

Referral of proposed action

Project title: Ellerton Drive Extension

1 Summary of proposed action

Shape files provided as Attachment 1.

1.1 Short description

Construction and operation of a new four lane dual carriageway of sealed road. The proposed new road will be an extension of Ellerton Drive at East Queanbeyan and would provide a link to Old Cooma Road at Karabar, New South Wales. The new section of road would be 4.6km long.

1.2 Latitude and longitude

location point	Latitude			Longitude		
	degrees	minutes	seconds	degrees	minutes	seconds
Existing Ellerton Drive	-35°	21'	10.61"S	149°	15'	06.85"E
Edwin Land Parkway/ Cooma Street	-35°	22'	44.34"S	149°	14'	10.60"E

1.3 Locality and property description

The subject site is located approximately 1.3km south east of the centre of Queanbeyan and 13.5km south east of the centre of Canberra. It will extend from East Queanbeyan at the termination point of the existing Ellerton Drive, wind around the edge of the current Queanbeyan south-eastern residential areas of Karabar and Greenleigh and come to an end at Old Cooma Road, Karabar. It is approximately 4.6km.

The area occupies disturbed open grassy woodland in the far south with some areas more extensively cleared, including a power line and water main easement. The area within the road reserve just south of the Queanbeyan River (where residential areas occur on both sides) is completely cleared and consists largely of introduced (exotic) grasses. North of the Queanbeyan River, there are more heavily disturbed areas of woodland and dry forest vegetation, with large areas completely cleared and supporting extensive weed infestations. North of these areas is relatively undisturbed dry forest, up to the junction with the eastern end of the existing Ellerton Drive.

1.4 **Size of the development footprint or work area (hectares)** The total development footprint (the subject site) is approximately 26 ha in area.

1.5 **Street address of the site** The proposal would create a new section of road, extending from Ellerton Drive to the intersection of Old Cooma Road and Edwin Parkway.

- 1.6 **Lot description**
 Council owns approximately half of the land in the road corridor and has begun the process of acquiring the rest of the land by agreement. Specifically, the land owned by Council includes:
- Lot 49 DP754907
 - Lot 3 DP 1097427
 - Lot 2 and Lot 3 DP 869386
 - Lot 52 and Lot 53 DP 835313
 - Lot 205 DP 771021
 - Lot 141 DP 718941
 - Lot 67 DP 264406
 - Road corridor between Lot 2 DP 8669386 and the Queanbeyan River.
 - Lot 1, 2, 3 DP 872684
 - Lot 4 DP 800542
 - Roads within DP 15222 and DP15764
- Land council is looking to purchase includes:
- Lot 174 DP 793880
 - Lot 4 and 5 DP 872684
 - Road corridor through Lot 1 DP711905
 - All Lots of DP 15222 and DP15764.

- 1.7 **Local Government Area and Council contact (if known)**
 The works would occur entirely within the Queanbeyan LGA. The Queanbeyan City Council would be both the proponent and determining authority under Part 5 of the NSW Planning and Environmental Assessment Act 1979. The Council contact is Lorena Blacklock, Manager Development Control, 02 6285 6115.

- 1.8 **Time frame**
 The works would be undertaken in two stages.
- Stage 1 (2015-2017) would consist of earth works and the construction of a single carriage way (two lane road) with provisions for cyclists. Earthworks and vegetation clearing conducted during Stage 1, would be completed to the extent that would accommodate a dual carriage way (four lane road).
 - Stage 2 (required sometime after 2031) would involve the construction of the additional two lanes within the area that would be cleared and stabilised during Stage 1.

1.9 Alternatives to proposed action	No	No feasible alternatives were identified. Refer to Section 2.2 for further information.
1.10 Alternative time frames etc	No	No alternative time frames were identified. The proposed time frames are based on the dates the traffic studies expect the current road network to exceed capacity.
1.11 State assessment	Yes	Refer Section 2.5

1.12	Component of larger action	No	The proposal includes two stages, but this is described in Section 1.8.
1.13	Related actions/proposals	No	
1.14	Australian Government funding	Yes	The Commonwealth Government are contributing \$25 million towards construction of the road. The State Government have contributed another \$25 million towards construction of the road.
1.15	Great Barrier Reef Marine Park	No	

2 Detailed description of proposed action

2.1 Description of proposed action

Queanbeyan City Council (QCC) is proposing to construct a 4.6 kilometre extension of Ellerton Drive, Queanbeyan, to link East Queanbeyan and Karabar at the west. The development proposal involves the construction of a dual carriageway (two lanes in each direction) sealed road with bridge crossings over the Queanbeyan River. The new section of road would form an important link in the regional transport corridor and is considered necessary by Queanbeyan's Transport Plan, The Googong and Tralee Traffic Study 2031 (Gabites Porter 2010). The benefits of the route and alignment include:

- a) Provision of a free flow controlled access road for local residents as well as traffic travelling through Queanbeyan,
- b) Provision of the only connection between the east and west of Queanbeyan during a 1 in 100 year flood event (which sees much of the CBD underwater),
- c) Additional connections to Fairlane Estate and Greenleigh Estate (emergency access only) for properties which currently have only one access.

The works would be undertaken in two stages. Stage 1 (to be constructed between 2015 and 2017) would consist of earth works, the construction of a single carriage way (two lane road) and the construction of a two lane bridge with provisions for cyclists. Earthworks and vegetation clearing conducted during Stage 1, would be completed to the extent that would accommodate a dual carriage way (four lane road). Stage 2 (to be constructed sometime after 2031) would involve the construction of the additional two lane road and two lane bridge within the area that would be cleared and stabilised during Stage 1.

The proposed construction works would involve:

- Clearing of native vegetation
- Soil disturbance from excavation, filling and compaction
- Importation and stockpiling of materials
- Establishment of construction compounds and facilities
- The use of various vehicles, plant and machinery

The extent of the proposed clearing and potential locations of stockpiles and construction compounds is shown on Figure . Stockpiles would be sited in areas that would be cleared during the Stage 1 works for the future Stage 2 duplication of the road (within the development footprint). Potential construction compounds are proposed in existing cleared, highly disturbed areas.

