Transport
for NSW

Brian Road Intersection Upgrade

Review of Environmental Factors

January 2023

NSW GOVERNMENT

transport.nsw.gov.au

Appendix C – Cumberland Plain Conservation Plan Considerations

The proposal is not considered essential infrastructure in accordance with the guidelines set out to support the implementation of the Cumberland Plain Conservation Plan, there are however considerations relevant to the project. The below is the project response to the matters set out in the DPE *CPCP Infrastructure Development Guideline 2022*.

In addition to these considerations the proposal would also prepare a consistency statement in accordance with 201A of the EP&A Act and provide the statement to the Planning Secretary within 30 days of the project being determined.

Areas mapped as avoided land

Considerations of objectives in accordance with section 3.1.1 of the *CPCP Infrastructure Development Guideline 2022.*

Objective	Response
Protect threatened ecological communities, threatened species and their habitats	The proposal options assessment considered the need to avoid threatened ecological communities, threatened species and their habitats where possible. Where possible, temporary activities have been relocated outside avoided lands. Where activities are located within avoided land, such as the temporary side road, they have been positioned within areas dominated by exotic vegetation to ensure that the ecological values of the mapped avoided land are not impacted. Transport hierarchy of 'Avoid, Minimise, Mitigate and Offset' to achieve a no net loss of biodiversity values in their construction activities will ensure that where impacts cannot be avoided, they will be minimised, mitigated or offset where necessary, including the replacement of hollows lost during the clearing of mature trees.
Protect or enhance koala habitat and corridors	This aligns with the proposal objective of supporting the ecological functioning of the Ousedale Creek koala habitat corridor by providing safe koala passage under Appin Road and other koala protection measures. The proposed improved fencing, combined with dedicated koala connectivity structures will ensure this criterion is addressed.
Protect MNES	The proposal includes the removal of 2.65ha of MNES or 0.18% of the local population. Transport Biodiversity policy strives to "protect and enhance biodiversity, with the goal of achieving no net loss of biodiversity as a consequence of its infrastructure development activities". For its construction works Transport adopts an, avoid, minimise, mitigate, offset hierarchy to achieve its no net loss of biodiversity values.
Encourage the conservation and recovery of ecological communities and their habitats.	Transport Biodiversity policy strives to "protect and enhance biodiversity, with the goal of achieving no net loss of biodiversity as a consequence of its infrastructure development activities". For its construction works Transport adopts an, avoid, minimise, mitigate, offset hierarchy to achieve its no net loss of biodiversity values.

Considerations of biodiversity matters in accordance with section 3.1.2 of the *CPCP Infrastructure Development Guideline 2022* for activities which are not essential infrastructure.

Biodiversity matter	Consideration
Avoid an adverse impact on threatened ecological communities, threatened species and their habitats, both on the site of the activity and on adjoining land that is avoided land	Strategic project planning options to avoid the removal of vegetation were scoped and considered, although much of the design and construction strategies had been agreed prior to the release of draft mapping for the CPCP. Where possible. temporary activities were located away from threatened ecological communities, threatened species and their habitats however the temporary side road at Brian Road could not be avoided. Where located within avoided land, temporary activities have been positioned within areas dominated by exotic vegetation to ensure that the ecological values of the mapped avoided land are not impacted. Nevertheless, Transport hierarchy of 'Avoid, Minimise, Mitigate and Offset' to achieve a no net loss of biodiversity values in their construction activities will ensure that where impacts cannot be avoided, they will be minimised, mitigated or offset where necessary, including the replacement of hollows lost during the clearing of mature trees.
Avoid an adverse impact on habitat connectivity and fauna movement, including koala and wildlife corridors, both on the site of the activity and on adjoining land that is avoided land	The objectives of the proposal explicitly include provisions for conservation of koala connectivity, so that it aligns with guidance in the CPCP as part of Transport's policy of no net loss of biodiversity during their construction activities. The proposed improved fencing, combined with dedicated koala connectivity structures will ensure this criterion is addressed.
Avoid an adverse impact on the integrity and resilience of the biophysical, ecological, and hydrological environments, including surface and groundwater, and the quality of the natural flow of water in a riparian corridor	While the proposal will represent the disturbance of earth through the removal of vegetation and the modification of substrates, the proposal adopts an avoid, minimise, mitigate, offset hierarchy to achieve its no net loss of biodiversity values. The potential impacts of water across disturbed substrates will be mitigated by suitable sediment entrainment methodologies, to prevent downstream impacts to natural waterways.
Avoid an adverse impact on MNES referred to in Chapter 2, Part 3, Division 1 of the EPBC Act	The removal of 2.65ha to the threatened ecological community, Cumberland Shale Plains Woodland, represents an adverse impact to a MNES. Transport Biodiversity policy strives to "protect and enhance biodiversity, with the goal of achieving no net loss of biodiversity as a consequence of its infrastructure development activities". The proposal adopts an avoid, minimise, mitigate, offset hierarchy to achieve its no net loss of biodiversity values.
Install temporary koala-exclusion fencing before construction in areas identified as koala habitat protected by the CPCP and maintain the integrity of any existing koala-exclusion fencing	The proposed improved fencing, combined with dedicated koala connectivity structures will ensure this criterion is addressed.
Design linear infrastructure to include appropriate access treatments such as gates or koala bridges to ensure the integrity and connectivity of koala corridors and habitat protected under the CPCP is maintained.	The proposed improved fencing, combined with dedicated koala connectivity structures will ensure this criterion is addressed.

