

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 (DUAP 1995/1996) and the *Roads and Related Facilities EIS Guideline* (DUAP 1996) 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
a) Any environmental impact on a community?	
The proposal would reduce travel times and congestion, improve safety for road users and reduce travel times during peak periods. As the proposal is increasing the width of the road to include dedicated turning lanes, there would be better chance for emergency vehicles to easily cross the Narara Creek Road intersection.	Long-term positive
Construction of the proposal would result in short-term negative traffic, air, noise and vibration impacts to the local community as discussed in Section 6.1. Potential traffic impacts include an increase in the volume of heavy vehicles, disruptions to access and local traffic changes. These impacts would be short-term during construction of the proposal, and long term impacts would be positive due to shorter wait times and wider lanes for better accessibility and improved safety. Construction impacts would be managed by preparation of a construction environmental management plan including all mitigation measures identified in the REF.	Short-term negative, Long-term positive
Construction of the proposal would result in the short-term construction lease of up to 31 lots for the construction corridor and potential compound sites. These have been chosen strategically to avoid areas of significant biodiversity or residential value, and would not result in long-term impacts, although some of the lots are currently zoned as public recreation area. The mitigation measures detailed in this REF would be implemented to manage these impacts.	Short-term negative
The proposal would require partial acquisition of four lots. Property acquisition would be carried out in accordance with the <i>Land Acquisition Information Guide</i> (Roads and Maritime, 2013) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .	Long-term negative
b) Any transformation of a locality	
The proposal would reduce traffic congestion in Narara by increasing the number of lanes and dedicated turning lanes. It would decrease the length of time road users remain on Manns Road.	Long-term positive
Construction of the proposal would cause short-term negative impacts while construction plant and machinery reside on Manns Road and in compound areas. The proposal would not change the visual amenity of the Narara Creek Road intersection in the long-term, therefore long-term impacts would be negligible.	Short-term negative Long-term negligible

Factor	Impact
c) Any environmental impact on the ecosystems of the locality?	
<p>The proposal would impact about 1.55 hectares of planted and exotic vegetation and 0.99 hectares of native vegetation. The proposal footprint comprises a modified, urban environment with limited fauna habitat values.</p> <p>Clearing of native woodland vegetation would occur in areas subject to existing light and noise disturbance due to Manns Road. Mitigation measures would be implemented, including the revegetation of native areas which had been cleared with native species, and as such long-term impacts as a result of this would be minor negative.</p> <p>The proposal would have minimal impacts to flora and fauna during operation. Mitigation measures provided in Section 6.2.4 would be implemented to minimise potential impacts on biodiversity during operation.</p>	Short-term negative, Long-term minor negative
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	
The proposal would reduce traffic congestion and increase connectivity between the M1 Pacific Motorway and the Central Coast Highway.	Long-term positive
During construction there is potential for short-term impacts associated with traffic, visual, dust, water quality, noise and vibration. These impacts would be minimised through the implementation of safeguards summarised in Section 7.2.	Short-term minor negative
The proposal is located near a number of community facilities and residential dwellings. In the long term, the proposal would increase connectivity to these places.	Long-term minor positive
Footpaths and a shared cycleway would be constructed as part of the proposal. This encourages recreational and environmentally sustainable activities such as cycling and walking.	Long-term positive
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>Aboriginal and non-Aboriginal heritage of the proposal footprint has been assessed via a PACHCI Stage 2, including a site investigation accompanied by Roads and Maritime personnel and two representatives of the Darkinjung Local Aboriginal Land Council.</p> <p>A desktop search was also conducted on databases to identify any potential previously-recorded heritage within the proposal footprint including the Commonwealth Heritage Listings, National Native Title Claims Search, OEH AHIMS and Local Environment Plan (LEP).</p> <p>These investigations revealed there are no registered sites are located within the proposal and the proposal footprint is unlikely to contain any previously unrecorded sites due to the history of disturbance.</p>	Neutral

Factor	Impact
f) Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)?	
The proposal would remove about 1.55 hectares of planted and exotic vegetation and 0.99 hectares of native vegetation. The proposal would not result in a significant impact to any protected species. The proposal would have minimal impacts to flora and fauna during operation, although these impacts would not be increased compared to existing impacts of Manns Road. Mitigation measures provided in Section 6.2.4 would be implemented to minimise potential impacts on biodiversity.	Negligible
g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	
The proposal is not likely to significantly impact threatened species or ecological communities or their habitats. The proposal would have minimal impacts to flora and fauna during operation. Mitigation measures provided in Section 6.2.4 would be implemented to minimise potential impacts on biodiversity.	Long-term minor negative
h) Any long-term effects on the environment?	
In the long-term the proposal would reduce travel times and congestion on Manns Road, and increase connectivity between the M1 Pacific Motorway and the Central Coast Highway.	Long-term positive
The proposal would remove and/or impact about 1.55 hectares of planted and exotic vegetation and 0.99 hectares of native vegetation. The proposal would not result in a significant impact to any protected species.	Long-term minor negative
i) Any degradation of the quality of the environment?	
Construction of the proposal would remove 1.55 hectares of exotic grassland and planted native trees. This vegetation does not have significant biodiversity values for flora or fauna, although it would decrease potential habitat for common and exotic species. There is potential for impacts to 0.99 hectares of native vegetation to be cleared during construction of the proposal. This native vegetation is in a disturbed condition due to its position alongside Manns Road and would act as habitat for a number of common fauna species. As the vegetation is connected to an extensive area of woodland, impacts to fauna species would be negative in the short-term. Revegetation of native areas would reduce long-term impacts. No threatened species or communities would be impacted as a result of the proposal.	Short-term negative, Long-term minor negative
During construction there is potential for short-term impacts associated with traffic, visual, dust, water quality, noise and vibration. These impacts would be minimised through the implementation of safeguards summarised in Section 7.2.	Short-term minor negative
j) Any risk to the safety of the environment?	
There is potential for road safety to be decreased during construction due to altered traffic conditions and increased heavy vehicle movements. Traffic management safeguards including the preparation of a traffic management plan, would address safety risks. In the long-term, traffic safety would be improved with the central median, a widened intersection and reduced traffic congestion.	Short-term potential negative Long-term positive