There is no requirement to relocate the communication or electrical infrastructure that crosses the site. It is possible that there may be a need to relocate some of the QCC's 300mm diameter water main. Some services may require relocation on Barracks Flat Drive, within the study area just south of the Queanbeyan River however, these services are located in previously disturbed areas.

The development footprint is defined as the final formed extent of the earth works required for the proposal, including all cut and fill batters. The development footprint is approximately 26 ha in area, 4.6km long, and ranges in width from approximately 40 m to 110 m.

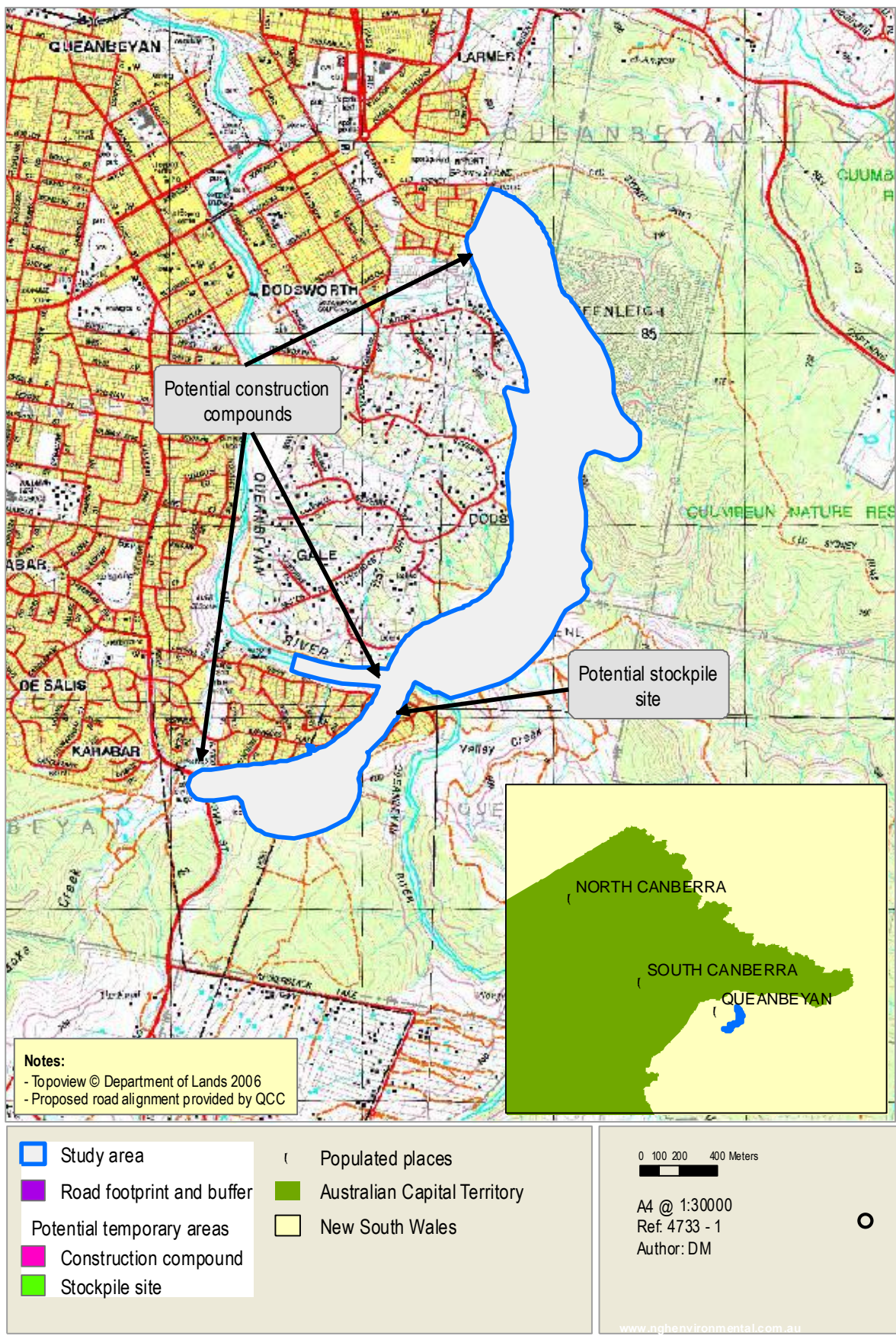


Figure 1 Location of the proposal.

2.2 Alternatives to taking the proposed action

In response to the growing population and increased suburbanisation within the Queanbeyan LGA, Queanbeyan City Council is conscious of their role in providing traffic and transport infrastructure within the region and have undertaken several traffic studies to determine the effects of growth on the road network. Traffic studies found that the locations most congested included Cooma Street and the Queens Bridge as the lack of river crossings forces traffic through the CBD. Alternative routes for the Ellerton Drive Extension have been assessed as part of these traffic studies.

The original Googong and Tralee Traffic Study 2031 (Gabites Porter 2010) modelled many combinations of a series of both new and upgraded road links and intersections. The scenarios were developed by a working group comprising of Queanbeyan City Council, Roads and Traffic Authority (now RMS), a traffic consultant and local developers. The traffic study looked at the following options as well as various combinations of them:

- a) Dunns Creek Road - the option of connecting Old Cooma Road with the Monaro Highway was seen as useful to include by the working group but could not be justified for the known growth as it didn't reduce congestion along Cooma Street or the Queens Bridge. It is currently estimated to cost twice as much as Ellerton Drive Extension with greater environmental affects and subsequently greater required offsets which would add to the project cost.
- b) The Northern bypass (connection of the Kings Highway from the Ridgeway area to the ACT with connections to Pialligo Avenue and Canberra Avenue) - the RTA eliminated this option as the benefits gained were currently insufficient to warrant the substantial cost of the project
- c) Duplication of Southbar Road - did not improve the congestion along Cooma Street
- d) Duplication of Old Cooma Road - improved the congestion coming into Queanbeyan but did not improve the congestion on both Cooma Street and the Queens Bridge
- e) Four laning Cooma Street (Southbar Rd to Rutledge St) - the introduction of clearways to provide four lanes on Cooma Street improved the congestion on Cooma Street but did not improve the Queens Bridge while reducing amenities to Cooma Street residents
- f) Ellerton Drive Extension - improved the congestion on both Cooma Street and the Queens Bridge
- g) Duplication of Ellerton Drive Extension - was not justified within the current 2031 planning horizon
- h) Duplication of the Bungendore Road (at the approach to the Queens Bridge) - improved the congestion leading up to the Queens Bridge but did not improve the congestion at the bridge itself.

