

## TransGrid 132 kV Transmission Line – Manildra to Parkes

### Department of Urban Affairs and Planning: “Is an EIS Required?”

Statutory considerations for determining authorities are included in Section 111 of the EP&A Act and Clause 228 of the EP&A Regulation, 2000. Clause 228(1) of the EP&A Regulation, 2000 provides that factors referred to in the *general guidelines* in force under that clause be taken into account when consideration is being given to the likely impact of an activity on the environment. The general guidelines are contained in a document published by the Department of Urban Affairs and Planning entitled “*Is an EIS Required?*”.

The following tables present the state of existing environmental resources in the project area and assess the likely potential impacts of the proposed transmission line on the environment. The methodology provided in the Department of Urban Affairs and Planning guideline, “Is An EIS Required?” was used to assist in identification of environmental issues of potential relevance to the proposal. As outlined in the guideline:

- The potential environmental issues associated with the project are identified in Table 1;
- The extent of the potential impact is identified in Table 2A;
- Table 2B analyses the extent of potential adverse impacts in sensitive locations;
- An analysis of the nature of the impacts is given in Table 2C;
- An evaluation of the likely significance of the potential impacts on the environment is provided in the final table.

TransGrid 132 kV Transmission Line - Manildra to Parkes	
Activity	TransGrid is proposing to construct a transmission line connection linking the Manildra 132/11kV substation to the Parkes 132/66kV substation.
Objectives	<p>The objectives of the project are to:</p> <ul style="list-style-type: none"> <li>• improve system reliability for residents and businesses in the Parkes, Manildra, Forbes and Cowra areas, and meet increasing power demands in the region through the construction of the new transmission line;</li> <li>• ensure that the line is built to a safe and serviceable condition;</li> <li>• take into consideration community concerns and expectations with respect to impacts to current land use and preservation of the environment; and</li> <li>• comply with legislative requirements covering environmental protection and management by employing environmentally responsible design, construction and maintenance techniques.</li> </ul>
Major elements	The proposed transmission line would comprise a single circuit, single pole 132kV construction consisting of supporting structures (the poles) and conductors (wires). Access track upgrading and/or construction would be required within and beyond the 45m easement to each proposed pole site. Temporary access tracks would be established for construction phase purposes and permanent access tracks for ongoing operation. The project would involve vegetation clearing along the easement as required for access and safety clearance purposes. Site preparation and pole foundation work may include benching and excavation for establishing work pad sites. Pole structures would be installed along the 81km stretch and conductor and earth wire

	stringing between each of the erected poles would occur. Rehabilitation including slope stabilisation works and re-vegetation at work site areas and construction access tracks would be carried out at the conclusion of works at each work site.
Any ancillary works	<ul style="list-style-type: none"> <li>• access track upgrading and/or construction as required. Temporary access tracks would be established for construction phase purposes and permanent access tracks for ongoing operation;</li> <li>• establishment of a temporary site office with toilets and sufficient room for storage of plant, equipment and waste materials; and</li> <li>• installation of temporary and permanent fences and gates as required and agreed upon between the proponent and affected landholders.</li> </ul>
Outline of construction methods	<p>At each pole worksite, the following clearing would be undertaken:</p> <ul style="list-style-type: none"> <li>• the permanent removal of groundcover within a maximum area of 2.25m<sup>2</sup> at each pole to allow construction of concrete pole footings;</li> <li>• the permanent clearing of the canopy and shrub layer within a 15m diameter area surrounding each pole; and</li> <li>• the permanent clearing of the canopy and shrub layer within a 6m radius of conductors.</li> </ul> <p>Benching of the underlying ground surface may be required at work site locations with sloped terrain. Equipment to be used during the construction phase requires a level area, which would be created by cut and fill methods where required. The bench area required for the use of cranes and elevated work platform plant is typically 8m by 4m. Soil disturbance works with the appropriate soil erosion controls would only be carried out at locations where this would be required for the safe operation of equipment during construction.</p>
Outline of operations	At the completion of transmission line construction, ongoing maintenance of the 45m wide easement and required access tracks would be required.
Location(s)	The proposed 132kV transmission line would extend 81.3 km from the existing Parkes 132/66kV substation to the existing 132/11kV substation at Manildra. The proposed alignment is located within three Local Government Areas (Parkes, Forbes and Cabonne).

**Table 1: Identify the Issues**

Characteristics of the Activity (during construction & operation)	
<b>How is the proposal likely to affect the physical aspects of the environment or introduces pollution or safety risk factors?</b>	
1. disturbs the topography or above or below ground features including filling, excavation, dredging, tunnelling; eg landforming, site preparation, quarrying, reclamation, creation of islands, waterbodies, etc; involves the disposal of large quantities of spoil	Earthworks would be restricted to work pad sites and areas where vegetation clearance was required and unavoidable, and where access tracks would be required along the alignment.
2. affects a natural waterbody, wetland or groundwater aquifer or the natural water drainage pattern; affects the quality or quantity of water in the systems	A number of water course crossings may require upgrading or installation during the construction phase, however appropriate mitigation measures would be followed. The REF presents a series of mitigation measures for different watercourse types appropriate for the different attributes of surface water features likely to be encountered.
3. uses groundwater or surface water from a natural waterbody; stores	N/A

