



GRANTS LITHIUM PROJECT

Environmental Impact Statement

Appendix M

Social Impacts and Opportunities Assessment (risk registers)

Prepared by True North Strategic Communications

October 2018

Impacts assessment

Impact	Timing	Likelihood (refer rating schedule)	Consequence: • Extent • Duration • Sensitivity • Severity • Community perceptions	Pathway, cause	Discussion	Social Impact Rating	Mitigation and management	Residual Impact Rating	
People, communities and way of life									
1	Reduced community amenity in the region for local residents and along the transport route.	Construction Operations	C	2, 2, 3, 2, 2 (11 – moderate)	EIS released for public comment. Construction and project mobilisation.	<ul style="list-style-type: none"> Project location – bushland, relative isolation from residential areas. Berry Springs community - 36km away (population approx. 818). Belyuen community - 24 km away (population approx. 178). Potential impacts of project on amenity: <ul style="list-style-type: none"> - blasting – noise (no close neighbours), vibration, road closures - site clearing and preparations – dust - transportation – a fleet of three quad road trains doing up to a total of ten round trips to Darwin Port - dust, noise, pollution, traffic congestion and delays - workforce traffic – traffic congestion, noise - lights at night – minimal impact due to location and isolation. The transport route includes Cox Peninsula Road which is single carriageway. Project operations - 24 hours/7 days a week. Haul operations daytime only. Transported ore is a gravel-like material with low dust emissions and truck loads will be covered. Vegetation will be maintained between the road and the mine site however lights at the site will be visible at night. 	C2 Moderate	<ul style="list-style-type: none"> Consider stakeholder feedback when determining blasting times. Liaise with DIPL re Cox Peninsula Road usage monitoring to determine peak traffic times to help inform decision. Community liaison and stakeholder engagement: <ul style="list-style-type: none"> - Advise stakeholders and the local community of blasting times and the factors that determined this (transparency). - Ongoing engagement with Berry Springs Primary School on truck movements. Environmental Management Plan to minimise dust and noise. Best practice dust management, visual monitoring of dust emissions along Cox Peninsula Road and additional dust management if dust is visible. Blasting Management Plan to address noise and safety issues. Traffic Management Plan. Implementation of speed restrictions through Berry Springs Develop a local sponsorship program that focuses on the Berry Springs area, with particular attention to Berry Springs Primary School and local sporting groups. 	C1 Low

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Economies									
2	Other industry sectors negatively impacted by industrial traffic on local roads.	Construction Operations	C	1, 1, 1, 1, 1 (5 – minimal)	Project mobilisation and trucks on the roads during operation.	<ul style="list-style-type: none"> Tourism - Tourists use Stuart Highway and Cox Peninsula Road to access tourist locations and activities. Pastoral industry - Pastoralists use Cox Peninsula Road to transport cattle to the Darwin Port. May be impacted by closures, traffic delays and congestion. Anticipated traffic increase with completion of sealed road to Litchfield. 	C1 Low	<ul style="list-style-type: none"> Traffic Management Plan. Road signage on Cox Peninsula Road. Communication and engagement with stakeholders. 	D1 Low
3	Community expectations of local content not realised.	Construction Operations	D	1, 1, 2, 1, 2 (7 – minor)	Contracts not awarded to local businesses.	<ul style="list-style-type: none"> Expectation that local businesses have the capabilities to do the work and will be awarded contracts. Businesses may have unrealistic expectations of the size and longevity of work on the project (3 years). 	D2 Low	<ul style="list-style-type: none"> Recruitment and procurement processes prioritising the local market. Package tenders to suit local capacity. Ongoing communication to manage local content expectations. 	D2 Low
4	Community expectations of boost to local economy not met.	Construction Operations	C	1, 1, 1, 1, 1 (5 – minimal)	Contracts not awarded to local businesses and jobs not local.	<ul style="list-style-type: none"> Expectations may exceed reality due to the scale and duration of the project. 	C1 Low	<ul style="list-style-type: none"> Recruitment and procurement processes prioritising the local market. Package tenders to suit local capacity. Ongoing communication with the community and business sector about project detail to minimise unrealistic expectations. 	D1 Low
Education and employment									
5	Community expectations of local jobs not realised.	Construction Operations	C	1, 1, 1, 1, 1 (5 – minimal)	Jobs not awarded locally.	<ul style="list-style-type: none"> Commitment made by Core to recruit locally where possible. People may have unrealistic expectations about the number of jobs available. May be expectation this project will fill employment gaps left by Inpex and the abattoir. 	C1 Low	<ul style="list-style-type: none"> Recruitment and procurement processes prioritising the local market. Communication of project detail including expected number of jobs to minimise unrealistic expectations. Provide support to contractors to employ and train local Aboriginal people. Liaise with other large projects about the opportunities to transition staff. 	D1 Low

