMS (2018). Continuous monitoring of groundwater standing water levels (SWLs) do not indicate evidence of localised groundwater drawdown" (p.27). "Groundwater inflow has been observed to be significantly less than predicted by CloudGMS (2019), and as such, no observable draw down cone has been recorded by the monitoring bore network." (p.62). The NT EPA self-referral tool uses this conclusion on which to predict the environmental impact/s of project; therefore clear evidence needs be provided to support its use. Department Requirement 3. Within a revised submission, provide clear evidence to support the points above; including data interpretation and direct comparison to previous model by CloudGMS.	Section 3.1.4 and Table 6.7 have been updated to include information from the revised Groundwater Model Update (Artesium, 2025). The revised model has also been included in the Operational Water Management Plan and Water Balance (Appendix C and Appendix D).
Waste Rock Dump (WRD) - Capacity	AMMP is inconsistent with volume of waste produced and the amount proposed for WRD i.e. 15.9 million BCM proposed, (amendments, p. xii), 15,173,947 BCM proposed waste produced (p. 10, 59) and WRD proposed design capacity of 17,137,041 BCM (p. 83). Note that EIS and AR89 approval of 13,887,008 BCM for WRD. Department Requirement 4. Within a revised submission, clarify the exact volume of waste produced and storage capacity to justify the expansion of the WRD, ensuring details are consistent and clear.	Waste rock generation from previous mining and processing operations (2022-24), approved WRD capacity, and proposed waste production is included in Section 2.1 and Section 6.4. The revised Pit design allows the waste material generated to remain within the approved capacity of the WRD, reducing the requirement of a WRD extension at this stage.
Waste Rock Dump/ Fines Storage Facility – Preferred closure design	Closure specialists undertook revised IWL Closure Design (MineEarth, 2023). "The WRD options assessment undertaken by MineEarth (2023) identified a preferred mine closure design which was free draining to the FSF and Grants pit via open drains." (p. 95) Preferred WRD/FSF closure design outlined in MMP is lacking detail regarding the following: • The justification of the new preferred closure plan compared to the previously approved closure plan, and to all eight alternative options provided by Mine Earth (2023) (p. 93) • Change in environmental risk assessment for new design • Rehabilitation strategy/implementation regarding the FSF and current	The Mine Closure Plan has been updated and included as part of the Submission Package. The Plans incorporates incidental changes onsite and a Rehabilitation Strategy that reference site-based studies (MineEarth, 2023). There is no longer a FSF wall lift required due to improvements in the existing DMS Process Plant.

Reference	Comments	LDGNT Response/link
	contents. Department Requirement Within a revised submission, provide: a. detail regarding justification for the new preferred closure design b. detail on change in environmental risk assessment updates reflecting the change in rehabilitation strategy and closure of the FSF.	
Waste Rock AMD Management Plan	The current MMP submission refers to a Grants Waste Rock and AMD Management Plan with inconsistent revision dates: • "WRD waste material management and placement is undertaken in accordance with the Grants Waste Rock Dump and AMD Management Plan (Core Lithium, 2024)". Referenced throughout e.g. p.96 • Grants WRD and AMD Management Plan (EcOz, 2019) referenced throughout document • "The Grants Waste Rock and AMD Management Plan has been developed and implemented during construction and operation of the WRD. The plan was last updated in 2022" (p. 85) The document submitted as an appendices is Revision 1 (2019) from EcOz. The Waste rock AMD management plan is a Recommendation of EA89 and a requirement of the Mining Division as a part of environmental management onsite. It is anticipated that the AMD Plan submitted to the Department will be updated and incorporate all the applicable proposed changes onsite. Department Requirement 6. Clarify when the WRD and AMD Management Plan was most recently updated. 7. Update the MMP to ensure references are consistent and resubmit. 8. Update the Management Plan to reflect all proposed changes on site and resubmit.	Updated. Reference to the Waste Rock and AMD Management Plan has been updated throughout the document to reflect the most current Plan (LDGNT, 2025d). The WRD and AMD MP has been included in Appendix D
Fines Storage Facility (FSF) – Potential lift	Update potential lift details of the FSF" (Amendments) "Flexibility for wall lift should additional capacity be required" (p.76). It is not clear whether this is a proposed change in the current MMP timeline. The details of a "potential lift" to the FSF are not sufficiently covered throughout document, i.e. if the lift will change dimensions and the capacity of the FSF. Department Requirement 9. Clarify if the FSF wall lift is a proposed change in the MMP	The FSF wall lift is no longer required as part of this submission. All references to the FSF wall lift have been removed.

Reference	Comments	LDGNT Response/link
	10. If this is a proposed activity, update revised MMP submission to clearly identify all proposed activities; and provide further detail throughout MMP on the design and changes on site. 11. Update environmental management plans as necessary.	
Fines Storage Facility (FSF) – Proposed changes	MMP references a "Transfer as slurry to the proposed BP33 paste plant" (Table 6.14, p.70) from the FSF. Fines slurry transported to BP33 will trigger changes to mine feature functions, construction, risk profile, and management plans. This would constitute a proposed activity and alteration to current feature on the Grants site and should be clearly outlined through MMP and appendices. Department Requirement 12. Update revised MMP submission to clearly identify all proposed activities 13. Update revised MMP submission to demonstrate all details of proposed activities, changes on site for FSF and fines transfer, risk profile and the environmental management.	The transfer of gravity rejects (noted as slurry) is no longer part of this submission though will be maintained as a viable option for reuse of process waste in future mine plans. With the implementation of the new Gravity Classifier Circuit, a portion of process waste previously deposited to the FSF will be redirected and stockpiled ultimately reducing mining waste (Figure 2-2) . This activity has been included in Section 2.1 overview, Section 6.3 FSF and the environmental risk assessment (Section 7).
Fines Storage Facility (FSF) - OMS	Submitted OMS for the FSF was last updated in 2021. Considering the line item above and the proposed change to FSF rehabilitation and closure plans, the Department would expect the FSF OMS to be updated. Department Requirement 14. FSF OMS should be updated and submitted to the Department for acceptance.	The OMS Manual will be updated to reflect changes to material reporting to the FSF. LDGNT have engaged a consultant to assess the change in deposited material. A revised OMS Manual will be subsequently submitted to DLPE for review.
Proposed Satellite ROM	"MWD1 laydown was the former location of MWD1 Cell 2 which was relocated for geotechnical reasons. The location will be used as a temporary laydown and potential future satellite ROM for BP33 ore if required" (Table 6.2, p.52) The following details are unclear and need to be considered: • Is this a proposed activity within this MMP assessment • Have changes to ESCP and surface water runoff been considered i.e. sediment dam 1 will be across proposed haul road; and • Similarly, restricting the runoff from BP33 stockpiles into MWD1 due to corresponding restrictions on WDL248-02 Department Requirement 15. Clarify whether the satellite ROM is a proposed activity in this AMMP. 16. If this is a proposed activity, update revised MMP submission to clearly demonstrate all details of proposed ROM, and the changes on site for	The satellite Run of Mine (RoM) is no longer required as part of this submission. All references to the Satellite RoM have been removed.

Reference	Comments	LDGNT Response/link
	drainage and environmental management.	
Proposed Drainage Sump	MMP and provided NT EPA Tool indicate that designs and details of proposed drainage sump are not finalised and are to be confirmed. WMP 2024 proposed full supply of 20ML, catchment surface area of 0.6 ha, and max catchment area of 4.5ha. Drainage lines and pumping directions have been provided in WMP Figure 4.1. • It is unclear between the WMP and MMP whether the designs have been finalised. • It is also unclear from current submission if appropriate construction guidelines and environmental management have been assessed against the proposed drainage sump. Whilst design details are being finalised, Operator should consider the risk profile, and environmental management. Finalised designs of the drainage sump and all associated/updated documents must be submitted to the department for assessment. Department Requirement 17. Clarify whether the designs are final and demonstrate what sections of MMP and Water Management plans have been updated with drainage sump details.	The drainage sump is no longer required as part of this submission. All references have been removed in this document and the Water Management Plan
Proposed Flotation Circuit	Proposed Flotation circuit was submitted on 21 August 2024, separately from the MMP. Further correspondence and requests for information (email response received 22 August 2024) outlined the following: • Complete design and engineering assessment will occur through Care and Maintenance • "Construction of the floatation circuit would constitute a change in the risk profile of the operation and would therefore require notification to this Department and NT WorkSafe and the receipt of necessary approvals prior to commencing". Whilst design and construction details are being finalised, Operator should consider the risk profile, applicable construction and operating guidelines, and environmental management. Finalised design of the flotation circuit and all associated/updated documents must be submitted to the department for assessment. Department Requirement 18. Provide finalised design of the flotation circuit and any relevant or newly	There are several upgrades to the process plant. Improvements include: a. Installing a gravity classifier circuit; and b. Upgrading screens, floats crusher and tailings thickener Processing plant upgrades have been detailed in Section 2.1. A schematic detailing the processing circuit shows new infrastructure, upgrades and process (Figure 2-2). Whilst Figure 2-3 shows the location of the new process plant infrastructure. The upgrades to the Plant have been included in the environmental risk assessment (0)

Reference	Comments	LDGNT Response/link
	developed documents. 19. Demonstrate what sections of MMP and Management Plans have been updated with flotation circuit details.	
Infrastructure corridor – BP33 Interaction	Throughout the AMMP there are vague references to an infrastructure corridor from BP33 that contains a haul road, slurry transfer pipeline and mine affected water (MAW) transfer pipeline. Figures 2.2 and 3.1 indicate the overall pathway and entry point of Grants, respectively. The figures clearly reflect that the proposed changes will occur on ML31726 (subject to DML 1021-01). AMMP does not include the infrastructure corridor or any containing features as proposed activities, nor sufficient detail. The Department notes that the proposed changes on site and increased associated disturbance is not covered in AR89. Overall change of site function and interaction with BP33 is not covered. These changes may equate to a significant variation of AR89. Department Requirement 20. Update revised MMP submission to clearly identify all proposed activities.	The infrastructure corridor that includes a Haul Road, slurry pipeline and mine affected water pipeline are no longer required as part of this submission. All references to the infrastructure corridor have been removed.
Infrastructure corridor – Disturbance	MMP states that infrastructure corridor is 4.5km. (e.g. p.103). Review of the spatial data provided, and the proposed dimensions indicates that the length of the infrastructure corridor and features from Grants to BP33 is 5.6km; 1.4km which is on ML31726. Clearing of a 50m wide corridor has been proposed and provided in the spatial data. This equates to 6.72ha (approximate to 2 decimal places) for Grants that is unaccounted for in the MMP. Assessment indicates that the total disturbance would be increased to 253.67ha, which is ~36.67ha greater than the 217ha approved under AR89 for disturbance associated with mine infrastructure. Department Requirement 21. All previous, current and proposed disturbances must be correctly represented in revised MMP submission and security calculation.	The infrastructure corridor that includes a Haul Road, slurry pipeline and mine affected water pipeline are no longer required as part of this submission. All references to the infrastructure corridor have been removed.
Infrastructure Corridor - BP33 References	There are multiple references throughout MMP to the BP33 submission, e.g. "Details of the slurry pipeline and paste plant are provided in BP33 MMP" (Section 3, Project Summary, p. 11) Section 6.8. Table 6.34 references BP33 Water Management Plan (WRM, 2024) The AMMP submission must be a stand-alone document. References to other	All references for proposed activities have been removed. There is no interoperation activities proposed in this submission. However future submission may include the use of Grants processed gravity rejects as material for backfilling completed stopes in the BP33 operation.

Reference	Comments	LDGNT Response/link
	submissions are not sufficient; all supporting information should be including in MMP and submitted appendices specific to Grants' DML 1021- 01. Department Requirement 22. Remove references to BP33 documents throughout document and ensure MMP submission (and all appendices) are updated to encompass activities on the Grants Lithium Project.	
Infrastructure Corridor – Construction and management	Details are unclear or lacking for the clearing and construction with the proposed infrastructure corridor. The Grants' environmental management plans will need to be updated accordingly for details including (but not limited to): • Water management or waterways crossings on ML31726 • Erosion and sediment control • Risk profile/ assessment • Wet season mitigation and access Department Requirement 23. Consider any impacts that new construction may have and update MMP and relevant management plans in revised submission.	The infrastructure corridor is no longer required as part of this submission. All references to it have been removed.
Infrastructure Corridor - Proposed Haul Road - MMP	Details are unclear or lacking for the proposed haul road. The Grants MMP will need to be updated accordingly for details including (but not limited to): Design, dimensions and materials used. Changes to existing Grants features for alignment e.g. Sed dam 1, existing roads and flood inundation bund Department Requirement 24. Provide finalised Haul Road design 25. Identify haul road details and interaction with current features. Update MMP document accordingly in revised submission	The infrastructure corridor that includes a Haul Road, slurry pipeline and mine affected water pipeline are no longer required as part of this submission. All references to the infrastructure corridor have been removed.
Infrastructure Corridor - Pipelines - MMP	Details are unclear or lacking for the proposed slurry and MAW pipelines. The Grants MMP will need to be updated accordingly for details including (but not limited to): Design, dimensions, pathway (within mine site), frequency of transfer etc. • Slurry Pipeline interaction and changes to existing Grants DMS and FSF functions, process etc. • Risk profile • Impacts on rehabilitation strategy or closure plan • Monitoring and management of pipelines over significant distance	The infrastructure corridor that includes a Haul Road, slurry pipeline and mine affected water pipeline are no longer required as part of this submission. All references to the infrastructure corridor have been removed. References to the slurry and MAW pipelines have been removed from the Grants Water Management Plan and Water Balance (Appendix C; Appendix D)

Reference	Comments	LDGNT Response/link
	Department Requirement 26. Provide finalised pipeline designs 27. Identify slurry pipeline details and interaction with current features on site 28. MMP should be updated to demonstrate all the above details for both pipelines.	
Infrastructure Corridor - Section 6.8 Other activities - pipelines, monitoring and management	Section 6.8 has outlined management actions and performance monitoring for both slurry pipeline and MAW pipeline transfer • "operated and maintained in accordance with applicable operating and surveillance manual" • "to operating inspection and maintenance requirements within applicable operating and surveillance manuals" It is unclear what OMS manual is being referred to. Will a new OMS be developed for respective pipelines? Department Requirement 29. Identify what OMS manuals will be applicable to the pipelines. 30. If current OMS is being updated or new OMS developed, document must be submitted to the department.	The infrastructure corridor that includes a Haul Road, slurry pipeline and mine affected water pipeline are no longer required as part of this submission. All references to the infrastructure corridor have been removed. References to the slurry and MAW pipelines have been removed from the Grants Water Management Plan and Water Balance (Appendix C; Appendix D). A revised OMS Manual is being developed though for the change in fines material that is reporting to the FSF. A consultant has been engaged to undertake the work. A revised OMS Manual will be subsequently submitted to the Department for review. This has been updated in Section 2.1 and Section 5.3.
Infrastructure Corridor - Pipelines – WMP Section 4.4 and Section 8.	Water Management Plan vaguely addresses the proposed pipelines but is lacking critical detail. For example: Section 4.4 water management system and proposed changes • Slurry or MAW Pipeline have not been identified within water management system or proposed changes Section 8. Emergency and contingency planning. • The department recognises the contingency plans for water storage structures and pipelines transfer; however there is a need for specific contingency action for pumps and pipelines corridor (on mine site and over distance of infrastructure corridor). This could include pump failures, blockages, drying of slurry, burst pipelines, monitoring for integrity etc. • Note update to this section is also necessary to recognise existing pumps and pipeline contingencies. Department Requirement 31. Considering examples above, update the Grants Water Management Plan (WMP) to reflect detail on the proposed pipelines. 32. Update Section 8 of WMP to include further contingencies, specific to the	The infrastructure corridor that includes a Haul Road, slurry pipeline and mine affected water pipeline are no longer required as part of this submission. All references to the infrastructure corridor have been removed. References to the MAW pipeline have been removed from the Grants Water Management Plan and Water Balance (Appendix C; Appendix D).

Reference	Comments	LDGNT Response/link
	proposed pipelines and pump failures.	
Infrastructure Corridor- MAW pipeline - WDL	The proposed MAW pipeline crosses the footprint of two Deemed Mining Licenses, several mineral titles (ML31726 exclusive to Grants), and connects two mine water storages. Mine affected water generated on BP33 will be transferred to the Grants water management network and will interact with WDL 248-02. WDL248-02 on Grants clearly stipulates "Any authorised discharge must: not include wastewater generated outside of Mineral Lease 31726" (WMP, p.35). It is apparent that transfer of water will be critical to the current proposal for operations and water balance. <u>Department Requirement</u> 33. Contact the Environmental Regulation Division, DLPE regarding amendment of WDL248-02 to reflect mine affected water transfer. (Apply, renew or amend a waste discharge licence | NT.GOV.AU) 34. If an amendment to the WDL is granted, the Water Management Plan and MMP must be updated to reflect all changes.	The infrastructure corridor that includes a Haul Road, slurry pipeline and mine affected water pipeline are no longer required as part of this submission. All references to the infrastructure corridor have been removed. References to the MAW pipeline have been removed from the Grants Water Management Plan and Water Balance (Appendix C; Appendix D).
Water Management Plan – Section 6.3. Surface water Monitoring Program	In recognition of proposed changes and interaction with the BP33 water management system; the current surface water monitoring program needs to be reviewed and updated. Specifically, surface water monitoring will need to reflect any additional contaminants of concern from BP33. The department notes that the surface water monitoring program and SSTV's would need to be further updated if WDL is amended corresponding to proposed pipelines. <u>Department Requirement</u> 35. Update Grants surface water monitoring program and laboratory analysis to reflect any additional contaminants from BP33.	There is no proposed interaction with the BP33 water management system. The infrastructure corridor is no longer proposed and removed from this submission.
Water Management Plan – Section 4.4.1.2 Proposed changes	"Conversion of SB3 and SB4 to HES Type B basins, if practicable" (WMP , p.30) • Change to Sediment basins has not be translated to MMP as a proposed activity. • No further detail or justification has been provided for change of sediment dam type. • ESCP provided is only for sediment dam Type D. It is of note that Sediment Dam 1 has already been converted to Type B. <u>Department Requirement</u> 36. Update revised MMP submission to clearly identify all proposed activities	Topo (2023) provided a memorandum prior to the 2023- 24 wet season to update and improve sediment basin functionality and design south of the project. Sediment Basin 1 and 5 changed to 1A and 5A, when it was relocated for the Pit expansion. Due to this change of location a revision of the erosion and sediment control plan was completed, including design of a high efficiency sediment basin for Sediment Basin 1A. Sediment Basin 1A was converted to a Type B from Type D. A review of the WMP has been completed for this submission which includes detail of Type B and Type D basins installed at Grants, and a summary of their performance and operation.

Reference	Comments	LDGNT Response/link
	37. Update and resubmit the ESCP to detail Type B and Type D sediment dams onsite.	Prior to operations commencing, a revised ESCP will be developed to incorporate these changes, previous ESCPs and to align with operations rather than construction (EcOz, 2019b; Topo, 2023; WRM, 2023).
Grants water balance – Section 2.1.5 and Section 3.	For Stage 6 of the LOM (2025-2027) external water sources may be needed for dry climatic conditions. It is unclear what the required external source of the water will be, or if there are contingency measures in place. Does the operator intend to extract from a groundwater source, surface water source, construct C5 Dam or implement the OHD expansion? Department Requirement 38. Demonstrate the external water sources intended to be used if there is a site deficit each year.	The updated and current site water balance (WRM, 2025b) shows there is sufficient water inventory for average climatic conditions. Scenario 1, and expected case, shows that for all stages of mining (Stage 1-4 of the water management system) the water balance is 'net positive' (Appendix D).
Traffic Management Plan – Outstanding Document	Traffic Management Plan was committed to in the EIS. The Traffic Management Plan has also been proposed throughout ongoing MMPs since 2020. This document has been outstanding since 2020 and has still not been received by the Department. A Traffic Impact Statement and a Journey Management Plan have previously been submitted and approved. However, a sufficient Traffic Management Plan would combine both the above mentioned documents, include more detail regarding commitments, controls and mitigations. Department Requirement 39. Submit a completed Traffic Management Plan as committed to in the EIS and previously approved MMPs.	A new Traffic Management Plan has been developed (Appendix E). It incorporates impacts identified during initial community consultation (Social Impact Assessment; True North, 2019) and the recent traffic impact assessment (Arcoss, 2025). The TIA assessed risk to road infrastructure through mine related traffic generation. It found road infrastructure is capable to withstand the increase of mine related vehicles and trucks during operations along the Cox Peninsular Road and Stuart Highway. This included operational levels of haulage between Grants and Darwin Port, and transportation of personnel to and from the site. Impacts on road users and community have been included in the Traffic Management Plan (Core Traffic Control, 2025).
Weed Management – Appendix ENV–MP-003	Weed Management Plan submitted in 2024 MMP has not been updated since initial MMP 2019. The initial plan provides a framework for management prior to commencement of operational activities and needs to be updated in line with site progress. The plan will need updated details including (but not limited to): • Identified/target weeds, including classification (e.g. nationally declared) • Mapping on site • Specific tailored controls, mitigation and treatment • Frequency of management onsite. • Current success or failures Department Requirement 40. Update Weed Management Plan prior to recommencement of mining and	A revised and updated weed management plan has been included in Appendix F.

Reference	Comments	LDGNT Response/link
	submit to the department for approval.	
Mine Closure Plan – New closure design	DML1021-01 Condition 23. The operator must revise and update the mine closure plan as mining progresses and must provide progress on the plan including any changes in the rehabilitation strategy and timelines for implementation, in subsequent MMP submissions. Closure Plan has not been submitted with the current MMP. Most recent revision of the Mine Closure Plan is referenced throughout MMP as "Grants Mine Closure Plan, EcOz 2022". In accordance with Condition 23, Operator should be updating mine closure plan with new progress/changes onsite and submitting to the department with subsequent MMP submissions. <u>Department Requirement</u> 41. A revised and updated Closure Plan must be submitted with the revised MMP.	A revised and updated Mine Closure Plan has been developed by LDGNT (2025a; part of the Submission Package) to replace Version 3 (EcOz, 2022b)
Appendix A – NT EPA Tool	The NT EPA self-referral tool submitted does not accurately reflect the current and proposed activities at the Grants Lithium Project and has excluded some proposed variations to AR89. The tool should address the potential for cumulative impacts and potential for significant variation from AR89 (see various line items throughout this RFI). The tool should be updated as follows and submitted to the Environmental Assessment Division, DLPE for consideration/feedback: • all proposed activities on Grants Lithium Project and related titles • changes to current features e.g. increased waste volume, capacity and dimensions of both the open-cut pit and WRD • project disturbance inventory inconsistencies with itemised disturbance outlined in AR89 • BP33 interaction and change in site function compared to that covered in AR89 <u>Department Requirement</u> 42. Update the NT EPA self-referral tool with respect to all features with potential for significant variation from AR89; and submit to the Environmental Assessment Division, DLPE for consideration/feedback. 43. Provide evidence of correspondence with the Environmental Assessment Division, DLPE (or NT EPA) in a revised submission.	The NT self-referral tool has bene updated and provided in Appendix A. It includes the three main proposed activities in this submission. Which include: 1. Revised proposed Pit Design and clarification of timeline of events for the Grants open cut pit expansion; 2. Clarification of the current mine disturbance footprint including the pit expansion and firebreak/ fence line; and Improvements to the existing Grants Process Plant and supporting infrastructure.

Reference	Comments	LDGNT Response/link
Security	Security submitted with the MMP must be revised and updated to address all proposed changes and disturbance on site, including accurate reflection of all finalised designs. Department Requirement 44. Provide updated security calculation with revised submission.	Security has been updated to reflect changes and summarised in Section 10
Environmental Mining Report	Throughout MMP there is reference to the EMR being submitted "upon request". It is a condition of DML1021-01 that an EMR is submitted in March (i.e. before 1 April) every year. However, the Department has no record of an EMR being submitted in 2024. *Also see comments and Departmental Requirement #2 in Attachment A. Department Requirement 45. Remove references throughout MMP to the EMR being "submitted upon request".	Noted, an EMR will be submitted to the Department in March of each year. This has been updated throughout the document to include "Grants Annual Environmental Monitoring Report"

2 Application for Authorisation

2.1 Operator Details

Table 2-1 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 4, 186 St Georges Terrace, Perth, WA, 0600

Table 2-2 Contact details

Update

Primary Contact			
Name:	Paul Brown	Position	Chief Executive Officer
Phone (business):	(08) 8317 1700	Phone (mobile):	
Email:	pbrown@corelithium.com.au		

Secondary Contact			
Name:	Paul McHugh	Position	HSE Manager
Phone (business):	+61 8317 1700	Phone (mobile):	
Email:	pmchugh@corelithium.com.au		

2.2 Title Details

Table 2-3 Mineral titles

Title Number	Title Holder	Expiry Date	Underlying Land Tenure	Use
ML31726	Lithium Developments (Grants NT) Pty Ltd	17 January 2039	Vacant Crown Land	Mining and processing infrastructure
ML32074		17 January 2039		Ancillary infrastructure (pipeline route)
ML32278		17 January 2039		Proposed Mine Site (C5) Dam
EMP28651		12 October 2023		Borrow pit (historical extractive operation)

2.3 Project Details

Table 2-4 Application for Authorisation

Update

Authorisation Type				Deemed Mining Licence	
New Authorisation	Yes	☐	Yes	☒	DML1021-01
	No	☒	No	☐	
Project Name	Mine Site Name: Grants Operations				
Location and Access Details	**Location**: Located on the Cox Peninsula, approximately 45 km west of the Stuart Highway on Cox Peninsula Road. Site location is shown Figure 1-1. **Site Access**: The site is accessed from Cox Peninsula Road via a dedicated intersection with slip lane. **Nearest Towns**: Berry Springs township (36 km east by road), Belyuen Community (23 km north-west).				
Target Commodity Details	Spodumene (lithium bearing mineral).				