water in a dam or artificial waterbody	
4. changes the flood or tidal regimes or be affected by the flooding or tides	N/A
5. uses, stores, disposes or transports hazardous substances mutagenic substances); uses or generates pesticides, herbicides, fertilisers or other chemicals which may build up residues in the environment	Chemical control is used selectively to remove fast growing species within the easement, generally in places where mechanical control is not appropriate because of terrain or environmental constraints. Only approved herbicides are used, and strictly in accordance with the existing TransGrid Environmental Policy 'Use of Herbicide for Vegetation Control' (GM AS L3 008).
6. generates or disposes of gaseous, liquid or solid waste(industrial, medical or domestic waste, sewage, sludge or effluent, spoil or overburden); generates greenhouse gas emissions or releases chemicals which affect the ozone layer or are precursors to photochemical smog; generates or disposes of hazardous waste.	Minor quantities of waste would be generated through the construction phase including empty conductor and earthwire drums; short lengths of conductors, earthwires and staywires; vegetation debris, and packaging materials. All TransGrid staff and contractors would undertake construction of the transmission line in accordance with TransGrid's Waste Management Policy (GD EN G3 023). This policy document applies to all TransGrid workplaces where waste is generated, stored, handled or transported. This document provides processes for the storage, recycling, transportation and disposal of goods, assets and other solid or liquid wastes (collectively referred to as wastes) in a manner compliant with environmental legislation.
7. emits dust, odours, noise, vibrations, blasts, electromagnetic fields or radiation in the proximity of residential areas or landuses likely to be affected.	The proposed development is not in close proximity to residential areas. Potential dust and noise impacts are identified as being of negligible impact. The predicted EMF values for the proposal are well within the guidelines for public exposure and commensurate with typical fields associated with such developments. Any burning of vegetation shall be carried out only with the permission of the local council and local fire authority (Rural Fire Control Centre or NSW Fire Brigade) and in accordance with the Rural Fires Act 1997 and all Regulations thereunder and any necessary permits shall be obtained.
8. any other matters.	<b>If no impacts identified; this section could be ignored in Table 2(a) and 2(c).</b>
<b>How is the proposal likely to affect the biological aspects of the environment?</b>	
1. clears or modifies (including by modifying the drainage) native vegetation (including trees, shrubs, grasses, herbs or aquatic species)	Conservatively, approximately 41ha of native vegetation, 25ha of highly modified vegetation (low condition; primarily consisting of scattered remnant canopy trees/paddock trees with a highly disturbed understorey) would be modified as part of the establishment of the transmission line and associated 45m wide easement. The remainder of the easement (300ha) is comprised of cleared land, land used for cropping, and exotic pasture.
2. displaces or disturbs fauna (terrestrial or aquatic) or creates a barrier to fauna movement; clears remnant vegetation or wildlife corridors.	The proposed action will involve a small amount of clearing (11 ha) of the EEC White Box-Yellow Box-Blakely's Red Gum Woodland community. This represents 2% of the total occurrence of the EEC mapped within the study area. It is considered unlikely that this will result in a significant increase in the fragmentation or isolation from other remnants.  The EEC occurs throughout the locality, and the small amount of clearing associated with the proposed action is unlikely to significantly impact the long term survival of the species within the area. The EEC does provide important potential habitat for a number of threatened species that are

	<p>predicted or known to occur within the study area.</p> <p>In accordance with the NSW Threatened Species Conservation Act 1995 a Species Impact Statement (SIS) was prepared in tandem with this REF as flora and fauna surveys determined that the proposed development would be 'likely' to impose 'a significant effect' on White Box Yellow Box Blakely's red gum woodland (Box Gum Woodland).</p>
3. introduces noxious weeds, vermin, feral species or disease or releases genetically modified organisms.	Weed invasion mitigation strategies will be employed. All noxious weeds found in proximity to the proposed alignment will be controlled as per the most recent information available from the NSW Department of Primary Industries. It should be noted that weeds are already present at a number locations.
4. undertakes activity which affects revegetation or replenishment of native species following a disturbance	The proposal involves ongoing maintenance of vegetation clearances within the transmission line easement.
5. introduces high bushfire risk factors or change the fire regime	TransGrid operates infrastructure and assets in accordance with stringent safety control measures, including the careful maintenance of vegetation clearances from the lines. The proposal is not expected to increase the risk of bushfires in the area.
6. any other issues.	N/A
	<b>If no impacts identified; this section could be ignored in Table 2(a) and 2(c).</b>
<b>How is the proposal likely to affect natural or community resources?</b>	
1. uses or results in the use of community services or infrastructure including roads, power, water, drainage, waste management, education, medial, social services	Construction vehicle movements and construction phase deliveries will be associated with the proposal. The proponent and its contractor would liaise with local council and the RTA as appropriate to coordinate an appropriate transport strategy to be followed for the delivery of poles and other components required for the line construction.
2. uses or results in the use of natural resources including water (ground or surface), fuels, timber, extractive material, minerals, prime agricultural land, etc	Minimal impacts are anticipated; land use would remain largely unchanged across properties impacted by the proposed development
3. affects future potential of commercial deposits of minerals or extractive material or areas important for fishing, agriculture or forestry	N/A
4. changes the demographics of an area	N/A
5. changes in the transport requirements of an area	N/A
6. creates a new route alignment for the provision of infrastructure (eg rail, roads, power, etc)	A 45m wide easement will be associated with the proposed alignment. The easement would be maintained to allow TransGrid to access the line for ongoing routine maintenance.
7. any other issues.	N/A
	<b>If no impacts identified; this section could be ignored in Table 2(a) and 2(c).</b>
<b>How is the proposal likely to affect the community?</b>	

