Northern Territory of Australia - Mining Management Act 2001

It is recommended that the Mining Management Plan (MMP) is completed in conjunction with the user guide available on the <u>Northern Territory Government website</u>.

Section 1 - Project Details

Project Name Provide new or existing project name	Shoobridge Project
Authorisation Number Insert existing authorisation number, where applicable	EL31407
Operator Name Use ASIC-ABR registered name (if a company), or name of the applicant	Core Lithium Ltd
Operator ABN and ACN numbers	ACN: 146287809
Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	EL31407 is located approximately 140 km SSE of Darwin and approximately 55 km SE of Adelaide River (Error! Reference source not found.). EL31407 overlies the pastoral leases of Douglas and Douglas West Stations. Main access to the tenement is either: • via Adelaide River then east on Dorat Road for 50 km; • via Adelaide River then 51 km south on the Stuart Hwy then 16 km west on Dorat Road; • via Pine Creek the 61 km north on the Stuart Hwy, then 16 km west on Dorat Road.
Target Commodity Details Include target mineral commodities (i.e. gold, copper etc.)	Lithium, Tin, Tantalum, Gold

Mining Activities

Summarise the mining activities (exploration) to be the subject of the proposed Authorisation or Variation.

Drilling programs over a maximum of four years are supported and encouraged and can be staged. Please refer to the guidelines for further information.

The area covered by EL31407 has been subject to mining and substantial exploration over the past century, with tin first discovered and mined at Barretts in 1882. Subsequent exploration has focussed on tin and tantalum, gold, base metals and uranium with over 900 holes drilled within the tenement of which the majority of holes are in the Mt Shoobridge area.

This MMP only relates to proposed exploration activities by CXO.

Exploration will consist of an assessment of historical exploration comprised of drilling and surface sampling data sets, geophysics (e.g. airborne magnetics) and remote sensed data (e.g. GoogleEarth), followed by on ground reconnaissance with mapping and prospecting, using a 4WD or ATV. Soil and rock chip sampling will be conducted in areas of interest, to be collected either via a shovel or hand auger. Prospects defined by this baseline data will then be tested by drilling, which will be the first ground disturbing work, and is the subject of this authorisation.

Drilling can occur in the form of shallow scout drilling via rotary air-blast ("RAB") and aircore ("AC") methods, or by deeper methods via reverse circulation ("RC") or diamond core ("DDH") drilling.

The planned exploration program and subject of this MMP, will be staged in two programs with an initial RC drilling program, followed by ground reconnaissance, mapping and sampling, and then a second RC drilling program with:

- Up to a total of 100 RC holes with associated sumps
- Approximately 8 km tracks and refurbishment of existing station tracks.
- Associated non-ground disturbing activities

Proposed Schedule

Include start and finish dates of ground disturbing work

Updated in RFI:

The proposed schedule of exploration activities will be:

- October November 2023: Initial ground reconnaissance, track and drill pad construction for RC drilling at Barretts, Old Company, Mt Shoobridge. RC drill pad rehabilitation and closure works will occur immediately (within 1 week) of drilling completion to ensure it is completed prior to the wet season.
- May June 2024 ground reconnaissance, mapping and sampling aimed at defining drill targets at Two Bobs, Target Area #2 and 3.
- July November 2024 track and drill pad construction for RC drilling at Two Bobs, Target Area #2 and 3 and follow up drilling from the initial drilling stage.
- October to November 2024 RC drill pad rehabilitation and closure works.

Mining Interest and Land Ownership

List the mining interests (titles), the title holder name/s, the title expiry date and the Property name/Land holder (e.g. pastoralist or Aboriginal land trust) for each title.

Title Number	Title Holder	Expiry Date	Underlying Property Name or Land Holder
El 24407	Lithium Developments Pty Ltd	19/07/2023 (in	Perpetual Pastoral Lease, Douglas-Daly, NT Portion 7122, Douglas Station. Tenure Reference 1217
	(subsidiary of Core Lithium Ltd)	renewal)	Pastoral Lease – Douglas-Daly, NT Portion 7121, Douglas West (Tiperrary) Station. Tenure Reference 1218

Please note a Land Access Agreement (LAA) is required for disturbance proposed on Pastoral Properties on Exploration Licence (EL).