2.4 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 2-5 Director declaration

Update

CEO	Signature	Date
Paul Brown	PBrown	1 November 2025

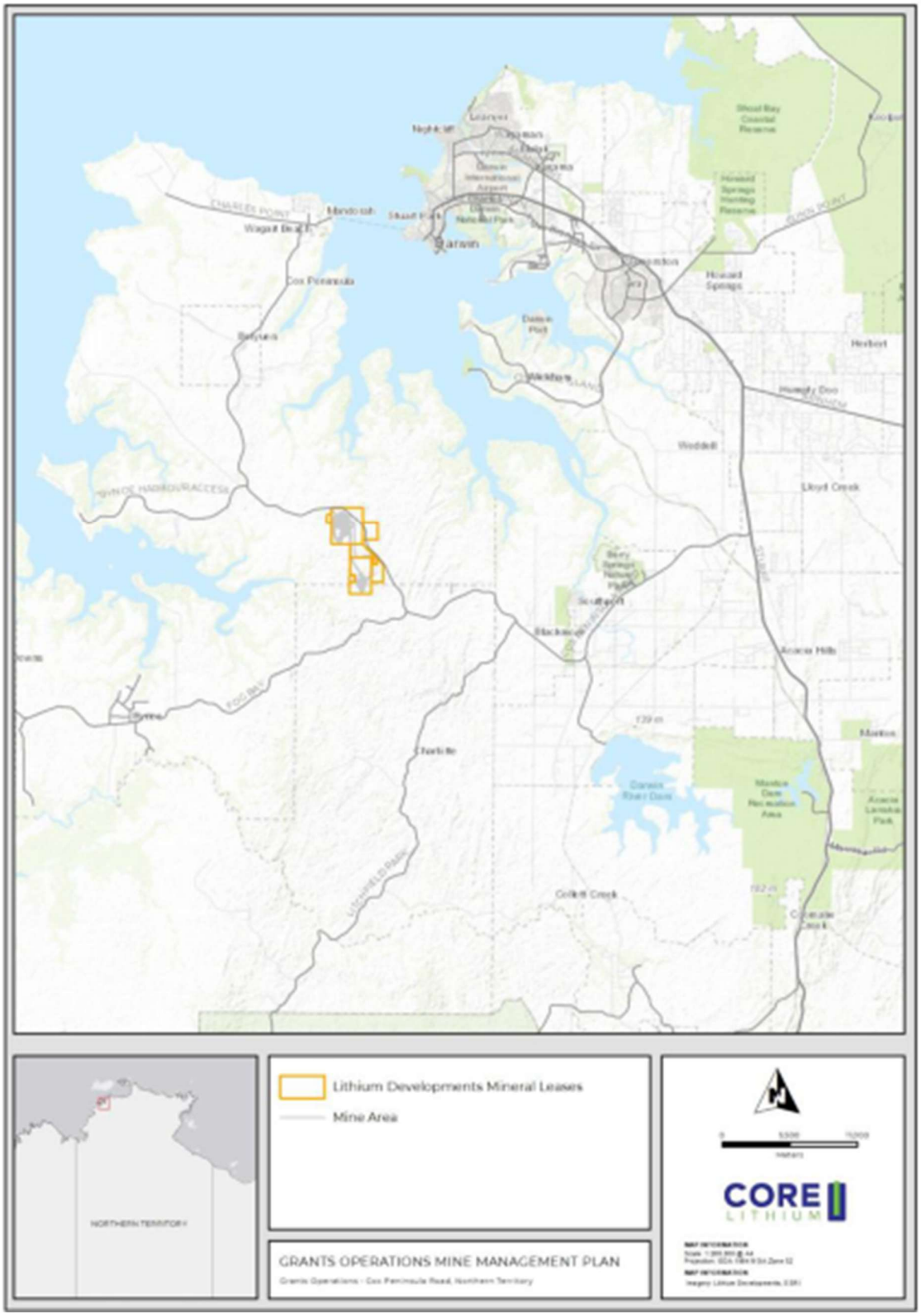


Figure 2-1 Grants regional location map

3 Project Summary

3.1 Overview

Table 3-1 Grants project summary

Project Aspect	Description	References
Currently Approved Activities	• Clearing and disturbance of 254 ha of native vegetation. • Life of Mine (LOM) of the Grants open cut pit is 3-4 years. • Development and operation the Grants open-cut pit to a depth of 200m. • Construction and operation of a processing facility comprising a crushing and Dense Media Separation (DMS) plant. • Operation of the processing plant to 2027 to accommodate ore supply from other nearby potential ore deposits. • Disposal of processing fines in a Fines Storage Facility (FSF) within an integrated Waste Rock Dump (WRD) landform. • Surface disposal of waste rock and coarse processing rejects in the WRD. • Construction and / or modification of water supply dams (mine water dam [MWD] 1 and 2, raw water dam [RWD], Observation Hill Dam [OHD] wall lift and Mine Site [C5] Dam). • Ancillary infrastructure (pipeline from OHD to RWD) and raw water supply from OHD and proposed Mine Site Dam (C5 Dam) (MSD is a proposed structure with detailed design and construction subject to future operational requirements). • Transport of ore in haul trucks from Grants operation to the Darwin Port via public roads. • Relocation of Mine Water Dam 1 (MWD1 Cell 2), addition of MWD1 Cell 3 and relocation of Sediment Basins 1 and 5 (Approved by DITT on 25 July 2023 (DML 1021-01, Variation 3)	2022 Mine Management Plan (EcOz, 2022a)

Project Aspect	Description	References
Proposed Approval Activities Update	**1. Revised proposed Pit Design and clarification of timeline of events for the Grants open cut pit expansion** The pit size has expanded from the original pit design (Draft EIS [EcOz, 2018a]; EIS Supplement [EcOz, 2019a]) in response to ongoing geotechnical assessment and expert advice which require wall angles to be reduced to improve wall competency. Recent operations noted instability of pit walls with minor slumping and toppling failures. Instability of phyllite material in the oxide zone had prompted a review and assessment of slope angles to ensure an appropriate Factor of Safety (FoS) was maintained during pit development. Consultants, SMEC and PSM, were engaged in 2022 and later in 2023 to provide time sensitive and critical recommendations for pit competency for continued mining. Recommendations included monitoring of wall stability and movement, development of Trigger Action Response Plan (TARP) with regards to geotechnical changes, installation of depressurisation bores, regular review by expert consultants and modification of mine design. The modification included changes of batter angles, a redesign of the pit shell in the weathered zone and an increase in pit disturbance. The grants open cut pit dimensions increased from 600m to 660 m long and from 405m to 520m wide. The pit was expanded along the eastern side (+115m) and northwest side (+60m). The pit disturbance area has increased to 31.71hectare (ha) although remains within the TOTAL mine disturbance footprint. Further detail of pit wall competency is provided in Section 5.2 and updates to disturbance footprint is addressed in the following paragraphs. A timeline of events with regards to sequence of changes to the Pit footprint is provided in Table 6.11. Keeping in context with technical recommendations, updates to the revised Grants Pit design are proposed in this 2025 submission. The revised design has been created for the restart of operations which includes changes to the total mine depth, mine schedule, ore/ waste ratio and Fines Storage Facility (FSF) throughputs (LDGNT, 2025c). The revised pit design fits within the current pit shell (31.71ha disturbance) and extends to 145m Below Ground (BG). The cross section of the revised pit design has been included in Figure 6-3., Figure 6-4 and Figure 6-5. Environmental considerations with regards to waste management, processing, water management and use and capacity of existing structures are provided in this document, the environmental risk assessment and self- referral tool.	Draft Environment Impact Statement (EcOz, 2018a) Draft EIS Supplement (EcOz, 2019a) 2022 Mining Management Plan (EcOz, 2022a) 2025 Grants Pit Design (Lithium Developments, 2025a) 2024 Mining Management Plan (LDGNT, 2024a) Tailings Storage Facility Operations, Maintenance and Surveillance Manual (GHD, 2021a) Geotechnical Report. Site Visit July 2022 (SMEC, 2022)
	2. Clarification of the current mine disturbance footprint including the pit expansion and firebreak/ fence line Since the initial approved mine design (draft EIS, EIS supplement, AR89), there have been several variations submitted to the DLPE with regards to the disturbance footprint and allocation of disturbance area. Several changes have been implemented onsite with the aim of enhancing operational efficiency and site safety. Key improvements include the expansion of the Grants Open Cut Pit and the installation of a firebreak and integrated fence line. These modifications have been carefully managed to ensure that the areas disturbed by these updates utilise previously allocated domains that are no longer required for current activities. As a result, all present disturbances remain contained within the originally approved disturbance footprint of 255ha which is the combined 'Total mine' and 'Water supply' allocation (NT EPA, 2019).	Grants Open Pit Foliation Assessment and Fresh Rock Design Review (PSM, 2023) Assessment Report 89 (NT EPA, 2019) Operational Water Management Plan (WRM, 2025a)

Project Aspect	Description	References
	The Pit disturbance area was initially approved for 24.3ha, however the changes have seen an increase to 31.7ha. As noted, the pit dimensions increased to 660m long and 520m wide. The pit was expanded along the eastern side (+115m) which was initially allocated for a Haul Road though was not required for operations and as such, was utilised in the pit expansion. The pit now extends out to the flood inundation bund. Similarly, the Mine Water Dam 1 (MWD1 Cell 2) and sediment basins 1A and 5A, also along the eastern side, were relocated to make way for the expansion (Approved by DLPE on 25 July 2023, DML 1021-01, Variation 3). The fire break and integrated fence line was an oversight during initial approval, though it was included in relevant management plans (Social Impact Management Plan) and Draft EIS (Section 9.4.4). There was no allocation for disturbance area for the perimeter fence line/ firebreak though this disturbance remains within the site total mine footprint. The firebreak/ fence line was installed in October 2023 as a critical fire management tool. During operations an emergency response team was available on standby. The site since transitioned into care and maintenance in January 2024, resulting in a small team to oversee related activities. The fire break serves as a critical tool for fire management that allows some level of protection to the site whilst staffing levels are reduced. Fire frequencies in the area occur annually during the dry season (NAFI, 2025). Having such frequent fires without the correct tools for management increases the risk to people, rehabilitation trial areas and onsite assets. LDGNT have complied with the NT Bushfires Management Act by installing and maintaining a firebreak around the entire perimeter of the mine site. Clearing was undertaken in line with the internal Ground Control Management Plan (LDGNT, 2023). Clearing was performed using the blade- up method to preserve topsoil, seed banks and root stock. The environmental risk assessment identifies existing controls that applies to the clearing activity (0). Whilst the Self-Assessment Tool determines the impact to the NT EPA's environmental factors and objectives (Appendix A). **3. Improvements to the existing Grants Process Plant and supporting infrastructure** LDGNT is proposing improvements to the existing Dense Media Separator (DMS) process plant to support its commitment to sustainability and environmental responsibility as operations resume. Whilst in care and maintenance, the Company shifted its focus to optimise the existing process plant. Part of this was the acquisition of the Plant, securing complete ownership of the Grants Operation. From an operational perspective, the upgrades to the process plant will ultimately enhance recovery, throughput capacity and overall performance. These improvements are anticipated to support the restart of mining activities and the revised pit design and mine schedule. Environmentally, these improvements reduce processed waste and raw water inputs and the requirement for any new/ additional chemicals. Improvements include: • Installing a gravity classifier circuit; and • Upgrading screens, floats crusher and tailings thickener. The installation of the new gravity classifier circuit reduces tailings waste by 67% and overall total process waste by up to 28% (LDGNT, 2025b). The gravity circuit segregates waste materials based on	Social Impact Management Plan (LDGNT, 2019) Grants Ground Control Management plan (LDGNT, 2023)

Project Aspect		Description	References
		particle size, depositing only thickened slimes to the FSF and ultimately redirecting coarser rejects, which will be stockpiled. Further detail of the improved DMS process is provided in this table, under 'Processing'. A processing flowchart has been provided in Figure 2-2 which details the processing stages and new and existing methods/ structures. FSF fines material from previous processing may contain 1.48% Li20, if viable, LDGNT will continue to stockpile and re-process the material. A revised Operations, Maintenance and Surveillance (OMS) Manual is being developed to address associated risks with the change of deposited material to the FSF which will be subsequently submitted for review. The DMS Plant will be upgraded so that all concentrate product and reject materials are stockpiled on concrete drainage slabs. The proposed slabs are used for to allow for drainage of material, which assists during loading and haulage, and to prevent contamination. The drainage from the processed stockpiles is captured and reclaimed back into the processing circuit via sump pumps. Filtrate from the drainage slabs will be recovered and sent through the process plant. The water recovery and catchment have been included in the operational water management plan and water balance (WRM, 2025a; WRM, 2025b).	
NT EPA Pre-Referral Screening Tool		• Proposed project amendments noted above were assessed using the NT EPA Self-Referral Tool (Appendix A) to predict and define potential for, and extent of, environmental impacts. • The Tool showed that proposed project amendments would have limited environmental impacts and fall within the scope of those assessed in NT EPA Assessment Report 89. • It was determined that with current knowledge, planning, engineering, controls and implementing existing and up to date management mechanisms, the proposed activities are not expected to have a significant environmental impact.	• Referring a proposal to the NT EPA. Environmental Impact Assessment Guidance for Proponents (NT EPA, 2022) • Assessment Report 89 (NT EPA, 2019)
Commodity	Lithium	• The Mineral Resource Estimate (MRE) for Grants deposit is approximately 2.32 million tonnes (Mt) of ore, containing approximately 1.45% concentration by weight of lithium oxide (Li2O). • Saleable products produced include: • Direct Shipping Ore (DSO). • Spodumene concentrate; and • Low grade spodumene fines	• Grants 2024 MMP (LDGNT, 2024a) • Grants 2022 MMP (EcOz, 2022a)
Schedule Update	**Phase 1** - Exploration / Planning	• LDGNT has undertaken exploration at Grants since April 2016, contributing assay and geological data from Reverse Circulation (RC) and Diamond Drilling. • Planning and approvals commenced in 2018 with project approval granted under the Mining Management Act (2001) in 2020.	• Grants 2024 MMP (LDGNT, 2024a)
	Phase 2 Construction	• Construction commenced in 2021 with work on various aspects of site infrastructure has been ongoing to maintain and manage site.	• Grants 2022 MMP (EcOz, 2022a) • Grants 2025 Grants Pit Diagram

Project Aspect		Description	References
	Phase 3 – Operations	• Mining of the Grants resource commenced in March 2022 with processing of ore in February 2023. Mining was suspended in January 2024 due a softening lithium market. Processing of remaining ROM stockpiles continued to Q2 2024. • Whilst in care and maintenance, the mine schedule has lapsed with minimal activities occurring onsite. LDGNT continues to meet its environmental licencing and permit obligations whilst maintaining the site in a state of readiness. • The restart of operations will continue with an estimated mine life of mine of 10 months though processing will be ongoing for BP33. • A revised mine schedule has been provided in Figure 2-1.	(LDGNT, 2025c) • Grants 2025 Grants Production Profile (LDGNT, 2025b)
	Phase 4 – Processing only	• The processing of ore at Grants is approved until 2027 to accommodate the processing of ore from BP33.	• Grants 2022 MMP (EcOz, 2022a)
	Phase 5 Closure/ rehab	• Closure earthworks and rehabilitation is expected to take 6 months. Grants Closure criteria are outlined in the Grants Mine Closure Plan. The Grants MCP has been updated to reflect changes onsite and to align with the proposed activities (part of the Submission Package)	• Grants Mine Closure Plan (LDGNT, 2025a)
	Phase 6 Post closure	• On-going monitoring of the mine site until rehabilitation completion criteria are achieved and the site is relinquished.	• Grants Mine Closure Plan (LDGNT, 2025a)

Project Aspect	Description	References

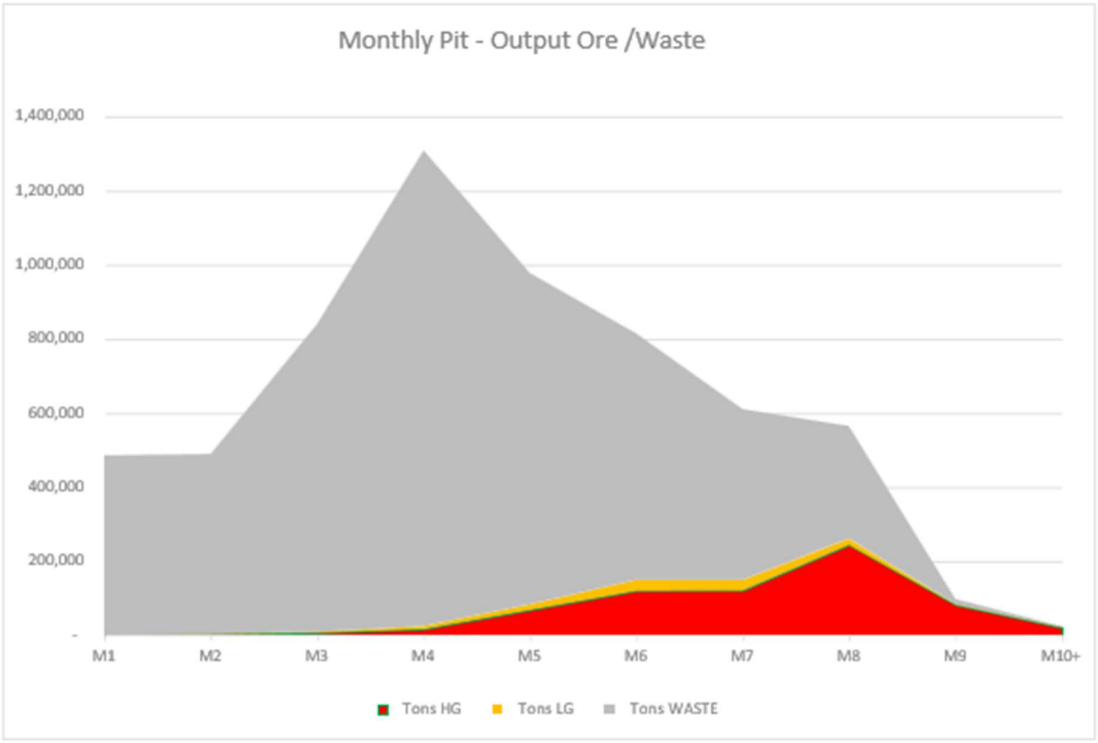


Figure 3-1 Monthly mine schedule of waste and ore output

Mining:	Target resource	• Target resource is a pegmatite body, an intrusive igneous rock containing spodumene ($LiAlSi_2O_6$), a source of lithium. The Grants pegmatite is interpreted to be a sub-vertical intrusion, approximately 350 m in strike length, pinching out to the North and Southern extents. While swelling at the centre to a maximum width of up to 40m thick and extending to an expected depth of 800m before pinching out or being offset.	
	Mining Rate (Waste: Ore)	**Update** • Previous overall Pit mining of waste to ore ratio reached 20.3:1. • Proposed design (of the remaining Pit reserve) achieves rations of 6.9:1. Further detail of comparison of previous estimates, current waste/ ore production and upcoming generation is provided in Section 5.2.	• Grants 2022 MMP (EcOz, 2022a)
	Destination Port	• East Arm Port, Darwin	• Grants Draft EIS (EcOz, 2018a)

Project Aspect		Description	References
	Mode of Transport	• Road haulage via public roadway.	
Processing:	Processing Onsite	**Update** **Crushing and Screening - Crushing Plant** • Spodumene ore is crushed and screened using a jaw crusher, followed by screening and two stage cone crushing. Crushed ore is stacked adjacent to the crushing plant (before being loaded onto a conveyor system to the adjacent processing plant). **Dense Media Separation (DMS) and Gravity Circuit- Processing Plant** • Crushed ore is wet screened to split into three size fractions and then processed based on the size fraction via the fine DMS, ultra fine DMS or Gravity circuit. • DMS processing involves submersing crushed ore into a dense media comprising mixture of water and ferrosilicon (FeSi) which is prepared at a certain ratio to produce a slurry of a specific density. Ore is processed in a primary DMS circuit to produce Lithia devoid 'float' fractions and a Lithia rich 'sink' fractions. • Sink fractions are further processed in secondary and ultra fine DMS circuits before being conveyed to the concentrate product stockpile for loading. Float fractions from each circuit are conveyed to the reject's stockpiles. Fine rejects are transported for disposal in the WRDs, whilst ultra fine rejects are stockpiled. • New. The gravity circuit utilises deslime cyclones to remove -45µm low grade material, which is transported to the FSF. • Improvement. Particles -0.6mm +45µm size range are sent to a gravity circuit which operates chemical free using principally differential rate of water to separate denser spodumene mineral from gangue minerals. Particles with diameter of less than -0.6mm (fines) report to a gravity deslime cyclone, -45µm particles are separated and sent to the tailing's thickener where small quantities of flocculant and coagulant is added. Water separated during this process is returned to the processing circuit whilst thickened fines (slimes) are pumped to the FSF. Concentrate and rejects are produced which are sent to concentrate and gravity stockpiles respectively. **Product Stockpiling** • Spodumene concentrate (product) is stockpiled on drainage slabs to allow for some dewatering of the product prior to loading. Water draining from the concentrate stockpile is reclaimed for reuse in the process circuit. **Reject Stockpiling/ Disposal** • Stockpile 1- contains existing FSF reclaimed material for reprocessing. • Stockpile 2- contains ultra fine rejects from the DMS circuit • Stockpile 3- contains rejects from the gravity circuit • WRD- receives rejects from the mica circuit and fine rejects from the primary screen and primary fine DMS • FSF- receives thickened slimes	• Grants Draft EIS (EcOz, 2018a) • Figure 2-2

Project Aspect		Description	References
	Key Infrastructure Used	• Run of Mine (ROM) pad and crushing plant • DMS processing plant • Integrated WRD and FSF • Mine Water Dams MWD1 and MWD2 **Improvements** • Gravity circuit (Figure 2-2; Figure 2-3) • Drainage slabs	• Figure 2-2
	Processing Rate	**Update** • The nominal feed throughput rate of the DMS circuit is 1.2Mt/ annum during peak processing.	•
	Key Chemicals Used	**Ferrosilicon (FeSi)** • FeSi is a manufactured solid solution of iron and silicon used as dense media to achieve separation of the spodumene based on particle density. • It is insoluble and not expected to leach from the processing plant. Under conditions of normal use, it does not pose a risk to the environment. • It is not considered a Dangerous Goods according to the ADG Code but is classified as a hazardous substance under the Work Health and Safety Regulations and has specific requirements for storage and handling. • Bulk bags are stored in the dry goods warehouse prior to use. **Sodium Nitrate (NaNO3)** • Sodium Nitrite is used in small quantities to help achieve suitable density of dense media slurry. Sodium Nitrite is a Schedule 7 product with specific storage and handling requirements. LD hold a Schedule 7 permit from the NT Department of Health for its use. **Flocculants - Optimer 83372** • Flocculant is used in the fines thickener to separate solids and liquids. • Optimer 83372 is a powder flocculant that has no known ecotoxicological effects or no dangerous reactions under normal use. It is not a polyacrylamide flocculant. **Coagulants - Nalcoag** • Nalcoag coagulant is also used in the fines thickener to separate solids and liquids.	• Grants Draft EIS (EcOz, 2018a) • Grants 2024 MMP (LDGNT, 2024a)

Project Aspect	Description	References

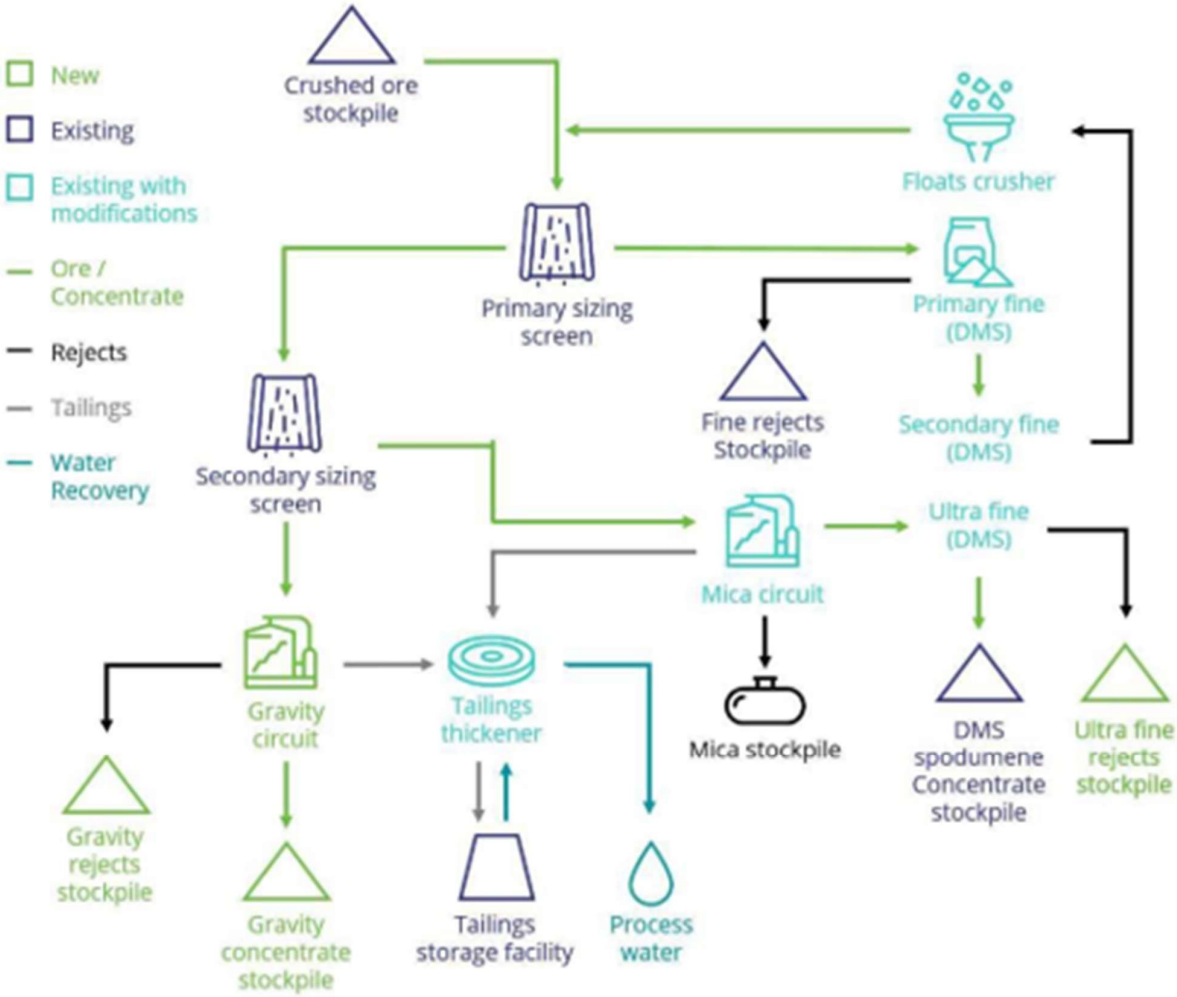


Figure 3-2 New and existing process of the Grants DMS plant (**Update**)