1. generates population movements including influx or departure of the workforce;	N/A
2. changes the workforce or industry structure of the area/region; affects employment opportunities	Construction of the transmission line would provide short term work for the construction crews, although would not provide any direct additional long term employment in the area. It would contribute to potential jobs in the area by supporting the ongoing development of additional industries through the reliable provision of power.
3. affects areas of high population densities or established development patterns	N/A
4. affects or affecting access to an area, building or items of aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, recreational, aesthetic or social significance or other special value for present or future generations	N/A
5. affects the visual or scenic landscape (including major cuts/fills, towers, projects on escarpments etc)	Potential impacts have been assessed as part of a visual and landscape assessment. The visual assessment determined that the potential visual impact on identified residential receptors ranged from nil (10 receptors) to low (38 receptors), to moderate (5 receptors) to high (2 receptors). For motorists and rail passengers travelling along local roads, main highways and portions of railway lines, visual impact was identified as low. Overall, the transmission line would tend to have a low visual impact on people travelling through, or residing in areas surrounding the line and the project would be unlikely to create an unacceptable level of visual change to the surrounding landscape.
6. affects sunlight or views of another property	
7. affects the amenity of publicly owned land (particularly recreational areas, national parks or reserves)	
8. changes land use from the surrounding uses as a direct or indirect result of the activity; forms a barrier to movement within the community or access to existing properties; leads to a loss of housing	Grazing and cropping land would not suffer any significant decline in productivity as the proposed easement would not be fenced. The supporting structures would occupy an insignificant amount of the total easement area and the land under the line could be cultivated by mechanical means provided that care is taken with machinery used. There is no evidence suggesting that the line would have any adverse effect on the behaviour or productivity of livestock. Maintenance personnel would need occasional access to the line and their activities would not interfere with normal agricultural activities.
9. generates significant volume of traffic (road, rail, air, pedestrian etc)	Traffic impacts associated with the construction phase at any one property would occur over an average period of 3-4 days and up to a maximum of two weeks during the pole construction works.
10. generates nuisance or health or safety risks including air pollution, odour, noise or vibration, blasting, electromagnetic fields or radiation or releases disease or genetically modified organisms or change the bush fire regime.	Dust and noise impacts identified as negligible and short in duration. The predicted EMF values for the proposal are well within the guidelines for public exposure and commensurate with typical fields associated with such developments.
11. any other issues.	None
	<b>If no impacts identified; this section could be ignored in Table 2(a) and 2(c).</b>
<b>How is the proposal likely to affect areas sensitive because of physical factors?</b>	
1. coastline and dune fields, alpine areas, deserts, caves or other unique landforms	N/A

2. land with high agricultural capability	Grazing and cropping land would not suffer any significant decline in productivity as the proposed easement would not be fenced.
3. natural waterbodies, riparian zones, wetlands, drinking water catchments or flood prone areas	Impact not likely to be significant providing mitigation measures are adhered to.
4. groundwater recharge areas or areas where high water table	None
5. erosion prone areas, areas with slopes of greater than 18 degrees,	None; slopes >18 degrees have been avoided as part of the route selection and design process.
6. subsidence or slip areas	None
7. areas where acid sulphate, sodic or highly permeable soils	Sodic soils and mitigation measures to prevent erosion impacts during construction are identified.
8. areas where salinity or potential salinity problems	N/A
9. area with degraded air quality	N/A
10. area with degraded or contaminated soil area with degraded or contaminated water (ground or surface)	N/A
11. any sensitive areas.	N/A
	<b>If no impacts identified; this section could be ignored in Table 2(b).</b>
<b>How is the proposal likely to affect areas sensitive because of biological factors?</b>	
1. corals and seagrass beds, wetland communities (coastal, peatlands or inland), native forests, urban bushland, arid and semi arid communities,	None
2. critical habitats or the habitats of threatened fauna or flora species, populations or ecological communities (within the meaning of the TSC Act)	Refer to SIS prepared for proposal.
3. habitat of species listed under international agreements including Japan-Australia Migratory Birds Agreement(Jamba) and China-Australia Migratory Birds Agreement(Camba)	N/A
4. wildlife corridors and remnant vegetation.	Vegetation within the study area has been extensively cleared for agricultural development. Much of the vegetation occurs as already isolated and fragmented remnants.
5. habitat of protected aquatic species (within the meaning of Fisheries Management(General) Regulation 1994) or of aquatic species having conservation status under Conference on Australian Threatened Fishes	Approximately 3.7 km of the Aquatic Ecological Community in the Natural Drainage System of the Lowland Catchment of the Lachlan River (listed as Endangered under Schedule (4), Part (3) of the (NSW) FM Act 1994, No. 38) occurs within the 45m wide easement. Enacting proposed mitigation measures developed for the project would limit the potential impact of proposed works upon this community. Refer also to SIS.
6. fishing grounds and commercial fish breeding or nursery areas	N/A
7. bushfire prone areas	Properly designed and maintained transmission lines are unlikely to contribute to potential impacts from hazards such as lightning strikes or bushfires. Regular maintenance patrols would ensure that clearance requirements between conductors and surrounding vegetation are maintained. Patrols would specifically deploy during spring and summer months for this purpose.
8. any other sensitive areas	N/A
	<b>If no impacts identified; this section could be ignored in</b>

	<b>Table 2(b).</b>
<b>How is the proposal likely to affect areas allocated for conservation purposes?</b>	
1. national parks and other areas reserved or dedicated under the National Parks and Wildlife (NPW) Act 1974	N/A
2. land reserved or dedicated within the meaning of the Crown Lands Act 1989 for preservation or other environmental protection purposes	N/A
3. world heritage areas	N/A
4. environmental protection zones in environmental planning instrument or lands protected under SEPP 14 – Coastal Wetlands or SEPP 26- Littoral Rainforests	N/A
5. land identified as wilderness under the Wilderness Act 1987 or declared as wilderness under the NPW Act	N/A
6. aquatic reserves reserved or dedicated under the Fisheries Management Act 1994	N/A
7. wetlands areas dedicated under the Ramsar Wetlands Convention	N/A
8. heritage items identified on the Register of the National Estate, under the NSW Heritage Act or an environmental planning instrument	It is noted that eighteen Indigenous sites were recorded as part of the Heritage Assessment. Of the recorded Indigenous sites, four are currently expected to be impacted by the proposed angle position poles, and the remaining fourteen are expected to require mitigation measures to ensure they are not impacted. No items of non-indigenous heritage significance have been recorded over the portions of the transmission line currently assessed and no previously recorded heritage items will be impacted by the project. To date, not all impacts of the project are known, although the alignment is now fixed and the angle position pole locations are confirmed. Assessment of additional areas and identification of associated mitigation measures will be undertaken prior to construction.
9. community land under the Local Government Act (for which a plan of management has been prepared)	N/A
10. land subject to a “conservation agreement” under the NPW	N/A
11. any other factors.	N/A
	<b>If no impacts identified; this section could be ignored in Table 2(b).</b>
<b>How is the proposal likely to affect areas sensitive because of community factors?</b>	
1. Aboriginal communities or areas subject to land rights claims	No land rights claims identified.
2. communities with strong sense of identity	Project would bring security of electricity supply to community.
3. disadvantaged communities (reduced economic, social or cultural indicators)	N/A
4. areas with degraded amenity from noise, traffic congestion or odour	N/A
5. areas or items of high anthropological, archaeological, architectural,	An Indigenous heritage assessment was carried out. Impacts of the transmission line would occur