Areas mapped as certified urban capable land

Considerations of objectives accordance with section 3.3 of the CPCP Infrastructure Development Guideline 2022.

Category	Objective/commitment	Consideration
Threatened fauna	Commitment 5: Mitigate indirect and prescribed impacts from infrastructure on threatened ecological communities, species and their habitat.	The proposal maximises avoidance within the limits of what is required for the upgrade to proceed. A key component of the proposal is improving connectivity for koala across the local landscape by implementing fencing and connectivity structure construction. Works will be in accordance with the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).
	Commitment 7: Mitigate indirect and prescribed impacts from infrastructure on the southern Sydney koala population to best-practice standards and in line with advice from the NSW Chief Scientist and Engineer, and in accordance with Appendix E of the CPCP.	
	Commitment 16: Manage priority pest species in strategic locations in the Cumberland subregion to reduce threats to protected land.	
	Commitment 18: Support new or existing programs to control key diseases affecting threatened species and ecological communities in the Cumberland subregion.	
Threatened flora	Commitment 5: Mitigate indirect and prescribed impacts from infrastructure on threatened ecological communities, species and their habitat	Works will be in accordance with the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011)*
	Commitment 17: Manage fire in strategic locations in the Cumberland subregion to support the maintenance of biodiversity values on conservation land.	
Threatened ecological communities	Commitment 5: Mitigate indirect and prescribed impacts from infrastructure on threatened ecological communities, species and their habitat	Works will be in accordance with the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011).*
	Commitment 18: Support new or existing programs to control key diseases affecting threatened species and ecological communities in the Cumberland subregion.	
Other protected matters	Commitment 5: Mitigate indirect and prescribed impacts from infrastructure on TEC, species and their habitat	N/A. Mitigation requirements for this commitment relate to development adjacent to the southern and western boundaries of Commonwealth land comprising the Orchid Hills Defence Establishment and surface water flows and the water quality of Blaxland Creek which isn't relevant to the proposal.

Application of mitigation measures.