Project Aspect	Description	References

Figure 3-3 Existing and proposed DMS infrastructure upgrades

Project Aspect		Description	References
Ancillary Activities	Rehabilitation Trials	**Update** • The Mine Closure Plan has been updated which integrates rehabilitation studies that have been completed in 2023 by MineEarth (2023). The MCP includes rehabilitation trials and strategy that LDGNT will incorporate progressively during operations.	• Grants Rehabilitation Implementation Strategy (MineEarth, 2023) • Grants Mine Closure Plan (LDGNT, 2025a)
	Environmental Investigations	• To manage MAW that contains excess phosphorus, a product called Phoslock® has been trialled. Phoslock® is a proprietary water treatment product that permanently binds excess phosphorus in the water column and enables it to settle in an environmentally benign state. The product was demonstrated to lower total phosphorous (TP) in MAW. • Management total nitrogen in water has been trialled with laboratory assessment of water treatment options including filtration with granular activated carbon (GAC). Laboratory results showed a reduction in total nitrogen, however the field application of these methods is not currently required. • Various flocculants and delivery techniques have been trialled including automatic dosing units, hand application, flocculant sandbags, slurry and drone application. Drone application was found to be the most effective during high rainfall periods when limited residence times in basins reduces the effectiveness of traditional dosing techniques. Drone dosing has been employed during the wet season. **New** • LDGNT are working with the Northern Territory Government on ways to reuse tailings waste under the Process Legacy Project (Powering Australia, 2025) which includes tailings characterisation. The project aims to reduce tailings mining waste and turn it into a useful and economical product. LDGNT identifies its fine rejects (-10mm +3.2mm) as a potential source of material for other industries. The material is washed and has low leachate potential. Environmental investigations will potentially commence once production recommences	• Grants 2024 MMP (LDGNT, 2024a) • Process Legacy project (Powering Australia, 2025)
	Power Supply	Onsite diesel generation. Options for future connection to the public grid have been considered and consultation has occurred with Power Water.	• Grants Draft EIS (EcOz, 2018a)
	Potable Water Supply	Potable water is supplied via a containerised ultrafiltration (UF) treatment plant from Allied Pumps. The unit can treat up to 60 m3/day and supplies the sites potable water demands.	• Grants 2022 MMP (EcOz, 2022a) • Grants 2024 MMP (LDGNT, 2024a)
Waste Management	WRDs	**Update** • The WRD is located immediately to the west of the open pit and forms an integrated landform with the twin cell FSF. The location minimises haul distance and does not interfere with any surface watercourses. • The WRD will remain as an integrated landform and retained onsite post closure. • Waste generated, waste proposed, and waste rock dump capacity is provided in the following table. The Waste Rock Dump capacity has been abstracted from the approved 2022 MMP (EcOz, 2022a) and approved 2022 MCP (EcOz, 2022b) with an estimated	• Grants 2022 MMP (EcOz, 2022a) • Grants Mine Closure Plan (EcOz, 2022b)

Project Aspect		Description	References
		volume of 14,329,629 BCM. **Item** / **BCM** Current waste volume (2022-24; including pit waste and processing) 10,688,651 Proposed waste to be mined (10-month LoM) 2,011,450 Proposed process fines 271,284 (m^3) Waste rock dump capacity 14.3M	
	FSF	**Update** • The twin cell FSF is located within the WRD footprint and forms a single integrated WRD/FSF landform. • -45µm slimes material are pumped to the FSF through pipeline and deposited via perimeter loop to reduce fines drying time an increase density and strength. Only one cell from a total of two are operated at any one time. • Fines material from previous processing contained approximately 1 - 1.48% lithium which was planned to be sold as a DSO product (2022 MMP). The fine material won't be direct shipped but rather reclaimed and stockpiled and included into the process circuit for recovery if viable. • A revised Operations, Maintenance and Surveillance Manual will be developed with the generation of the slime material from the DMS process plant. An independent expert has been engaged to assess the associated risk with the change in deposition and particle size. Outcomes of the assessment and proposed operation, maintenance, surveillance recommendations will be subsequently submitted to the DLPE and included in the Companies environmental management systems.	• Grants 2022 MMP (EcOz, 2022a)
	Waste Water Dams	**Mine Water Dam 1 (MWD 1)** • Triple cell turkey nest type dam that receives MAW from the open cut pit and excess water from the FSF and MWD 2. Water can also be returned to MWD2 or the FSF as operational needs and storage requirements dictates. • Discharge of excess MAW under Waste Discharge Licence WDL 248 will occur from this structure via licenced discharge point DP1. **Mine Water Dam 2 (MWD 2)** • Twin cell turkey nest type dam that receives MAW from the processing plant and decant return water from the FSF. Water can be transferred between MWD 2 and MWD 1 as operational needs and storage requirements dictates.	• Grants Operational Water Management Plan (WRM, 2025a)
	Sewerage	• Sewage is managed by connection to an on-site containerised wastewater treatment plant from Eco Farmer Wastewater Treatment Solutions. The unit, (ECO50) can treat up to 10m3 of waste and produces Class A water that is irrigated to an adjacent irrigation area.	• Grants 2024 MMP (LDGNT, 2024a)
Water use/ management	Demand	Operational water demands are detailed in the Water Balance Report provided in Appendix D	• Grants Water Balance (WRM, 2025b)

Project Aspect		Description	References
	Sources	**Observation Hill Dam** • Raw water supply to Grants and BP33 Operations. • Contingency raw water top up to Grants MWD 2 to for operational use in processing if required. **Raw Water Dam** • Used for to supply potable water and fire water demands as well as provide top up raw water to the processing circuit. **Sediment Basins** • Used for surface water runoff sediment management and alternative supply to mine water demands prior to utilising OHD raw water. **Open Pit Dewatering** • Primary source of mine water demands.	• Grants Operational Water Management Plan (WRM, 2025a) • Grants Water Balance (WRM, 2025b)
	Internal Water Storage Capacities	**Update** Surface water will be captured in the following structures: • MWD1 (286.77 ML) - MAW • MWD2: (59.84 ML) - MAW • FSF (316.9) - MAW • Sediment Basin SB1A (53.2 ML) - Surface water runoff- Type B • Sediment Basin SB2 (39.5 ML) - Surface water runoff- Type D • Sediment Basin SB3 (11.9 ML) - Surface water runoff- Type D • Sediment Basin SB4 (21.6 ML) - Surface water runoff- Type D • Sediment Basin SB5A (32.9 ML) - Surface water runoff- Type D • Grants open cut pit- (10,174)- MAW, although kept dry for mining	• Grants Operational Water Management Plan (WRM, 2025a)
	Controlled Releases	**Update** • Controlled release from MWD1 will be undertaken in accordance with the current WDL 248.	• WDL 248-03
	Land Irrigation	**Update** • Irrigation areas at Grants have been Identified and appropriate land application rates established in the Grants Irrigation Management Plan (EcOz, 2023). Irrigation will be undertaken in accordance with this Plan. Irrigation is used only as a contingency should excess water require disposal. • Irrigation releases are included in the Operational Water Management Plan	• Grants Irrigation Management Plan (EcOz, 2023) • Grants Operational Water Management Plan (WRM, 2025a)
	Water Transfer	• Water transfer between storages, sediment basins, process facility occurs under the current water balance. It shows water use, inflows, movement and outflows.	• Grants Water Balance (WRM, 2025b)
	Bore Field	• A dewatering bore field is not currently proposed for Grants Operations.	• Grants Operational Water Management Plan (WRM, 2025a)

Project Aspect		Description	References
	Abstraction	• BP33 and Grants Operations currently operate under Surface Water Extraction Licence (SWEL) 8151018 that permits the use of raw water from OHD. **New**. A ground water abstraction licence will be required for the abstraction of ground water that reports to the pit. In pit sumps are already managing inflows to the Pit which is transferred to MWD1	• SWEL 8151018 • Grants Operational Water Management Plan (WRM, 2025a)
Flood Immunity	Flood Mitigation Measures	**Flood Inundation bund (FIB)** • The FIB has been constructed around the eastern and northern extent of the mine site and has been designed to a 1% Annual Exceedance Probability (AEP). • The purpose of the bund is to prevent inundation of the mine site during the wet season and is constructed from low permeability clay material excavated from the pit. • Rehabilitation trials have been undertaken on the FIB trialing various topsoil / growth media combinations to assess viability and success of the seedbank in stripped topsoil.	• Grants Surface Water Infrastructure Report (WRM, 2022) • Grants 2024 MMP (LDGNT, 2024a)
Site history	• The area has an extensive history of exploration and mining activity with tin and Tantalum historically mined from the former Grants pit and other nearby deposits over the last 100 years. • Excluding 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. • Update Core Lithium began exploration in 2016 and commenced construction in late 2021. Mining commenced in March 2022 with processing of ore in February 2023. Mining was suspended in January 2024 due a softening lithium market. Processing of remaining ROM stockpiles continued to Q2 2024		• Grants 2024 MMP (LDGNT, 2024a) • Grants 2022 MMP (EcOz, 2022)

3.2 Current and proposed disturbances

Existing and proposed disturbances of Grants Operations are summarised in Table 3.2 and shown on Figure 2-4. Grants is currently approved to clear 255 ha of vegetation for development of the mine and ancillary infrastructure with 246.96 ha cleared to date.

Update

Table 3-2 Current and proposed disturbances

Disturbance Summary	Detail	2019 AR89 Disturbance area (ha)	2025 Current Disturbance area (ha)		Variation (ha)	Proposed (ha)	Updated Detail
			Individual	Combined			
Open Pit footprint	Open cut mine targeting spodumene ore	24.3	-	31.71	7.41	0	Open cut mine targeting spodumene ore
			79.28			0	WRD
Integrated Waste Landform	Integrated WRD/TSF footprint	88.9	12.86	96.56	7.66		TSF
			4.42			0	ROM
Topsoil Stockpile	Topsoil stockpile bund	20.6	-	23.25	2.65	0	Topsoil stockpile bund
Inundation Bund	Flood inundation bund	7.5	-	5.97	-1.53	0	Flood inundation bund
Raw Water Dam	Short term water supply for processing, dust suppression and office facilities	2.1	-	1.73	-0.37	0	Shor term water supply for processing, dust suppression and office facilities
Other Components	Supporting infrastructure Including MWD 1 and 2, Access and haul roads, Equipment laydown and car parking, workshop, refueling, offices	73.6	7.31	87.74	14.14	0	Processing plant & crusher
			1.21			0	Stockpile rejects material
			25.2			0	Mine water dams, sediment basins
			9.76			0	Area of infrastructure
			7.02			0	Drainage lines
			6.86			0	Fire break/ fence line
			1.71			0	Rehabilitation trial area
			28.17			0	Access and haul roads/ explosive magazine
			0.5			0	Observation Hill borrow pits (existing)

Disturbance Summary	Detail	2019 AR89 Disturbance area (ha)	2025 Current Disturbance area (ha)		Variation (ha)	Proposed (ha)	Updated Detail
			Individual	Combined			
Total Mine Disturbance	-	217	-	246.96	29.96	0	-
Water Supply	Mine Site Dam (C5) and OHD expansion	38	0	0	-38	-	Mine Site Dam (C5) and OHD expansion
Total	**-**	**254.00**	**-**	**246.96**	**-8.04**	**0**	**-**

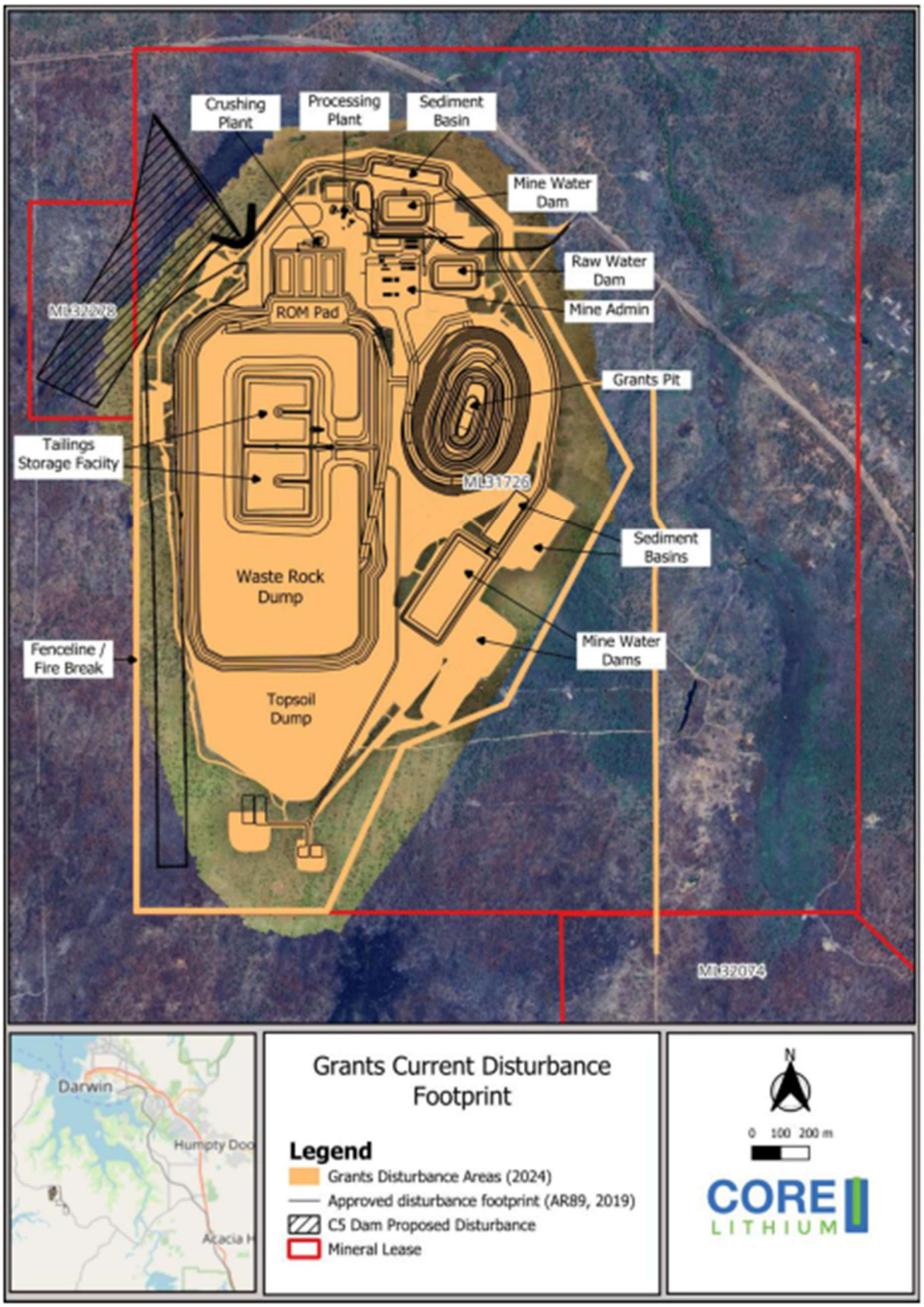


Figure 3-4 Update Grants approved disturbance footprint (2022 MMP) and Current

3.3 Operational Organisational Structure

Grants proposed organisational structure that will implement applicable management systems detailed in this MMP is provided in Table 3-3.

Table 3-3 Grants operational organisational structure

Role	Responsibility under EMS
General Manager	Over-arching accountability for compliance with: • Applicable NT and Commonwealth legislation. • Authorisation and MMP. • Finnis Lithium Project Environmental Management System; and • Commitments and conditions associated with the environmental and mining approvals, permits and licences.
Mining Manager	Responsible for compliance with: • Applicable NT and Commonwealth legislation; and • MMP Authorisation, MMP and Environmental Approval (EA) The mining will be supported in compliance management and monitoring by the Health, Safety and Environment (HSE) manager.
HSE Manager	Key person responsible for: • Maintaining and implementing the EMS in accordance with applicable NT and Commonwealth legislation; and • Ensuring all commitments and conditions associated with the environmental and mining approvals, permits and licences are adhered too.
Environmental Superintendent	Key person responsible for: • 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 • Implementation, coordination and oversight of compliance monitoring. • Ensuring implementation of EMPs.
Environmental Officer	Key person responsible for: • Conducting compliance monitoring programs • Providing support to the Environmental Superintendent and HSE Manager; and • Implementation of EMPs

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

4 Site Conditions

4.1 Site setting

4.1.1 Climate

Table 4-1 Grants climate statistics

Climatic Conditions						
Climate Type	Wet / Dry Tropics ☒		Arid ☐		Other:	
Temperature (°C)	Min	19.3	Month	July		
	Max	33.3	Month	November		
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 Landowners) database – January 1957 to November 2021

4.1.2 Landscape and soils

The landscape and soils that underly and surround the Grants operational footprint are detailed in Table 4-2 below and shown in Figure 4-1.

Table 4-2 Grants landscape and soils

Aspect	Description	References
Topography	• The project area broadly comprises lowland plains and rises, intersected by drainage systems and alluvial plains. The land is generally flat with slopes less than 5%, except for a short section of steep ridges traversed by the water pipeline, where slopes approach 10-40%.	• Grants 2022 MMP (EcOz, 2022a)
Land Units	• The disturbance footprint occurs predominately on land characterised as low rises with gravelly well-drained soils (Land Unit 2a1). • Small areas of the pit, WRD and inundation bund are located on broad drainage floors (Land Unit 6b), and the remainder of the inundation bund and off-site dams occur on narrow upland alluvial plains (Land Unit 5a.). • The proposed Mine Site Dam (MSD or C5 Dam) and existing Observation Hill dam (OHD) are located on narrow upland alluvial plains (Land Unit 5a), associated with ephemeral drainage lines. • The 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 traverse steep ridges (land unit 1b) and narrow upland alluvial plains (land unit 5a).	• Grants 2022 MMP (EcOz, 2022a) • Grants Ecological Assessment Report (EcOz, 2017)
Soil Types	• To support the EIS, soil sampling of the two main soil groups that occur within the mine site disturbance footprint (rudosols and hydrosols) was undertaken. Many samples were collected from areas of Rudosol soils (land unit 2a1) as this soil type covers more than 73 % of the disturbance footprint. Six samples were collected from Hydrosol soils that occur with land units 5a and 6b. • Soils are generally naturally poor, marginally acidic with limited water holding capacity, low nutrient levels and susceptibility to slaking, hard setting and erosion when wet. These deficiencies require consideration when planning and undertaken rehabilitation.	• Grants 2022 MMP (EcOz, 2022a) • Soil and Waste Characterisation (EcOz, 2018c)

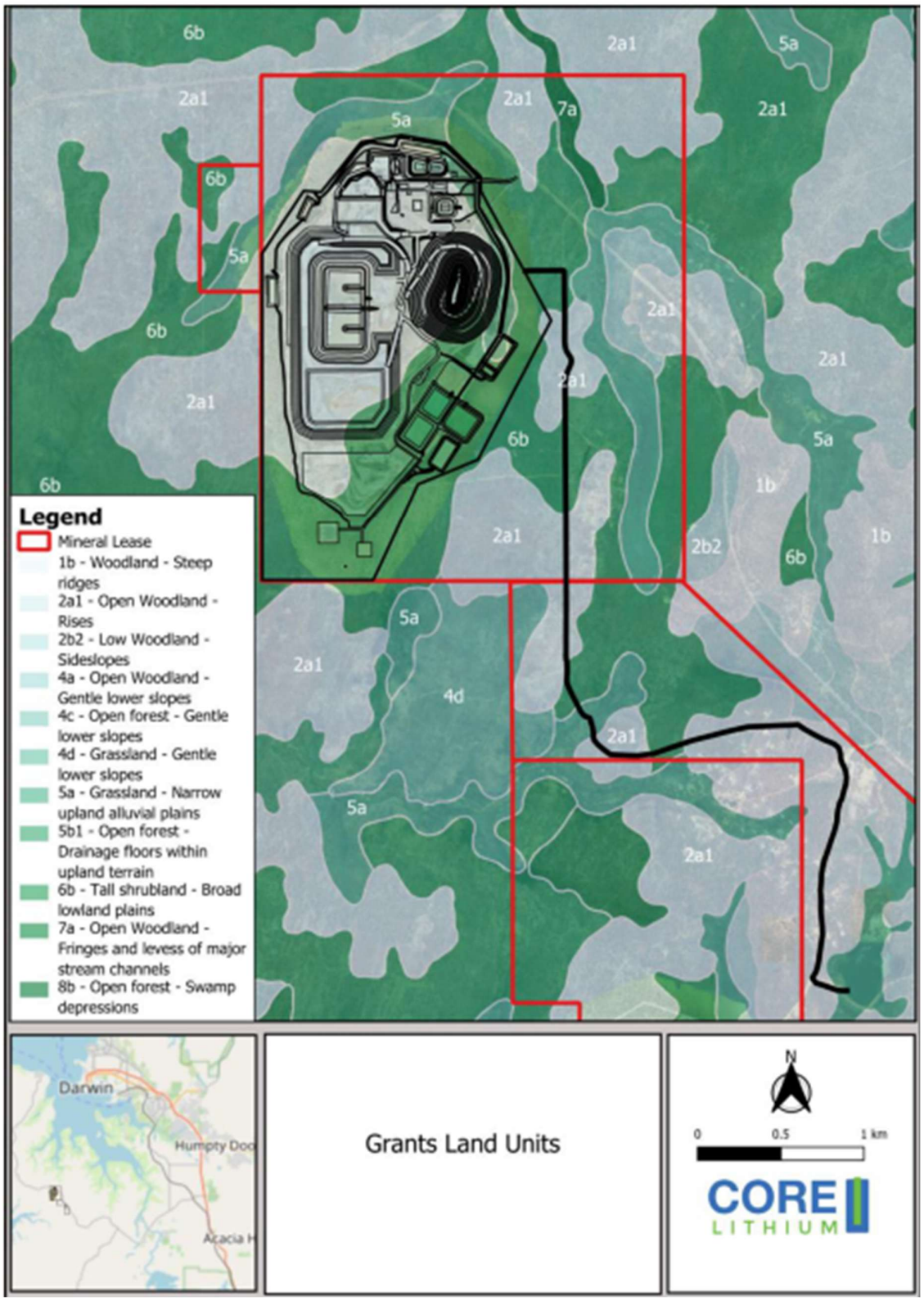


Figure 4-1 Grants land unit map

4.1.3 Geology

Table 4-3 Grants 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.	• Grants 2022 MMP (EcOz, 2022a)
Local Geology	• Local geology comprises two dominant lithologies, phyllite and pegmatite. The ore (spodumene) is located within the fresh pegmatite which presents as a near vertical pegmatite intrusion. The host rock waste rock, phyllite, forms part of the Burrell Creek Formation (BCF). The weathering profile extends to approximately 60 m below ground level (mBGL). • The phyllite presents as highly foliated rock type with foliations striking approximately North-South (~010-015°). Strong foliation within the weathered BCF has required ongoing geotechnical oversight during development of the open pit.	• Grants 2022 MMP (EcOz, 2022a)
Geochemical Characterisation	• Preliminary waste characterisation testing identified waste rock as having a high probability of remaining near-neutral pH with unlikely problematic acidity generation and drainage. Electrical conductivities were also low with potential for saline drainage unlikely. • Further waste characterisation undertaken by EcOz, 2018 supported the preliminary assessment with waste rock unlikely to have AMD potential due to the absence / scarcity of sulphur. Waste classified as potentially acid forming (PAF) would be limited in volume. Some metalliferous drainage was observed but considered low risk. • Operational waste characterisation undertaken supports the above assessments with no problematic material identified to date.	• Grants Preliminary Mine Waste Rock Characterisation Report (Pendragon, 2017) • Soil and Waste Characterisation Report (EcOz, 2018c) • Grants 2024 MMP (LDGNT, 2024a)

4.1.4 Hydrogeology

Hydrogeology of Grants operations is detailed in Table 4-4 and in Figure XX.

Table 4-4 Grants hydrogeology

Aspect	Description	References
Aquifer	Burrell Creek Formation • The Burrell Creek Formation is the principle regional aquifer which typically comprises heavily weathered shale, siltstone and strongly foliated phyllite with lenses of quartz pebble conglomerate. The Burrell Creek Formation is overlaid by a thin veneer of Cenozoic sediments mainly comprising laterite, gravel, sand and clay. The Burrell Creek Formation is the principal aquifer beneath the study area; it is a fractured and weathered rock aquifer with minor groundwater resource. • Minor aquifers also occur within Cenozoic sediments and weathered surface laterites; these are more permeable than the Burrell Creek Formation but have limited saturated thickness.	• Grants Groundwater Modelling Report (Cloud GMS, 2018) • Grants Lithium Project Groundwater Model Addendum Report (Cloud GMS, 2019) • Groundwater Updated Model (Artesium, 2025) • Grants 2024 MMP (LDGNT, 2024a) • Grants Groundwater Monitoring Data (LDGNT, 2024a) • BoM GDE Atlas Map (BoM, 2024) • Grants Operational Water Management Plan (WRM, 2025a) • Grants Water Balance (WRM, 2025b)
Yield	• Bore yields are typically less than 0.5 L/s with groundwater intersected in the base of the weathered zone and where drilling intersects fracture zones. Higher yields may be encountered in fresh rock where fractures in the BCF allow greater transmission of groundwater. • Minor aquifers also occur within the Cenozoic sediments; these are more permeable than the Burrell Creek Formation but have limited saturated thickness.	
Groundwater Flow Direction	• Groundwater flow direction is to the north-east towards Darwin Harbour, away from slightly elevated areas in the south toward lower lying and incised drainage lines in the north.	
Groundwater Quality	• Groundwater quality in the deeper weathered Burrell Creek is typically fresh (<300 EC) with a neutral pH. • Groundwater in the shallow laterite and alluvial sediments is very fresh (<25 EC) and has similar chemical characteristics to rainfall.	
Groundwater Users	**Beneficial Use Declaration** • 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.	