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Infrastructure and social services									
6	Pressure on local road integrity and maintenance from additional industrial traffic.	Construction Operations	D	1, 1, 1, ,1,1 (5 – minimal)	During construction and when production starts and truck movements increase.	<ul style="list-style-type: none"> Cox Peninsula Road floods during heavy rainfall. Risk the road will be damaged by heavy vehicles. DIPL advised that weight restrictions apply during flooding events until the flooding clears. A fleet of three quad road trains travelling up to a total of ten round trips per day – relatively low number. Transport route selected to minimise impacts to road integrity (Cox Peninsula Road instead of Finn Road). 	D1 Low	<ul style="list-style-type: none"> Ongoing engagement with the Department of Infrastructure, Planning and Logistics. 	D1 Low
7	Traffic delays or congestion from additional industrial, workforce vehicles and blasting.	Construction Operations	A	1, 2, 1, 1, 1 (6 – minor)	<p>Increased traffic movement (trucks, workforce and associated project traffic).</p> <p>Start of blasting with project commencement</p>	<ul style="list-style-type: none"> A fleet of three quad road trains travelling up to a total of ten round trips per day Blasting onsite - closure of Cox Peninsula Road (max 15 minutes three times per week). Industrial traffic will be noticeable for the rural area, particularly on Cox Peninsula Road. Most sensitive areas - Berry Springs Primary School, Berry Springs township and at Coolalinga (at Girraween Rd). Concerns about road closures affecting traffic flow and delays on Cox Peninsula Road for commuters, fishermen and pastoralists. Road closures may impact emergency vehicle access to other areas such as Wagait, Belyuen, Mandorah. 	A2 High	<ul style="list-style-type: none"> Consider stakeholders feedback when planning blasting times. Liaise with DIPL re Cox Peninsula Road usage monitoring to determine peak traffic times. Plan truck movements to minimise impacts to people and communities. Community liaison and stakeholder engagement: <ul style="list-style-type: none"> Advise stakeholders of blasting times and the factors that determined this. Ongoing engagement with Berry Springs Primary School on truck movements. Traffic Management Plan. Consider transporting workers to and from site by bus to minimise traffic. 	B1 Moderate
8	Increased pressure on police and emergency services.	Construction Operations	C	1, 1, 2, 2, 2 (8 – minor)	Project mobilisation increasing the risk of incidents requiring police and emergency services.	<ul style="list-style-type: none"> Potential increase in road trauma, bushfires, spills, workplace incidents or other emergencies. Scale and duration of project – reduces risk. High incidence of bushfires in the area. Key concern – increased risk of road trauma. At least 30 minutes wait for emergency services in the area. Closure of Cox Peninsula Road will impact emergency access to other areas. 	C2 Moderate	<ul style="list-style-type: none"> Emergency Management and Response Plan. Fire breaks to reduce the risk of bushfires. Traffic Management Plan. Emergency response capability and first aid facilities on site. Road rescue capabilities on site. Fencing and security measures onsite for security of explosives. Measures in place to enable emergency vehicles passage through road closure to access an emergency. 	C1 Low