cultural, heritage, historical, recreational or scientific value	along the easement with varying intensity. Vegetation removal would be required at a number of locations along the length and width of the proposed easement; there would be ground surface disturbing activities around the angle position poles and standard poles, as well as the use of existing access tracks, tracks requiring upgrade and possibly the construction of new access tracks. To date, not all impacts of the project are known, although the alignment is now fixed and the angle position pole locations are confirmed. Assessment of these additional areas and management of associated potential environmental impact will be undertaken prior to construction. As part of the current study, it is noted that eighteen Indigenous sites were recorded. Of the recorded Indigenous sites, four are currently expected to be impacted by the proposed angle position poles, and the remaining fourteen are expected to require mitigation measures to ensure they are not impacted.
6. areas or items of high aesthetic or scenic value	Assessed within the visual and landscape assessment
7. any other factors.	
<b>If no impacts identified; this section could be ignored in Table 2(b).</b>	

**Table 2a Analyse the Extent of the Potential Impacts**

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
<b>Physical or pollution impacts(during operation and construction) (a) Air impacts</b>				
1. air quality impacts (eg dust, smoke, grit, odours, precursors to photochemical smog, fumes, toxic or radioactive gaseous emissions) with economic, health, ecosystem or amenity considerations	Potential for dust generation and smoke if vegetation is burnt during clearing.	Very minor	Short term, only during construction activities. Majority of work completed at any one location within 1 - 2 weeks.	Low
2. air impacts with greenhouse or ozone damage consideration	Minimal greenhouse impacts anticipated, and offset by	Very minor; clearance of small amount of vegetation.	Construction and operational phases.	Low

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
	increased efficiency of transmission system			
3. any other air impacts.	None			
<b>(b) Water impacts</b>				
1. impacts from the use of surface or groundwater	N/A			
2. impacts from changes to natural waterbodies, wetlands or runoff patterns	Potential watercourse crossings require some upgrades of existing crossings, and new installations.	Varied, in accordance with creek conditions encountered and degree of work required. Watercourse crossings to be avoided where feasible.	Watercourse crossings installed will remain in place. Impacts will predominantly be associated with establishment phase.	Low to Medium.
3. impacts from changes to flooding or tidal regimes	N/A flood potential areas avoided during route selection process			
4. impacts from change in water quality with economic, health, ecosystem or amenity considerations eg salinity, colour, odour, turbidity, temperature, dissolved oxygen, nutrients, pH factors or pollutants (intentional or unintentional releases of oil, fuels, toxins (including heavy metals and anti-foulants), spoil, sediment, sewage or waste)	There is potential for erosion and sedimentation to occur in association with all works requiring disturbance to the ground surface.	The largely flat and undulating nature of the topography through which the transmission line would pass and the limited nature of the excavation work required during construction would limit potential impacts significantly.	Short-term impacts associated with the establishment of work sites, erection of poles, and establishment of access tracks	Low
5. any other impacts on water or from the use or	N/A			

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
storage of water.				
<b>(c) Soil and stability impacts</b>				
1. degradation of soil quality including contamination(intentional or unintentional), salinisation, acidification	None			
2. loss of soil from wind or water	Potential for some erosion impacts in association with all works requiring disturbance to the ground surface. These impacts are associated with the establishment of work sites, erection of poles, and establishment of access tracks.	Unlikely to be significant given the small area of ground works within the complete development footprint and mitigation measures to be implemented.	Short term in accordance with progression of works at each site location along the line and associated access track.	Low.
3. loss of structural integrity of the soil	Negligible impact due to the small area of direct earthwork required for the construction of pole foundations and access tracks.			
4. results in land instability with high risks from land slides or subsidence	N/A: steep areas avoided during			

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
	the route selection stage			
5. any other impacts on soils.	None			
<b>(d) Noise and vibration impacts</b>				
1. results in increased noise or vibrations to unacceptable levels for the surrounding communities	Construction noise impacts are anticipated for residential locations within 300m of the proposed alignment	Impacts are likely to be less than predicted; the conservative methodology does not take into consideration topography nor other screening factors, and assumed that all noise generating activities are carried out simultaneously. Noise will mainly be generated from construction plant and activities. Duration of continuous works at each pole site is expected to be less than four (4) weeks.	Most of the impact would occur during construction activities at required sites along the line. Works would typically be completed within a week at each location.	Low.
2. affects sensitive properties(educational, hospitals, residential, heritage)				
3. any other impacts from noise, blasting or vibration.	None			
<b>(e) Any other physical or pollution impacts</b>				
<b>Accumulation of physical or pollution impacts</b>	Overall- assessed as Low			
<b>Biological impacts (during operation and construction)</b>				

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
<b>(a) Fauna impacts</b>				
1. any endangering or displacement of species of fauna (including animals, birds, frogs, reptiles, insects, fish or crustaceans)	Yes, a number of species are affected.	Range of impacts - from direct loss of habitat to reduction in range and availability of required habitat resources	A range of impacts are likely to be short term, with some longer term habitat availability changes anticipated. The loss of habitat resources such as hollow-bearing trees, rocks, and fallen timber can have a compounding effect on the lifecycle of extant individuals and future generations.	Medium.
2. any reduction of critical habitat of any unique, threatened or endangered fauna (within the meaning of the National Parks and Wildlife Act 1974)	Potential habitat for threatened flora and fauna.			
3. impacts which create significant barriers to fauna movement	Yes, depending on species ability to relocate and habitat resource availability elsewhere		Short and long term impacts are assessed in SIS	
4. any other impacts.	None			
<b>(b) Flora impacts</b>				
1. any endangering of species of flora (including trees, shrubs, grasses, herbs or aquatic plants)	The removal of vegetation classified as EEC is likely to have a negative impact on the overall	The extent of the impact will depend on the condition, size and connection of the EEC within the landscape. Approximately 11ha	Clearing of vegetation will have both short-term and long-term detrimental impacts on threatened species, common species and EEC's,	Medium.