Factor	Impact
k) Any reduction in the range of beneficial uses of the environment?	
The proposal would reduce travel times and congestion on Manns Road, and improve connectivity between the M1 Pacific Motorway and the Central Coast Highway. These benefits could result in opportunities for beneficial uses of areas within and surrounding Narara.	Short-term negative, Long-term positive
During construction, minor traffic impacts due to an increase in heavy vehicle movements and potential interruptions to traffic flow would temporarily reduce the beneficial use of the local road network.	Short-term minor negative
l) Any pollution of the environment?	
The proposal would reduce travel times and congestion and improve safety for road users. This would result improvements to the amenity (including noise and air pollution) and improve traffic efficiency through the intersection.	Long-term positive
The proposal could potentially result in minor short-term water pollution from sediments, soil nutrients, waste, and spilt fuels and chemicals. Management of water quality impacts would be carried out in accordance with the mitigation measures summarised in Section 6.7.3. The proposal would result in minor short-term air pollution from plant and machinery and the generation of dust during construction. Management of air quality impacts would be conducted in accordance with the mitigation measures outlined in Section 6.10.3.	Short-term minor negative
m) Any environmental problems associated with the disposal of waste?	
Excess spoil not suitable for reuse would be disposed of in accordance with the safeguards and mitigation measures outlined in Section 6.6.4. The proposal has the potential to generate waste from the following activities: <ul style="list-style-type: none"> • Vegetation to be removed as part of the proposal • Earthwork • Utility adjustments • Waste from the removal of the existing road alignment. Waste streams likely to be generated during construction of the proposal include: <ul style="list-style-type: none"> • Excess spoil • Green waste as a result of vegetation clearing • Roadside materials (for example fencing, guard posts, guard rails) • Packaging and general waste from staff (for example lunch packaging, portable toilets) • Chemicals and oils • Waste water from wash-down and bunded areas • Excess concrete • Redundant erosion and sediment controls. The potential to reuse materials would be investigated during detailed design. Unsuitable fill material which cannot be used on site would be classified in accordance with the EPA's Waste Classification Guidelines (2014) and disposed of at an approved materials recycling or waste disposal facility.	Negligible

Factor	Impact
n) Any increased demands on resources (natural or otherwise) which are, or are likely to become, in short supply?	
All resources required for the proposal are readily available and are not in short supply. However, materials such as metal and fuel are non-renewable and would be used conservatively.	Nil
o) Any cumulative environmental effect with other existing or likely future activities?	
The long-term effect of the proposal would have a positive cumulative impact on travel times and road connectivity, facilitating the anticipated increase in traffic volumes as a result of future traffic predictions and population growth.	Long-term positive
Temporary potential cumulative impacts may occur in the event construction activities occur simultaneously with other projects in the local area. Other major projects are not known within and around the proposal footprint. Ongoing coordination and consultation would be carried out with other proponents to ensure potential cumulative impacts are appropriately assessed and managed.	Nil
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	
The proposal would not cause changes to any coastal hazards as it is not located on the coast and would not cause changes to hydrology of surrounding waterways.	Nil

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 the Environment and Energy.

A referral is not required for proposed actions which may affect nationally listed threatened species, endangered ecological communities and migratory species. Impacts on these matters are still assessed as part of the REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
Any impact on a World Heritage property?	Nil
No world heritage listed properties are located within a ten kilometre radius of the proposal site.	
Any impact on a National Heritage place?	Nil
No national heritage places are located within a ten kilometre radius of the proposal site.	
Any impact on a wetland of international importance?	Nil
No wetlands of international importance are located within a ten kilometre radius of the proposal site.	
Any impact on a listed threatened species or communities?	Nil
The proposal would not result in significant impacts on any threatened species or communities. The proposal would remove and/or impact about 1.55 hectares of predominantly planted and exotic vegetation and 0.88 hectares of Smooth-barked Apple – Turpentine – Blackbutt open forest. These vegetation types are not considered habitat for any commonwealth listed threatened species. There is one EEC (Swamp Sclerophyll Forest) listed under the EPBC Act on the southern boundary of Compound 1, although the EEC would not be directly impacted by the proposal with the implementation of mitigation measures including demarcation of sensitive ecological communities in accordance with the <i>Biodiversity Guidelines</i> (Roads and Traffic Authority, 2011).	
Any impacts on listed migratory species?	Nil
An assessment of the likelihood of occurrence of migratory species was conducted for the proposal (Appendix G (Volume 2)). This assessment found based on the nature and condition of habitat and recent local records (including the results of the field survey for the proposal) there are no migratory species listed under the EPBC Act may utilise the proposal footprint on an opportunistic or seasonal basis.	
Any impact on a Commonwealth marine area?	Nil
The proposal would not have any impact on a Commonwealth marine area.	
Any impact on the Great Barrier Reef Marine Park?	Nil
The proposal would not impact on the Great Barrier Reef Marine Park.	

Factor	Impact
Does the proposal involve a nuclear action (including uranium mining)? The proposal does not involve a nuclear action.	Not applicable
Any impact on a water resource, in relation to coal seam gas development and large coal mining development? The proposal is not a coal seam gas development or large coal mining development.	Not applicable
Additionally, any impact (direct or indirect) on Commonwealth land? The proposal would not impact Commonwealth land.	Nil