Queanbeyan's traffic study found that some of the options modelled above did not fulfill the role intended, did not improve future network deficiencies or were too expensive. Regardless of what scenario was analysed, the congestion on both Cooma Street and the Queens Bridge did not improve significantly without the inclusion of the Ellerton Drive Extension.

The 'do nothing' approach (not developing the Ellerton Drive extension) would not provide the necessary transport infrastructure to accommodate the future transport demands of Queanbeyan and the region. Pressures on existing roads would continue to increase, eventually exceeding the capacity of the current road network. This would cause substantial traffic congestion and delays in the regional transport corridor and ultimately restrict the growth potential of the Queanbeyan area. To do nothing would also take away the only east west connection in Queanbeyan during a 1 in 100 year flood event. Currently the only crossing of the Queanbeyan River is at the CBD and a good part of the road network in the CBD is under water during a 1 in 100 year flood event.

2.3 Alternative locations, time frames or activities that form part of the referred action

N.A.

2.4 Context, planning framework and state/local government requirements

State Policies

Queanbeyan City Council Residential and Economic Strategy 2031

The NSW Department of Planning published the *Queanbeyan City Council Residential and Economic Strategy 2031* (DoP 2007), which acknowledged a need for further work on transportation modelling and studies to highlight the likely impacts and measures required to respond to future demands resulting from residential developments. The report outlines the need to eventually connect Edwin Land Parkway to the Kings Highway as a means to support future growth in Queanbeyan.

Local

Queanbeyan Local Environment Plan 2012

As the Queanbeyan population grows within the Queanbeyan LGA, the Council is conscious of their role in improving traffic and transport infrastructure within the region. Much of the route for Ellerton Drive Extension has been zoned SP2 Infrastructure in the current *Queanbeyan Local Environmental Plan 2012* with provisions within the remaining land zones for the inclusion of the road. Ellerton Drive Extension is specifically mentioned in Part 6 Clause 6.6 'Access to Jumping Creek' in the QLEP. This regulation prevents the development consent for development at Jumping Creek land unless vehicular access to and from the development will be provided by Ellerton Drive Extension.

Queanbeyan Tomorrow Community Vision 2021

In 2006 Queanbeyan City Council consulted widely with the Queanbeyan community to develop a long term Community Vision for the city. The vision gives direction and focus for Council's future activities. One of the outcomes was to obtain a Bypass (which includes the Ellerton Drive Extension) that takes heavy vehicles out of the CBD, that allows traffic to flow easily between suburbs and the CBD, and will assist traffic flow through Queanbeyan from the ACT to the coast.

Legislation

The works are proposed by the Queanbeyan City Council (QCC). QCC would be both the proponent and determining authority under Part 5 of the NSW *Planning and Environmental Assessment Act 1979*. This act provides the most relevant state planning framework for the proposal.

Additional legislation relevant to the proposal includes:

- Clause 228 of NSW Environmental Planning and Assessment Regulation 2000

QCC are obliged to consider clause 228 of NSW Environmental Planning and Assessment Regulation 2000 with regard to identification of environmental impacts of proposals. The factors specified under this regulation (*What factors must be taken into account concerning the impact of an activity on the environment?*) form the scope of the REF.

- Threatened Species Conservation Act 1995

The Threatened Species Conservation Act 1995 aims to conserve and protect threatened, endangered and vulnerable species, populations and ecological communities, listed in NSW.

- Noxious Weeds Act 1993

This act aims to prevent the establishment, reduce the risk of spread and minimise the extent of noxious weeds. The Noxious Weeds Act 1993 guides the management of declared noxious weeds within Local Government Areas (LGAs).

- Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act 1997 (POEO Act) provides an integrated system of licensing for polluting activities within the objective of protecting the environment. The Environment Protection Authority (EPA) must be notified when a 'pollution incident' occurs that causes or threatens 'material harm' to the environment.

- Heritage Act 1977

The NSW Heritage Act 1977 (Heritage Act) is a statutory tool developed to conserve the cultural heritage of NSW. It is used to regulate development impacts on the State's heritage assets. Administered by the NSW Heritage Office, the Act details the statutory requirements for protecting historic buildings and places and includes any place, building, work, relic, movable object or precinct, which may be of historic, scientific, cultural, social, archaeological, natural or aesthetic value.

- Water Management Act 2000

The objects of this Act are to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations. Should the proposal require the extraction of water from a bore, then additional approvals under the WM Act may apply.

2.5 Environmental impact assessments under Commonwealth, state or territory legislation

An environmental assessment will be prepared under Part 5 of the NSW EP&A Act 1979. A Review of Environmental Factors (REF) is the prescribed format for Part 5 assessments. The relevant Council contact is Lorena Blacklock Manger Development Control.