Aspect	Description	References
	Existing Groundwater Users Apart from an abandoned mining bore at OHD, there are no registered groundwater bores or groundwater users within 13 km of the site.	
Groundwater Dependent Ecosystems (GDEs)	The Bureau of Meteorology (BOM) Groundwater Dependent Ecosystems (GDE) Atlas mapping indicates there are no known GDEs within the Grants MLs with an area of low GDE potential mapped within the southern portion of the Grants disturbance area and portions of the Grants to OHD pipeline track.	
Groundwater Drawdown	**Update** • The existing numerical groundwater model by CloudGMS (2018) has been calibrated with long term continuously logged ground water levels, Pit dewatering rates and sampled water quality. • Long-term monitoring shows hydraulic disconnection (horizontal) between the Grants Pit and shallow, intermediate, and deep aquifers. Similarly, the depth-dependent hydraulic conductivity (vertical), shows reduced permeability at greater depths due to fracture closure from lithostatic stress. • The Pit acts as a hydraulic sink with water levels stabilising and drawdown rates declining toward a 'pseudo-steady state'. Intermediate bores (150m) recorded maximum drawdown of 5.27m, though levels have since risen slightly, while shallow bores (~10m) show minor change with 0.01m drawdown. • Hydrogeological evidence indicates that the zone of influence mostly stays within the ML boundary. • The zone of influence models deep aquifer responses and can sometimes overestimate shallow impacts though this model shows actual influence to shallow aquifers which is expected to be limited.	

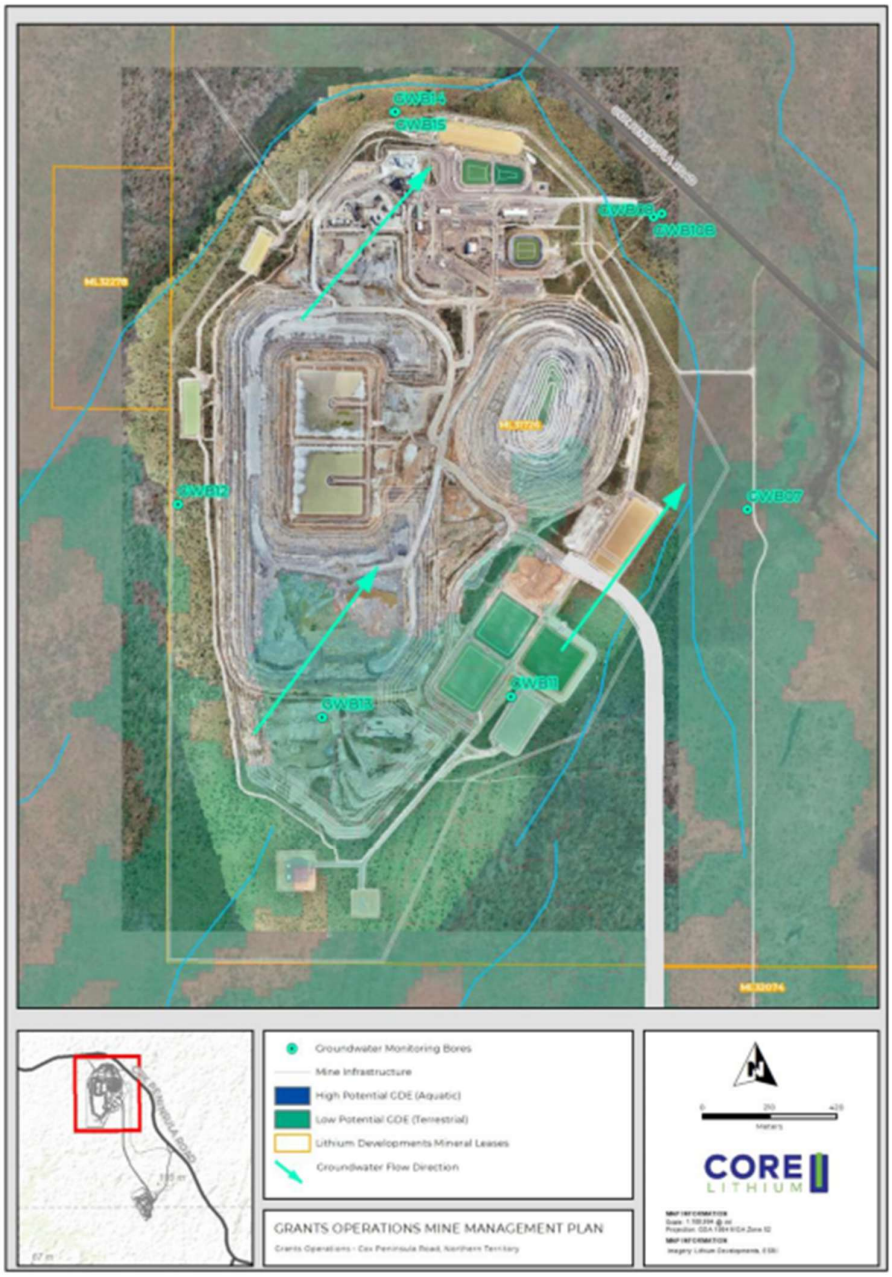


Figure 4-2 Groundwater flow direction and monitoring bore locations

4.1.5 Hydrology

Details of catchment hydrology, surface water flows and flooding within the surrounding Grants operational footprint is provided in Table 4-5 and Figure 4-3.

Table 4-5 Grants local hydrology

Aspect	Description	References
Catchment Name / ID	• Darwin Harbour, West Arm Catchment. • Bynoe Harbour, Charlotte River Catchment.	• Grants Operational Water Management Plan (WRM 2025a). • Grants Surface Water Infrastructure Report (WRM, 2022) • Grants Surface Water Modelling Supplementary Report (LDGNT, 2019)
Stream Order (Number / Type)	• Two ephemeral watercourses (Stream Order 1) flow northeast along the eastern and western extents of the Grants disturbance area and discharge off lease into an unnamed ephemeral tributary (Stream Order 2 and Stream Order 3) to Darwin Harbours West Arm. • One ephemeral watercourse (Stream Order 1) flows southwest from the southern portion of the Grants disturbance footprint before discharging into an unnamed ephemeral tributary (Stream Order 2 and Stream Order 3) to Bynoe Harbour.	
Surface Water Flow Direction	• Surface Waters within the Darwin Harbour catchment flow to the northeast • Surface waters within the Bynoe Harbour catchment flow to the southwest.	
Declared Users	• Darwin Harbour is a Site of Conservation Significance, with declared beneficial uses and established water quality objectives. • Bynoe Harbour and surface waters within the southern portion of the Grants mining 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 surface water creek sites between 2017 and 2021. A summary of baseline surface water quality Is provided in the Grants Water Management Plan (WRM, 2024).	
Existing Water Storages	Observation Hill Dam (345.3 ML) OHD is a permanent waterbody used to supply raw water demands to supply raw water demands for processing operations and ancillary general uses including potable water and fire suppression.	

Aspect	Description	References
Flooding	• Flood modelling assessed 10% AEP (1:10) and 1% AEP (1:100) design flood events showed that with construction of the inundation bund, site infrastructure would remain largely unaffected with no flooding of the pit occurring. Site drainage infrastructure has sufficient capacity to cater the design flow under 10% AEP (1:10) design event with stormwater runoff within the Grants operational area conveyed within windrows and sediment drains to sediment dams. Minor bunding around drains and sediment dams to direct stormwater away from operational areas such as the open cut have been installed or modified on an as needed basis in response to operational conditions.	

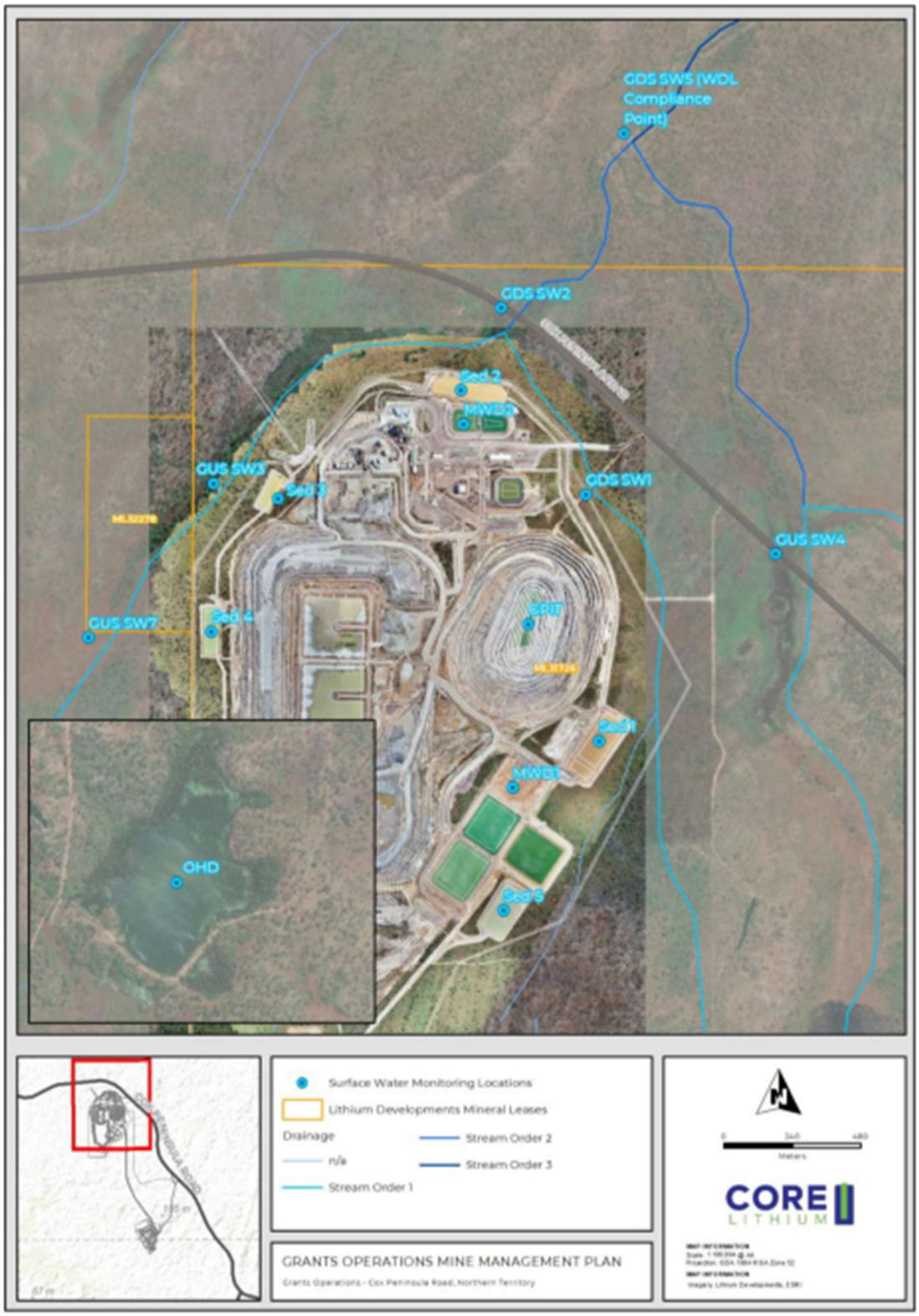


Figure 4-3 Grants catchment hydrology and surface water monitoring locations

4.1.6 Sacred sites

Table 4-6 Sacred sites – Grants

Description	References
• Aboriginal Areas Protection Authority (AAPA) certificate (C2022-049) does not identify any sacred sites or restricted areas within the Grants Operations development footprint. • The nearest recorded sacred site is located approximately 1.3 km northeast of the Grants disturbance footprint beyond Cox Peninsula Road. The site will not be impacted by activities detailed in this MMP.	• AAPA Certificate (C2022-049)

4.1.1 Other Heritage/ Cultural Sites

Heritage and other cultural sites surrounding the Grants operational footprint are provided in Table 4-7 and Figure 4-4.

Table 4-7 Other Heritage and Cultural Sites – Grants

Description	References
Other heritage items identified within proximity to the Grants disturbance footprint include: • Possible Non-Aboriginal Grave: mounded rocks located adjacent to the communications tower at Observation Hill during the Grants pre- clearing survey. Archaeological assessment determined it did not reflect local indigenous mortuary practices and may be a potential European grave. The area was barricaded, and no excavation undertaken as disturbance of the area was not proposed. • Cooking Hearth: Comprises two upright stones with evidence of carbonisation identified during the Grants pre-clearing survey. Archaeological assessment determined was likely associated with historical mining activities and to barricade and avoid the area. • Site 5: Identified from the NT Heritage Register and comprises an artefact scatter of moderate significance. No works within this MMP are proposed in the vicinity of Site 5. Design of the MSD (C5 Dam) will require consideration of Site 5 to mitigate potential impact. • Good Hope Mine: Historic tin mine. The site is not a protected site with no works proposed in proximity. • Newsham's Claim: Historic tin mine. The site is not a protected site with no works proposed in proximity.	• Grants Draft EIS (EcOz, 2018a) • Grants 2022 MMP (EcOz, 2022a) • Small Scale archaeological Assessment Report (Ellangowan Enterprises, 2021)

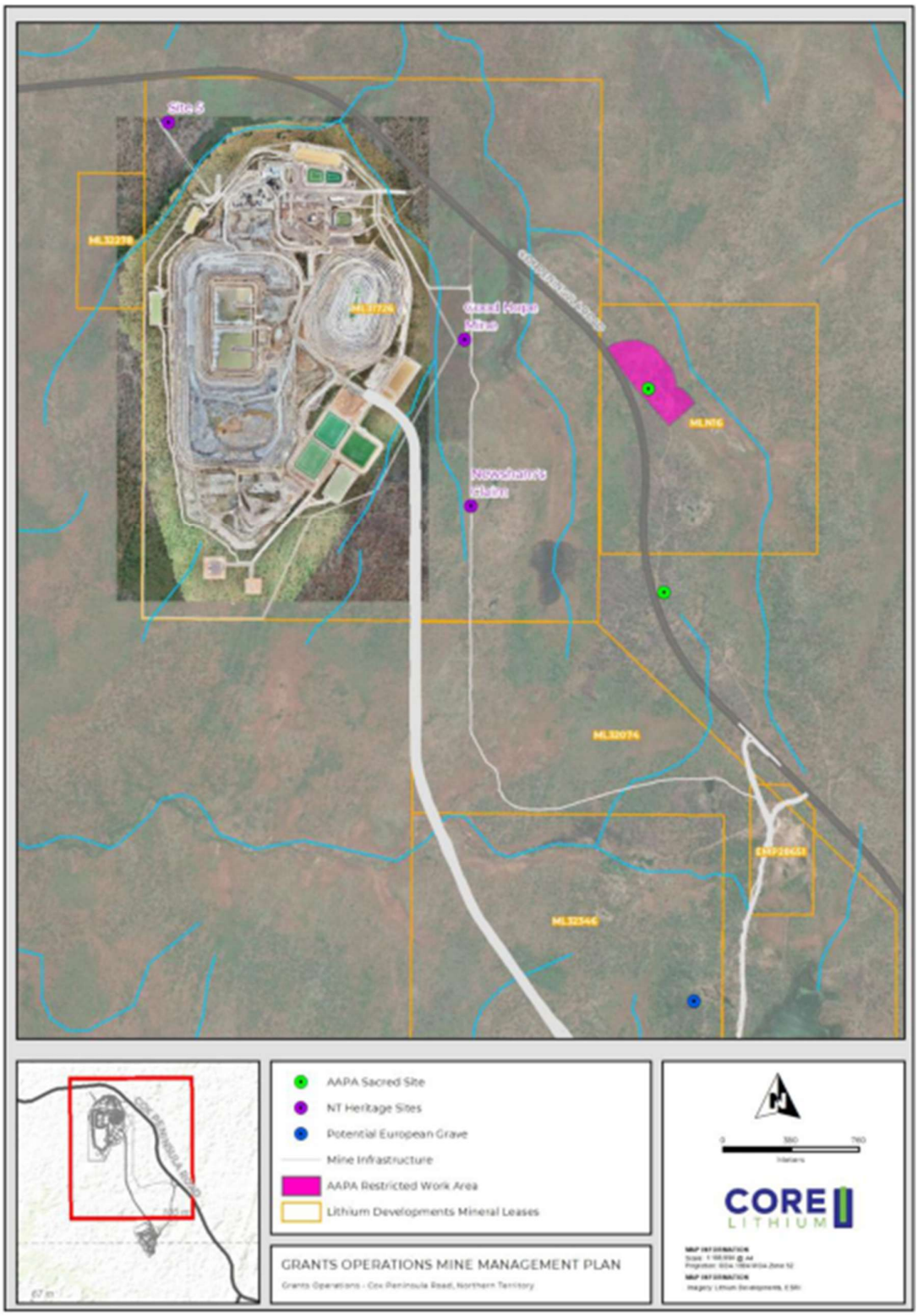


Figure 4-4 Grants cultural heritage and archaeological site

4.1.2 Flora

Details of flora within and surrounding the Grants operational footprint is provided in Table 4-8.

Table 4-8 Flora

Description	References

General Vegetation Communities
• Prior to disturbance, Grants mining area was dominated (>75%) by *Eucalyptus miniata*, *E. tetrodonta* and *Corymbia bleeseri* woodland over open tussock grassland.
• Drainage lines with *Pandanus spiralis*, *Lophostemon lactifluus* and *Livistona humilis* isolated trees over tussock understorey, and a small area of *Eucalyptus alba* woodland comprised 15 % of footprint.
• The remainder is small patches of shrubland to open woodland areas of *Grevillea pteridifolia* and *Melaleuca nervosa* over open tussock grassland.
Significant / Sensitive Vegetation
• Unnamed ephemeral streams in the upper West Arm catchment on ML31726 and upper Charlotte River catchment on ML32074, support a narrow band of generally sparse riparian vegetation dominated by overhanging Melaleuca spp. Aquatic surveys undertaken by GHD (2017) found aquatic habitats are typical of low order watercourses in the NT which are common and do not have significant value in terms of supporting species that are range restricted or threatened.
• Seasonally inundated areas are patchily distributed through the mineral leases. These areas support sedges and herbs in the ground layer during the wet and early dry season and dry out later in the dry season.
• Mangroves associated with the upper reaches of West Arm occur approximately 1.7km downstream of the disturbance footprint.
• No riparian, wetland or mangrove communities are in the disturbance footprint.
Threatened Species
• Two flora species were identified to have potential habitat within the disturbance footprint. These included:
  • *Typhonium praetermissum (*vulnerable under *NT Territory Parks and Wildlife Conservation* Act); and
  • *Stylidium ensatum* (endangered under *NT Territory Parks and Wildlife Conservation* Act and Commonwealth EPBC Act),
• Targeted surveys for *Stylidium ensatum* were undertaken in June 2018, including in areas downstream of the MLs that could be affected by alteration of surface water flows. Field surveys did not locate any *S.*
	• Grants Ecological Assessment Report (EcOz, 2017)
	• *Stylidium ensatum* Survey Report (EcOz, 2018b)
	• *Typhonium praetermissum* Survey Report (EcOz, 2018d; January)
	• *Typhonium praetermissum* Survey Report (EcOz, 2019c; March)

Description	References
ensatum and it was determined with a high degree of confidence that the project would unlikely impact this species with no specific mitigation measures required. • Two field survey efforts were undertaken for *Typhonium praetermissum* were undertaken in January 2018 and March 2019, focusing on modelled areas of high habitat likelihood. Whilst other Typhonium sp. were identified, no *T. praetermissum* were identified as confirmed through DNA analysis. It was determined with a high degree of confidence that the project would unlikely impact this species with no specific mitigation measures required. Invasive Species • Three declared weed species have been observed within the disturbed areas of the Grants project areas 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 / Grants project areas since 2021. • 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*).	

4.1.3 Fauna

Table 4-9 Fauna

Description	References

Threatened Species
• Desktop searches undertaken during the EIS only identified two threatened species that have a high likelihood of occurring within the development footprint:
  • Black-footed tree rat; and
  • Partridge Pidgeon
• It was concluded that the proposed activities at Grants was not expected to significantly impact on any threatened or migratory species with referral under the EBPC Act not considered warranted.
• LDGNT acknowledges that several additional species have now been listed under the EPBC Act that have potential to occur within the Grants mining area. Should future development be required outside of existing disturbance footprints, a Significant Impact Assessment (SIA) will be undertaken to determine if referral under the EPBC is required.
	• Grants Ecological Assessment Report (EcOz, 2017)
	• Grants 2024 MMP (LDGNT, 2024a)

Description	References
Introduced Species • Cane toads and feral cats were observed during ecological surveys undertaken for the EIS. Pigs, cattle and feral dogs are known to occur within the local area.	

4.1.4 Historical mining developments and disturbances

Table 4-10 Grants 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:
  ◦ 1979: Greenbushes commenced exploration in the Bynoe pegmatite district.
  ◦ 1980 - 1989: Tin-tantalum mining footprint expanded with a short, sporadic mine life.
  ◦ 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.
  ◦ 2016 - 2017: Liontown Resources identified highly weathered and leached spodumene mineralisation from dump samples, and significant lithium mineralisation at depth in many prospects.
  ◦ 2016: Core Exploration commenced exploration for lithium mineralisation.
  ◦ 2021: Lithium Developments (Grants NT) Pty Ltd commence construction on the Grants open cut mine.
  ◦ Mining commenced in 2022 and DMS processing in 2023.
  ◦ Ongoing construction and mining operations were suspended in 2024 due to a softening lithium market.
• 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.
	• Grants 2022 MMP (EcOz, 2022a)
	• Grants 2024 MMP (LDGNT, 2024a)

4.1.5 Underlying land use

Table 4-11 Underlying land use

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 Grants Mineral Leases.	• Grants 2022 MMP (EcOz, 2022a)

4.1.6 Surrounding land use

Table 4-12 Surrounding land use

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. • A number of exploration tenements owned by other exploration companies are located within the surrounding area.	• Grants 2022 MMP (EcOz, 2022a)

4.1.7 Nearest town(s)

Table 4-13 Nearest towns - Grants

Description	References
• Berry Springs is the closest township, located 26 km east of Grants (36 km via road) and with a population of approximately 820 people (ABS, 2022). • The nearest community is Belyuen, located approximately 15 km northwest of the project (23km by road) with a population of approximately 165 (ABS, 2022).	• Australian Bureau of Statistics (2022)

4.1.8 Regional infrastructure

Table 4-14 Regional infrastructure

Description	References
• Grants is accessed via the Northern Territory Government (NTG) controlled main roads that pass through the areas of Litchfield, Palmerston and Darwin municipalities. • The project area is not serviced by mains power, water or sewage with 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 Grants Operations in event of emergency due to distance and operational commitments. • Medical general practitioner services are available in Berry Springs with the closest hospital is the Palmerston Regional Hospital (70 km by road).	• Grants 2022 MMP (EcOz, 2022a)

4.2 Conceptual Site Model

The Grants Conceptual Site Model (CSM) provided in Table 4-15 has been developed to describe key project risks and assesses the suitability of Core Lithium EMS.

Table 4-15 Grants Conceptual Site Model

Disturbance /Source	Contaminant of Potential Concern (CoPC)	Pathway	Receptor	Comments
Civil construction and bulk earthworks including dewatering construction areas	• Turbidity (TSS) • Hydrocarbons • Aluminium • Nutrients	• Transport in surface water runoff. • Seepage into soils and groundwater.	• Surface water • Groundwater • Riparian habitat • Aquatic fauna • Soils	• Surface runoff quality managed via implementation of the ESCP and Type B and Type D sediment basins. • Hydrocarbons routinely monitored in surface water and groundwater as per WMP. • Riparian vegetation and aquatic ecology monitored annually as per requirements of WDL 248 and SWEL 8151018.

Disturbance /Source	Contaminant of Potential Concern (CoPC)	Pathway	Receptor	Comments
Open cut mine operation including dewatering	• Turbidity (TSS) • Hydrocarbons • Heavy metals • Nutrients (TN, TP)	• Migration in groundwater. • Mine water discharge. • Seepage to soils and groundwater.	• Surface water • Groundwater • Riparian habitat • Aquatic fauna • Soils	• Hydrocarbons and metals routinely monitored in surface water and groundwater as per WMP. • Discharge water quality undertaken in compliance with the requirements of WDL 248. • MAW quality routinely monitored as per WMP and treated as required. • Riparian vegetation and aquatic ecology monitored annually as per requirements of WDL 248 and SWEL 8151018.
Waste rock storage	• Turbidity (TSS) • Hydrocarbons • Heavy metals • Nutrients (TN, TP)	• Surface water runoff. • Seepage to soil and groundwater.	• Surface water • Groundwater • Riparian habitat • Aquatic fauna • Soils	• Routine ground and surface water monitoring undertaken in accordance with the WMP. • Riparian vegetation and aquatic ecology monitored annually as per requirements of WDL 248 and SWEL 8151018.
ROM operation	• Turbidity (TSS) • Hydrocarbons • Heavy metals • Nutrients (TN, TP)	• Surface water runoff. • Seepage to soil and groundwater.	• Surface water • Soils	• Surface runoff quality managed via implementation of the ESCP and Type B and Type D sediment basins. • Hydrocarbon leaks/ spills to be managed in accordance with existing emergency management plans/ procedures. • Hydrocarbons, metals and nutrients routinely monitored in surface water and groundwater as per WMP.
Update DMS processing including Crushing, and FSF operation	• Turbidity (TSS) • Hydrocarbons • Heavy metals • Nutrients (TN, TP) • Water treatment flocculant	• Surface water runoff • Seepage to soil and groundwater Spill or release of processing water / chemicals	• Surface water • Groundwater • Aquatic fauna • Soils / sediment	• Processing fines leaks/ spills to be managed in accordance with existing emergency management plans/ procedures. • Hydrocarbons, metals and nutrients routinely monitored in surface water and groundwater as per WMP. • OMS Manual is complied with, soon to be updated.