Organisational Structure

Position Title	Name
EGM Development & Exploration	Pierre Malan
Exploration Manager	Mr Andy Bennett
Geology Superintendent	Mr Gavin Otto
Environmental Manager	N/A (support from Lithium Development Operations team, and SLR Consultants)
Radiation Safety Officer	N/A

Delete or add rows for various position titles as required

Section 2 – Operator Self-Assessment of the Environmental Risk

The purpose of this self-assessment is to ensure Operators complete a project risk assessment of potential environmental impacts and are aware of other legislative obligations from various Agencies. As a result of this self-assessment, further information may be required in the form of a management plan to enable full assessment of the MMP. If you have any queries please contact a Mining Officer prior to submitting the MMP. Useful resources to assist with this self-assessment are provided in the User Guide.

Environmental considerations

ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (e.g. evidence of consultation with DEPWS and/or management plan where required).
Step 1: Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?	YES	The Operator must assess the likelihood of threatened species or their habitats occurring at or near the site. If the likelihood is high, then a "Significant Impact Assessment" must be undertaken and appended to this document.	SLR Consulting Report 2022: "Shoobridge Drilling Exploration - Terrestrial Ecology Desktop Assessment" provides a desktop assessment of the likelihood analysis of threatened and endangered species and habitats for the Shoobridge Project. The residual risk of potential impact to identified species is low. Refer to Appendix C. Additional RFI notes – A ground survey was undertaken by a qualified ecologist from SLR in September 2023. Although the area was largely burnt, there was nothing of significance noted in any of the work areas. Furthermore, the majority of the work areas were noted to be previously disturbed by past mining and exploration activities. No riparian vegetation, vine thickets or old-growth forests exist in the proposed work areas which would trigger a significant impact assessment. This further reduces the potential to degrade sensitive vegetation or disturb habitat for threatened species. Work area locations are compared spatially to sensitive areas in Figure 1 below (Section 9)

ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (e.g. evidence of consultation with DEPWS and/or management plan where required).
Step 2: Are there any known declared weeds within the proposed work area?	YES	Seek advice from DEPWS – Weed Management Branch to determine if weeds are present on site and ensure management measures are appropriate for the level of activity proposed and attach a Weed Management Plan (if required).	SLR Consulting Report 2022: "Shoobridge Drilling Exploration - Terrestrial Ecology Desktop Assessment" indicates invasive weeds are present in the Shoobridge Project area. Results and management strategies are outlined in Appendix C and controls are defined in Section 9. Additional RFI notes — A ground survey was undertaken by a qualified ecologist from SLR in September 2023. Although the area was largely burnt, it was noted that most known weeds are associated with existing tracks (particularly gamba grass and mission grass). The risk of spreading weeds will be reduced to insignificant, as recommendations will be followed in the SLR Terrestrial Ecology Assessment (Table 10). These are further detailed in Section 9 below.
Step 3: Will you be using water from bores or other sources for the operation?	No	Water related matters on mineral titles are no longer exempt from the <i>Water Act 1992</i> . Please consult with DEPWS Water Resources and/or familiarise yourself with the <i>Water Act</i> to ensure compliance under this Act when undertaking exploration activities.	

Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 4: Is your project likely to have a significant impact on the environment?	NO	Refer to Appendix C Sites for work have been chosen to avoid restricted areas
Step 5: Are there Aboriginal sacred sites in the Project area?	YES	Sacred Sites are protected under the NT Aboriginal Sacred Sites Act 1989 and administered by the Aboriginal Areas Protection Authority (AAPA). It is recommended that advice be sought from AAPA in relation to sacred site protection. AAPA records 5 registered sacred sites on the project area. Refer to Appendix D of this MMP.
Step 6: Are there archaeological and heritage sites in the Project area?	No	Heritage and archaeology sites are protected in the NT. NT Department of Territory Families, Housing and Communities (DTFHC) administers the <i>Heritage Act 2011</i> . The Heritage Branch does not record any archaeological or heritage sites in the project area.