Several specialist studies have already been completed to inform the REF. These include:

- A community consultation plan has been prepared and implemented, as part of this process, refer Section 2.6.
- A Species Impact Statement (SIS), attached to this referral. Because of the likelihood of a significant impact resulting for a listed endangered ecological community (White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland), a referral to NSW Office of Environment and Heritage was made and a Species Impact Statement was prepared, in accordance with this agency's proposal-specific guidance documents. It is noted that several Commonwealth listed entities, including White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland and Hoary Sunray *Leucochrysum albicans* var. *tricolor*, are covered by the SIS. The SIS has now been finalised in agreement with OEH. The OEH contact is Allison Treweek, Senior Team Leader Planning-South East Regional Operations Group.
- Archaeological Assessment of the Proposed Ellerton Drive Extension, Queanbeyan, attached to this referral.

2.6 Public consultation (including with Indigenous stakeholders)

Consultation with Indigenous stakeholders commenced in June 2012 with project notification and requests being sent out to known Aboriginal community groups or registered stakeholders in the area. An advertisement for interested stakeholders were also placed in the Koori Mail, Queanbeyan Chronicle, Indigenous Time, Canberra Times and Queanbeyan Age in July 2012. Letters inviting expressions of interests were also sent to list of potential cultural knowledge holders constructed by Office of Environment and Heritage and Murrumbidgee Catchment Management Authority. The following registered stakeholders expressed interest in the project and were called 1 August 2014 to provide a representative to complete fieldwork on 2 August 2012:

- Buru Ngunawal Aboriginal Corporation
- Ngambri Local Aboriginal Land Council
- Ngunawal Aboriginal Heritage Corporation
- King Brown Tribal Group
- Ngunawal Elders Council
- Karley Ngunawal Descendents

The completed Archaeological Report was submitted to all participating community groups, requesting comments and feedback. The report was amended to include this received feedback from the Aboriginal Community.

Broader public consultation has been undertaken between 20 May and 21 June 2013. Advertisements for this consultation period were provided in the Queanbeyan Age, The Chronicle, Council's facebook page and twitter. Emails were sent to those registered on the Ellerton Drive Extension mailing list. Letters sent to all residents in the Greenleigh and Fairlane Estates on the 15 May 2013 advising of consultation period and providing a copy of FAQs on the Project. This letter was followed up with a reminder letter on the 10 June 2013 of the consultation period and providing them with a copy of the connection options to either estate and a feedback form.

The consultation included the public exhibition of the Archaeological Report, concept plans and draft SIS. These were placed on display between Monday 20 May 2013 and Friday 21 June 2013 at the following locations:

- Council office on ground floor level of 257 Crawford Street
- Queanbeyan City Council Library
- Riverside Plaza
- Karabar Shopping Centre
- Jerrabomberra Shopping Centre
- Council's website under "Documents for Public Exhibition".

Two public information sessions were conducted. One specific for Greenleigh and Fairlane Estate residents on the 28 May 2013 and a general information session on the 29 May 2013.

Further public consultation will be conducted through the public exhibition of the preliminary design, Species Impact Statement, Review of Environmental Factors and this referral, as part of the Part 5 assessment process later in 2014.

2.7 A staged development or component of a larger project
N.A.

3 Description of environment & likely impacts

3.1 Matters of national environmental significance

3.1 (a) World Heritage Properties

Description

No world heritage properties are relevant to the proposal

Nature and extent of likely impact

N.A.

3.1 (b) National Heritage Places

Description

No national heritage places are relevant to the proposal.

Nature and extent of likely impact

N.A.

3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

Description

No Wetlands of International Importance are relevant to the proposal.

Nature and extent of likely impact

N.A.

3.1 (d) Listed threatened species and ecological communities

An SIS of the proposed action was undertaken to assess the likely impacts of the action on biodiversity including threatened species and ecological communities listed under the NSW TSC Act. The SIS also included survey effort and mapping of species, ecological communities and habitat for species listed under the Commonwealth EPBC Act in anticipation of a Referral requirement. This assessment included literature review, searches of relevant databases including the EPBC Protects Matters Search Tool (10km buffer search area) and seasonal field surveys, commencing September 2012 and concluding in November 2013, to evaluate habitat. Seasonal surveys included:

Flora:	Spring 2012	Fauna:	Spring 2012
	Spring 2013		Summer 2012
			Autumn 2013
			Spring 2013

A habitat evaluation for all threatened entities returned from a Commonwealth EPBC Protected Matters Search (10km buffer search area) was undertaken as part of the Species Impact Statement (SIS). The evaluation is a preliminary assessment to identify which species required further consideration within the SIS.

The likelihood of occurrence is evaluated based on presence of suitable habitat, proximity of nearest records and mobility of the species (where relevant). The assessment of potential impact is based on the nature of the impact, the ecology of the species and its likelihood of occurrence. The evaluation is presented below.

Communities

EEC	Presence of habitat	Likelihood of occurrence	Possible impact?
White Box Yellow Box Blakely's Red Gum Woodland EPBC-CEEC	Present	Present	High.
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions EPBC-E	Absent	None	No
Natural Temperate Grassland of the Southern Tablelands of NSW and the Australian Capital Territory E EPBC	Absent	None	No

Flora

Species	Presence of habitat	Likelihood of occurrence	Possible impact?
<i>Eucalyptus parvula</i> Small-leaved Gum EPBC-V	Absent	None	No
<i>Eucalyptus pulverulenta</i> Silver-leaved Gum EPBC-V	Marginal	Unlikely.	Low
<i>Westringia kydrensis</i> Kydra Westringia EPBC-E	Absent	None	No
<i>Pomaderris pallida</i> Pale Pomaderris EPBC-V	Present	Unlikely. Targeted searches did not detect this species.	Low
<i>Zieria adenophora</i> Araluen Zieria EPBC-E	Absent	None	No
<i>Zieria citriodora</i> Lemon Zieria EPBC-V	Absent	None	No
<i>Dodonaea procumbens</i> Creeping Hop-bush EPBC-V	Absent	None	No
<i>Rulingia prostrata</i> Dwarf Kerrawang EPBC-E	Absent	None	No
<i>Calotis glandulosa</i> Mauve Burr-daisy EPBC-V	Marginal	Unlikely	Low
<i>Leucochrysum albicans</i> var. <i>tricolor</i> Hoary Sunray E EPBC	Present	Present	High.
<i>Rutidosia leiolepis</i> Monaro Golden Daisy EPBC-V	Absent	None	No