Category	Subject	Mitigation measure	Applicability
Threatened fauna	Habitat features and connectivity	1. Retain large trees that are greater than or equal to 50cm diameter at breast height (including dead trees but excluding noxious weeds) where possible and apply tree protection measures for all vegetation to be retained. This is to provide ongoing roosting and foraging opportunities for fauna 2. Retain areas of high density proteaceae shrubs where possible, particularly along riparian corridors, to retain foraging resources, habitat and movement corridors for the Eastern Pygmy-possum. 3. Before any disturbance, all structures potentially providing habitat for microbats (bridges, culverts, mine shafts, storm water tunnels, old or derelict buildings) must be inspected by a qualified ecologist at an appropriate time of year. Where microbats are found, the structure providing habitat must not be affected, or a bat management plan must be prepared by a microbat specialist which allows for: - exclusion mechanisms to reduce the risk of direct physical harm to the microbats; and/or - supplementary habitat to compensate for lost habitat: and/or - regular inspections of structures and briefing of relevant construction staff.	The Proposal maximises avoidance within the limits of what is required for the upgrade to proceed. A key component of the Proposal is improving connectivity for koala across the local landscape by implementing fencing and connectivity structure construction. Works will be in accordance with the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011). Point 2 does not apply to the proposal as there are no riparian corridors containing suitable habitat for Eastern Pygmy-possum. Refer to project specific mitigation measures B01, B07, B08, B09, B10, B11, B12, B17.
	Pests	4. Before construction works begin, a pest control strategy must be prepared. This strategy must be implemented during construction and operation of the development. This strategy must include pest control methods that reduce the risk of secondary poisoning (for example, from Pindone or second-generation rodenticides).	Refer to proposal specific mitigation measures B18 and B19.
	Human disturbance	5. Before vegetation is removed, a suitably qualified ecologist must assess the site and do pre-clearance surveys for koalas. If koalas are identified, implement a tree-felling protocol and translocation plan, as required.	A Flora and Fauna Management Plan (including koala focus) will be prepared in accordance with Transport for *NSW's Biodiversity Guidelines: Protecting and Managing Biodiversity on Projects* (RMS, 2011) and *The Cumberland Plain Conservation Plan Guidelines for Infrastructure Development* (DPE August 2022). No flying fox camps were located within the proposal area.

Category	Subject	Mitigation measure	Applicability
		6. For development within koala habitat protected by the CPCP, a management plan must be developed and implemented which includes: - before construction, temporary exclusion fencing to prevent koalas entering the site - measures to ensure the safety of koalas during construction and operation of the infrastructure, including traffic calming measures - hygiene procedures to prevent the spread of vegetation pathogens to koala habitat trees. 7. Above-ground infrastructure must be set back from grey headed flying fox camps (minimum 100m where possible) and raptor – bird of prey – nests (minimum 100m where possible) at a suitable distance. Operational management measures to minimise disturbance to populations and nests must also be implemented. 8. Where existing koala-exclusion fencing is located, works must ensure the integrity of the koala-exclusion fencing is to be maintained. 9. Where linear infrastructure crosses identified koala habitat, the infrastructure must be designed to ensure the functionality and connectivity of the corridor.	Refer to proposal specific mitigation measure B01, B12, B13.
	Disease	10. Incorporate best-practice site hygiene protocols to manage the potential spread of pathogens, such as Phytophthora and myrtle rust adjacent to potential habitat for species targeted by the CPCP, including koala use trees from which koalas and the greater glider feed.	Pathogens will be managed in accordance with *Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011). Refer to proposal specific mitigation measure B01 and B19.
Threatened flora	Weed invasion	1. Implement mitigation measures to manage weeds during construction and operation of the development, taking into account relevant guidance in the CPCP's Weed Control Implementation Strategy.	Weed species will be managed in accordance with *Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011). Refer to proposal specific mitigation measure B01 and B18.
	Altered fire regime	2. Fire hazard management within asset protection zones is to be designed to protect existing *Pimelea spicata* individuals and be sympathetic to the ongoing recruitment of new individuals of this species to ensure its ongoing protection.	This item is not relevant to the proposal as the preferred specific habitat types for *Pimelea spicata* is not present within the proposal site.

Category	Subject	Mitigation measure	Applicability
Threatened ecological communities	Habitat features and connectivity	1. When works are likely to have indirect impacts on Cooks River/Castlereagh Ironbark Forest, undertake mitigation in accordance with best-practice guidelines (for example, Cooks River/Castlereagh Ironbark Forest – NSW DECC, 2008) within and adjacent to the TEC .	This item is not relevant to the proposal as there is no Cooks River / Castlereagh Ironbark Forest within the proposal site.
	Disease	2. Incorporate best-practice site hygiene protocols to manage the potential spread of pathogens, such as Phytophthora and myrtle rust adjacent to potential habitat for TECs.	Pathogens will be managed in accordance with *Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011). Refer to proposal specific mitigation measure B01 and B19.
Other protected matters	Habitat features and connectivity	1. Development adjacent to the southern and western boundaries of Commonwealth land comprising the Orchid Hills Defence Establishment must mitigate impacts on surface water flows and the water quality of Blaxland Creek.	Not applicable to the proposal.