

Appendix B

Consideration of clause 228(2) factors and matters of national environmental significance

Clause 228(2) Checklist

In addition to the requirements of the *Is an EIS required?* guideline as detailed in the REF, the following factors, listed in clause 228(2) of the *Environmental Planning and Assessment Regulation 2000*, have also been considered to assess the likely impacts of the proposal on the natural and built environment.

Factor	Impact
<p>a. Any environmental impact on a community?</p> <p>The long term benefits of the proposal would include an improvement in road safety along the New England Highway at the Singleton Railway Underpass through the provision of three metre wide shoulders, improved traffic and freight efficiency for oversized vehicles, improved pedestrian and cyclist access and a reduction in risk to the railway bridge from incidents that could potentially cause disruptions to trains on the Main Northern Railway Line.</p> <p>Construction activities have the potential to temporarily impact residents and businesses in the region. Road users may experience temporary delays during construction which would be carried out in stages to further minimise potential traffic and access impacts. Other construction impacts include the generation of noise and vibration, and a potential reduction in air quality and visual amenity. These impacts are likely to occur throughout the construction period, which is anticipated to occur intermittently over 18 - 24 months and would include night works during rail possessions. Impacts would be managed and mitigated through safeguards listed in Chapter 7.</p>	<p>Long-term positive</p> <p>Short-term negative</p>
<p>b. Any transformation of a locality?</p> <p>The proposal would result in changes to the locality through the construction of the new rail bridge and some minor vegetation removal.</p> <p>A number of mitigations measures have been provided in Chapter 7 to minimise any negative impacts. A landscape plan will be developed as part of the Construction Environment Management Plan (CEMP) and cleared land would be revegetated at the conclusion of the construction works.</p>	<p>Short-term negative</p>
<p>c. Any environmental impact on the ecosystems of the locality?</p> <p>Impacts to ecosystems in the locality were considered in the Biodiversity Assessment, refer to Section 6.3. The Biodiversity Assessment noted that the proposal would occur within a modified and disturbed environment. The majority of the construction footprint is in areas that are already cleared area consequently there would be either no clearing or very limited clearing of exotic vegetation.</p> <p>Assessments of significance undertaken as part of the Biodiversity Assessment (refer to Section 6.3) found that the</p>	<p>Short-term negative</p>

Factor	Impact
<p>proposal is unlikely to have a significant impact to any threatened species, population or ecological communities. Mitigation measures would be implemented to manage impacts to biodiversity and cleared areas would be appropriately revegetated at the completion of works.</p>	
<p>d. Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</p> <p>There would be a minor reduction in the aesthetic quality of the locality due to the removal of vegetation, inclusion of road shoulders within the Singleton Railway Underpass, construction of a new bridge and changes to the surrounding verges and rail embankments. These changes, however, would be consistent with the regional context which is urban in character.</p> <p>Mitigation measures would however be implemented to reduce visual impacts and detailed design would be undertaken in accordance with the urban design objectives of the proposal. These include revegetation and landscaping of the road corridor and retention of vegetation where practical. The various land uses next to the proposal including areas defined as recreational and environmental spaces have been considered as part of the urban design process. As such the proposal would improve the visual amenity surrounding the intersection through improved landscaping and implementation of urban design principles.</p>	<p>Short-term negative</p> <p>Long-term positive</p>
<p>e. Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?</p> <p>The proposal would have minor impacts on Gowrie Park (Lot 21 DP 22978) a recreation reserve located to the north-east of the proposal; refer to Figure 1-4. A small section of this property would be required as a stockpile and material laydown area; consequently recreational opportunities would be lost. These impacts would however be temporary and the site would be rehabilitated at the end of the proposal. No trees in the area would be removed and the BMX track and small field to the north of Gowrie park would not be impacted.</p> <p>There would be no impact to any other locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations</p>	<p>Nil</p>