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
	occurrence of these communities.	of Box-Gum Woodland would be cleared as part of the Project.	depending on their abilities to adapt, migrate/disperse and/or find suitable habitat in adjacent areas.	
2. impacts from the clearing or modifying of extensive areas of relatively undisturbed native vegetation or wetlands;	Clearing of vegetation within the proposed easement.	The relative area of permanent vegetation clearance required is small. Permanent clearing of canopy and shrub layers would only be required within a 7.5m radius of each pole along the line, rather than broad scale clearing of all vegetation within the easement area.	Some vegetation clearance would be able to regenerate, however vegetation likely to exceed vegetation clearance limits would require permanent removal.	Medium.
3. any other impacts.	None			
<b>(c) Ecological impacts</b>				
1. any threat to the biological diversity or ecological integrity of species or communities	The SIS undertaken for the project concludes that the proposal is considered likely to result in a significant impact on the identified Box-Gum Woodland EEC,	Relatively small areas of the Box-Gum Woodland EEC are likely to be impacted by the works, however some likely changes would include permanent removal where restrictive clearing practices could not be	Short and long term	Medium given the range of mitigation measures proposed.

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
	given the extent of the EEC, the habitat associated with it and the impacts identified.	carried out.		
2. any barrier to the normal replenishment or revegetation of existing species following disturbance	Negligible impact with implementation of mitigation measures.			
3. impacts from the introduction of noxious weeds, vermin, feral species or disease or releases genetically modified organisms				
4. impacts from the uses of pesticides, herbicides, fertilisers or other chemicals which may build up residues in the environment	unlikely	Minor if at all		Low
5. high bushfire risk impacts	unlikely	Minor if at all		Low
6. any other impacts.	None			
<b>Resource use impacts(during operation and construction) (a) Community resources</b>				
1. any significant increase in the demand for services and infrastructure resources including roads, power, water supply and drainage, waste (including sewage) management, education, medical and social services	None			Low
2. any significant resource recycling or reuse schemes to reduce resource usage	None			Low
3. any diversion of resources to the detriment of other communities or natural systems	None			
4. any degradation of infrastructure such as roads, bridges	None			
5. any other impacts.	None			
<b>(b) Natural resources</b>				

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
1. any disruption or destruction of natural resources (eg fish habitat or fish species) with impacts on industries based on these resources	None			
2. any disruption of existing activities (or reduction of options for future options) because of the natural resource demands of the proposal	None			
3. any use which results in the wasteful use of large amounts of natural resources	None			
4. any use which results in the substantial depletion of natural resources	None			
5. any use which results in the degradation of any area reserved for conservation purposes	None			
6. any other impacts.	None			
<b>Accumulation of Resource Impacts</b>	Overall – none.			
<b>Community impacts(during operation and construction) (a) Social factors</b>				
1. any impacts which result in a change in the demographic structure of the community	None			
2. any environmental impact that may cause substantial change or disruption to the community (loss of neighbour cohesion, access to facilities, links to other communities, community identity or cultural character)	None			
3. any impacts which result in some individuals or communities being significantly disadvantaged	None			
4. any impacts on the health, safety, security, privacy or welfare of individuals or communities because of factors such as -	None			
a) air pollution or odour	Potential for minor dust emissions during construction phase.	Negligible to minor impact.	Short term duration associated with construction activities.	Low

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
b) noise, vibration, blasting, electromagnetic fields or radiation	Minor potential during construction.	Negligible to minor impact.	Short term duration associated with construction activities.	Low
c) release of disease or genetically modified organisms	N/A			
d) lighting, overshadowing or visual impacts	Visual.	Visual impact on identified residential receptors ranged from nil (10 receptors) to low (38 receptors), to moderate (5 receptors) to high (2 receptors). For motorists and rail passengers travelling along local roads, main highways and portions of railway lines, visual impact was identified as low.	During construction and operation.	Low.
5. any impacts that result in a change in the level of demand for community resources(eg facilities, services and labour force)	N/A			
6. any other social impacts.	None			
<b>(b) Economic factors (including impacts on employment, industry and property value)</b>				
1. any impacts which result in a decrease to net economic welfare	None			
2. any impacts that result in a decrease in the economic stability of the community	None			
3. any impacts which result in a change to the public sector revenue or expenditure base	Benefit	Increased line capacity with benefits to reliability.	Permanent	Low
4. any other economic impacts.	Benefit	Avoids unacceptable	Permanent	Medium – benefit.

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
		risk of power outages.		
<b>(c) Heritage, aesthetic, cultural impacts</b>				
1. any impacts on a locality, place, building or natural landmark having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, recreational, scenic, aesthetic or social significance or other special value for present or future generations	Currently four indigenous heritage sites are expected to be impacted by the proposed angle position poles, and the remaining fourteen are expected to require mitigation measures to ensure they are not impacted. No non-indigenous sites have currently been identified that would be impacted by the project.	Ground surface disturbing activities associated with pole positions as well as the use of existing access tracks, tracks requiring upgrade and possibly the construction of new access tracks.	During construction and operation.	Low to Medium.
2. any impacts from new lighting, glare or shadows	None			
3. any other heritage, aesthetic or cultural impacts.	None			
<b>(d) Land use impacts</b>				
1. any major changes in land use	45m easement will be managed to allow access for maintenance of the transmission line.			