Disturbance /Source	Contaminant of Potential Concern (CoPC)	Pathway	Receptor	Comments
Irrigation of MAW	• Hydrocarbons • Heavy metals (Arsenic) • Nutrients (TN, TP) Electrical conductivity	• Surface water runoff • Seepage to soil and groundwater • Evapoconcentration • Uptake by and deposition on plants	• Surface water • Groundwater • Vegetation • Soils	• Irrigation of MAW is 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) • Hydrocarbons • Heavy metals (Arsenic) • Nutrients (TN, TP) • Electrical conductivity	Passive release to the environment	• Surface water • Groundwater • Aquatic fauna • Sediment	• Surface and groundwater routinely monitored in accordance with the WMP. • Sediment basins employ auto dosing flocculant technology where practicable. • Drones used for rapid aerial deployment of flocculant when required.
New Pit expansion	• Turbidity • Heavy metals • Nutrients (TP, TN)	• Migration to groundwater • Controlled release. • Surface disturbance via surface water runoff	• Surface water • Groundwater • Sediment • Vegetation	• Discharge water quality undertaken in in compliance with the requirements of WDL 248. • MAW quality routinely monitored as per WMP and treated as required. • Riparian vegetation and aquatic ecology monitored annually as per requirements of WDL 248 and SWEL 8151018.
Clearing of firebreak/ fence line	• Turbidity	• Surface water runoff	• Surface water • Vegetation	• Blade up technique was performed to prevent gauging and windrows • Vegetation surveys were undertaken across the entire ML, no riparian, wetland or mangrove communities were in the disturbance footprint • Surface water monitoring is undertaken as per the WMP and WDL248

4.2.1 Socio-economic status

Table 4-16 Grants socio-economic status

<table>
<tr><th colspan="2">Item</th><th>Description</th><th>References</th></tr>
<tr><td rowspan="3">Workforce</td><td>Construction</td><td>• Construction and operational activities are undertaken concurrently. Workforce description detailed in the operation section below includes the construction personnel.</td><td rowspan="4">• Grants 2024 MMP (LDGNT, 2024a)
• Grants 2022 MMP (EcOz, 2022a)
• Social Impact Assessment Report (True North, 2018)
• Stakeholder Engagement Update (True North, 2024)</td></tr>
<tr><td>Operation</td><td>• Typical operational workforce demographics are provided below.
<table>
<tr><th>Company</th><th>Local (NT)
Number</th><th>%</th><th>FIFO
Number</th><th>%</th><th>Total
Number</th><th>Indigenous
Number</th><th>%</th></tr>
<tr><td>Mining Contractor</td><td>174</td><td>96</td><td>7</td><td>4</td><td>181</td><td>20</td><td>11</td></tr>
<tr><td>Civil Contactor</td><td>34</td><td>100</td><td>0</td><td>0</td><td>34</td><td>6</td><td>18</td></tr>
<tr><td>Crushing Contractor</td><td>27</td><td>100</td><td>0</td><td>0</td><td>27</td><td>3</td><td>11</td></tr>
<tr><td>Processing Contractor</td><td>44</td><td>100</td><td>0</td><td>0</td><td>44</td><td>3</td><td>7</td></tr>
<tr><td>Core Lithium Staff</td><td>22</td><td>79</td><td>6</td><td>21</td><td>28</td><td>0</td><td>0</td></tr>
<tr><td>Total</td><td>301</td><td>96</td><td>13</td><td>4</td><td>314</td><td>32</td><td>10</td></tr>
</table>
• Kenbi Ranger group for land management activities including weed management, fire management, general labour work and some water management activities.</td></tr>
<tr><td>Closure</td><td>• Estimated up to 30 people during closure and rehabilitation activities.</td></tr>
<tr><td colspan="2">Economic Output</td><td>• Pre-Production Capital: $233.6M
• Sustaining Capital: $1.7M
• Operating Costs: $171.7M per annum
• Updated Closure and Rehabilitation (including monitoring / post-closure management): $7.9M</td></tr>
<tr><td colspan="2">Stakeholder Engagement</td><td>• Stakeholder engagement activities for Grants have been undertaken throughout project planning, approvals and operations with key activities including:
  • Information fact sheets and letters to residents.
  • Community information stalls, posters, and social media posts
  • Targeted briefings and interviews with stakeholders holding a key interest in the project.
• Ongoing stakeholder engagement comprises:</td></tr>
</table>

Item	Description	References
	• Monitoring of a dedicated 24-hour community hotline and contact email. • Established process to respond to community / stakeholder complaints and grievances. • Posting of regular updates and community reports on the Core Lithium website • Sharing community focused updates on Core Lithium's LinkedIn and X (Twitter) profiles • Established a community grant program. • Distribution of regular community newsletters. • Engagement with regional councils, industry bodies. • Presence at industry conferences and key events. • Stakeholder feedback received is generally positive with support for potential employment and economic benefits. • Some concerns raised consider blasting and road closures, road safety, water use, closure, mining processes and environmental impact. Details of stakeholder engagement and community feedback are provided in the Grants Social Impact Assessment (True North, 2018) • Ongoing stakeholder engagement is managed in accordance with the Grants Social Impact Management Plan (SIMP; LDGNT, 2019b). • Proposed amendments to the Grants project do not alter the project community and stakeholder profile addressed in the Grants Social Impact Assessment (True North, 2019)	

5 Legislation and Obligations

5.1 Statutory requirements

Statutory requirements of the Grants project are summarised in Table 5-1.

Table 5-1 Grants statutory requirements

Legislation /Requirement	Relevant Information	When
Commonwealth		
Environment Protection and Biodiversity Conservation (EPBC) Act 1999	• As originally assessed, the Grants project did not trigger referral under the EPBC Act. • 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 Grants 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	• Grants was subject to assessment under the Environmental Assessment Act (now repealed) at the level of an Environmental Impact Statement (EIS). • Assessment was completed on 17 June 2019 with the NT EPA issuing Assessment Report 89 which summarises its findings and provides recommendations for management under the MMP. • On 25 June 2020, the EPA confirmed in its Statement of Reasons, that the change to the duration of the project had not altered the environmental significance of the project and that Assessment Report 89 adequately addressed potential Impacts. • 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	• During planning and approvals for additional land disturbance activities not assessed under existing approvals.

Legislation /Requirement	Relevant Information	When
	activities under the Environment Protection Act 2019.	
Mining Management Act 2001	• Grants MMP developed and approved under mining DML 1021-01 approved by the Minister on 1 April 2020. • Routine MMP updates are submitted for approval with the most recent mining DML (1021-01 Variation 3) approved by the Minister on 25 July 2023. • 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 • New A ground water abstraction licence will be required for the abstraction of ground water that reports to the pit and removed to MWD1 • Management of wastewater disposal offsite from the MWD under WDL 248. • 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.
Bushfires Management Act 2016	Update • The project area is located within the declared Northern Fire Protection Zone, with permits to burn required. • A firebreak/ site security fence line has been constructed in 2023 to prevent wildfires and protect assets and planned rehabilitated areas	Prior to undertaking controlled burns.
Building Act 1993	The mine site is located within the Darwin Building Control Area. Building and occupancy permits are in the process of being obtained.	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 require an approval to be obtained from WorkSafe NT. Explosives will be stored in a magazine to be constructed at the mine site. An Explosives Business Licences is held by the mining contractor. All fuel storages must meet Australian Standard 1940: Storage and Handling of	Prior to explosive or dangerous goods storage.

Legislation /Requirement	Relevant Information	When
	Flammable and Combustible Liquids	
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. i.e. translocation of Cycads	• 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. • Waste management contractors' facilities accepting listed wastes must be licensed under this Act.	• When engaging waste management contractors
Weeds Management Act 2001	Update • Landholders and occupiers have statutory obligations to manage declared under the Act. Implementation of the Weed Management Plan has been developed and provided in Appendix F.	• 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 and Risk Management Plan that has been certified.	Life of project
Medicines, Poisons and Therapeutic Goods Act	Regulates medicines, poisons, and therapeutic goods to ensure their safety, efficacy, and quality. Relates to the appropriate handling, storage and use of medicines, poisons or therapeutic goods found onsite.	Life of project
Radiation Protection Act	Regulates and controls activities that might expose workers and the environment to radioactive materials which are present within the DMS processing plant. A Radiation Management Plan has been developed and Radiation Officers appropriately qualified.	Life of project

5.2 Non-Statutory Requirements

Table 5-2 Grants non-statutory requirements

Requirement	Relevant Information	When
• Best Practice Erosion and Sediment Control (International Erosion Control Association, 2008)	**Update** • The Grants ESCP updated in accordance with IECA (2008) by a certified CPESC.	**Update** • An ESCP will be developed and consolidate all earth works that have occurred during construction and changes during operations. This will be submitted by the end of 2025. The current and all subsequent ESCP's will be used (EcOz, 2019d; EcOz 2021; EcOz, 2022d, Topo, 2023; WRM, 2023) • 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) • Environmental Assessment Guidelines on Acid and Metalliferous Drainage (NT EPA, 2013) • Preventing Acid and Metalliferous Drainage – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade 2016a)	The Grants WRD and AMD Management Plan 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.
Airborne Contaminants, Noise and Vibration – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade, 2009)	Grants Dust Management Plan (Appendix G) has been developed in consideration of applicable standards and guidelines.	• Over the life of the project including closure / rehabilitation. • Requirements during care and maintenance periods to be assessed as needed.

Requirement	Relevant Information	When
• Water Stewardship – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade 2016c) Water Accounting Framework for the Australian Minerals Industry (Minerals Council of Australia, 2014).	Grants Water Management Plan (Appendix C) 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 are 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) • Mine Closure – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade 2016) • Mine Closure Plan Guidance - How to prepare a mine closure plan in accordance with Part 1 of the Statutory guidelines for mine closure plans (the guidelines) (DMIRS 2020). • Integrated Mine Closure, Good Practice Guide, 2ND Edition. International Council on Mining and Metals (ICMM 2019).	**Update** Grants Mine Closure Plan has been updated in accordance with best practice guidelines and align with changes onsite.	• During mine closure planning and progressive rehabilitation during operational phases. • During periods of care and maintenance were required.

Requirement	Relevant Information	When
Fines Management – Leading Practice Sustainable Development Program for the Mining Industry (Department of Foreign Affairs and Trade 2016b)	**Update** The FSF OMS has been updated in accordance with best practice guidelines.	Protection of surface water and groundwater quality values

6 Operational Activities

6.1 Mine Infrastructure Area

Update

Infrastructure within the Grants development footprint has been broken down into four zones which are detailed in Table 6-1and shown in Figure 6-1. The current mine site layout is identified in Table 6-2.

Table 6-1 Grants infrastructure zones

Zone	Infrastructure Details	Zone	Infrastructure Details	Zone	Infrastructure Details	Zone	Infrastructure Details
A	Mine Operations / Services Area • Administration / operations buildings / carparking • WWTP and irrigation area • Potable water treatment system and tanks • Firewater tanks • Internal access roads / Cox Peninsula Road intersection • Monitoring bores • Security fence / fire break • Raw Water Dam • Sediment Basins • Communications Tower	B	Processing Infrastructure • Crushing plant • Processing plant • Mine Water Dam 2 • Processing stores / laydown • Truck loop and wheel wash	C	Mining Infrastructure • Flood Inundation Bund • Mine Water Dam 1 • Internal access / haul roads • Topsoil stockpile. • Integrated FSF / WRD • Open cut pit • ROM / Skyway • Irrigation area(s) • Go line Operations / Maintenance Infrastructure • LV / HV Maintenance Workshop and go- line. • Vehicle wash bay. • Diesel storage and refueling facility.	D	Raw Water Pipeline and OHD • OHD to Grants raw water pipe corridor. • Observation Hill Dam • Communications Tower

Zone	Infrastructure Details	Zone	Infrastructure Details	Zone	Infrastructure Details	Zone	Infrastructure Details
					• Equipment laydown areas		

Table 6-2 Grants mine infrastructure zones

Title	Infrastructure	Total No. Structures	Development Details	
			Sequence	Details
Zone A – Mine Operations / Services Area				
ML31726	• Site administration / operations buildings and carparking	Multiple	Primary / secondary construction	• One permanent steel frame and concrete slab-on-grade building. • Multiple additional demountable structures supported by concrete footings with structural tie-down elements.
	• WWTP / irrigation area	3	Secondary construction	• WWTP installed and operational. Class A water irrigated via dedicated adjacent irrigation fields.
	• Potable water treatment plant and fire water tanks	5	Secondary construction	• Containerised UF water treatment unit and fire water tanks.
	• Internal access roads / intersection	Multiple	Primary construction	• Roads of varying width, used to access infrastructure within Zone A and B and LV/HV workshop and fuel farm in Zone C.
	• Monitoring bores	8	Pre-construction	• Eight single and nested groundwater bores constructed and used for monitoring purposes only. • Two bores have been removed due to location within the WRD footprint and pit.
	• Security fence / firebreak	1	Secondary construction	• Comprises 2 m stock and sections of high security fencing near the site entrance. Located within a 10 m fire break corridor.
	• Raw water dam	1	Secondary construction	• Details provided in Table 5.13

Title	Infrastructure	Total No. Structures	Development Details	
			Sequence	Details
	• Grants' communications tower / weather station	1	Secondary construction	• Site communication tower link to OHD tower.
	• Sediment Basins	5	Primary construction	**Update** • Sediment basins have been sized for the site disturbance footprint catchments • SB1A (previously SB1, prior to be moved to make way for the pit expansion) has been converted to a Type B High Efficiency Sediment basin. The designs were incorporated into he memorandum by Topo (2023) and the pre-2023-24 wet season ESCP (WRM 2023) • SB2, SB3, SB4 and SB5A (previously SB5) are currently and will remain as Type D basins
	• Flood inundation bund	1	Primary construction	• Provides 0.4m freeboard in a 1% AEP (1:100)
Zone B – Processing Area				
ML31726	• Crushing plant • Crushing laydown area	Multiple structures	Secondary construction	• ROM pad will receive ore from underground operations prior to haulage to Grants processing.
	• Processing plant / Stockpile pads and truck loop • Power generation • Processing stores / laydown	Multiple structures	Secondary construction	• DMS processing plant and associated infrastructure for power generation, maintenance, material stockpiling and loadout. • Includes warehouse / stores building and workshop for processing areas.
	• Mine Water Dam 2	1	Secondary construction	• Details provided in Table 5.13
Zone C – Mining Area				

Title	Infrastructure	Total No. Structures	Development Details	
			Sequence	Details
ML31726	• LV / HV maintenance workshop / offices • Tyre Change Area • Vehicle Wash Bay • Equipment lay downs	Multiple Temporary Structures	Primary / secondary construction	• Various structures comprising either a portal frame and sheeted construction or freestanding prefabricated shelters. • Wash bay bunded reinforced concrete with silt and oily water separation / collection systems.
	• Diesel Storage / refueling facility and go line.	1	Secondary Construction	• 3 x 70 kL bulk fuel tanks • All tanks internally bunded with bunded concrete refueling areas with capture drains and sumps.
	• Integrated Waste Rock Dump/ FSF	2	Secondary Construction	• Details provided in Section 5.3 and Section 0
	• Mine Water Dam 1 (Cell 1, Cell 2, Cell 3) and MWD1 laydown.	3	Primary Construction	• MWD1 details provided in Table 5.13 • MWD1 laydown was the former location of MWD1 Cell 2 which was relocated for geotechnical reasons.
	• Internal haul roads	Multiple	Primary Construction	• n/a
	• Topsoil stockpile	1	Primary construction	**Update** • Topsoil stockpile will be progressively used for progressive rehabilitation as per the updated Mine Closure Plan (LDGNT, 2025a).
	• Open cut pit	1	Secondary construction	• Details provided in Table 5.7.
	• Irrigation Area	1	As required	• Footprint dependent on volumes requiring irrigation. • Areas identified in the Irrigation Management Plan.
	• ROM	1	Secondary construction	• ROM will receive ore from Grants open cut and later from BP33 underground once operational.
	• Explosives magazine / communication tower	1	Secondary construction	• Two magazine storage areas for separate storage of explosive materials and detonators.

Title	Infrastructure	Total No. Structures	Development Details	
			Sequence	Details
Zone D – Water pipeline and OHD				
ML31726 ML32074	• OHD to Grants raw water corridor	1	Primary Construction	• Comprises existing access track and adjacent raw water pipe easement.
ML32074	• Observation Hill Dam	1	Existing	• Existing dam.
	• OHD Borrow Area	1	Existing	• Existing quarry / borrow area with stockpiled crushed rock / fines
ML32346	• OHD communications tower	1		• Main communications tower link to Darwin. Services Grants and later BP33 operations.

Figure 6-1 Grants infrastructure zones

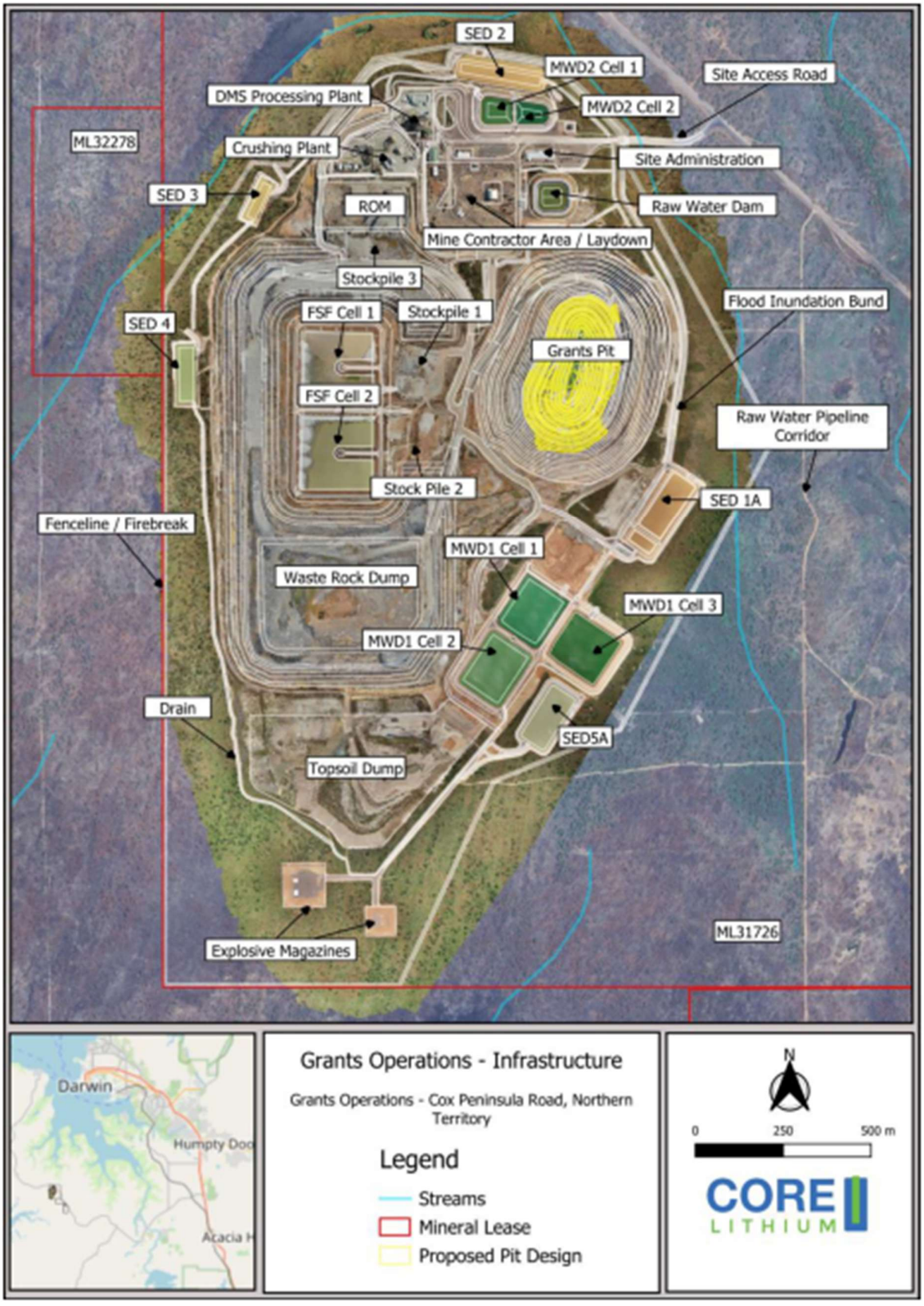


Figure 6-2 Grants current (2025) infrastructure and layout (**Update**)

Table 6-3 Mine infrastructure area risk, controls and management

Step	Phase	Sequence	Performance and monitoring	Risks, controls and management
Update 2	Clearing	1 ESCP developed. 2 Area surveyed and pre-clearance survey completed. 3 Machinery and fuel supplies for clearing mobilised to site and inspected (mechanical and weed hygiene). 4 Clearing ESC measures implemented / constructed. 5 Internal clearing / Ground Disturbance Permits obtained Clearing phase ESC implemented. 6 Clearing undertaken with fauna spotter as required.	• Clearing within approved boundaries • Clearing does not exceed approved 254 ha. • Adherence to ESCP • Downstream waterways not impacted by sedimentation (quality within applicable trigger values) • Dust generation within applicable limits as per Dust Management Plan.	• Refer to project risk assessment provided in Section 6
	Construction	1 Development of IFC designs 2 Plant and equipment inspection checks completed on all mobilised construction machinery. 3 Mobilise construction equipment supplies to site. 4 Strip and stockpile topsoil. 5 Construction of required infrastructure. 6 Engineer sign-off on construction as per IFC	• Dams meet ANCOLD design criteria. • Certification of design and construction by ICE as required. • Conformance to design and geotechnical criteria. • Monitoring undertaken in accordance with applicable management plans and manuals. • Water within the dam during construction is managed in accordance with the WMP. • Adherence to ESCP • Downstream waterways not impacted by sedimentation (quality within applicable trigger values) • No new introduced or spread of existing weeds • Dust generation within applicable limits as per Dust Management Plan.	

Step	Phase	Sequence	Performance and monitoring	Risks, controls and management
3	Commissioning / Operations	1. Commissioning of facilities and infrastructure 2. Operation of facilities including surveillance and maintenance 3. Monitoring as per applicable plans and procedures	• Engineering sign-off that the dam has been constructed installed as per IFC and ANCOLD standards. • No seepage from dam walls observed. • Water volumes managed in accordance with the WMP and or WDL with no uncontrolled discharge occurring. • Surface water and groundwater water quality is monitored in accordance with the WMP and meets applicable trigger values or performance criteria for appropriate management. Building occupancy permits obtained.	
3.1	Care and Maintenance	1. Notification of care and maintenance status 2. Development of a care and maintenance plan 3. Determine personnel skills and numbers required to appropriately manage site. 4. Implement care and maintenance plan	• Adherence to Care and Maintenance Plan	

Table 6-4 Mine infrastructure area risk, controls and management

Zone	Performance Summary
A, B, C, D	A summary of performance against environmental risks detailed in Table 5.3 is provided in the 2024 Grants Annual Environmental Mining Report

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)
	• Mine infrastructure area designed by suitably qualified engineers. • Building and ancillary infrastructure including sewage and potable water plants have been designed and installed by suitably qualitied engineers and certified trades.		
2	Will detailed designs be prepared and reviewed by an independent expert?	Yes ☐ (Go to Q3)	No ☒ (Explain why below)
	• Mine area infrastructure designed by suitably qualified engineers.		
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)
	• Mine area infrastructure designed by suitably qualified engineers.		

Table 6-6 Mine infrastructure area – closure

Closure	Objective	References
Update Phase 5 Unplanned	Temporary Suspension • Maintained as safe, stable and non-polluting. Unforeseen Closure • Rehabilitated as safe, stable, non-polluting and erosion resistant landform.	• Grants Mine Closure Plan (EcOz, 2022b) • Grants updated Mine Closure Plan (LDGNT, 2025a) which will incorporate Grants

Closure	Objective	References
Phase 5 Planned	• Rehabilitated as a geotechnically stable, non- polluting and erosion resistant landform. • Rehabilitated landform 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.	Rehabilitation Strategy (MineEarth, 2023) • Grants Care and Maintenance Plan (LDGNT, 2024b)

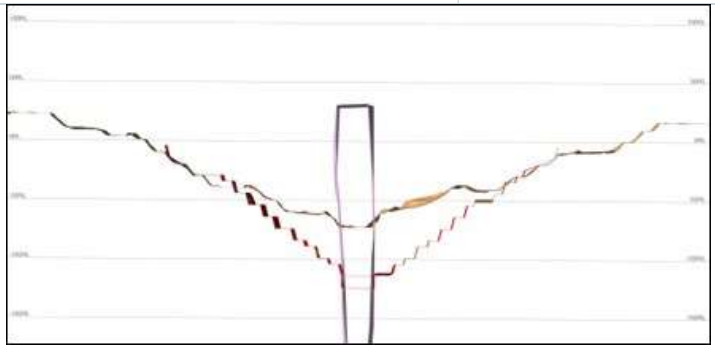
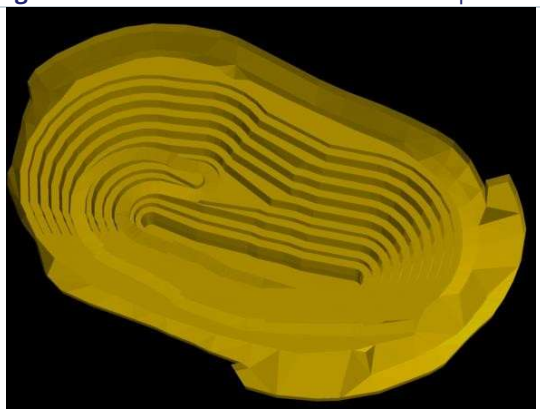
6.2 Pits and extractives

Update

Details of the Grants open pit are provided in Table 5.7 below. Updates to the Grants Open Cut Pit design showing cross section (NE), pit shell and proposed mining area within the existing pit shell has been provided in Figure 6-3, Figure 6-4, Figure 6-5 respectively. Table 6-7 Grants pit summary shows the current depth of the Pit, 100m BG and proposed depth of 145m BG.