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Health, wellbeing and safety									
9	Increased road safety risk due to project traffic, particularly in built-up areas.	Construction Operations	C	1, 2, 3, 3, 2 (11 – moderate)	Increased traffic with project mobilisation.	<ul style="list-style-type: none"> Increased risk with construction and industrial traffic sharing local roads, increased workforce traffic with drive-in, drive-out workers (including risk to workers driving after shifts) and increased risk to other road users. Road safety risk hotspots: <ul style="list-style-type: none"> Berry Springs Primary School Berry Springs township Turn-off to the Territory Wildlife Park driving towards Berry Springs A school bus interchange on the corner of Cox Peninsula Road and Stuart Highway. Stuart Highway at Coolalinga, in particular at Girraween Road. The combination of industrial traffic with pedestrians, commuters, tourists, fishermen, cattle trucks and other traffic on a road with minimal overtaking opportunities is a road safety risk. Workforce traffic will be at shift changes early morning and late afternoon/evening. If workers are not transported to and from site by bus (which is still to be decided by Core), at peak employment, there would be 64 vehicles completing the return trip per day. 	C3 High	<ul style="list-style-type: none"> Traffic Management Plan. Collaboration with NT Police, Berry Springs Primary School and community on truck movements. A complaints hotline to report any traffic breaches. Local presence (site office or hotline) so local people can raise issues. Alert system implemented to monitor truck speeds with consequences for breaches. Controls over timing of heavy vehicles (e.g. avoiding times when children are travelling to and from school). Day time haul operations only. Implementation of speed restrictions through Berry Springs. Workplace health and safety regulations to minimise risk of workers driving after long shifts / or transport workers to and from site by bus to minimise risk. If workers are not transported by bus, they will be encouraged to carpool. Shift changes to be timed to minimise traffic increases through Berry Springs during school start and end times. 	C2 Moderate
10	Anxiety as a result of fears about project impacts	Planning Construction Operations	C	2, 2, 2, 2, 2 (10 – minor)	<p>Rumours or negative media coverage leading up to and during the project.</p> <p>Damage or contamination to environment.</p>	<ul style="list-style-type: none"> Fears and anxiety about unknown impacts may be fuelled by rumour and misinformation. May be due to perceptions of risk to water, landscapes, waste, industrial activity, fears transported material is hazardous. Concerns about impacts to Darwin harbour, Bynoe harbour, Finniss River, tributaries or other culturally significant water courses, or damage to biodiversity as a result of water use or contamination. Increased fears about risks to water due to public scrutiny regarding water use and management in the Territory. Concerns about post-mining impacts on the environment. 	D2 Low	<ul style="list-style-type: none"> Environmental Management Plan. Early engagement to identify issues of concern and information needs. Ongoing communication with the community and stakeholders, including environmental management, water use and management. This will address rumours and misinformation that leads to fear and anxiety. Local presence (site office or hotline) so local people can raise issues. Mine Closure and Rehabilitation Plan. 	D2 Low

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Culture and heritage									
11	Destruction or damage to cultural or significant sites	Construction Operations	C	1, 1, 4, 2, 3 (11 – moderate)	Construction and operations.	<ul style="list-style-type: none"> Advice from the NT Heritage Branch indicates there is a recorded Aboriginal archaeological site in the north-west corner of the mining lease. This site is protected under the NT Heritage Act but is outside of the disturbance footprint and will not be impacted by mining operations. There are two old tin mines located on the eastern side of the mining lease. The NT Heritage Branch these sites are not protected under the Act but do have some historic heritage value and should be avoided if possible. 	C2 Moderate	<ul style="list-style-type: none"> The known heritage sites within the mining lease will be no-go areas. A Code of Conduct for workers and inductions will cover protection of heritage values. Any previously unrecorded archaeological sites encountered will be reported to the NT Heritage Branch for advice on how to respond. Procedures for unexpected heritage finds will be included in the Mine Management Plan. An Authority Certificate will be obtained from the AAPA. 	D2 Low
12	Reduced access to and enjoyment of traditional cultural activities					<ul style="list-style-type: none"> Larrakia people and Belyuen residents may enjoy traditional cultural activities near the site or downstream. Extent of traditional activities in this area is unknown as the stakeholders not available for consultation. Contact was made in late October 2018 with a briefing and meeting with the Belyuen community planned for November 2018. It is recommended that Core’s future stakeholder engagement include discussions with relevant Indigenous stakeholders to ensure any traditional cultural activities are understood and not impacted by the mine. 	Unable to be assessed – see discussion	<ul style="list-style-type: none"> Environment Management Plan. Engage with relevant Indigenous stakeholders to ensure traditional activities in nearby areas are not impacted. 	Unable to be assessed – see discussion
Environment									
13	Threats to environmental values from industrial activity.	Construction Operations Closure	C	1, 2, 2, 2, 3 (10 – minor)	<p>Release of the EIS for public review.</p> <p>An event that causes damage to the environment.</p>	<ul style="list-style-type: none"> Popular area for tourists and locals for camping and fishing. People will want environmental values protected. Potential threats - management of waste rock, impacts to flora and fauna, management of erosion and weeds, plans for rehabilitation, impacts to downstream water courses, contamination from spills or storm water runoff. West Arm is a popular fishing area - may be concerns about potential impacts to downstream water courses and fishing. There are temporary swimming holes in the wet season downstream from the project, and people may have concerns about the impacts to those. Modelling indicates the reduction in flow is not expected to impact on those waterholes. Some concerns the open pit will fill with water during the wet season and flooding will release chemicals into the environment. 	C2 Moderate	<ul style="list-style-type: none"> Environment Management Plan. Ongoing stakeholder and community engagement. Mine Closure and Rehabilitation Plan – with transparency so people understand the detail. 	D2 Low