Factor	Impact
<p>f. Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)?</p> <p>Impacts to habitat for protected fauna were considered in the Flora and Fauna Assessment; refer to Section 6.3 and Appendix H. The assessment noted that the proposal would occur within a modified and disturbed environment. The majority of the construction footprint is in areas that are already cleared area consequently there would be either no clearing or some trimming and lopping of branches, consequently there is very limited habitat for protected fauna available.</p> <p>Construction of the temporary side track would require clearing of around 380 square metres of the vegetation near Maison Dieu Road and the rail bridge, refer to Figure 6-6 including around 30 individuals trees from planted vegetation in Area 1, refer to Figure 6-5. The vegetation in this area is dominated by Swamp Oak (<i>Casuarina glauca</i>), Mugga Ironbark (<i>Eucalyptus sideroxylon</i>), Giant Honeymyrtle (<i>Melaleuca armillaris</i>), Snow in Summer (<i>Melaleuca linarifolia</i>) and there is also a single Date Palm (<i>Phoenix dactylifera</i>) present.</p> <p>Assessments of significance undertaken as part of the Flora and Fauna Assessment (refer to Section 6.3 and Appendix H) found that the proposal is unlikely to have a significant impact to any threatened species, population or ecological communities. Mitigation measures would be implemented to manage impacts to biodiversity and cleared areas would be appropriately revegetated at the completion of works.</p>	<p>Short-term negative</p>
<p>g. Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?</p> <p>Impacts to flora and fauna were considered in the Flora and Fauna Assessment; refer to Section 6.3 and Appendix H. The assessment noted that the proposal would occur within a modified and disturbed environment. The majority of the construction footprint is in areas that are already cleared area consequently there would be either no clearing or very limited clearing of exotic vegetation.</p> <p>Assessments of significance undertaken as part of the Flora and Fauna Assessment (refer to Section 6.3 and Appendix H) found that the proposal is unlikely to have a significant impact to any threatened species, population or ecological communities. Mitigation measures would be implemented to manage impacts to biodiversity and cleared areas would be appropriately revegetated at the completion of works.</p>	<p>Short-term negative</p>

Factor	Impact
<p>h. Any long-term effects on the environment?</p> <p>The proposal would occur within a modified and disturbed environment no long term negative impacts are anticipated. Positive impacts from the proposal include:</p> <ul style="list-style-type: none"> • Improving road safety along the New England Highway at the Singleton Railway Underpass through the provision of three metre wide shoulders • Improving traffic and freight efficiency for oversized vehicles • Improving pedestrian and cyclist access • Reducing the risk to the railway bridge from incidents that could potentially cause disruptions to trains on the Main Northern Railway Line. 	<p>Long-term positive</p>
<p>i. Any degradation of the quality of the environment?</p> <p>Landscape and urban design has been considered as part of the development of the concept design, which would minimise visual degradation of the environment. Measures to manage the potential visual impacts from the construction of the proposal have been outlined in Section 6.4.4.</p> <p>The proposal has the potential to degrade the quality of the environment through accidental spills and erosion and sedimentation during construction. A Soil and Water Management Plan would be implemented to mitigate these impacts refer to Section 6.5 and Section 6.6. Construction work would be stage and sites would be rehabilitated as work progresses to minimise impacts.</p>	<p>Short-term negative</p> <p>Short-term negative</p>
<p>j. Any risk to the safety of the environment?</p> <p>The construction work has the potential to temporarily decrease safety along the New England Highway and local roads within proposal area due to road work and movement of construction plant.</p> <p>Operation of the proposal would not pose any risk of safety of the environment. All chemicals and fuels used during construction and maintenance activities would be stored within bunded areas to ensure that spills are not released to the environment</p>	<p>Short-term negative</p>
<p>k. Any reduction in the range of beneficial uses of the environment?</p> <p>The proposal would improve road safety along the New England Highway at the Singleton Railway Underpass through the provision of three metre wide shoulders, improve traffic and freight efficiency for oversized vehicles, improve pedestrian and cyclist access and reduce the risk to the railway bridge from incidents that could potentially cause disruptions to trains on the Main Northern Railway Line. As such no reduction in beneficial uses to the environment is anticipated.</p>	<p>Nil</p>