Table 6-7 Grants pit summary

Item	Pertinent information			
No. of Pit Operations	• One: Grants open cut pit			
Open Pit or Extractive	• Open pit			
Titles	• ML31726			
Target Commodity	• Spodumene (lithium bearing ore)			
LOM Year of Construction	• 2022 (Commenced)			
Pit Dimensions **Update**	Previously Planned (AR89 [2019]; Draft EIS [2018]; Supplement approval [2019])	Length: 600 m	Width: 405 m	Depth: 200 mBG (-175m RL)

Item	Pertinent information			
	Current dimensions (as mined to 2024)	Length: 660 m	Width: 520 m	Depth: 100 mBG (-75m RL)
	Upcoming design (to be mined 2026)	Length: 660 m	Width: 520 m	Depth: 145 mBG (-120m RL)
Pit Design **New**	 **Figure 6-3** Revised cross section of Grants open cut pit (LDGNT, 2025c)			
	 **Figure 6-4** Revised Grants open cut pit shell design (LDGNT, 2025c)		 **Figure 6-5** Revised Grants open cut pit design (red) within existing pit shell (LDGNT, 2025c)	
Pit Ore / Waste Volume Update	Clarification of the Grants Open Cut Pit ore/ waste volumes have been provided in the following table. The table shows volumes from the last approved MMP (EcOz, 2022a), current volumes since mining ceased in 2024 and estimated (proposed) volumes of waste and ore generation (LDGNT, 2025c).			

<table>
<tr><th>Item</th><th colspan="5">Pertinent information</th></tr>
<tr><td></td><td colspan="5">
<table>
<tr><th>Material</th><th>Previous Volume Estimate (BCM; 2022 MRE)</th><th>Volume Current (BCM; Operations 2022-24)</th><th>Volume Proposed (BCM)</th></tr>
<tr><td>Waste</td><td>13,887,008</td><td>10,688,651</td><td>2,011,450</td></tr>
<tr><td>Ore</td><td>782,978</td><td>301,067</td><td>289,158</td></tr>
<tr><td>Total</td><td>14.7M BCM</td><td>11M BCM</td><td>2.3M BCM</td></tr>
</table>
</td></tr>
<tr><td rowspan="4">Wastes encountered</td><td colspan="2">Surface Zone</td><td colspan="3">Soil / Laterite
Thin soil or laterite. Complete destruction and alteration of primary mineralogy and textures. Variable distribution geographically. Usually red/brown in colour.</td></tr>
<tr><td colspan="2">Weathered (Oxide) Zone</td><td colspan="3">Phyllite
• Almost complete destruction of primary mineralogy and textures. Dominated by fine clay and altered mica. Usually orange/brown in colour
Pegmatite
Complete destruction and alteration of primary mineralogy and textures. Dominated by white clay and quartz fragments. Generally soft or rarely silcrete.</td></tr>
<tr><td colspan="2">Transitional Zone</td><td colspan="3">Phyllite
Original mineralogy and textures identifiable with minor iron staining present. Light grey to brown in colour.</td></tr>
<tr><td colspan="2">Fresh Zone</td><td colspan="3">Phyllite
Fine grain, dark grey, thinly laminated siltstones and minor fine sandstone metamorphosed to phyllite. Very finely micaceous with zones of abundant fine garnets.</td></tr>
<tr><td rowspan="6">Pit wall competency</td><td>Rock Type</td><td>Rock mass domain</td><td>RQD (%)</td><td>Strength</td><td>Weathering state</td></tr>
<tr><td rowspan="3">Phyllite</td><td>Py-W (S)</td><td>-</td><td><R0 to R1</td><td>Weathered</td></tr>
<tr><td>Py-T (SR)</td><td>-</td><td>R1 to R3</td><td>Transitional phyllite (partial oxide)</td></tr>
<tr><td>Py-Fr</td><td>80-100</td><td>R5</td><td>Fresh phyllite beneath the transitional zone</td></tr>
<tr><td rowspan="2">Pegmatite</td><td>Pg-W (S)</td><td>-</td><td><R0 to R1</td><td>Weathered</td></tr>
<tr><td>Pg-T (SR)</td><td>-</td><td>-</td><td>Transitional pegmatite</td></tr>
</table>

<table>
<tr><th>Item</th><th colspan="5">Pertinent information</th></tr>
<tr><td></td><td></td><td>Pg-Fr</td><td>90-100</td><td>R5</td><td>Fresh pegmatite below the transitional zone</td></tr>
<tr><td></td><td colspan="2">References</td><td colspan="3">• Geotechnical slope design recommendations (SRK Consulting, 2018)
• Geotechnical Report. Site Visit July 2022 (SMEC, 2022)
Grants Open Pit Foliation Assessment and Fresh Rock Design Review (PSM, 2023)</td></tr>
<tr><td></td><td colspan="2"></td><td colspan="3">The following have been implemented:
• Installation of a radar prism system to monitor wall stability and movement,
• Daily assessment of crack progression and other geotechnical aspects with appropriate measures undertaken in accordance with the Geotechnical Safety TARP,
• Installation of multiple horizontal depressurisation bores to release porewater pressures,
• Regular review of pit stability and mitigation measures by expert consultants; and
Modification of mine design to improve slope stability and achieve an appropriate FoS (see below).</td></tr>
<tr><td>Benches/ Berms</td><td colspan="2">Proposed Slope Design</td><td colspan="3">Update
Geotechnical consultants PSM (2023) undertook review of the Grants open pit, assessing slope stability and providing updated slope design recommendations (see table below). These parameters have been adopted for the proposed design revision of the Pit (LDGNT, 2025b).
<table>
<tr><th>Phase</th><th>Location</th><th>Rock Mass Unit</th><th>Batter Face Angle (°)</th><th>Berm Width (m)</th><th>Bench Height (m)</th><th>Inter-ramp angle (°)</th></tr>
<tr><td rowspan="3">Short Term</td><td rowspan="2">Upper Slope</td><td>Upper Weathered</td><td rowspan="2">40</td><td rowspan="5">8</td><td rowspan="5">10</td><td rowspan="2">26.7</td></tr>
<tr><td>Transitional</td></tr>
<tr><td>Lower Slope</td><td>Fresh</td><td>75</td><td>52.5</td></tr>
<tr><td rowspan="3">Long Term</td><td rowspan="2">Upper Slope</td><td>Upper Weathered</td><td rowspan="2">35</td><td rowspan="2">26.7</td></tr>
<tr><td>Transitional</td></tr>
<tr><td>Lower Slope</td><td>Fresh</td><td>70</td><td>52.5</td></tr>
<tr><td colspan="2"></td><td>Blasted Ground</td><td>60</td><td colspan="3"></td></tr>
</table></td></tr>
<tr><td></td><td colspan="2">Factor of Safety (FoS)</td><td colspan="3">• Upper slope (oxide) FoS: 1.3
Lower slope (fresh) SRF: 1.3 - 1.5 (SRF - Strength Reduction Factor is broadly comparable to FoS)</td></tr>
</table>

Item	Pertinent information	
	References	Grants Open Pit Foliation Assessment and Fresh Rock Design Review (PSM, 2023)
Dewatering/ pit stabilisation	Standing Water Level (SWL)	**Update** • Full capacity 10,174 ML • Spill level 17m AHD • Wet Season: 0.63 to 2.05 m BG (in- pit sump) Dry Season: 12.15 m BG
	Primary Aquifer	Burrel Creek Formation
	Dewatering Bores	In-pit dewatering will occur via an in-pit sump Horizontal depressurisation bores have been drilled into the pit walls to alleviate pore pressure that was impacting geotechnical slope performance. Water passively seeping from the bores is collected in the in-pit sump prior to dewatering to MWD1.
	Extraction Rate	**Update** • Existing groundwater inflows to the Grants Pit have been updated with modelling by Artesium (2025). • During the Life of Mine of the Pit, ground water inflows are expected to be 33ML/ month (Stages 1a, 1b Stage 2 of the Water Management System; WRM, 2025b). • Under a high groundwater sicario, 90ML/ month of groundwater inflows are predicted (Stages 1a, 1b Stage 2 of the Water Management System; WRM, 2025b) • Water is captured in an in- pit sump and pumped to MWD1 A groundwater extraction licence will be obtained
	Groundwater Drawdown	**Update** • The existing numerical groundwater model by CloudGMS (2018) has been calibrated with long term continuously logged ground water levels, Pit dewatering rates and sampled water quality. • Long-term monitoring shows hydraulic disconnection (horizontal) between the Grants Pit and shallow, intermediate, and deep aquifers. Similarly, the depth-dependent hydraulic conductivity (vertical), shows reduced permeability at greater depths due to fracture closure from lithostatic stress. • The Pit acts as a hydraulic sink with water levels stabilising and drawdown rates declining toward a 'pseudo-steady state'. Intermediate bores (150m) recorded maximum drawdown of 5.27m, though levels have since risen slightly, while shallow bores (~10m) show minor change with

Item	Pertinent information	
		0.01m drawdown. • Hydrogeological evidence indicates that the zone of influence mostly stays within the ML boundary. Less likely scenarios, using sensitive model parameters affecting specific storage, and vertical hydraulic conductivity, show a larger impact zone extending beyond the ML (Artesium, 2025), however this is unlikely. The zone of influence models deep aquifer responses and can sometimes overestimate shallow impacts though this model shows actual influence to shallow aquifers which is expected to be limited.
	Water Management Requirements	• Water management is undertaken in accordance with the WMP. MAW is dewatered into MWD1 via in-pit sumps where it can be used for dust suppression and as top up water for processing activities via transfer to MWD2.
	References	• Grants Operational Water Management Plan (WRM, 2025a) • Grants Water Balance (WRM, 2025b) • Groundwater Model Update (Artesium, 2025) • Development of a Groundwater Model for the Grants Lithium Project (CloudGMS, 2018). Grants Lithium Project Groundwater Model Addendum Report (CloudGMS, 2019).
Flood immunity (ARI)	1:10 and 1:100	• Flood modelling assessed 10% AEP (1:10) and 1% AEP (1:100) design flood events showed that with construction of the inundation bund, site infrastructure would remain largely unaffected with no flooding of the pit occurring. Site drainage infrastructure generally has sufficient capacity to cater the design flow under 10% AEP (1:10) design event with stormwater runoff within the Grants operational area conveyed within windrows and sediment drains to sediment dams. Minor bunding around drains and sediment dams to direct stormwater away from operational areas such as the open cut have been installed or modified on an as needed basis in response to operational conditions.
	References	• Grants Surface Water Infrastructure Assessment (SWIA) report (WRM, 2022) Grants Operational Water Management Plan (WRM, 2025a)
Pit development method	Rationale	**Update** • Conventional open pit methods (truck and shovel and drill and blast). • The pit was initially developed in two stages to provide early access to transitional and fresh pegmatite: • 2022- 24: Excavation a primary internal pit maximum depth of about 100m BG (-75m RL)

Item	Pertinent information	
		2026 (10 months) Excavation of the final pit shell with a depth of 145m BG (-125m RL). The reason for the change in Pit depth is due to the change in overall Pit design. The new design aligns with recent expert advice and recommendations for pit stability. Further detail of rational of this Pit design is provided in the following table (Table 5.8).

Table 6-8 Pits and extractives design rationale

Aspect		Details	References
Reasons for choosing this location (complete all that apply)	Statutory	• Located with the mining lease.	• NR Maps (2024)
	Flora	• No significant or sensitive flora within disturbance area.	• Grants Ecology Report (EcOz, 2017)
	Fauna	• No impact to threatened fauna within disturbance area.	
	Sacred Sites	• No sacred sites within disturbance area.	• AAPA Certificate (C2022-049) • Grants 2022 MMP (EcOz, 2022a)
	Heritage	• No heritage sites within disturbance area.	
	Water	• Pit location has been defined in relation to the strike of the pegmatite ore body. To manage potential water / flood impacts, the Flood Inundation Bund has been • Modelling indicates the pit is not impacted by 10% (1:10) or 1% AEP (1:100) flood events.	• Grants Operational Water Management Plan (WRM, 2024a) • Grants Surface Water Infrastructure Report (WRM 2022)

Aspect		Details	References
Reasons for choosing this design (design basis)	Geotechnical/ engineering	Update • The previous pit design was modified to maintain an appropriate FoS due to observed instability of weathered phyllite rock in the oxide zone. Minor slumping and toppling failures have been observed during mining. • The exact cause uncertain due to the complex nature of the weathered phyllite, its low strength and geological structures. Though it is expected the strong vertical foliation and low shear-strength of material combined with groundwater and porewater pressures have been highlighted as possible contributing factors to instability within the oxide zone (SMEC, 2022). The pit size has ultimately expanded from the design dimensions originally determined in response to ongoing geotechnical assessments and advice from specialised consultants requiring slope angles to be reduced in the fresh, transitional, and weathered rock to improve wall competency (PSM, 2023). • Slope angles are less than originally proposed resulting in expansion of the footprint to the design dimensions provided in Table 5.7. • Expansion of the pit is still contained within the Grants mining footprint but has required relocation of infrastructure including Cell 2 of MWD1, Sediment Basin 1A and adjustment to internal haul road alignments. • Routine assessments, inspection and monitoring are undertaken to mitigate geotechnical issues, in accordance with the Ground Control Management Plan (GCMP).	• Geotechnical slope design recommendations (SRK Consulting, 2018) • Geotechnical Report. Site Visit July 2022 (SMEC, 2022) • Grants Open Pit Foliation Assessment and Fresh Rock Design Review (PSM, 2023) • Grants Ground Control Management Plan (LDGNT, 2023).

Aspect		Details	References

		• The following has been implemented to mitigate:
		  • Installation of a radar prism system to monitor wall stability and movement.
		  • Daily assessment of crack progression and other geotechnical aspects with appropriate measures undertaken in accordance with the Geotechnical Safety TARP.
		  • Installation of multiple horizontal depressurisation bores to release porewater pressures.
		  • Regular review of pit stability and mitigation measures by expert consultants; and
		  • Modification of mine design to improve slope stability and achieve an appropriate FoS (see below).
		• The above measures have been recommended by SMEC (2022) with some more recently superseded by PSM (2023). These measures are considered and implemented in the Ground Control Plan (GCMP) and Geotechnical Safety TARP.
			•

	Waste / Water Management	• Dewatering of open cut undertaken from temporary in-pit sumps to MWD1 via a single welded HDPE pipe and trailer mounted pump capable of 200 L/s. • Dewatering infrastructure has been designed to manage modelled groundwater inflows plus additional capacity during wet season conditions.	• Grants Operational Water Management Plan (WRM, 2025a)
Regulatory	Existing Authorisation	• The existing DML (1021-01, Variation 3) does not provide specific conditions relating to mine design.	
	NT EPA	• The proposal has been subject to assessment under the Environmental Assessment Act (EA Act) at the level of an Environmental Impact Statement (EIS). Assessment was completed on 17 June 2019 with several recommendations included in the NT EPA Assessment Report 89 (NT EPA 2019).	
	EPBC Act	• Assessment of EPBC matters was undertaken during the EIS. Referral under the Act was not determined to be required.	
	Water Act	**Update** • A groundwater extraction licence is required for dewatering of Grants pit and will be applied for following this submission.	
	References	• MMA DML 1021-01 Variation 3 (DITT, 2023). • NT EPA Assessment Report 89 (AR89; NT EPA, 2019).	

Table 6-9 Pits and extractives risks, controls and management

Step	Phase	Sequence	Performance and monitoring	Risks, Controls and Management
1	Clearing	• See Table 5.3 above.		
2	Construction	1. Development and approval of mine design. 2. Mobilise construction equipment supplies to site. 3. Implementation of ESC measures. 4. Strip and stockpile topsoil. 5. Excavation of oxide wastes and transport to the WRD using drill and blast techniques. 6. Review of pit performance in accordance with the GCMP and implement geotechnical controls where required. 7. Progressive review and update of mine design as required.	Update • Conformance to mine approval, design and geotechnical controls specified in the GCMP and by external geotechnical reviews. • Pit disturbance is within approved disturbance footprint (LDGNT, 2025c) • Water quality in the pit is managed in accordance with the WMP and meets applicable trigger values for appropriate management (WRM, 2025a) • Downstream waterways not impacted by sedimentation (quality within applicable trigger values; WDL248; WMP [WRM, 2025a]). • Adherence to ESCP (WRM, 2025c) • No new introduced or spread of existing weeds (Weed MP; Appendix F). • Dust generation within applicable limits as per Dust MP; Appendix G.	• Refer to the project risk assessment provided in Section 6.
3	Commissioning / operations	Update 1. Review of pit performance in accordance with the GCMP and implement geotechnical controls where required. 2. Progressive review and update of mine design as required. 3. Seek approval from the Department for change in mine design 4. Management of groundwater seepage or surface water into the pit. Dewatering to MWD1.	• Water quality is managed in accordance with the OWMP and meets applicable trigger values for appropriate management. • No excess surface water ingress to the pit. • Adherence to ESCP. • Dust generation within applicable limits as per Dust Management Plan.	

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 mine has been designed by suitably qualified mining engineers with specialised geotechnical guidance provided by consultants SRK (2018), SMEC (2022) and PSM (2023). • The Grants Pit original design was completed by TME Mine Consulting.		
2	Will detailed designs be prepared and reviewed by an independent expert?	Yes ☒ (Go to Q3)	No ☐ (Explain why below)
	Update • Designs and in-pit inspections have been undertaken by specialist geotechnical consultants with the mine design developed based on expert opinion. • The new pit designs incorporate assessments, findings and recommendations by external consultants		
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)
	• n/a. geotechnical management of the pit undertaken in accordance with the Ground Control Management Plan (LDGNT, 2023)		

Table 6-11 Pits and extractive – summary of environmental performance

Performance Summary
New This section discusses the variations in mine design of the open cut pit. Since the initial approved mine design (draft EIS, EIS supplement, 2020 MMP, 2022 MMP), there have been several variations submitted to the DLPE (the Department) with regards to an increase in disturbance footprint and allocation of disturbance area. This section provides guidance of some of the changes since the submission of the Draft EIS and a timeline of events, which is as follows: 1. The supplement to the EIS submitted to the NT EPA on the 22nd of March 2019 and included a revised pit design which increased the surface area disturbance by 6.7 ha to 24.3 ha, and the design depth of the pit by 20m to 200m below ground level. The change in the physical dimension of the open pit had a corresponding impact to the general site footprint with increased waste rock volumes and waste rock dump, increased topsoil and topsoil storage requirements, and modifications to the inundation bund. 2. DML (previously Authorisation) 1021-01 was issued on the 1st of April 2020 with no changes proposed for the open pit dimensions. The DML included conditions relating to the provision of design information and management plans prior to the commencement of activities on site. Variation 1 of Authorisation 1021-01 was received on the 1st of August 2021 with stage one of mine development

commencing soon after.

3. An updated MMP was submitted to the Department on the 2nd of September 2022. This document included some proposed changes to the general site layout, but no changes to the open pit dimensions.
4. An updated MMP was submitted to the Department on the 28th of April 2023. This submission included detail of a redesign of the open pit which increased the surface area disturbance by 2.8 ha to 27.1 ha. The redesign was required to allow for modification of wall degree angles due to observed instability of weathered pit walls. Independent geotechnical assessment of the performance of the weathered phyllite in the previous design resulted in a recommendation to relax the bench angles of the current pit design with a corresponding increase in the extent of disturbance. Additional advice on the redesigned pit extension indicated that Sediment Basin 1 (now 1A) and Mine Water Dam Cell 2 be relocated due to their proximity to the pit crest and potential to provide an ongoing wall stability issue when holding water (SMEC, 2022).
5. An amendment to the April MMP submission was provided to the Department on the 7th of July 2023 detailing changes to the water management structures in the vicinity of the pit crest as a result of geotechnical advice. This submission did not include any further proposed changes to the surface area disturbance of the open pit.
6. Department review of the MMP (April 2023) identified that a revised MMP submission was required to incorporate the detail provided in the July letter amendment submission and respond to information requests arising from the review. The revised MMP was submitted to the Department on the 5th of October 2023. Review of this submission by the Department resulted in further additional information requests received on the 25th of October. Review of these submissions was not finalised.
7. On the 31st of May 2024 an updated MMP was submitted to the DLPE which included comprehensive review of site disturbance, consideration of periods of Care & Maintenance, and proposed amendments to site general arrangement and infrastructure. This submission included detail of a redesign of the open pit which increased the surface area disturbance by a further 4.61 ha to 31.71 ha.

A summary has been provided in the following table.

Submission	Disturbance area (ha)	Approval status
Supplementary Environmental Report	24.3	Approved
2023 MMP (April 23)	27.1	Review did not finalize, replaced by October 23 submission.
2023 MMP (October 23)	27.1	Review did not finalize, replaced by May 24 submission.
2024 MMP	31.71	Review, comments provided
2025 MMP	31.71	Includes DLPE comments

Table 6-12 Pits and extractive – closure

Closure	Objective	References
Unplanned	Temporary Suspension • Maintained as safe, stable and non-polluting. Unforeseen Closure • Pit void is safe and stable.	• Grants Mine Closure Plan (LDGNT, 2025a) • Grants Rehabilitation Strategy (MineEarth, 2023) • Grants Care and Maintenance Plan (LDGNT, 2024b)
Planned	• Pit void is safe and stable. • Beneficial uses are not adversely affected by altered groundwater levels or flows. • Pit lake water quality will not present an unacceptable risk to ecosystems or humans.	

6.3 Dams and Fines Storage Facility (FSF)

The following tables summarises onsite dams and Fines Storage Facility (FSF) and includes water storages constructed under DML 1021-01, Variation 3.

Table 6-13 Dams summary

Aspect		Mine Water Dam 1 (MWD1)	Mine Water Dam 2 (MWD2)	Raw Water Dam (RWD)	Observation Hill Dam (OHD
No of Cells		3	2	1	1
Titles		ML31726	ML31726	ML31726	ML32074
Footprint (ha)	Existing	11.97	2.38	1.83	0
	Proposed	0	0	0	19
	Total	11.97	2.38	1.83	19
Maximum Storage Volume (ML)		231.1	69.5	26.2	345.3

Aspect	Mine Water Dam 1 (MWD1)	Mine Water Dam 2 (MWD2)	Raw Water Dam (RWD)	Observation Hill Dam (OHD
Waste Characteristics	• MAW dewatered from the Grants open pit. • MAW transferred from MWD2 or FSF.	• MAW decanted from the FSF. • MAW transferred from MWD1. • Raw water from Sed 2 used as top up water for processing activities.	• Raw water transferred from OHD.	• Existing valley impoundment, raw surface water storage
LOM Year of Construction	• 2022/2023	• 2023	• 2022	• Existing structure
Ancillary Structures	• Permanent standpipe. • Syphon bank with flow meters and control valves for release of water under WDL 248. • Overtopped embankment broad-crested weir emergency spillway.	• Overtopped embankment broad-crested weir emergency spillway.	• Overtopped embankment broad- crested weir emergency spillway. • Concrete under liner drainage sumps • Livestock fencing with gate access	• Overtopped embankment broad-crested weir emergency spillway. • Pump and pipe infrastructure including floating intake for transfer of water to Grants Operations

Table 6-14 FSF summary

Aspect		Integrated FSF
No of Cells		2 (Cell 1 - North, Cell 2 - South)
Titles		ML31726
Footprint (ha) Update	Existing	12.86
	Proposed	0
	Total	12.86

Aspect	Integrated FSF
Characteristics / Volume of Waste Stored	**Update** • The TSF has been sized to store approximately 580,000 tonnes of processing fines, with additional contingency for approximately 63,000 tonnes. • The thickened slimes generated are classified as silt/ sand material that is -45µm in size. This material will be deposited directly into the existing FSF from the tailing's thickener where small quantities of flocculant and coagulant are added (Figure 2-2). • Geochemical characterisation of fresh pegmatite ore indicates the tailings material have low AMD potential. Review of operational water quality data indicates elevated levels of TP above background surface water values in decant water.
Beneficial Reuse	**Update** Water • Decant water from the FSF is transferred back to MWD2 for reuse in the processing plant.
	Fines Material • Fines material has a commercially viable Li content of approximately 1 - 1.48%. • The existing material located in the FSF may be reclaimed and reprocessed if is of a suitable grade. The installation of the new gravity circuit introduces a more efficient approach to waste management by lowering tailings waste by 67%. The gravity circuit segregates waste materials based on particle size whereby coarser waste particles are separated and stockpiled whilst finer fractions are processed further with thickener and disposed of as thickened slimes into the FSF. The coarser gravity rejects will be dry stacked (Stockpile 3; Figure 5-2).
LOM Construction Year	2022 / 2023
Ancillary Structures	• Overtopped embankment broad-crested weir spillway • HDPE slurry pipeline transporting fines from the processing plant to the FSF. • HDPE slurry perimeter loop with spigots to allow subaerial deposition around the perimeter of the FSF cell to enhance drying time, density and strength of deposited fines. Only one cell will be used at any one time. • Decant water return structures centrally located in each cell with underling drains to facilitate drainage of water and consolidation of fines. Decant water is returned via a dedicated HDPE pipe to MWD2 for reuse in the processing plant.

Table 6-15 Dams and TSF design rationale

Statutory / Other Considerations	Condition Requirement	Details	References
ANCOLD Guidelines • ANCOLD, 2000. Guidelines on Selection of Acceptable Flood Capacity for Dams. • ANCOLD, 2003. Guidelines on Dam Safety Management. • ANCOLD, 2003. Guidelines on Risk Assessment. • ANCOLD, 2012. Guidelines on the Consequence Categories for Dams. • ANCOLD, 2019. Guidelines on Tailings Dams: Planning, design, construction, operation and closure. • ANCOLD, 2019. Guidelines for Design of Dams for Earthquake.	• Undertake consequence category assessments.	• Designed to meet ANCOLD Guidelines – assessment of consequence categories undertaken. • Undertaking geotechnical and geochemical assessments to support the basis of design (BOD). • BOD to suit topographic conditions and operational requirements	• Tailings Storage Facility and Water Dams Detailed Design (GHD 2021b) • Tailings Storage Facility Operations, Maintenance and Surveillance (OMS) manual (GHD 2021a)

Table 6-16 Dams design components

Design Item		Key Information			
		MWD1	MWD2	RWD	OHD
Key Design Considerations	Philosophy / Rationale	• Designed to suit topographic conditions and operational water demands. • Additional cells constructed for additional wet season management. • Receives water from open pit, provides storage	• Design to suit topographic conditions and operational. water demands. • Receives water from MWD1 and FSF as well as Sed 2 as	• Geomembrane and HDPE liner installed Footprint restricted by adjacent infrastructure. • The dam will provide make-up water for the processing circuit, potable and non-	• Existing dam constructed in the 1980s/90s. Used now for clean surface water storage.