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						<ul style="list-style-type: none"> Some distrust of environmental regulation in the Territory. Small project footprint, compared with other mining projects. As the area is undeveloped, any industrial development will be noticeable despite vegetation being maintained between the road and the mine site. Disposal of waste will be to either Humpty Doo or Darwin landfills through a licenced waste contractor in line with commercial arrangements. 			
14	Impacts on the availability of groundwater to other users.	Construction Operations Closure	D	2, 3, 3, 2, 3 (13 – moderate)	Release the EIS for public review. Perceived changes to water.	<ul style="list-style-type: none"> The water requirements will be sourced from a combination of the existing Observation Hill Dam (the wall of which will be raised to increase capacity), a new small dam built on the mineral lease, capture and re-use of stormwater that falls on the mine site, re-use of groundwater that enters the pit and recycled water from processing activities. Information about the project’s water requirements was received favourably by the stakeholders and community members consulted. High level of awareness and concern in the Territory regarding use of ground water by mining companies. The fracking inquiry has increased this awareness as has the Kenbi Land Claim which highlighted water availability as a key barrier to development on the Cox Peninsula. The Berry Springs area is experiencing water strain - people very aware of water sustainability, especially groundwater. To ensure a reliable and sustainable water supply Core engaged technical specialists to quantify water yields from the proposed dams and inflow of groundwater to the pit. The studies also model potential downstream impacts to surface water flows and groundwater levels that could occur as a result of the mine. 	D3 Moderate	<ul style="list-style-type: none"> Environment Management Plan. Water Management Plan Ongoing communication with stakeholders and the community about water use including the source and volume, to avoid misinformation and rumours circulating locally. 	D2 Low
Human rights									
15	Breaches of human rights.	Construction Operations	D	1, 2, 1, 1, 1 (6 – minor)	Project mobilisation.	<ul style="list-style-type: none"> Inadvertent or deliberate breaches of human rights such as racism in the workplace; labour breaches, such as inequitable pay; or gendered impacts, such as inequitable access to jobs for women. 	D2 Low	<ul style="list-style-type: none"> Code of Conduct. HR Management Plan. Culturally-appropriate communication. 	D2 Low
Cumulative									
16	Cumulative impacts of industrial activity on the environment and of increased	Construction Operations Closure	C	1, 2, 2, 2, 2 (9 – minor)	Release of EIS for public review.	<ul style="list-style-type: none"> Limited industry and limited water - unlikely cumulative impacts will be felt there. 	C2 Moderate	<ul style="list-style-type: none"> Environment Management Plan. Mine Closure Plan. Stakeholder engagement. 	D2 Low

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	industrialisation of the region.				<p>Start of construction and operations.</p> <p>Project activity impacting the environment.</p>	<ul style="list-style-type: none"> Perception (only a few stakeholders mentioned this) that this is another mining project increasing industrial activity in and around Darwin harbour and impacting on water and biodiversity of the region. Increased industrialisation of the rural area which is valued for its environmental and recreational assets. Potential concerns about environmental impact post closure. 		<ul style="list-style-type: none"> Ongoing communication. 	
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Opportunities assessment

Opportunities	Timing	Likelihood (refer rating schedule)	Consequence: <ul style="list-style-type: none"> Extent Duration Sensitivity Severity Community perceptions 	Pathway, cause	Discussion	Social Opportunities Rating	Enhancement	Residual Opportunities Rating	
People and communities									
OP 1	Local communities benefit through distribution of sponsorship funds.	Construction Operations Closure	C	1,1,1,1,1 (5-minimal)	Distribution of sponsorship funds.	<ul style="list-style-type: none"> Core has communicated that it will work with the local stakeholders and communities to minimise negative impacts as much as possible, and has also indicated an interest in providing sponsorship funds to enhance benefits to the local communities. 	C1 Low	<ul style="list-style-type: none"> Develop a sponsorship plan to ensure the most affected stakeholders and communities benefit from the project. 	B1 Moderate
Economies									
OP 2	Local businesses benefit from winning contracts.	Construction Operations	C	1, 1, 2, 1, 2 (7 – minor)	Awarding contracts.	<ul style="list-style-type: none"> An expectation that local businesses will be used for the project. The Chamber of Commerce confirmed businesses struggling with the economic downturn and there is interest in work. The relatively small scale of the project means there is a synergy with local capabilities. The short-term nature of the project means the opportunity is not as great as it would be for a larger and longer term project. 	C2 Moderate	<ul style="list-style-type: none"> Package tenders to suit local capacity. Proactive identification of local business with the capability to work on the project. Agreements with contractors to include local service and supply requirements. 	C2 Moderate
OP 3	Local economies stimulated through payments to workers,	Construction Operations	C	1, 1, 1, 1, 1 (5 – minimal)	Awarding of local contracts and local jobs.	<ul style="list-style-type: none"> The short-term nature and the scale of the project limits the extent of the positive impact on the local economy, so it will be important to manage expectations. 	C1 Low	<ul style="list-style-type: none"> Package tenders to suit local capacity. Ongoing communication about the size and longevity of contracts to ensure 	B1 Moderate