Characteristics of potential impacts (adverse & beneficial)	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	duration	
	Restrictions underneath the line will not interfere with normal agricultural practices. The easement will not be fenced.			
2. any curtailment of other beneficial uses	None			
3. any property value impacts with land use implications	None			
4. any other land use impacts	None			
<b><i>(e) Transportation impacts (during construction and operation)</i></b>				
1. substantial impacts on existing transportation systems (rail, water, road, air or pedestrian both public and private), altering present patterns of circulation, modal split or movement of people &/or goods	None			
2. encourages directly or indirectly additional traffic	None			
a) during construction	Low			
b) during operation	None			
3. increases demand for parking (off and on street including in residential areas)	None			
4. any other impacts on transport or traffic.	None			
<b>Accumulation of Community Impacts</b>	Overall – assessed as low			

**Table 2(b) Analyse the Extent of potential Adverse Impacts in Sensitive Location**

Sensitive because of physical factors	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	Duration	
1. coastline and dune fields, alpine areas, deserts, caves or other unique landforms	N/A			
2. land with high agricultural capability	Minor	Grazing and cropping land would not suffer any significant decline in productivity as the proposed easement would not be fenced. Minor impacts may occur due to vehicles driving on the easement during construction and/or operation.	Short term	Low
3. natural waterbodies, riparian zones, wetlands, drinking water catchments or flood prone areas	Potential watercourse crossings require- some upgrades of existing crossings, and new installations.	Varied, in accordance with creek conditions encountered and degree of work required.	Some crossings will be required during construction phase. Any new watercourse crossings established would be maintained during the operational phase.	Low to Medium
4. groundwater recharge areas or areas where high water table	N/A			
5. erosion prone areas, areas with slopes of greater than 18 degrees	N/A			
6. subsidence or slip areas	N/A			
7. areas where acid sulphate, sodic or highly permeable soils or	Minor	Impact from sodic soils.	During construction	Low
8. areas where salinity or potential salinity problems	N/A			

Sensitive because of physical factors	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	Duration	
9. area with degraded air quality	N/A			
10. area with degraded or contaminated soil area with degraded or contaminated water(ground or surface).	N/A			
<b>Accumulation of impacts</b>	Overall – assessed as low			
<b>Sensitive because of biological factors</b>				
1. corals and seagrass beds, wetlands communities (coastal, peatlands or inland), native forests, urban bushland, arid and semi arid communities,	N/A			
2. habitat of endangered terrestrial or aquatic fauna species and of species listed under Japan-Australia Migratory Birds Agreement (JAMBA) and China-Australia Migratory Birds Agreement (CAMBA)	The Brown Tree-creeper, Diamond Firetail, Eastern Bentwing Bat, Grey-crowned Babbler (eastern sub-species), Little Pied Bat, Speckled Warbler, Superb Parrot and Yellow-bellied Sheathtail Bat were identified and recorded during field surveys of the proposed easement. Potential habitat for a further 34 threatened fauna species were deemed likely to occur	The degree of impact will depend upon the extent of clearing and the ability, or inability, of individuals to relocate to other suitable habitats within the locality. More importantly, the clearing of habitat resources along with vegetation is likely to have a greater long-term impact on locally occurring fauna	A range of impacts are likely to be short term, with some longer term habitat availability changes anticipated. The loss of habitat resources such as hollow-bearing trees, rocks, and fallen timber can have a compounding effect on the lifecycle of extant individuals and future generations.	Medium given the range of mitigation measures proposed. See Section 7-4 and SIS

Sensitive because of physical factors	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	Duration	
	within the easement area			
3. wildlife corridors and remnant vegetation	Minor	Vegetation within the study area has been extensively cleared for agricultural development. Very few areas of vegetation covers extensive tracts of land. Much of the vegetation occurs as already isolated and fragmented remnants.	Some vegetation clearance would be able to regenerate, however vegetation likely to exceed vegetation clearance limits would require permanent removal.	Low
4. protected, rare or threatened plant species or inadequately reserved plant communities	The SIS undertaken for the project concludes that the proposal is considered likely to result in a significant impact on the identified Box-Gum Woodland EEC, given the extent of the EEC, the habitat associated with it and the impacts identified.	Relatively small areas of the Box-Gum Woodland EEC are likely to be impacted by the works, however some likely changes would include permanent removal where restrictive clearing practices could not be carried out.	Short and long term	Medium given the range of mitigation measures proposed. See Section 7-4 and SIS
5. areas which are bushfire prone	Unlikely	Properly designed	Minor if at all.	Low

Sensitive because of physical factors	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	Duration	
		and maintained transmission lines are unlikely to contribute to potential impacts from hazards such as lightning strikes or bushfires. Regular maintenance patrols would ensure that clearance requirements between conductors and surrounding vegetation are maintained. Patrols would specifically deploy during spring and summer months for this purpose.		
6. fishing grounds and fish breeding or nursery areas.	N/A			
<b>Accumulation of Impacts</b>	Overall – assessed as low – medium. SIS carried out.			
<b>Sensitive because of conservation factors</b>				
1. national parks and other areas reserved or dedicated under the National Parks and Wildlife(NPW) Act 1974	N/A			
2. land reserved or dedicated within the meaning of the Crown Lands Act 1989 for preservation or other environmental protection purposes	N/A			
3. world heritage areas	N/A			
4. environmental protection zones in environmental planning instrument or lands protected under SEPP 14 - Coastal Wetlands or SEPP 26- Littoral Rainforests	N/A			
5. land identified as wilderness under the Wilderness Act 1987 or declared as wilderness under the NPW Act	N/A			
6. aquatic reserves reserved or dedicated under the	N/A			