Factor	Impact
<p>I. Any pollution of the environment?</p> <p>There is the potential for accidental spills of chemicals during the construction period which could affect surrounding land and surface and groundwater. There is the potential for air quality to be reduced during construction activities.</p> <p>There is also a risk of increased accidental fuel spillage from increased vehicle numbers during operation which would be managed as discussed in Section 6.5.4.</p>	<p>Short-term negative</p> <p>Short-term negative</p>
<p>m. Any environmental problems associated with the disposal of waste?</p> <p>Waste associated with the rail work component of the proposal would be managed in accordance with ARTC's EPL (#3142) and is recycled where possible. Issues associated with the disposal of waste are not expected.</p> <p>Waste associated with the road work component of the proposal would be managed in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i> and recycled where possible. Issues associated with the disposal of waste are not expected.</p>	<p>Nil</p> <p>Nil</p>
<p>n. Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?</p> <p>The proposal would require a number of resources as described in Chapter 3. None of these resources are or are likely to become in short supply as a result of the proposal. Resource use management measures are provided which would include reuse and recycling when feasible refer to Section 6.11.4.</p>	<p>Nil</p>
<p>o. Any cumulative environmental effect with other existing or likely future activities?</p> <p>There is potential for short-term negative cumulative impacts related to traffic delays and access if construction occurs simultaneously with other developments proposed in the area including:</p> <ul style="list-style-type: none"> • DA 127/2013 – Subdivision of one lot (former Gowrie Golf Course) at 3 Maison Dieu Road, Gowrie NSW into 177 lots by McCloy Singleton Group. <p>Pollution, waste and resource use and construction noise and vibration would also have negative cumulative impacts. A change to the visual amenity of the area could also result from the construction activities.</p>	<p>Short-term, minor, negative</p>
<p>p. Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?</p> <p>The proposal is not located within a coastal area and would not result in any impact on coastal processes and coastal hazards.</p>	<p>Nil impact</p>

Matters of National Environmental Significance

Under the environmental assessment provisions of the *Environment Protection and Biodiversity Conservation Act 1999*, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposal should be referred to the Australian Government Department of Sustainability, Environment, Water, Population and Communities.

Factor	Impact
<p>a. Any impact on a World Heritage property? There would be no impact to World Heritage properties by the proposal.</p>	Nil
<p>b. Any impact on a National Heritage place? There would be no impact to National Heritage places by the proposal.</p>	Nil
<p>c. Any impact on a wetland of international importance? There would be no impact to wetlands of international importance by the proposal.</p>	Nil
<p>d. Any impact on a listed threatened species or communities? The flora and fauna assessment (refer to Section 6.3) identified six threatened EPBC listed flora species, 11 threatened EPBC listed fauna species, 11 listed migratory species and two TECs. Following the site inspections and likelihood of occurrence assessment only one threatened species listed under the EPBC Act that a moderate likelihood of occurrence (refer to Table 6-25) and includes the Grey-headed Flying Fox (<i>Pteropus poliocephalus</i>) listed as vulnerable. Given the condition of vegetation and the lack of habitat within and near the proposal, impacts to this threatened species are unlikely to occur. Further according to the assessments of significance (refer to Appendix H) it is unlikely that there would be a significant impact to this threatened fauna species as a result of the proposal. Mitigation measures to manage impacts to these species are included in Section 6.3.</p>	Nil
<p>e. Any impacts on listed migratory species? A total of 11 migratory fauna species were identified as potentially occurring within 10 kilometres of the proposal. Of these only one migratory species (the Rainbow Bee-eater (<i>Merops ornatus</i>)) was identified as having a moderate likelihood of occurring within the study area. An assessment of significance found that it is unlikely that there would be a significant impact to this threatened fauna species as a result of the proposal. There is also no evidence to suggest that an area of important habitat exists in the study area for any listed migratory species. No areas of 'important habitat' for any listed migratory bird species as defined under the EPBC Act Policy 3.21 were identified. The proposal is therefore unlikely to significantly impact on any migratory species.</p>	Nil

Factor	Impact
<p>f. Any impact on a Commonwealth marine area? There would be no impact to Commonwealth marine areas by the proposal.</p>	Nil
<p>g. Does the proposal involve a nuclear action (including uranium mining)? The proposal does not involve a nuclear action (including uranium mining).</p>	Nil
<p>h. Additionally, any impact (direct or indirect) on Commonwealth land? There would be no direct or indirect impact to Commonwealth land by the proposal.</p>	Nil