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	contractors and local companies					<ul style="list-style-type: none"> Although contracts may not be large overall, they are likely to suit the scale of smaller local business and it is likely that the local economy will be stimulated to some extent, with a flow-on through the purchase of local goods and services and wages. As the workforce is not FIFO and based locally, it is likely that wages will go back into the local economy. 		businesses are ready and don't over capitalise in equipment for the project.	
Employment and education									
OP 4	Boost to direct and indirect local employment, through jobs on the project or throughout the local supply chain.	Construction Operations	B	1, 1, 1, 1, 1 (5 – minimal)	Awarding of local jobs.	<ul style="list-style-type: none"> Expectation that workers will be sourced locally. Commitment made by Core to recruit locally. Some residents transitioning off Inpex and the abattoir and will be looking for local employment. 	B1 Moderate	<ul style="list-style-type: none"> Recruitment and procurement processes prioritising the local market. Communication regarding job numbers and opportunities. 	B1 Moderate
OP 5	Indigenous employment opportunities.	Construction Operations	C	1, 1, 1, 1, 1 (5 – minimal)	Jobs awarded to Indigenous people.	<ul style="list-style-type: none"> Expectation of opportunities for Indigenous people to work on the project. Will require a level of job readiness. There may be workers able to transition from the Inpex project, and there may be some work-ready people from Belyuen (with work placement support from Ironbark Aboriginal Corporation). The Northern Territory Government has an expectation that projects in the Territory provide opportunities for Indigenous employment. 	C1 Low	<ul style="list-style-type: none"> Work with Ironbark Aboriginal Corporation, Larrakia Development Corporation or other Indigenous employment and training providers to maximise Indigenous employment opportunities. 	B1 Moderate

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Social impact and opportunity rating schedule

		Consequence level					
		1	2	3	4	5	
		Minimal	Minor	Moderate	Major	Extreme	
Likelihood	A	Almost certain	A1	A2	A3	A4	A5
	B	Likely	B1	B2	B3	B4	B5
	C	Possible	C1	C2	C3	C4	C5
	D	Unlikely	D1	D2	D3	D4	D5
	E	Rare	E1	E2	E3	E4	E5
	Social risk rating	Low	Moderate	High	Extreme		

Likelihood descriptors used to assess social impacts

- A Almost certain
- B Likely
- C Possible
- D Unlikely
- E Rare

Consequence descriptors used to assess social impacts

Descriptor	Example	Potential range of consequences
Extent	The geographic footprint of the impact.	1. Localised, small impact footprint 5 Extensive, impact will be felt well outside the project footprint by many people or communities or downstream communities
Duration	Is the impact temporary or permanent?	1 Short-term threat or benefit 5 Permanent or long-term, for the life of the project or beyond
Sensitivity	How sensitive is the community to this change? What is their resilience or vulnerability to change?	1 Few people will feel, perceive or be concerned about changes, which can be readily absorbed 5 People will feel or perceive major disruption to lives, lifestyles, values and may have trouble accommodating this O (Opportunity) – may materially change their lives for the better
Severity	The degree of change from existing conditions.	1 Imperceptible change from existing conditions 5 A substantial and noticeable change to existing conditions, lifestyles (positive or negative)
Community concern	What does a community think or feel about this issue?	1 The issue does not cause concern or raise expectations 5 There is widespread fear, concern or alarm that is likely to attract complaints, media coverage, protests, political pressure O (Opportunity) – the level of excitement about the project and the benefits it will bring
Consequence score		1. Minimal (score of 1-5) 2. Minor (score of 6-10) 3. Moderate (score of 11-15) 4. Major (score of 15-20) 5. Extreme (score of 21-25)