Sensitive because of physical factors	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	Duration	
Fisheries Management Act 1994				
7. wetlands areas dedicated under the Ramsar Wetlands Convention	N/A			
8. heritage items identified on the Register of the National Estate, under the NSW Heritage Act or an environmental planning instrument	Eighteen Indigenous sites were recorded. Of the recorded Indigenous sites, four are currently expected to be impacted by the proposed angle position poles, and the remaining fourteen are expected to require mitigation measures to ensure they are not impacted. No items of non-indigenous heritage significance have been recorded.	Minor – moderate.	During construction and operation.	Low – Medium.
9. community land under the Local Government Act(for which a plan of management has been prepared)	N/A			
10. land subject to a “conservation agreement” under the NPW Act	N/A			
11. any other factors	N/A			

Sensitive because of physical factors	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	Duration	
<b>Accumulation of impacts</b>	Overall – assessed as low			
<b>Sensitive because of community factors</b>				
1. Aboriginal communities or areas subject to land rights claims	No impact			
2. communities with strong sense of identity	Benefit	Project would bring security of electricity supply to community.	Long Term	Low
3. disadvantaged communities (reduced economic, social or cultural indicators)	N/A			
4. areas with degraded amenity from noise, traffic congestion or odour	N/A			
5. areas or items of high anthropological, archaeological, architectural, cultural, heritage, historical, recreational or scientific value	Eighteen Indigenous sites were recorded. Of the recorded Indigenous sites, four are currently expected to be impacted by the proposed angle position poles, and the remaining fourteen are expected to require mitigation measures to ensure they are not impacted. No items of non-indigenous heritage	Minor – moderate.	During construction and operation.	Low – Medium.

Sensitive because of physical factors	Type of potential impacts	Evaluation Criteria		Ranking of potential significance of extent
		Size, scope & intensity	Duration	
	significance have been recorded.			
6. areas or items of high aesthetic or scenic value	Assessed within the visual and landscape assessment			
<b>Accumulation of impacts</b>	Overall – assessed as low.			

Table 2 (c) Analysis of the nature of the Potential Impacts

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
Physical impacts or pollution impacts								
<b>(a) Air impacts</b>								
1. air quality impacts (eg dust, smoke, grit, odours, precursors to photochemical smog, fumes, toxic or radioactive gaseous emissions) with economic, health, ecosystem or amenity considerations	High	Strong	Yes	Well	Yes	Low	No	Low
2. air impacts with greenhouse or ozone damage consideration	High	Strong	Yes	Well	Yes	Low	No	Low
3. any other air impacts.	N/A							
<b>(b) Water impacts</b>								
1. impacts from changes in surface or groundwater quantity	N/A							
2. impacts from changes to natural waterbodies, wetlands or runoff patterns	High	Vulnerable	Can be repaired	Well	Yes	Low	No	Low to Medium
3. impacts from changes to	N/A							

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
flooding or tidal regimes								
4. impacts from changes in water quality with economic, health, ecosystem or amenity considerations eg salinity, colour, odour, turbidity, temperature, dissolved oxygen, nutrients, pH or pollutants(intentional or unintentional releases) oil, fuels, spoil, sediment, sewage, toxins (including heavy metals, and anti-foulants) or other waste)	N/A							
5. any other impacts on water or from the use or storage of water.	N/A							
<b><i>(c) Soil and stability impacts</i></b>								
1. degradation of soil quality including contamination (intentional or unintentional), salination, acidification,	N/A							
2. loss of soil from wind or water erosion	High	High	Yes	Well	Yes	Low	No	Low
3. loss of structural integrity of the soil	High	High	Yes	Well	Yes	Low	No	Low

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
4. results in land instability with high risks from land slides or subsidence	N/A							
5. any other soil impacts.	N/A							
<b>(d) Noise and vibration impacts</b>								
1. results in increase noise or vibrations to unacceptable levels for the surrounding communities	High	High	Not relevant	Well	Yes	Low	No	Low to Medium (only during construction. NIL during operation)
2. potential to affect sensitive properties (educational, hospitals, residential, heritage) by noise or vibration	High	High	Not relevant	Well	Yes	Low	No	Low to Medium (only during construction. NIL during operation)
3. any other impacts from noise, blasting or vibrations.	N/A							
<b>Accumulation of Physical or Biological impacts</b>	Overall – assessed as low							
<b>(a) Fauna impacts *</b>								
1. any endangering or displacement of species of fauna (including animals, birds, frogs, reptiles, insects, fish or crustaceans)	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
2. any reduction of critical habitat of any unique, threatened or endangered fauna (within the meaning of the National Parks and Wildlife Act 1974)	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium
3. impacts which create significant barriers to fauna movement	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium
4. any other impacts	N/A							
<b>(b) Flora impacts *</b>								
1. any endangering of species of flora (including trees, shrubs, grasses, herbs or aquatic plants)	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium
2. impacts from the clearing or modifying of extensive areas of relatively undisturbed native vegetation or wetlands	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium
3. any other impacts.	N/A							
<b>(c) Ecological impacts *</b>								
1. any threat to the biological diversity or ecological integrity of species or communities	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium
2. any barrier to the normal	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
replenishment or revegetation of existing species following disturbance								
3. impacts from the introduction of noxious weeds, vermin, feral species or disease or releases genetically modified organisms	Good	Resilient	Partly	Partly	Yes	Medium	Yes	Medium
4. impacts from the uses of pesticides, herbicides, fertilisers or other chemicals which may build up residues in the environment	N/A							
5. high bushfire risk impacts	Good	Resilient	No impact	Well	Yes	Low - medium	No	Low
6. any other impacts.	N/A							
<b>Accumulation of Biological Impacts</b>	Overall assessed as – Medium. SIS carried out.							
* A Species Impact Statement will be required if the activity is likely to significantly affect the environment of critical habitats, threatened species, populations or ecological communities or their habitats								
<b>Resource use impacts</b>								
<b>(a) Community resources</b>								
1. any significant increase in the demand for services and infrastructure resources including roads, power, water	N/A							