Design Item		Key Information			
		MWD1	MWD2	RWD	OHD
		for FSF and MWD2 water.	contingency water make up.	potable supply to the mine facilities.	
	Flood Immunity	• Spillway design flood capacity 0.1% AEP (1:1,000)			
	Containment Method	• Off-stream above-ground turkey nest. • Low permeability in-situ material treated and compacted		• Off-stream above- ground turkey's nest. • 2.0 mm HDPE liner.	• Existing valley impoundment with proposed future lift.
	Project LOM	• Structures to remain for duration of mining and / or processing activities as required.			• Remain in situ.
Construction details	Perimeter length	• Cell 1: 744 m	• Cell 1: 418 m	• 490 m	• 1,800 m
		• Cell 2: 780 m	• Cell 2: 401 m		
		• Cell 3: 814 m	• n/a		
	Maximum height	• 6.5 m (RL 26.5)	• 5.5 m (RL 17.4)	• 5.5 m (RL 22.3)	• 9.7 m (RL 31)
	Crest width	• 6m			
	Embankment Geometry	• 2.5:1		• Upstream: 3:1 • Downstream: 2.5:1	• Upstream: 3:1 • Downstream: 4:1
	Construction materials	• Zone 1	• Low permeability earth fill core sourced from onsite excavation		
		• Zone 2	• n/a		
		• Zone 3	• Weathered earth and rockfill sourced from onsite excavation		
	Maximum height (m)	• 6.5 (RL 26.5)	• 5.5 (RL 17.4)	• 5.5 (RL 22.3)	• 9.7 (RL 31)
	Raise type/ total lifts	• n/a			
Key Design Parameters (ANCOLD, 2012)	Failure Consequence Category	• significant			• Low

Design Item		Key Information			
		MWD1	MWD2	RWD	OHD
	(ANCOLD, 2012)				
	Factor of Safety (FoS)	• Drained: 1.5 • Undrained: 1.3			
	Design Earthquake Loading (OBE / MDE)	• OBE: 8 • MDE: 28			• 1:475 AEP • PGA: 0.03g
	Buttressing Requirements	• Constructed dams have full perimeter embankments constructed out of homogenous, low permeability, fine-grained weathered material. • Rip-rap or other erosion protection treatments have been used on the upstream face where required. Downstream faces comprise a weathered rock fill layer with rip rap or other erosion protection treatments applied where required.			• N/a
	Spillway Level (mRL)	• RL 25.6	• RL 16.55	• RL 19.30	• RL 30
	Liner Details	• n/a		• Welded 2 mm HDPE liner	
	Storage Capacity (ANCOLD, 2012)	• 231.1 ML	• 69.5 ML	• 29.1 ML	• 345.3 ML
	Minimum Operating Level (MOL)	• 184.9 ML	• 55.7 ML	• 26.2 ML	• n/a
	Minimum Extreme Storm Storage Allowance	• 1% AEP (1:100) 72-hour flood event			• n/a
	Contingency freeboard	• 10% AEP (1:10) wave run-up			• n/a
	Performance	• Performance is in accordance with the Water Storage Facilities OMS Manual (GHD 2021a).			
Ancillary structures	Pipe Network	1. Single surface HDPE pipe from Grants Pit 2. Single buried HDPE pipe to	1. Single HDPE pipe to / from MWD1 2. Single partially buried HDPE	1. Single buried HDPE pipe from OHD. 2. Single buried HDPE pipe to	• Single buried HDPE pipe to Grants RWD

Design Item		Key Information			
		MWD1	MWD2	RWD	OHD
		/ from MWD1 • Single partially buried HDPE pipe to / from FSF	pipe from FSF 3. Single buried HDPE pipe to / from processing plant • Temporary surface pipe from Sed Basin 2	fire water and potable treatment plant. • Single buried HDPE pipe to processing / crushing plants.	
	Standpipe	• Permanent standpipe for mining / construction fleet.		• n/a	
	Haul Roads / Access Tracks	• Access via existing mining infrastructure or access tracks.			
	References	• Water Storage Facilities (WSF's) Operations, Maintenance and Surveillance (OMS) manual (GHD 2021a) • Tailings Storage Facility and Water Dams Detailed Design (GHD, 2021b) • Grants Operational Water Management Plan (WRM, 2025a)			

Table 6-17 FSF design components

Design Item		Key Information
		FSF
Key Design Considerations	Philosophy / Rationale	• Designed for the predicted storage requirements for processing fines. • Forms and integrated landform with WRD to maximise use of space. • Geomembrane liner required not required due to low AMD risk from processing fines.
	Flood Immunity	• Spillway design flood capacity 0.1% AEP (1:1,000)
	Containment Method	• Turkeys nest surrounded by WRD halo.
	Projected Annual Throughput	**Update** • Under steady rate and with Grants and BP33 operating; and the gravity circuit online, the throughput is 45,421 t/a or 6.1t/hr

Design Item		Key Information	
		FSF	
	Project LOM	• Structures to remain for duration of mining and / or processing activities as required.	
	Achievable Fines Storage Requirements	**Update** • 580,000 t / 415,000 m^3 • There is no change to the volume listed above. This provides sufficient storage for the life of processing, given there will be a reduction of waste reporting to the FSF once the gravity classifier circuit is online. • The current FSF storage is 68,702 m^3	
	Achievable Total Lifetime Fines Storage Capacity	• 528,000 m^3	
Tailings Properties	Fines Characteristics	**Update** • Geochemical classification: AMD and saline drainage potential is assessed as very low risk. • LDGNT are working with the Northern Territory Government on ways to reuse tailings waste under the *Process Legacy Project* (Powering Australia, 2025) which includes tailings characterisation. The project aims to reduce tailings mining waste and turn it into a useful and economical product. • Geotechnical classification: Silt / SAND (SM)	
	Process Water Quality	• Process water quality generally pH neutral with elevated turbidity. • Elevated concentrations of nutrients TN and TP as well as metals Al, Fe, K relative to background surface water quality. Process water quality is reflective the geochemistry of spodumene ore.	
	Assumed Achievable Dry Density	**Update** Settled dry density: 1.4 t/m^3. Testing is underway with the OMS Manual (GHD, 2021a) being conducted/ updated.	
Construction details	Perimeter Length	Cell 1: 1,000 m	Cell 2: 1,000 m
	Crest Width	7 m	
	Embankment Geometry	• Upstream: 3:1 Downstream: 2.5:1	
	Construction Materials	See Table 5.16 above.	
Key Design Parameters (ANCOLD, 2012)	Failure Consequence Category (ANCOLD 2012)	Significant	
	Factor of Safety (FoS)	• Drained: 1.5 • Undrained: 1.3	

Design Item		Key Information
		FSF
	Design Earthquake Loading (OBE / MDE)	• OBE: 7 • MDE: 24
	Buttressing Requirements	• See Table 5.16 above. The FSF is be encapsulated by the WRD with an approximate buffer between the toe of the downstream batter and WRD to accommodate a potential future lift if required.
	Spillway Level (mRL)	31.1
	Decant Tower	Central precast concrete towers with submersible pumps and subsurface drainage allow maximum enhancement of fines. Transfer of decant water to MWD2.
	Liner Details	Low permeability in-situ material has been treated and compacted. Tailings and decant water have low AMD risk with no additional liner treatments required.
	Fines Discharge Method	• HDPE slurry perimeter loop with spigots to allow subaerial deposition around the perimeter of the FSF cell to enhance drying time, density and strength of deposited fines. Only one cell will be used at any one time. Decant water return structures centrally located in each cell with underlying drains to facilitate drainage of water and consolidation of fines. Decant water is returned via a dedicated HDPE pipe to MWD2 for reuse in the processing plant.
	Storage Capacity / Allowance (ANCOLD, 2012)	• Cell 1: 178.1 ML Cell 2: 178.1 ML
	Minimum Wet Season Storage Allowance (MOL)	• Cell 1: 160.3 ML Cell 2: 160.3 ML
	Minimum Extreme Storm Storage Allowance	1% AEP (1:100) 72-hour flood event
	Contingency Freeboard	10% AEP (1:10) wave run-up
	Performance	**Update** Performance assessed in accordance with the FSF OMS Manual (GHD 2021a). The current OMS Manual is being updated to reflect changes in processing outputs to the FSF. This will be subsequently submitted to the Department for review
Ancillary structures	Pipe Network	1. Single HDPE pipe for transfer of fines slurry to FSF. 2. Perimeter HDPE slurry loop and spigots for fines deposition for each cell. 3. Single HDPE pipe for transfer of FSF water from central decant towers to MWD2. Single HDPE pipe for contingency transfer of excess water from FSF to MWD2.

Design Item		Key Information
		FSF
	Haul Roads / Access Tracks	Accessed via existing WRD haul / LV access roads.
References		• Grants Surface Water Monitoring Database (LDGNT, 2024) • Tailings Storage Facility and Water Dams Detailed Design (GHD, 2021b) • Tailings Storage Facility Operations, Maintenance and Surveillance (OMS) manual (GHD, 2021a) Grants Operational Water Management Plan (WRM, 2025a)

Table 6-18 FSF and dams risk, controls and management

Step	Phase	Sequence	Performance and Monitoring	Risks, Controls and Management
2	Clearing	• See Table 5.3		
2	Construction	1. Development of IFC design. 2. Mobilise construction equipment supplies to site. 3. Strip and stockpile topsoil. 4. Remediation of any geotechnical matters 5. Construction of wall foundations and progressive placement, treatment, and compaction of oxide waste 6. Geotechnical testing of compaction layers to confirm construction standard. 7. Installation of rock armouring and spillways as required. 8. Installation of FSF subsurface drainage and decant structures. 9. Installation of LV running track and safety berms	• Dam meets ANCOLD design criteria. • Certification of design and construction by ICE • Conformance to design and geotechnical criteria. • Monitoring undertaken in accordance with applicable management plans and manuals. • Water within the dam during construction is managed in accordance with the WMP. • Adherence to ESCP • Downstream waterways not impacted by sedimentation (quality within applicable trigger values) • No new introduced or spread of existing weeds • Dust generation within applicable limits as per Dust Management	• Refer to project risk assessment provided in Section 6.

Step	Phase	Sequence	Performance and Monitoring	Risks, Controls and Management
		10. Engineer sign-off on construction as per IFC 11. Installation of pump and pipe infrastructure	Plan.	
3	Commissioning / Operations	5. Commissioning and operation of dams and FSF Ongoing inspection and surveillance of structure including regular monitoring of water volumes in accordance with applicable OMS manuals. 6. 7. Monitoring of mine water quality and groundwater quality as per WMP.	• Engineering sign-off that the dam has been constructed installed as per IFC and ANCOLD standards. • No seepage from dam walls observed. • Water volumes managed in accordance with the WMP and or WDL with no uncontrolled discharge occurring. • 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 6-19 Dams independent expert

Question	Details		
1	Will an independent expert be engaged by the operator?	Yes ☒ (Go to Q2)	No ☐ (Explain why below)
	• Suitably qualified engineers (GHD) have developed the preliminary detailed dam and TSF designs based on field verified geotechnical data. • Detailed dam designs were completed, and construction commenced, prior to the addition of Condition 24 - 28 in DML 1021-01 Variation 2 of which requires an ICE be appointed.		
2	Will detailed designs be prepared and reviewed by an independent expert?	Yes ☒ (Go to Q3)	No ☐ (Explain why below)
	• See Question 1 above.		
3	Will a detailed management plan be developed that describes in detail the operator's	Yes ☒	No ☐ (Explain why below)

Question	Details		
	maintenance, surveillance and closure requirements of the structure?		
	Update Operations, maintenance, and surveillance manuals have been developed by GHD for the FSF and dams: • TSF Operations, Maintenance and Surveillance Manual (GHD, 2021b) • Water Storage Facilities Operations, Maintenance and Surveillance Manual (GHD, 2021a) • The Water Storage Facilities Operations, Maintenance and Surveillance Manual will be updated to reflect change in FSF output and will be submitted to the Department for review		

Table 6-20 Dams closure

Closure	Objective	References
Unplanned	Temporary Suspension • Maintained as safe, stable and non-polluting. Unforeseen Closure • Rehabilitated as safe, stable, non-polluting and erosion resistant landform.	• Grants Mine Closure Plan (LDGNT, 2025a) • Grants Care and Maintenance Plan (LDGNT, 2024b)
Planned (FSF)	• Rehabilitated as a geotechnically stable, non- polluting and erosion resistant integrated WRD / FSF landform	
Planned (Dams)	• Decommissioning and removal of infrastructure • Dams returned to pre-mining topography. • Supports self-sustaining native vegetation comparable to that of surrounding ecosystems. • Supports fauna recolonisation comparable to that of surrounding ecosystems. • Surface water quality is protected to maintain environmental values and beneficial uses.	
Planned (OHD)	• Surface water quality is protected to maintain environmental values and beneficial uses. • Safe, stable and non-polluting structure.	

6.4 Waste rock dumps

Details of the Grants integrated WRD landform is provided in Table 5.21 below. The WRD design is shown in Figure 5-6.

Table 6-21 WRD summary

Aspect		Grants WRD
Description	WRD 1	**Update** • The existing Grants WRD is designed to accept designed waste volumes for the Grants pit and coarse rejects produced by the processing plant (Figure 5-6). • The integrated WRD/ TSF footprint has been approved for 88.1ha (integrated WRD/ FSF) with a capacity of 14,329,692 BCM (2022 MMP; EcOz, 2022a) • There is no requirement for extension
Titles		• ML31726
Footprint	Current Design Area	**Update** • 79.28 ha
Waste and Volume Update	Waste Type	• Oxide and fresh phyllite • Oxide pegmatite • Coarse processing rejects (fine rejects, mica)
	Approved Design Capacity (2022 MMP; EcOz, 2022a)	• 14,329,692 BCM (3% spare capacity)
	Current Dumped Volume (2022- 24)	• 10,688,651 BCM
	Waste to be generated (LoM and Processing)	• 2,022,450 BCM (Pit mined) • 271,285 m^3 (Processed fine rejects)
	Dimensions (W x L x H)	• 1270m x 700 m x 30 m (2022 MMP; EcOz, 2022a)
Further Information (WRD Volume/ Configuration)		• Additional information regarding existing and proposed changes to WRD configuration is provided in Table 5.28
Dump slopes	Batter Angle	Update The following design details have been updated to reflect last approved MMP (EcOz, 2022a) • 37 degrees. Operational dump slope prior to reprofiling for rehabilitation. • Overall slope angle 22- 25 degrees
Flood Immunity	1:100	• Flood modelling undertaken by WRM (2025a) show minimal impact to the WRD during a 1% AEP (1:100) flood event

Aspect	Grants WRD
References	• Grants EIS Supplement Report (EcOz, 2019a) • Grants 2022 MMP (EcOz, 2022a) • Grants Mine Closure Plan (EcOz, 2022b) • Grants Mine Closure Plan (LDGNT, 2025a) • Grants Surface Water Infrastructure Assessment report (WRM, 2022)
Method of Construction	• Paddock dumping from several tip heads to develop the waste rock dump which comprises weathered, transitional, and fresh rock excavated from the pit. • Once mined in greater quantities, fresh waste rock will be placed around the halo of the WRD to provide batter protection and facilitate progressive rehabilitation. To date, poor material competency of oxide and transitional material did not facilitate construction of the resistant WRD halo and as such, progressive rehabilitation of the halo could not occur. • PAF or PAF-LC material has not been identified with the oxide waste mined from the pit classified as NAF. No specific controls around AMD management have been required to date. Once mining progresses into fresh rock, ongoing geochemical characterisation will be undertaken to determine the appropriate management of potentially problematic material, should it occur. • WRD construction and mitigation measures to manage water, sediment and erosion as well as dump stability is undertaken in accordance with the Grants Waste Rock and AMD Management Plan (LDGNT, 2025d).
Phreatic Conditions	• Seepage from the FSF and / or encompassing WRD material, could result in localised recharge and associated mounding of groundwater. • Water FSF is recovered and reused in processing with the FSF constructed of low permeable material, limiting infiltration and subsequent groundwater recharge. • Particle tracking undertaken as part of groundwater modelling indicates during operations the flow of groundwater beneath the integrated FSF / WRD will be towards the pit. • Groundwater quality and standing water level (SWL) monitoring undertaken since commencement of operations do not indicate influence of the seepage from the WRD / FSF landform.
References	• Grants water monitoring database (LDGNT, 2024) • Grants Groundwater Modelling Report (CloudGMS., 2018) • WRD and AMD Management Plan (LDGNT, 2025d) • Surface Water Infrastructure Report (WRM, 2022) • Operational Water Management Plan (WRM, 2025a) • Water Balance (WRM, 2025b) • Grants 2022 MMP (EcOz, 2022a) • Figure 5-6

Table 6-22 WRD design considerations

Statutory / Other Considerations	Condition Requirement	How it's Addressed	References
Recommendation 2 AR89 (NT EPA, 2019)	• That the Proponent provides written notice in advance to the Northern Territory Environment Protection Authority and the Responsible Minister if it alters the Grants Lithium Project and/or commitments, safeguards, or mitigation measures in the EIS in such a manner that the environmental significance of the action may have changed	Update • No new activities are proposed in this submission, all waste management will be done in accordance with the WRD and AMD Management Plan (LDGNT, 2025d) and the most recent approved MMP (EcOz, 2022a)	• Grants 2022 MMP (EcOz, 2022a) • Grants Waste Rock and AMD Management Plan (LDGNT, 2025d)
Recommendation AR89 (NT EPA, 2019)	• That approvals and decisions for the Proposal have conditions that require the Proponent to develop an Acid and Metalliferous Drainage Management Plan to the satisfaction of the relevant regulator prior to mining		• Grants Waste Rock and AMD Management Plan (LDGNT, 2025d)

Table 6-23 Waste rock classification criteria

Material	Criteria	Volume	Management requirements	References
PAF	Total S ≥0.4%	• Geochemical investigations Indicate that most waste Is classified as NAF, with minor volumes of PAF (LC) and negligible volumes of PAF. • The above interpretation	• Additional management requirements are provided in the Grants Waste Rock AMD Management Plan.	• Soil and Waste Characterisation, Grants Lithium Project (EcOz 2018c) • Grants Waste Rock AMD Management Plan (LDGNT, 2025d)
PAF - LC	S ≥0.2% and <0.4%			

Material	Criteria	Volume	Management requirements	References
NAF	S <0.2%	is supported by the Soil and Waste Characterisation Report, Grants Lithium Project completed by EcOz (2018c).		

Table 6-24 WRD material quality and beneficial re-use

Material classification	Lithology / waste type	Properties	Suitability for re-use	References
• Oxide (Weathered) Waste Rock	• Weathered phyllite	• Some weathered phyllite although non-sodic may be potentially dispersive with an Emerson Class of 3.	• Yes, if material is NAF and non- dispersive	• Soil and Waste Characterisation, Grants Lithium Project (EcOz 2018c)
• Transitional or Fresh Waste Rock	• Transitional to fresh phyllite		• Yes, material classified as NAF (<0.2 S%)	

Table 6-25 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	Geotechnical engineering	• The design is intended to provide a structure that will be geotechnically stable in perpetuity and effectively blend with the natural landscape in the surrounding area.

Aspect		Details
basis)	Geochemical	• Waste has been demonstrated to benign with only minor quantities of PAF and PAF-LC. • Design of the WRD allows for problematic material, should it be identified through routine waste sampling, to be encapsulated within the centre of the WRD and surrounded by a halo of NAF.
	Waste/water management	• As each lift is completed, berms will be used to manage water and control run-off to manage erosion and slumping in the interim landform. • Water runoff is managed through the site sediment basin network. • As waste rock is low risk of geochemical instability, it is not expected that there will be a need to restrict percolation to meet closure objectives.
	Additional information	• Location minimises haul distance from the pit for economical removal of waste rock. • Dump sequence is dynamic and will progress in consideration of environmental constraints, equipment availability, material type availability and mine scheduling.
	Performance	• A summary of performance against environmental risks detailed in Table 5.3 is provided in the Grants Annual Environmental Mining Report.

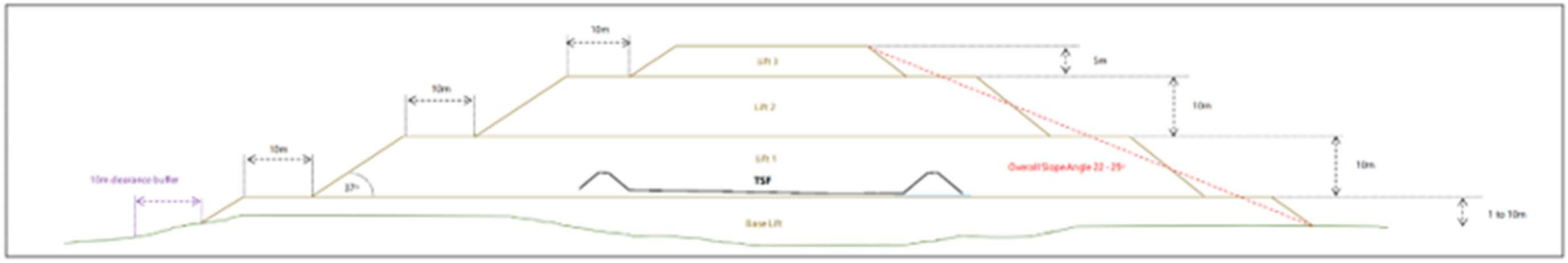


Figure 6-6 Grants integrated WRD/ FSF design (EcOz, 2022a)

Table 6-26 WRD risk, controls and management

Step	Phase	Sequence	Performance and Monitoring	Risks, Controls and Management
1	Clearing	• See Table 5.3		

Step	Phase	Sequence	Performance and Monitoring	Risks, Controls and Management
2	Construction	1. Development of dump design. 2. Mobilise construction equipment to site. 3. Strip and stockpile topsoil and construct perimeter containment bund.	• Conformance to design and geotechnical criteria. • Adherence to ESCP • No new introduced or spread of existing weeds. • Dust generation within applicable limits as per Dust Management Plan.	• Refer to project risk assessment provided in Section 6.
3	Commissioning / Operations	1. Commence dumping of WRD in accordance with the WRD and AMD Management Plan and applicable geotechnical and geochemical guidance. 2. Ongoing inspection and surveillance of WRD including conformance to applicable designs and management plans. Regular monitoring of surface and groundwater as per the WMP	Surface water and groundwater water quality is monitored in accordance with the WMP and meets applicable trigger values or performance criteria for appropriate management. • Monitoring undertaken in accordance with applicable management plans and manuals. • No new introduced or spread of existing weeds • Dust generation within applicable limits as per Dust Management Plan.	

Table 6-27 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 undertaken suitably qualified experts (Pendragon Environmental Solutions, 2017). • Waste rock is to have low AMD potential primarily due to the absence / scarcity of sulphur. Future kinetic testing program to be overseen by Environmental Geochemistry International (EGi). • The original WRD design was completed by TME Mine Consulting.		

Question	Details		
2	Will detailed designs be prepared and reviewed by an independent expert?	Yes ☒ (Go to Q3)	No ☐ (Explain why below)
	• See Question 1 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)
	• Management of the WRD undertaken in accordance with the Grants Waste Rock and AMD Management Plan (LDGNT, 2025d).		