<i>Rutidosia leptorrhynchoides</i> Button Wrinklewort EPBC-E	Present	Unlikely. Targeted searches did not detect this species.	Low
<i>Lepidium hyssopifolium</i> Aromatic Pepper-cress EPBC-E	Present	Unlikely. Targeted searches did not detect this species.	Low
<i>Swainsona recta</i> Small Purple-pea EPBC-E	Present	Unlikely. Targeted searches did not detect this species.	Low
<i>Thesium australe</i> Austral Toadflax EPBC-V	Absent	None	No
<i>Lepidium ginninderrense</i> Ginninderra Peppercress V EPBC	Absent	None	No
<i>Pelargonium</i> sp. Striatellum Omeo Stork's-bill E EPBC	Absent	None	No
<i>Prasophyllum petilum</i> Tarengo Leek Orchid TSC-E, EPBC-E	Absent	None	No
Species	Presence of habitat	Likelihood of occurrence	Possible impact?
<i>Caladenia tessellata</i> Tessellated Spider Orchid, Thick-lipped Spider Orchid EPBC-V	Present	Unlikely	Low
<i>Diuris aequalis</i> Buttercup Doubletail EPBC-V	Present	Unlikely. Targeted searches did not detect this species.	Low
<i>Diuris pedunculata</i> Small Snake Orchid EPBC-E	Marginal	Unlikely	Low

Fauna

Species and Status	Presence of habitat	Records in the Locality (10 km)	Possible Impact
Golden Sun Moth <i>Synemon plana</i> CE EPBC	Marginal	Yes. Five records west and south west of study area.	Low, however, this species is assessed further within the SIS.
Giant Burrowing Frog <i>Heleioporus australiacus</i> V EPBC	Absent	No	No
Green and Golden Bell Frog <i>Litoria aurea</i> V EPBC	Absent	No	No
Yellow-spotted Tree Frog <i>Litoria castanea</i> E EPBC	Absent	No	No
Southern Bell Frog / Growling Grass Frog <i>Litoria raniformis</i> E EPBC	Absent	No	No
Alpine Tree Frog <i>Litoria verreauxii alpina</i> V EPBC	Absent	No	No

Pink-tailed Worm-lizard <i>Aprasia parapulchella</i> E EPBC	Marginal	Yes. Several records south-west and west of study area.	Low, however, this species is assessed further within the SIS.
Striped Legless Lizard <i>Delma impar</i> V EPBC	Marginal	No	No.
Grassland Earless Dragon <i>Tympanocryptis pinguicolla</i> E EPBC	Absent	No	No
Swift Parrot <i>Lathamus discolor</i> E EPBC	Marginal	No	No
Superb Parrot <i>Polytelis swainsonii</i> V EPBC	Present	No	No
Regent Honeyeater <i>Anthochaera Phrygia</i> E EPBC	Present in Box-Gum Woodland	No	No
Spotted-tailed Quoll <i>Dasyurus maculatus</i> E EPBC	Absent	No	No
Species and Status	Presence of habitat	Records in the Locality (10 km)	Possible Impact
Koala <i>Phascolarctos cinereus</i> V EPBC	Present - secondary	Yes – only one north or study area. However, anecdotal evidence of recent sighting in neighbouring backyard to study area (pers. comm. A. Treweek)	Low, however, this species is assessed further within the SIS.
Brush-tailed Rock-wallaby <i>Petrogale penicillata</i> EPBC V	Absent	No	No
Grey-headed Flying-fox <i>Pteropus poliocephalus</i> V EPBC	Absent	No	No
Smoky Mouse <i>Pseudomys fumeus</i> E EPBC	Absent	No	No
Greater Long-eared Bat (now described as new species Corben's Long-eared Bat) <i>Nyctophilus corbeni</i> V EPBC	Marginal, but predominantly absent.	No	No
Australian Painted Snipe <i>Rostratula australis</i> V EPBC	Absent	No	No
Australasian Bittern <i>Botaurus poiciloptilus</i> E EPBC	Absent	No	No
Murray Cod <i>Maccullochella peelii</i> V EPBC	Marginal	No	No
Macquarie Perch <i>Macquaria australasica</i> E EPBC	Absent	No	No

Description

As determined by the preliminary evaluation above, the following critically endangered community and four threatened species were determined to be Commonwealth listed entities requiring further assessment within the SIS.

- **White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community** - An open woodland community sometimes occurring as a forest formation. Characterised by the presence or prior occurrence of White Box, Yellow Box and/or Blakely's Red Gum. The trees may occur as pure stands, mixtures of the three species or in mixtures with other trees, including wattles. This ecological community occurs in areas where rainfall is between 400 and 1200 mm per annum, on moderate to highly fertile soils at altitudes of 170 metres to 1200 metres.
- **Hoary Sunray** - Occurs in a wide variety of grassland, woodland and forest habitats, generally on relatively heavy soils. Can occur in modified habitats such as semi-urban areas and roadsides. Highly dependent on the presence of bare ground for germination. In some areas, disturbance is required for successful establishment.
- **Pink-tailed Worm-lizard** - This species inhabits primary and secondary grassland, grassy woodland and woodland communities on well-drained slopes with rocky outcrops or partially embedded rocks and native grasses (predominantly Kangaroo Grass). The species shelters under small rocks (15–60 cm basal area) spending time in ant burrows of which it also feeds on.
- **Koala** - Inhabit eucalypt woodlands and forests. Feed on the foliage of more than 70 eucalypt species and 30 non-eucalypt species, but in any one area will select preferred browse species. Inactive for most of the day, feeding and moving mostly at night. Spend most of their time in trees, but will descend and traverse open ground to move between trees.
- **Golden Sun Moth** - Ideal habitat is Natural Temperate Grassland and grassy Box-Gum Woodland in which ground cover is dominated by wallaby grasses (*Austrodanthonia* sp.). In the nearby ACT, the grasses include Silvertop Wallaby Grass and in NSW, *A. auriculata*, *A. carphoides*, *A. pilosa*, *A. eriantha*, and *A. setacea*. At least a 40 % cover of Wallaby Grass is optimal for the species. However, is known to occur in small, fragmented and disturbed grassland remnants where native species may not be dominant.