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
supply and drainage, waste(including sewage) management, education, medical and social services								
2. any significant resource recycling or reuse schemes to reduce resource usage	N/A							
3. any diversion of resources to the detriment of other communities or natural systems	N/A							
4. any degradation of infrastructure such as roads, bridges	N/A							
5. any other impacts.	N/A							
<b>(b) Natural resources</b>								
1. any disruption or destruction of natural resources (eg fish habitat or fish species) with impacts on industries based on these resources demands of the proposal	N/A							
3. any use which results in the wasteful use of large amounts of natural resources	N/A							
4. any use which results in	N/A							

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
the substantial depletion of natural resources								
5. any use that results in the degradation of any area reserved for conservation purposes	N/A							
6. any other impacts.	N/A							
<b>Accumulation of Resource Use Impacts</b>	Overall – no impact.							
<b>Community Impacts</b>								
<b>(a) Social impacts</b>								
1. any impacts which result in a change in the demographic structure of the community	None							
2. any environmental impact that may cause substantial change or disruption to the community (loss of neighbour cohesion, access to facilities, links to other communities, community identity or cultural character)	None							
3. any impacts which result in some individuals or communities being significantly disadvantaged	None							

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
4. any impacts on the health, safety, security, privacy or welfare of individuals or communities because of factors such as -								
a) air pollution or odour,	High	High	Yes	Well	Yes	Low	No	Low
b) noise, vibration, blasting, electromagnetic fields or radiation	High	High	Yes	Well	Yes	Low	No	Low
c) release of disease or genetically modified organisms	N/A							
d) lighting, overshadowing or visual impacts	High	Low	Yes	Well	Yes	Medium	No	Low
5. any impacts which result in a change in the level of demand for community resources (eg facilities, services and labour force)	N/A							
6. any other social impacts.	N/A							
<b>(b) Economic factors</b> <i>(including impacts on employment, industry and property value)</i>								
1. any impacts which result in a decrease to net economic welfare	N/A							

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
2. any impacts which result in a direct cost to the community or individuals	N/A							
3. any impacts which result in a decrease in the economic stability of the community	N/A							
4. any impacts which result in a change to the public sector revenue or expenditure base	High	High	Benefit	Not Relevant	Not Relevant	Not Relevant	No	Low. Benefit to the community
5. any other economic impacts.	High	High	Benefit	Not Relevant	Not Relevant	Not Relevant	No	Low. Benefit to the community through infrastructure investment and improving security of power supply.
<b>(c) Heritage, aesthetic, cultural impacts</b>								
1. any impacts on a locality, place, building or natural landmark having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, recreational, scenic, aesthetic or social significance or other special	Good	Fair	Not if relics are destroyed.	Can avoid impacts	Yes	Low	Yes. Prior to construction, those areas that have not been assessed by the cultural heritage specialists will be assessed.	Low to Medium

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
value for present or future generations;								
2. any impacts from new lighting, glare or shadows	N/A							
3. any other heritage, aesthetic, cultural impacts.	N/A							
<b>(d) Land use impacts</b>								
1. any major changes in land use	N/A							
2. any curtailment of other beneficial uses	N/A							
3. any property value impacts with land use implications	N/A							
4. any other land use impacts	N/A							
<b>(e) Transportation impacts</b> (during construction and operation)								
1. substantial impacts on existing transportation systems (rail, water, road, air or pedestrian both public and private), altering present patterns of circulation, modal split or movement of people	N/A							

Characteristics of the potential impacts	Evaluation Criteria							Ranking of potential significance
	What is the confidence in predicting impacts?	How resilient is the environment to cope with impacts?	Can the impacts be reversed?	How well can the impacts be mitigated?	Do the impacts comply with standards, plans, policies?	What is the level of public concern?	Are further studies required on impacts or mitigation?	
&/or goods								
2. encourages directly or indirectly additional traffic -								
a) during construction	High	High	No	Well	Yes	Low	No	Low
b) during operation	High	High	No	Well	Yes	Low	No	Low
3. increases demand for parking(off and on street including in residential areas)	N/A							
4. any other impacts on transport or traffic.	N/A							
<b>Accumulation of Community Impacts</b>	Overall – assessed as low							

**Criteria for evaluating the likely environmental significance of the impacts**

**1. How extensive are the impacts? *Extensive impacts are likely to be significant.***

**2. How adverse are the impacts on environmentally sensitive areas?**

***Impacts which adversely impact on environmentally sensitive areas are likely to be significant***

**3. How acceptable are the impacts considering the nature of the impacts?**

***Impacts with a low level of acceptability because of the nature of the impacts are likely to be significant.***

**TABLE 3 EVALUATE THE LIKELY SIGNIFICANCE OF POTENTIAL IMPACTS ON THE ENVIRONMENT**

Impacts	Potential Significance considering the extent of impacts	Potential significance considering the level of adverse impacts on environmentally sensitive areas	Potential significance considering the nature of the impacts
<b>PHYSICAL &amp; POLLUTION</b>			
a) air impacts	Low	Low	Low
b) water impacts	Low - Medium	Low	Low
c) soil impacts	Low	Low	Low
d) noise and vibration impacts	Low	Low	Low
<b>BIOLOGICAL</b>			
a) fauna	Medium	Medium	Medium
b) flora	Medium	Medium	Medium
c) ecological	Medium	Medium	Medium
<b>RESOURCE USE</b>			
a) community resources	Low	Low	Low
b) natural resources	Low	Low	Low
<b>COMMUNITY</b>			
a) social impacts	Low	Low	Low
b) economic impacts	Low	Low	Low
c) heritage, aesthetic, cultural impacts	Low- Medium	Low	Low
d) land use impacts	Low	Low	Low
e) transportation impacts	Low	Low	Low
<b>Activity as a Whole</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>

<b>This activity is not likely to significantly affect the environment. No EIS is required.</b>	<b>YES</b>
<b>This activity is likely to significantly affect the environment. An EIS is required.</b>	<b>NO</b>

Person responsible for preparing the background information:

Signature: ..... Date:  
Title

Person responsible for deciding if an EIS is required:  
Signature: ..... Date:  
Title