Section 3 – Amendments

As per Section 41(3) of the *Mining Management Act*, an MMP reviewed and amended under Section 41(1)(a) is to have amendments made since the previous MMP submission clearly identified.

Note all amendments are in blue text

Section	Amendment
Proposed Schedule	Proposed schedule updated to accommodate a small drilling program in late 2023 with remainder of proposed works planned for 2024.
Section 2, Step 1 & 2	Weed management & protection of threatened flora and fauna controls defined
Section 9	Response to all RFI requests

Section 4 – Activities Proposed for this MMP only (Excludes previous authorised activities)

Provide relevant EL numbers

Mining Interests (i.e. titles)	EL31407
Number and type of proposed exploration drill holes	100 Reverse circulation (RC) drill holes
Maximum depth of proposed holes (m)	180 m
Number and size of drill pads to be cleared (Length: 25 m x Width: 20 m)	100 drill pads
Total area of drill pads to be cleared (ha)	5 ha
Number of proposed water bores	nil
Is drilling likely to encounter groundwater in multiple or confined aquifers? (Y, N, unsure) If answering yes, please provide the number of exploration holes where this is likely to occur	Groundwater is likely to be intersected. No aquifers are expected to be present and none have been recorded in previous drilling in the area.
Number of costeans/sumps	100 sumps
Volume to backfill costeans/sumps m3 (Length: 3m x Width: 2m x Depth: 1.2 m)	720 m3
Number of bulk sample pits	nil
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	nil
Bulk sample pits approved under <i>Mineral Titles Act</i> ? (Y or N). If Yes provide approval	nil
Line/track clearing: (width 2.5m)	8 km
Area of proposed line/track clearing (ha)	2 ha
Camp area to be cleared (ha)	nil

Mining Interests (i.e. titles)	EL31407
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	nil
Other	nil
Total proposed area of disturbance (ha)	7 ha

Staging approach based on disturbance can be proposed and will be considered by the Department.

Section 5 – Previous Disturbance (for existing Authorisations only)

No ground disturbance has been completed during the period of tenure of EL31407.

Section 6 – Environmental Management

By checking these shaded boxes, you are agreeing to implement the following minimum environmental management standards on the project area. Where boxes have been left unchecked, justification is required.

6.1	X	Blade-up approach for clearing will be used (i.e. no windrows, leave root
	^	stock and topsoil)
6.2	Х	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	Х	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	Х	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	Х	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	Х	All employees and contractors will be trained and inducted in relation to the management of environmental risks in the work area, including weeds, waterways, threatened species, soil erosion, sacred sites and heritage areas
6.7		Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	Х	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	Х	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	X	Drill holes will be securely capped immediately after drilling
6.11	Х	Vehicle hygiene measures will be employed to prevent the introduction and spread of invasive species and pathogens when mobilising vehicles and equipment from one location to another
6.12	Х	Hydrocarbon spills will be minimised using liners and drip trays under machinery, and appropriately sized spill-kits available in the event of a spill
6.13	Х	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	Х	Hydrocarbons will be stored in lined and bunded areas
6.15	Х	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	Х	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	Х	All environmental incidents will be reported to the Department in accordance with Section 29 of the Mining Management Act.
6.18	Х	Acid and Metalliferous Drainage (AMD) and Potentially Acid Forming (PAF) material derived from drilling cuts will be managed to avoid AMD and PAF related issues on site.

6.19	Х	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	X	Dust management will be implemented on site.

Justification and alternative management	nt measur	es:
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6.7 Sumps will not be lined. Sumps will be used to contain the RC drill cuttings and any incident ground water intersected during the drilling process. All drilling additives used are biodegradable. Sumps will be backfilled and drill spoils buried at the time of drill site rehabilitation.			

Section 7 - Rehabilitation and Closure

By checking these shaded boxes, you are agreeing to implement the following minimum rehabilitation standards on the project area. Where boxes have been left unchecked, justification is required.

A refund of security related to completed rehabilitation on site requires the submission of a rehabilitation report including photographs, an updated security calculation and updated disturbance tracking spreadsheet to the Department.