Nature and extent of likely impact

The assessment of the nature and extent of impact was completed based on literature review and a comprehensive field survey program. The field surveys included:

- Vegetation mapping and consideration of structural and floristic diversity
- Targeted flora surveys in areas of potential habitat
- Targeted fauna survey including:
 - Golden sun moth surveys in accordance with Commonwealth guidelines
 - Rock rolling during the appropriate seasonal window for the Pink tailed worm lizard
 - Koala surveys using vegetation mapping and the RGB-SAT technique *

* Regarding koala surveys, it is noted that the current guidelines on the DOE Species Profile and Threats Database website are draft (Draft EPBC Act referral guidelines for the koala *Phascolarctos cinereus* in Queensland, New South Wales and the Australian Capital Territory). This draft guideline was not available at the time of the SIS assessment however, it suggests vegetation mapping and faecal pellet searches, for example the Spot Assessment Technique (SAT) developed by Phillips and Callaghan (2011) or the Regularised Grid-based Spot Assessment Technique (RGB-SAT) are appropriate. **ngh**environmental undertook the RGB-SAT assessment in accordance with these guidelines and also completed vegetation mapping. The RGB-SAT method is accepted both at the state and commonwealth level.

White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community

The proposal will result in the removal of up to 4 ha of the 14 ha local occurrence of this community leaving 10 ha remaining. The action would not fragment or increase the existing fragmentation of the community. The habitat to be removed is not considered critical to the survival of the community nor would the action destroy or modify abiotic factors necessary for the community's survival. A substantial change in the species composition of the

community is considered unlikely and with the implementation of ameliorative measures, the risks to the community from invasive species and pollutants are considered to be low. The action is unlikely to interfere with the recovery of the community outside of the area of direct impact and weed control measures are likely to be beneficial. However, as discussed within the TSC Act assessment of significance above, in the context of current and future development pressures, the high conservation significance of the area to be removed and considering that the proposal would remove approximately 30% of the local occurrence, **the impacts to the community as a result of the proposal are considered to be significant.** (Refer to results of Assessment of significance, below).

Hoary Sunray

The proposed action will result in the permanent removal of approximately 5,000 Hoary Sunray individuals, decreasing the size of the local population from an estimated 13,000 to 8,000 individuals. Approximately 19ha of suitable habitat for this species will be permanently removed however, not all of this habitat is ideal or currently being occupied by the species. Disturbance caused by the action may in fact create additional areas of habitat and opportunities for recruitment. The action is considered unlikely to fragment the local population or disrupt the breeding cycle and habitat to be impacted is not considered critical to the survival of the species. The species is locally common within the Queanbeyan area and occupies a broad range of habitats. **A significant impact to the Hoary Sunray as a result of the proposed action is considered unlikely.**

Pink-tailed Worm-lizard

The proposal would result in the permanent removal of 4 ha of low quality potential habitat for this species. The species is not known to occur within the study area and no evidence of the species was detected during targeted surveys within potential habitat. However, the species is known from the locality with most records south of the study area nearby Tralee or the Poplars, in which the species was identified in rock outcrops. Other records are noted west of Cooma Road nearby the Queanbeyan River on ridges now predominantly surrounded by residential land. Several other studies have failed to locate the species within the locality during targeted searches. The regional abundance of the species is unconfirmed and the distribution of the Pink-tailed Worm-Lizard is patchy, with records known within the Queanbeyan and Canberra areas as well as Cooma, Yass and Bathurst. Given that no evidence of the species was detected during targeted surveys and the potential habitat within the study area lacks key habitat resources such as rock shelters and tussock forming grasses, **it is unlikely the proposal would result in a significant impact to this species.**

Koala

The proposal would result in the permanent removal of 20 ha of potential habitat. The species was not detected during surveys and the study area is not known to support a Koala population, but could potentially be used by young dispersing Koalas. Much of the area to be affected by the proposed works is currently subject to disturbance, reducing its value as habitat. Predation by domestic animals, ingress of weeds, clearing and construction are current disturbances associated with the areas close proximity to residential development. Greater than 10 000 ha of similar woodland and forest habitat is available in the locality. Given the targeted surveys did not detect the species, the study area is not known to support a Koala population, the habitat does not support primary feed trees and the large extent of available habitat that will remain in the locality, **the proposal is not considered to result in a significant impact to this species.**

Golden Sun Moth

The proposal would result in the removal of 4 ha of marginal potential habitat in the southern parts of the study area. No Golden Sun Moths were observed during the field surveys, despite a targeted 4 day survey in areas of potential habitat, including areas dominated by wallaby grasses in small or extensive patches, and areas containing spear grasses and Redleg grass. Given that no evidence of the species was detected during surveys despite surveys being undertaken within the known flying season of this species, and the potential habitat within the study area is considered unsuitable or low quality, **it is considered that the proposal would not result in a significant impact to this species.**

Attachments 2 and 3 show the location of Matters of national environmental significance in the locality (overview) and in proximity to the study area (close up).

Significant Impact Guidelines

The Environment Protection and Biodiversity Conservation Act 1999 specifies factors to be taken into account in deciding whether a development is likely to significantly affect Endangered Ecological Communities. Specific to White Box-Yellow Box-Blakely's Red Gum grassy woodland and derived native grassland, an assessment of significance was undertaken to characterise the significance of the impact to White Box-Yellow Box-Blakely's Red Gum grassy woodland and derived native grassland (Critically Endangered Ecological Community) more specifically. The following assessment is sourced from the SIS.

a) Will the action reduce the extent of an ecological community?