Table 6-28 WRD additional details

Design Stage		Grants WRD	References
Site Investigation	Bores	• Eight groundwater bores are actively monitored within the Grants operational area and have been actively monitored since installation between 2017 and 2020. • Groundwater information and drill log data was used to building a groundwater model for the site and infer groundwater direction, gradient and potential draw down cone surrounding Grants pit. • Ongoing monitoring, undertaken in accordance with the WMP, is undertaken to assess any potential impact from site operations including the integrated WRD / FSF.	• Grants Operational Water Management Plan (WRM, 2025a)
	Test Pits	• Other than test pits excavated as part of construction material quantity estimates by GHD (2021a), no test pits were excavated for the purpose of the WRD design.	• TSF OMS Manual (GHD, 2021a)

Design Stage		Grants WRD	References

	Soil Characterisation (Rehabilitation)	• Soil sampling undertaken by EcOz (2018c) characterised soils for potential rehabilitation suitability. The investigation identified:
		  • Soils are generally naturally poor, marginally acidic with limited water holding capacity, low nutrient levels and susceptibility to slaking, hard setting and erosion when wet.
		  • Rehabilitation will require incorporation of practices to promote infiltration (e.g. deep ripping, slope length / grade) and establishment of self-sustaining protective groundcover to counteract the effect of these characteristics.
		  • Ameliorants including organic matter, nutrients, and calcium sulphate (gypsum) may be added. Rehabilitation trials will be undertaken to determine the best practices for application at the site.
			• Soil and Waste Characterisation Report (EcOz, 2018c)

	Particle tracking	• CloudGMS (2018) modelled predicted direction and spread of seepage from the WRD through the BCF aquifer. • Results indicate most groundwater beneath the WRD will travel towards the open pit to the east. A small proportion groundwater from northern portion of the WRD are not captured and terminate to the north of the disturbance area.	• Grants Groundwater Modelling Report (Cloud GMS, 2018)
Key Design Elements			
Objective/ criteria	Objective	• A safe, stable, non-polluting and erosion resistant landform that supports self-sustaining native vegetation comparable to that of surrounding ecosystems, in perpetuity.	• Grants Mine Closure Plan (LDGNT, 2025a)
	Criteria	• Waste rock dump is built in accordance with the final landform designs and best practice guidelines	•
	Geochemical	• Preliminary geochemical characterisation of waste rock has very low potential for acid rock and/or saline metalliferous drainage due to the absence / scarcity of sulphur. This finding is supported by operational geochemical characterisation work of oxide waste rock at grants and detailed characterisation work completed BP33 deposits which is chemically similar to the Grants deposit. • Waste rocks classified as PAF will be limited in volume and encapsulated within the WRD in accordance the requirements of the Waste Rock and AMD Management Plan (LDGNT, 2025d).	• Grants Preliminary Waste Rock Characterisation Report (Pendragon, 2017) • Soil and waste classification report (EcOz, 2018c) • Grants Waste Rock and AMD Management Plan (LDGNT, 2025d)

Design Stage		Grants WRD	References
	Geotechnical	**Update** • Operational slope design is the angle of repose at 37 degrees with a concave rehabilitation slope angle of 30 degrees. • Berms and profiling are used to control water runoff and ponding to prevent saturation, erosion, and potential slumping. • When available, fresh rock will be used to construct a 10m halo around the WRD to mitigate erosion and potential instability of the dump slope. • Inspection of the dump and applicable geotechnical controls are provided in the GCMP (LDGNT, 2023).	• Grants Mine Closure Plan (LDGNT, 2025a)
	Water Management	• As the waste rock and fines are of low risk of geochemical instability, it is not expected that there will be a need to restrict percolation through the landform, and therefore a low permeability barrier was not included in the cover design. • Runoff is contained by an external WRD perimeter bund constructed to mitigate the transport of fines material outside of the WRD footprint. Water is directed to rock weirs / filter dams where it enters sediment basins Sed 3, Sed 4 and Sed 5.	• Grants Operational Water Management Plan (WRM, 2025a)
	Closure	**Update** • The Mine Closure Plan (LDGNT, 2025a) has been updated and includes incidental changes such as waste rock volumes. The appended rehabilitation strategy includes rehabilitation trials through operations.	• Grants Mine Closure Plan (LDGNT, 2025a)
	Foundation Type	• Paddock dumped oxide waste (NAF)	• Grants 2022 MMP (EcOz, 2022a)
	WRD capacity and volume	• Waste generated, waste proposed, and waste rock dump capacity is provided in the following table. The Waste Rock Dump capacity has been abstracted from the approved 2022 MMP (EcOz, 2022a) and approved 2022 MCP (EcOz, 2022b) with an estimated volume of 14,329,629 BCM.	• Grants 2022 MMP (EcOz, 2022a) • Grants Mine Closure Plan (EcOz, 2022b)

Design Stage		Grants WRD	References
		Item / **BCM** Current waste volume (2022- 24; including pit waste and processing) — 10,688,651 Proposed waste to be mined (10-month LoM) — 2,011,450 Proposed Process Fines — 271,284 (m^3) Waste Rock Dump Capacity — 14.3M	
	Design Dimensions (Lx W x H)	• 1270m x 700 m x 30 m (2022 MMP; EcOz, 2022a)	• Grants 2022 MMP (EcOz, 2022a)
Method of construction **Update**	WRD / FSF Integrated Landform	• The WRD will be constructed in lifts to a final height of approximately 30 m. The dump sequence is dynamic and will progress in consideration of environmental constraints, equipment availability, material type availability and mine scheduling. • As each lift is completed, berms will be used to control run-off and manage erosion in the interim landform. Where practical, the WRD may be progressed with a 20m tip head in locations such as the inner core of the WRD and where waste is classified as NAF	• Grants 2022 MMP (EcOz, 2022a) • Grants Waste Rock and AMD Management Plan (LDGNT, 2025d)
	General WRD Construction Details	• See Table 5.22 • The WRD will accept all waste rock material and coarse rejects from the crushing/screening process. The design concept has the benefit of minimising the mine site footprint. A single integrated landform remaining on-site in perpetuity post-closure. • Operational waste characterisation of material from Grants pit has not identified problematic material that requires specific management within the WRD. Ongoing characterisation of fresh material will guide placement and specific treatment requirements should problematic material be encountered. • Given the low risk of acid and saline metalliferous mine drainage from waste rock and processing rejects, design, and construction of the WRD does not include a low permeability foundation or containment cells except for the FSF. • WRD waste material management and placement are undertaken	

Design Stage		Grants WRD		References
		in accordance with the Grants Waste Rock Dump and AMD Management Plan (LDGNT, 2025d).		
Piezometric and Climatic conditions	• See Table 5.22			
Dump Rate		**Update** • A mine schedule of mined waste rock is provided in Figure 2-1		• Grants 2024 MMP (LDGNT, 2024a) • Grants 2022 MMP (EcOz, 2022a) • Grants Mine Closure Plan (LDGNT, 2025a)
Seismicity		• Refer to Table 5.17 above for FSF.		
Construction Sequence / Design Description	Construction	• Clearing	• Some vegetation and growth medium (located beneath topsoil) was pushed into WRD containment bund along the western and southern extents of the WRD to reduce the transport of fines material from the WRD into adjacent drainage lines and sediment basins.	
		• Foundation	• No specific foundation preparation works were undertaken as detailed above.	
		• Base	• The base layer was completed using oxide pit materials comprising weathered phyllite and pegmatite.	
	Operations	• Halo	• A 10 m fresh rock halo has been incorporated to control run-off and manage erosion in the interim landform. 10 m was chosen as the preferred halo width to ensure reprofiling of the dump for rehabilitation did not bring unsuitable material to the surface. • Due to the absence of competent oxide or transitional waste material the WRD halo, comprising a 10m outer layer of competent rock layer, has not yet been constructed. • As mining progresses, and a greater quantity of fresh phyllite waste rock is encountered, the halo will be constructed allowing for progressive rehabilitation.	
		• PAF cell and halo	• Problematic material management is undertaken in accordance with the Grants	• Grants Preliminary Mine Waste Rock

Design Stage		Grants WRD		References
			Waste Rock and AMD Management Plan (LDGNT, 2025d). • Quantities of PAF and PAF-LC are considered small based on geochemical assessment of waste rock and ore undertaken by Pendragon (2017). • Should operational waste characterisation identify problematic material, it will be segregated and placed within the internal section of the WRD where it will be encapsulated on all sides by a halo NAF waste rock	Characterisation Report (Pendragon, 2017) • Soil and waste classification report (EcOz, 2018c) • Grants Waste Rock and AMD Management Plan (LDGNT, 2025d)
		• Capping	• The proposed closure strategy for the WRD is to reshape to a domed landform with target overall slope angle of 20 degrees. • Subject to rehabilitation trials, a final cover layer will be constructed consisting of a topsoil or suitable growth medium and rock mulch. The growth medium will be re-seeded with local species and ameliorated as required.	• Grants 2024 MMP (LDGNT, 2024a) • Grants 2022 MMP (EcOz, 2022a)
Environmental management	Key risks and triggers/ management actions		• Refer to the Project Risk Assessment detailed in Section 6.	

Table 6-29 WRD closure

Closure	Objective	References
Unplanned	Temporary Suspension • Maintained as safe, stable and non-polluting. Unforeseen Closure • Rehabilitated as safe, stable, non-polluting and erosion resistant landform.	• Grants Mine Closure Plan (LDGNT, 2025a) • Grants Care and Maintenance Plan (LDGNT, 2024b)

Closure	Objective	References
Planned (Integrated WRD / FSF Landform)	• Rehabilitated as a geotechnically stable, non-polluting and erosion resistant landform.	

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 6-30 Haul and access road details

Aspect		Internal Haul / Mine Roads	Site Access Roads
Name / Identifier		• Internal haul roads and mine access roads within infrastructure Zone C	• LV and other access roads within infrastructure Zone A, B and D
Location		• Zone C	• Zone A, Zone B, Zone D
Proposed / Existing		• Existing	• Existing
Titles		• ML31726	• ML31726, ML32074
Details	Length (m)	• 4,027 m	• 13,640 m
	Width (m)	• Various, up to 19 m	• Various, up to 13 m
Materials	Source	• In-situ material and or / benign oxide waste	
	Geochemical Classification	• See Table 3.3	
	Engineering Properties	• Base layers of Zone 3 material with a capping layer of Zone 1 material to facilitate tracking by heavy machinery, road trains and light vehicles. • Running course of imported road base or coarse rock required in some areas to provide added stability / traction during the wet season.	
Performance of Existing Roads		• Roads were found to perform poorly during the wet season when saturated	**Update** • Roads were found to perform poorly during the wet

Aspect	Internal Haul / Mine Roads	Site Access Roads
	and with high volumes of vehicle movements. • Imported coarse rock, or when available, competent transitional or fresh rock was placed as a running surface to improve wet season performance and traction. • Some road sections Zone C around the works shop, go-line and refuelling bay as well as material lay downs were sheeted with imported road base to allow all weather access and minimise erosion and sediment runoff.	season when saturated and with high volumes of vehicle movements. • Most access roads within infrastructure were sheeted with imported road base to allow all weather access and minimise erosion and sediment runoff. • Deterioration of the Cox Peninsula Road intersection and slip lane was evident during the 2022/23 and 2023/24 wet seasons. DIPL contractors regularly applied bitumen to potholes as developed. • DIPL contractor AKRON was engaged by LDGNT to undertake regular routine street sweeping of the intersection and a nominal distance along Cox Peninsula Road to reduce dust generation and loose gravel on the road. • Sections of raw water pipeline track are all weather with other areas around flood plains and newly cleared areas inaccessible during the wet season. • A recent Traffic Impact Assessment was undertaken to determine impacts from previous and upcoming operations (Arcoss, 2025). The assessment found the public road infrastructure that is used for haulage and site access is capable to withstand the volume generated during operations by the mining fleet. Outcomes of the assessment has been included in the new Traffic Management Plan (Core Traffic Control, 2025; Appendix E)
General Description	Haul Roads • Constructed to industry standards to accommodate the mining fleet and extend from the Grants pit to the WRD, go-line and ROM. • Roads have been constructed from Zone 1 material won from onsite excavations or oxide phyllite waste from Grants pit. To improve trafficability under wet conditions, some portions have been sheeted in imported crushed rock in the	Access Road 1 (AR1) • Dual lane access road constructed from the Cox Peninsula Road to the mine security / access point (approximately 500 m). • Intersection design includes slip lane and appropriate signage for safe entry-exit from the public road. • AR1 extends beyond the site security control towards the processing plant truck loop where road trains are loaded with concentrate before transport to East Arm Port.

Aspect	Internal Haul / Mine Roads	Site Access Roads
	absence of competent fresh phyllite waste rock. Other • Numerous dual or single lane access roads are located within Zone C for access to the topsoil dump, explosives magazine, workshops, laydowns, water dams and environmental monitoring locations. Most roads are sheeted with road base and to improve stability and minimise erosion.	Access Road 2 (AR2) • AR2 was decommissioned upon commissioning of Access Road 1. Other Internal Numerous dual or single lane access roads are located within infrastructure zones A, B and D for access to processing areas, workshops, offices, laydowns, and environmental monitoring locations. Most roads within the Grants development footprint are sheeted with road base and or processing rejects to improve stability and minimise erosion. Grants Water Pipeline Access • Where the Grants raw water pipeline follows existing exploration or historical mining tracks, minor upgrades were required. Some delineation markers were installed to indicate the pipeline trench and bollards installed around vents / breathers.
Statutory Requirements	n/a	The existing Cox Peninsula Road intersection is subject to DIPL internal and regulatory standards with a road access permit required.

Table 6-31 Haul and access roads risks, controls and management

Step	Phase	Sequence	Performance and Monitoring	Risks, Controls and Management
2	Clearing	• See Table 5.3		
2	Construction	1. Development of IFC design and assessment of geotechnical requirements. 2. Mobilise construction equipment supplies to site. 3. Strip and stockpile topsoil. 4. Install temporary and permanent ESC structure. 5. Remediation of any	• Conformance to design and geotechnical criteria. • Adherence to ESCP • Downstream waterways not impacted by sedimentation (quality within applicable trigger values) • No new introduced or spread of existing weeds	• Refer to project risk assessment provided in Section 6.

Step	Phase	Sequence	Performance and Monitoring	Risks, Controls and Management
		geotechnical matters within road alignments 6. Installation / construction of waterway crossings. 7. Construction of roads, drainage, and other associated infrastructure. 8. Application of bitumen and other surface treatments where required. 9. Installation of road furniture. 10. Engineer sign-off as per IFC.	• Dust generation within applicable limits as per Dust Management Plan.	
3	Commissioning / Operations	1. DIPL inspection and signoff 11. Ongoing inspection and maintenance of roads including culvert performance and remediation of any issues.	• Conformance to design and geotechnical criteria. • Adherence to ESCP • Downstream waterways not impacted by sedimentation (quality within applicable trigger values) or erosion from waterway crossings.	

Table 6-32 Haul and access road independent oversight

Question	Details
1	What standard guidelines/standards to be followed?
	• Applicable DIPL 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 DIPL 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 engineers (GHD) where required.
3	If independent engineers not engaged, demonstrate consideration of risks, if any
	• See risk assessment (Section 6)

Table 6-33 Haul and access road closure

Closure	Objective	References
Unplanned	Temporary Suspension • Maintained as safe, stable and non-polluting. Unforeseen Closure • Rehabilitated as safe, stable, non-polluting and erosion resistant landform.	• Grants Mine Closure Plan (LDGNT, 2025a) • Grants Care and Maintenance Plan (LDGNT, 2024b)
Planned	• Decommissioning and removal of infrastructure • Returned to pre-mining and stable, non-polluting landform. • Supports self-sustaining native vegetation comparable to that of surrounding ecosystems.	

6.7 Diversions

No diversions are proposed for the Grants project.

6.8 Other activities

No other activities are proposed for the Grants Project.

7 Operational Activities

7.1 Environmental Risk Assessment Methodology

Update

New risks associated with the proposed changes identified in this MMP have been assessed and included in the Environmental Risk Assessment (0). The whole Grants Project risk assessment that was undertaken in 2022 as part of the MMP submission (EcOz, 2022a) has remained unchanged and also included in the Grants Risk Assessment for reference.

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 1 and Table 2 in 0.

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 2021. 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 are assessment are provided in 0 and summarised in the Tables below.

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 0.

Assessment of risks and impacts for proposed project amendments did not generate any high or extreme residual risks (Table 6.1). All risks associated with proposed amendment can be managed using existing management plans/ controls and are considered within the bounds of impacts

assessed in the NT EPA Assessment Report 89 (see NT EPA Self-referral Tool provided in Appendix A).

Table 7-1 Update Grants Project Amendments Environmental Risk Summary (Residual Risk)

Environmental Factor	Low	Medium	High	Extreme	Total	High / Extreme Residual Risk Impacts
Terrestrial environmental quality	2	2	-	-	4	n/a
Terrestrial ecosystem	5	-	-	-	5	n/a
Hydrological processes	2	1	-	-	3	n/a
Inland water environmental quality	4	2	-	-	7	n/a
Aquatic Ecosystems	1	-	-	-	3	n/a
Coastal processes, marine environmental quality and marine ecosystems	2	-	-	-	1	n/a
Air quality and atmospheric processes	2	-	-	-	1	n/a
Communities and economy	-	1	-	-	2	n/a
Culture and Heritage	1	-	-	-	2	n/a
Human health	1	-	-	-	1	n/a
Total	20	6	0	0	26	

Assessment of risks and impacts for the of whole Grants operations generated one high residual risk (Table 6.2) which was for the introduction and spread of weed species. The high residual risk was attributed associated with the ongoing possibility of weed introduction and the significant and widespread impacts Weeds of National Significance (WONS) such as Gamba Grass (*Andropogon gayanus*) to terrestrial ecosystems.

Table 7-2 Update Grants Full Project Environmental Risk Summary

Environmental Factor	Low	Medium	High	Extreme	Total	High / Extreme Residual Risk Impacts
Terrestrial environmental quality	12	1	-	-	13	n/a
Terrestrial ecosystem	16	2	1		19	Introduction and spread of weed species
Hydrological	8	3	-	-	11	n/a

Environmental Factor	Low	Medium	High	Extreme	Total	High / Extreme Residual Risk Impacts
processes						
Inland water environmental quality	10	6	-	-	16	n/a
Aquatic Ecosystems	10	4	-	-	14	n/a
Coastal processes, marine environmental quality and marine ecosystems	10	-	-	-	10	n/a
Air quality and atmospheric processes	6	-	-	-	6	n/a
Communities and economy	6	1	-	-	7	n/a
Culture and Heritage	3	1	-	-	4	n/a
Human health	7	2	-	-	9	n/a
Total	88	20	1	0	109	

Implementation of the LDGNT Project EMS detailed in Section 7.1 established the systems and processed by which risks associated with Grants operations and its proposed amendment can be mitigated.

8 Management System

8.1 Environmental Management System (EMS)

The Core Lithium EMS has been developed and implemented to appropriately manage environmental risks identified Section 6. The following sections summarise the overarching management system employed by LDGNT.

8.1.1 Environmental Policy

The Core Lithium Environmental Policy has been established to communicate its commitment to understanding and managing environmental and social impacts associated with its activities within the Finniss region. In addition to the risk assessment detailed in Section 6, the environmental policy guides development of the EMS and associated policies, management plans and procedures.

8.1.2 Environmental Commitments

Through several regulatory approvals and underlying internal policies, management plans and procedures, LDGNT manage numerous environmental and social commitments and obligations. LDGNT maintain a register of applicable commitments and routinely update and track progress against these obligations. Performance against key commitments are assessed in the Grants annual EMR.

8.1.3 Environmental Training and Inductions

All new site personnel, contractors, and visitors are required to undertake an online or in-person induction, which includes a focus on health, safety, environmental and community awareness. The induction addresses the Core Lithium Environmental Policy and details requirements of key management plans, procedures and policies including key regulatory approvals. Induction and training activities are reviewed regularly to ensure they contain current information.

Pre-start meetings are used by site personnel and contractors each shift and are a forum to communicate current and emerging environmental risks. These forums ensure that personnel maintain awareness of how these risks must be managed, monitored, and reported.

Regular toolbox meetings or information topics are used to provide more detailed training on specific environmental aspects, such wildlife interaction, dust control, spill and other incident response and reporting.

Where a role carries a greater risk of potential environmental harm occurring. personnel are required to undertake job or task-specific environmental training. These include the personnel undertaking the following:

- Land clearing and civil works contractors.

- Water management including treatment and discharges.
- Waste rock sampling and characterisation.
- Environmental compliance monitoring and reporting obligations.

Records of all training are maintained in accordance with the EMS should they be required.

8.1.4 Environmental Training and Inductions

Environmental emergency preparedness and response is managed in accordance with the site Emergency Response Plan. The plan is subject to regular review and update to align with the relevant site activities.

8.1.5 Overarching Environmental Objectives

As detailed in the EMS, Cores overarching strategic environmental objectives include:

- Compliance with obligations and relevant legislation.
- Promote and implement best practice environmental management.
- Implement processes and controls to reduce environmental harm.
- Promote environmental awareness with all employees, contractors and stakeholders.
- Promote continuous improvement.

8.1.6 Environmental Management

The project risk assessment summarised in Section 6, outlines risks and management actions for the Grants mine. Where a higher level of detail is required to address identified risks, management plans have been developed which are detailed below.

Table 8-1 Grants Management Plans

Management Plan	Document ID	Version
Grants Mine Management Plan 1021-01	LD-ENV-MP-001	Variation 3
Flora, Fauna, Pest and Weed Management Plan	LD-ENV-MP-003	Revision 1
Land and Soils Management Plan	LD-ENV-MP-004	Revision 1
Grants Waste Rock and AMD Management Plan	LD-ENV-MP-006	Revision 1
Grants Mine Closure Plan	LD-ENV-MP-007	Variation 4
Grants Rehabilitation Management Plan	LD-ENV-MP-024	Revision 1
Grants Water Management Plan	LD-ENV-MP-009	Revision 3
Grants Preliminary Erosion and Sediment Control Plan	LD-ENV-MP-010a	Revision 1
Grants Progressive Erosion and Sediment Control Plan	LD-ENV-MP-010b	Revision 3
Grants Irrigation Management Plan	LD-ENV-MP-025	Revision 1
Grants Dust Management Plan	LD-ENV-MP-012	Revision 1
FSF OMS Manual	LD-ENV-MP-022	Revision 0
Water Storage Facilities OMS Manual	LD-ENV-MP-022	Revision 0
Social Impact Management Plan	LD-ENV-MP-022	Revision 0

9 Care and Maintenance

9.1 Care and Maintenance Plan

Update

Temporary suspension has been addressed in the updated Care and Maintenance Plan (Lithium Developments, 2024b; Appendix H). The Plan had been prepared to ensure ongoing environmental obligations are met which include maintaining site infrastructure, environmental licencing and permits obligations are met 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 Grants enters a period of care and maintenance in the future, the Care and Maintenance Plan 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 for greater detail.

Table 9-1 Grants Care and Maintenance Activities Summary

Aspect	Description
Site Management	
Administration Building	• Used by Core care and maintenance personnel and contractors as well as Core exploration staff. • To be maintained with respect to cleaning, pest control, and repairs and maintenance as required
Facilities Maintenance	• Maintenance activities including pest control, waste management (including sewage), air-conditioning servicing, cleaning and security will continue as required.
Fuel	• The permanent fuel farm consisting of 3 x above ground storage tanks (ASTs) will continue to be operational with reduced fuel delivery and distribution.
Power Generation	• Portable power generating units will be rationalised during care and maintenance and be maintained and used as required.
Security	• The site perimeter fence will be maintained as will the electronic security system that controls site access for authorised and inducted personnel. This system includes 24-hour security camera coverage of key infrastructure and access routes.
Non-Process Infrastructure (NPI)	• NPI infrastructure including the vehicle washdown bay, wheel wash, potable water and wastewater treatment plants will be maintained in

Aspect	Description
	operational readiness.
Operational Infrastructure	
Grants Pit	• Grants pit will continue to be monitored through visual daily inspections and remotely using an IDS GeoRadar system. • Dewatering of the pit will 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. • Some civil works may be required for wall stability and enable safe access.
Waste Rock Dump	• The WRD will not be utilised but will be subject to routine inspection with minor civil works potentially required to maintain access and dump stability.
Fines Storage Facility	• The FSF will not be utilised but will be subject to routine inspection with water transferred to MWD1 during the wet season.
Magazine	• Explosive products will be removed from the magazines with the security fence and CCTV cameras maintained as required.
ROM Stockpiles and Skyway	• Prior to care and maintenance ROM stockpiles will be removed with the ROM structure and skyway subject to routine inspection with minor civil works potentially required to maintain access and stability.
Access and Haul Roads	• Internal access and haul roads will be maintained as required with assistance from an appropriate civil contractor.
Crushing Facility	• The crushing facility is owned and operated by CSI Mining Services, with a full asset preservation schedule to be provided. CSI will maintain the facility with management oversight by LD.
Processing Plan	• A full asset preservation schedule is to be provided by the plant operator Primero and will be managed LD. Scheduled work will be undertaken by qualitied personnel with spares and consumables stored onsite.
Environmental Management	
Water Management	• A Care and Maintenance Water Management Plan has been developed by WRM and details commitments to water monitoring and management. • 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. • Prior to demobilising pump infrastructure, the RWD will be filled to provide available raw water supply.
Water Discharge	• Mine affected water will continue to be discharged under the condition of WDL248-02 to maintain appropriate water inventories and maximise storage capacity prior to the wet season.
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. • 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.

Aspect	Description
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.

10Closure planning

Update

The initial MCP for Grants Project was submitted with the Grants 2019 MMP and amended in 2022 along with the MMP (EcOz, 2022a; EcOz, 2022b) prior to the commencement of previous operations. The plan has been structured in accordance with the *WA Guidelines for Preparing Mine Closure Plans* and references leading practice guidelines.

The 2025 revised version will incorporate several incidental changes that reflect the ongoing development and operational adjustments at the Grants Operation. Key updates are outlined below to provide clarity and currency in the planning of closure activities, these are:

- Site footprint and layout adjustments;
- New Pit design;
- Upgrades to sediment basins;
- Findings from recent site-based studies will be included to inform rehabilitation efforts. These studies feed into success factors and monitoring requirements for effective rehab.
- All updates will align with regulatory expectations and best practice guidelines for mine closure planning.

The revised Plan has been included in the Submission Package.

10.1 Care and Maintenance Plan

The mine closure concept is detailed in Section 6.5 of the MCP with closure implementation, schedule, and work program Section 9 of the document.

11 Security

The NT Mines Departments 'Security Calculation Tool' has been used to derive the Security allocation for Grants (Appendix I).

The security has increased since the 2022 MMP security calculation, largely for site infrastructure, decommissioning and post closure management (now for 10 years), and increased disturbance footprint.

Table 11-1 Grants security calculation

Security	
Total security amount	$7,294,321.43
Document reference for the security calculation	NT Mines Departments 'Security Calculation Tool' (Appendix I)

12Acronyms and Abbreviations

Acronym	Meaning
%S	Percentage sulphur
a	Annum
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 = A volumetric term used to define a cubic metre of rock or material in situ before it is drilled and blasted.
BoM	Bureau of Meteorology
CEC	Cation Exchange Capacity – a measure of soil stability
CPESC	Certified practitioner in erosion and sediment control
CSM	Conceptual site model
CXO	ASX code for Core Lithium
DLPE	Department of Lands, Planning and Environment
DML	Deemed Mining Licence
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
LDGNT	Lithium Developments (Grants NT)
Li20	Lithium oxide (product of mining)
LoM	Life of Mine
m	metre
m3	cubic metres

Acronym	Meaning
mAHD	metres Australian height datum
mBG	metres below ground
mRL	Meters Relative Level
MCP	Mine Closure Plan
ML	Mineral Lease
ML	megalitre
mm	Millimetres
MMA	*Mining Management Act* (NT)
MMP	Mining Management Plan (regulatory requirement under Mining Management Act)
MNES	Matters of National Environmental Significance
MIA	Mine Infrastructure Area
MRE	Mineral Resource Estimate
mRL	Meters Relative Level
Mt	Million 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
ROM	Run of Mine
RWD	Raw Water Dam
s	second
SIA	Social Impact Assessment
SILO	Scientific Information for Landowners
SIMP	Social Impact Management Plan
SD	Saline Drainage
SSGV	Site specific guideline value
SWL	standing water level
TARP	Trigger Action Response Plan
TIA	Traffic Impact Assessment
TMP	Traffic 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

Acronym	Meaning
WMP	Water Management Plan
WRD	Waste rock dump
WWTP	Waste Water Treatment Plant
yr	year

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Appendices

Appendix A. Grants NT EPA Self-Referral Tool

Appendix B. Grants Environmental Risk Assessment

Appendix C. Grants Lithium Operational Water Management Plan

Appendix D. Grants Lithium Water Balance

Appendix E. Grants Waste Rock and AMD Management Plan

Appendix F. Finnis Lithium Project Traffic Management Plan

Appendix G. Grants Lithium Project Weed Management Plan

Appendix H. Grants Lithium Project Dust Management Plan

Appendix I. Care and Maintenance Management Plan Grants Operation

Appendix J. Grants Site Security Calculation