7.1		Drill holes will be plugged below ground level at a minimum depth of 0.4 metres and soil mounded to prevent subsidence, within 6 months of completion of drilling.
7.2	X	Drill holes encountering multiple or confined aquifers will be grouted with concrete.
7.3	X	Drill samples/spoil will be returned down drill holes, buried in sumps, or removed from site.
7.4		All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site.
7.5	X	Cut and fill drill pads will be re-contoured to be consistent with the surrounding terrain.
7.6		Drill pads and compacted areas along the contour (on sloping ground) will be ripped/scarified of and tracks will be cross-ripped (zig-zag).
7.7		Tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party.
7.8	X	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur.
7.10	X	Access through watercourses will be removed and banks restored.
7.11	X	All previously disturbed areas will be stable, with no evidence of active soil erosion.
7.12	X	All excavations will be backfilled within 6 months of their completion.
7.13	X	All water bores will be decommissioned unless otherwise agreed in writing by the land holder or appropriate third party.
7.14	X	All rubbish and infrastructure will be removed from site.
7.15	X	Topsoil will be replaced and vegetation re-established.
7.16	X	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be rehabilitated or removed from site.
7.17	X	Monitoring will be undertaken following the wet season or a significant rainfall event.

Justification and alternative management measures:

- 7.1 It is planned to fully rehabilitate drill collars within 6 months of drilling, but in prospect areas where on-going downhole assessment is planned, the holes may be kept open and securely plugged at surface. All disturbance aspects of the hole and pads will be tracked within a database. If a hole remains open and the other aspects are remediated; the drill hole cannot be closed out with respect to this Authorisation until the collar is remediated as per 7.1.
- 7.4 Flagging tape is not removed as it is impractical to do so where it has been used to mark lines for various activities. Flagging tape is not UV stabilised and is designed to break down with exposure to the elements. Wooden pegs are used to mark drill holes and environmental monitoring sites that require on-going monitoring. The use of wooden pegs enables the sites to be readily located by CXO personnel. Wooden pegs will be broken down by termites, destroyed by fire, or otherwise decay within a short number of years, leaving no long-term legacy. All other markers are removed.
- 7.6 Ripping of drill pads and access tracks is restricted only to those that have identifiable signs of compaction. Generally, drill pads will receive minimal traffic as compared to the main access tracks. Remediated drill tracks and drill pads will be allowed to naturally revegetate. Refer to Appendix C
- 7.7 Existing tracks identified prior to works will not be remediated. Constructed exploration tracks for current and future works will be remediated, unless otherwise agreed with the pastoral lease holder.

Section 8 – Required Attachments

8.1	X	Initial Application for Authorisation (Appendix A)
8.2	X	Nomination of Operator Form (Appendix B)
8.3	X	Security Calculation Spreadsheet (Appendix G)
8.4	X	Evidence of Land Access Agreement if operating on an Exploration Licence (EL) on Pastoral Lease (e.g. two-ways exchange of email)
8.5	NA	Disturbance tracking spreadsheet (for existing Authorisations)
8.6	NA	Spreadsheet with coordinates of proposed drill holes or polygons of target areas
8.7	X	KML/shape files/track logs of proposed tracks, camp sites and proposed drill holes or polygons of target areas (Appendix F).
8.8	X	Map(s) of the work area(s) showing:
		title boundaries and title numbers
		2. current and proposed drill holes, or polygons of target areas
		current and proposed tracks
		4. rehabilitated areas
		5. camp sites
		6. heritage sites or significant environmental areas
		7. environmental constraints
		(Appendix E)
8.10	NA	Radiation Management Plan (if applicable)
8.12	X	Appendix A - Authorisation Application
		Appendix B - Nomination of Operator
		Appendix C - Biodiversity Study
		Appendix D - AAPA Sacred Sites Report
		Appendix E - Maps
		Appendix F - GIS Files
		Appendix G - Security Calculation

Section 9 – Request for Additional Information

Department Reference: DITT2023/03350-0001~0007

Nomination of Operator Form

Corrected form is attached.

Land Access Agreement

This will be forwarded as soon as it is signed.

Proposed Timeframes

The proposed schedule of exploration activities has been updated in Section 1. With only a short period of time before the wet season, commencement in 2023 is entirely dependent on approval of this MMP as soon as possible, otherwise all activities will need to be delayed until 2024.