The proposal is expected to reduce the extent of the local occurrence of the community by up to 4 ha. This would result in a decrease of the local extent from 14 ha to 10 ha.

b) Will the action fragment or increase fragmentation of an ecological community?

The existing local occurrence of the community is already isolated from other occurrences in the locality. The action will not increase the isolation or fragment the community.

c) Will the action adversely affect habitat critical to the survival of an ecological community?

The action will not affect habitat listed on the Register of Critical Habitat under the EPBC Act. It is anticipated that the remaining 10 ha of the local occurrence of the community will be viable for the long term and approximately 187 ha of the community is known to occur within a 10km radius of the study area (mostly secured in Nature Reserves). The 4 ha of habitat to be removed by the action is not considered critical to the survival of an ecological community.

d) Will the action modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns?

Aside from the 4 ha of habitat to be permanently removed by the proposed action, there will be no impacts to soils within areas of the community outside of the subject site. There are unlikely to be any impacts to local hydrology that would impact on the community.

e) Will the action cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora and fauna harvesting?

There is potential for alteration to the species composition of the community through the introduction and or spread of weeds. Ameliorative measures have been described in this SIS to minimise this potential and it is considered unlikely that the threat to the community from weeds will increase. Weed species are already established at the site and proposed control measures are likely to result in a net reduction in weeds. No burning or flora and fauna harvesting is proposed within areas that are not directly impacted by the proposal. A decline or loss of functionally important species within the community is considered unlikely.

f) Will the action cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:

- i. Assisting invasive species, that are harmful to the listed ecological community to become established; or**
- ii. Causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community?**

- i. Roads are a vector for the introduction and spread of invasive weed species. The establishment of a major road within close proximity to the community may assist invasive weed species to become established however, measures have been described in this SIS to monitor and control the establishment and spread of weeds. With the implementation of these measures it is considered unlikely that weed species will become established to the extent that they are harmful to the community.
- ii. It is likely that herbicides will be used in the control of weed species within the community. The use of herbicides will be strictly controlled and only applied by qualified individuals who are trained in the identification of weed species and appropriate application of herbicides. It is considered unlikely that non target species within the community would be adversely affected by the use of herbicides. A spill response protocol will be in place to effectively manage spills should they occur.
 - a. Roads can be a source of pollutants, particularly hydrocarbons, which could potentially adversely affect the community. The road has been designed with drainage structures that would direct runoff away from adjacent vegetation communities.

g) Will the action interfere with the recovery of an ecological community?

The local occurrence of the community exhibits evidence of natural overstorey regeneration. This process is occurring across the study area including areas outside of the subject site that would not be impacted. The action would not interfere with this process outside of the area of impact.

Weeds are established within the community and present a threat to its understorey diversity. As discussed above it is considered unlikely that the action would increase the threat from weed invasion and would potentially be beneficial in reducing the impacts from weeds thereby assisting in the recovery of the local occurrence of the community.

3.1 (e) Listed migratory species

As above, the Commonwealth EPBC Protected Matters Search (10km buffer search area) returned the following migratory species which were evaluated. The evaluation is a preliminary assessment to identify which species required further consideration within the SIS. No impact is considered likely for any of these species.

Description

Species and Status	Presence of habitat	Records in the Locality (10 km)	Possible Impact
Latham's Snipe <i>Gallinago hardwickii</i> M EPBC	Absent	No	No
White-bellied Sea Eagle <i>Haliaeetus leucogaster</i> M EPBC	Marginal > Along Queanbeyan River	No	No
White-throated Needletail <i>Hirundapus caudacutus</i> M EPBC	Present	No	No
Rainbow Bee-eater <i>Merops ornatus</i> M EPBC	Present	No	No
Black-faced Monarch <i>Monarcha melanopsis</i> M EPBC	Present	No	No
Satin Flycatcher <i>Myiagra cyanoleuca</i> M EPBC	Present	No	No
Rufous Fantail <i>Rhipidura rufifrons</i> M EPBC	Present	No	No
Great/White Egret <i>Ardea alba</i> M EPBC	Absent	No	No
Cattle Egret <i>Ardea ibis</i> M EPBC	Marginal	No	No

Nature and extent of likely impact

N.A.

3.1 (f) Commonwealth marine area

Description

No Commonwealth marine areas are relevant to the proposal

Nature and extent of likely impact

N.A.

3.1 (g) Commonwealth land

Description

The proposal is not on Commonwealth land and would not have impacts on Commonwealth land.

Nature and extent of likely impact

N.A.

3.1 (h) The Great Barrier Reef Marine Park

Description

The Great Barrier Reef Marine Park is not relevant to the proposal

Nature and extent of likely impact

N.A.

3.1 (i) A water resource, in relation to coal seam gas development and large coal mining development

Description

The proposal is not related to a coal seam gas development or large coal mining.

Nature and extent of likely impact

N.A.

3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

3.2 (a)	Is the proposed action a nuclear action?	No	
	If yes, nature & extent of likely impact on the whole environment		
3.2 (b)	Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?	No	
	If yes, nature & extent of likely impact on the whole environment		
3.2 (c)	Is the proposed action to be taken in a Commonwealth marine area?	No	
	If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(f))		
3.2 (d)	Is the proposed action to be taken on Commonwealth land?	No	
	If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(g))		
3.2 (e)	Is the proposed action to be taken in the Great Barrier Reef Marine Park?	No	
	If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(h))		

3.3 Other important features of the environment

3.3 (a) Flora and fauna

A Species Impact Statement has been completed to describe the biodiversity values of the subject site and surrounding study area. This study compiled information from existing studies of relevance to the site as well as undertaking a series of targeted and general flora and fauna surveys to inform the assessment. Hence, this extract below of the flora and fauna values of the area is considered to be well informed.

Fauna habitats and habitat elements

There are five broad habitat types present in the study area, and these are generally homogenous throughout the study area and include: 1) Dry Forest; 2) Woodland; 3) Shrubland; 4) Grassland; and 5) Riverine and/or drainage lines. Additionally, three important habitat features are present and include: hollow-bearing trees, termite mounds, and rock habitats.