- October November 2023: A cut-down drilling program has been designed to enable completion and rehabilitation to occur within a ~3 week period. Initial ground reconnaissance, track and drill pad construction for RC drilling at Barretts, Old Company, Mt Shoobridge (see Figure 1 below). RC drill pad rehabilitation and closure works will occur immediately (within 1 week) of drilling completion to ensure it is completed prior to the wet season.
- May June 2024 ground reconnaissance, mapping and sampling aimed at defining drill targets at Two Bobs, Target Area #2 and 3.
- July November 2024 track and drill pad construction for RC drilling at Two Bobs, Target Area #2 and 3 and follow up drilling from the initial drilling stage.
- October to November 2024 RC drill pad rehabilitation and closure works.

Weeds

The MMP refers to the weed assessment and management actions recommended in the SLR assessment (Appendix C). However, the MMP does not demonstrate how these recommendations will be implemented.

In the revised MMP, provide a description of how relevant recommendations will be implemented. E.g. To demonstrate how the recommendation regarding vehicle hygiene will be implemented, vehicle wash down stations should be described and their locations indicated. Justification must be provided where a recommendation will not be implemented.

The following measures will be implemented to reduce the risk of weed and pest fauna introduction or spread.

Wherever possible, construction activities will work from areas with fewer introduced flora species and smaller infestations towards areas where there is a greater abundance of weed species.

• Vehicles and machinery brought on site will be clean and free of organic matter. The weed inspection will involve visually inspecting the interior of all vehicles and equipment including foot wells and under floor mats; engine bay and radiator; tyres and wheel arches; chassis, undercarriage and belly plates; and trays and tubs. The weed inspection is recorded on the Weed Hygiene Inspection Form which details the vehicle identification, results of the inspection, person of who conducted the inspection. Vehicles will be washed at the Company's base in Berry Springs (or nearby car wash facility) and driven only on bitumen prior to entering the project area.

- The movement of soil, mulch or any other material or equipment that may result in the movement of weed seed will be minimised.
- Observation of disturbance sites and soil stockpiles for incidence of weed species will be conducted and photos taken before and after disturbance for each drill pad and access track.
 A pre-disturbance survey was undertaken by SLR in September 2023.
- Where any weed establishment is identified, appropriate control measures will be implemented to minimise the impacts of weeds on native habitat. This will be done in cooperation with the pastoralist.
- Measures will be taken to avoid encouraging or increasing pest animal populations in the study area; such as:
 - onsite waste, particularly food waste, will be managed so as not to encourage scavenging wildlife to the area,
 - bins will be fitted with lids and these will remain closed between rubbish deposits.
 Rubbish will be taken offsite and disposed of at the nearest waste facility,
 - no camping on site.
- Fact sheets and/or induction on ways to minimise potential spread/introduction of pest flora and fauna species will be distributed to Core Lithium staff during the program.
- Weed and pest monitoring will continue for the life of the project within areas that are to be disturbed.

Flora and Fauna

In response to whether there are any threatened flora and fauna species or habitats of significance that may occur in the proposed work area, the MMP reports that: "The residual risk of potential impact to identified species is low. Refer to Appendix C [Terrestrial Ecology Desktop Assessment by SLR Consulting]".

This conclusion is not supported by the SLR assessment. The SLR assessment results are that the inherent risks to flora and fauna across a majority of domains are medium to high. The assessment makes recommendations to mitigate those risks. In particular, SLR recommend an on ground survey by qualified ecologists. The assessment concludes that

if the recommendations in the report are implemented, the residual risk will be low, but that "if the additional management measures cannot be implemented, impacts to these ecological values are possible, and a significant impact on the environment may occur, requiring referral to the NT EPA and/or the Commonwealth Government (under the EPBC Act)." This MMP does not demonstrate that the recommendations by SLR have been or will be implemented.

SLR also make recommendations regarding the application of buffers to sensitive vegetation in accordance with the NT Planning Scheme Land Clearing Guidelines (LCG). Best practice requires appropriate adherence to the LCG.

In the revised MMP, Core Lithium must:

- address all recommendations made in the SLR report
- demonstrate that the recommendations are integrated into the project's EMS
- provide the results of the ground truthing survey undertaken by suitably qualified ecologists
- demonstrate how any risks identified by the surveys will be managed

- provide a map and spatial data for buffers identifying areas that are not to be disturbed
- provide justification where a recommendation has not been implemented

A ground survey was undertaken by a qualified ecologist from SLR in September 2023 (attached). Although the area was largely burnt, there was nothing of significance noted in any of the work areas. Furthermore, the majority of the work areas were noted to be previously disturbed by past mining and exploration activities.

No riparian vegetation, vine thickets or old-growth forests were noted to exist in the proposed work areas which would trigger a significant impact assessment, and this is confirmed spatially in Figure 1. Therefore, there will be complete avoidance of the threatened species habitat.

Other standard operating principles, as recommended in the SLR report (Table 10) will be implemented, summarised below:

- Clearing of native vegetation will take place within existing disturbance wherever possible
 and be limited to the minimum clearing required. The study area has limited established
 access tracks; these will be used where possible,
- There will be no new clearing of sensitive or significant vegetation (i.e., riparian vegetation, vine thickets and old-growth forests) within a 20m buffer zone. Existing tracks that pass through such areas will only be maintained to allow vehicle access, and only in consultation with the pastoralist
- New tracks will largely be simple flattened paths clear of upright vegetation, however, if vegetation is thick and not responding to flattening techniques, it may be necessary to clear vegetation (i.e., trees and shrubs).
- Drill sites/pads will be located away from watercourses.
- New tracks will be located along routes designed to have the minimum impact on vegetation and soils, as determined from imagery and from field reconnaissance (e.g., tracks will be designed to avoid, when possible, steep topography).
- New tracks will not be graded or have topsoil cleared/removed.
- Where soil is disturbed due to earthworks activities; topsoil will be separately stockpiled and restored in its correct position in the soil profile during rehabilitation.
- In the event of heavy rain, works will cease to prevent damage to tracks, soils and vegetation.
- Disturbed areas will be rehabilitated (and re-profiled if necessary) with before and after photos taken, including 12 months after disturbance to monitor remediation
- Clearing of mature trees will be avoided, or minimised. No nesting or hollow-bearing trees
 will be disturbed. Vegetation clearance will be supervised at all times by an experienced Core
 representative, trained by SLR, and who will carefully choose the best route prior to
 commencing works
- Vehicle speeds will be restricted to 40km/h maximum

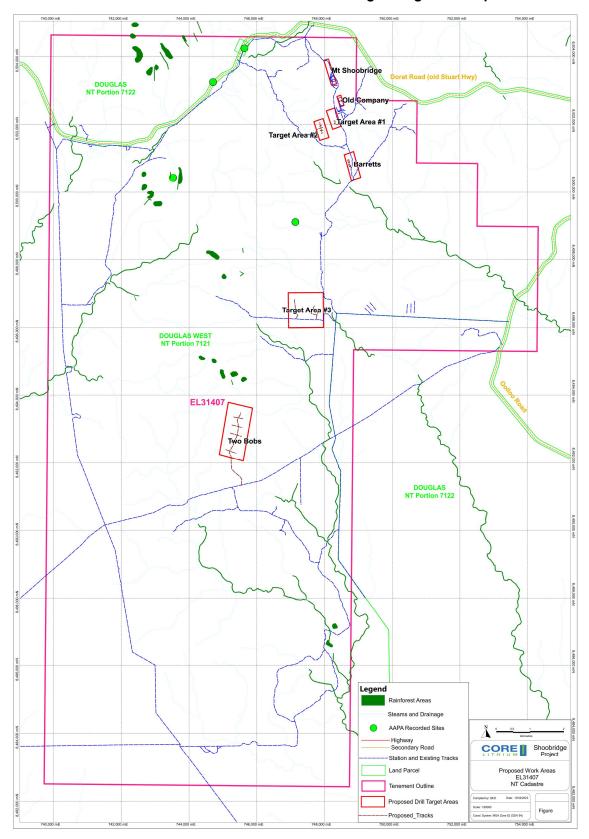


Figure 1: Proposed work areas in relation to environmentally sensitive areas

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