Habitat quality in the study area is variable due to different soil types, disturbance histories (including type and intensity of land management) and ranges from poor to good quality. The northern half of the study area supports better quality habitat with approximately 7.6 ha of good quality habitat identified east of Severne Street. The southern end of the study area that is in close proximity to residential development is more disturbed resulting in predominantly poor-moderate habitat quality, with some patchy areas of good condition woodland habitat.

Habitat connectivity

Habitat connectivity exists north, east and south of the study area within both protected and private lands. There is no habitat connectivity to the west of the study area for the entire length of the proposed road due to residential development and existing dwellings. Strong connectivity is apparent in the northern section of the study area which links to a contiguous area of habitat that adjoins land zoned for Environment Conservation and Cuumbuen Nature Reserve. The south of the study area adjoins land that also connects to Mount Jerrabomberra.

Flora and fauna species

During surveys in the development footprint and adjacent study area and locality, the SIS identified 288 flora species including 29 trees, 40 shrubs, 2 ferns, 7 vines, 151 forbs, 44 grasses and 15 graminoids.

One-hundred and fourteen fauna species were recorded during the survey periods comprising 10 microbats, a further 12 mammals, 80 birds, six reptiles and six frogs. The species lists are provided as an attachment.

3.3 (b) Hydrology, including water flows

The proposal crosses the Queanbeyan River. The northern side of the river is covered by dense shrubland on both the river's edge and immediately upslope. The southern side of the river supports fringing vegetation of reeds, grasses and shrubs (including Pampas Grass, *Cortaderia* sp.). There is a low abundance of woody debris within the river and aquatic vegetation was not clearly visible during the site surveys.

An ephemeral drainage line also occurs generally within the northern section of the study area where it runs south towards Queanbeyan River. This drainage line intermittently fills with water after heavy rainfall events.

3.3 (c) Soil and vegetation characteristics

The northern half of the site between Ellerton Drive and a point about 400m north-east of Lonergan Drive occurs on relatively steep and dissected terrain with skeletal soils derived from Ordovician metasiltstone. The southern half is underlain by metamorphosed sedimentary rocks. The soils for the study area include lithosols and alluvial, residual and colluvial deposits. Small outcrops of bedrock are sparsely distributed across the site.

3.3 (d) Outstanding natural features

The Queanbeyan River provides limited aquatic habitat.

3.3 (e) Remnant native vegetation

Three native vegetation communities were identified within the study area.

1. Tablelands Dry Shrub/Tussock Grass Forest
2. Tablelands Acacia/Grass/Herb Dry Forest
3. Tableland Dry Grassy Woodland (Commonwealth listed White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community)

All three are considered depleted and poorly reserved, although only the Tableland Dry Grassy Woodland is listed (it is considered an Endangered Ecological Community under both NSW and Commonwealth criteria).

3.3 (f) Gradient (or depth range if action is to be taken in a marine area)

The elevation of the site is 630 metres to 1000 metres above sea level. The landscape is dominated by moderate to high gradient slopes separated by incised drainage lines to the northeast and east.

3.3 (g) Current state of the environment

Native vegetation is dominant across the study area excluding the corridor between residential development south of the Queanbeyan River which is largely comprised of exotic grasses. The majority of the study area has been subject to varying levels of disturbance. Disturbance appears to be generally lower in the north of the study area and more intensive in the south. Despite the higher levels of disturbance in the south, the native vegetation in this area exhibits a high level of diversity.

Common weed species are widespread throughout the study area and ten noxious weeds listed for the Queanbeyan City Local Control Area were detected during the surveys. The site is also in close proximity to development and residential estates. Disturbance to the site also includes numerous vehicle and walking tracks across the site and minor rubbish dumping.

Refer to Section 1.3(c) for further vegetation characteristics.

3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values

No Commonwealth Heritage Places or places of heritage values were identified in the study area.

3.3 (i) Indigenous heritage values

An archaeological heritage assessment was prepared for Queanbeyan City Council.

Eight Aboriginal heritage sites had been previously identified within 100 metres of the proposed centreline of the road corridor comprising of 7 open artefacts and an isolated find. During field work only 3 sites could be relocated, however an additional 6 sites were identified including 4 open artefacts scatters and two isolated finds.

Six sites were assessed as being of low scientific significance and having low conservation values on the grounds that these sites show the same range of raw materials and artefact classes as have been identified elsewhere in the region. The other six sites were identified as forming a single large open artefact scatter extending across a broad ridge crest. This site is assessed as being of low/medium scientific significance and having a moderate conservation value. The site shows the same range of raw materials and artefacts classes as have been identified elsewhere in the region, however its size is relatively unusual in the area.

The registered Aboriginal parties did not disclose any specific knowledge of traditional values/places within the current study area.

3.3 (j) Other important or unique values of the environment

Much of the land within the locality has been subject to urban or rural development however, reserves and State Forests also occur. Reserves within the locality include Queanbeyan Nature Reserve (NR), Mount Jerrabomberra NR, Cuumbuen NR, Stoney Creek NR, Wanna NR and the Stringybark Reserve. The locality includes Googong Dam, in the south, and the majority of Kowen State Forest (SF), in the north. Kowen SF is mostly comprised of pine plantation. Additionally, Fairbairn Pine Plantation occurs to the west (these latter areas do not contribute to the native vegetation within the locality).

3.3 (k) Tenure of the action area (eg freehold, leasehold)

Council owns approximately half of the land in the road corridor and has begun the process of acquiring the rest which is freehold. Lot numbers are provided in Section 1.6 of this referral.

3.3 (l) Existing land/marine uses of area

The site is adjacent to two residential estates. Excluding the residential areas, there are no specific land uses occurring within the study area. The woodland areas in the south have numerous vehicle and walking tracks which cross through them suggesting that the areas are currently being used for recreational purposes or for vehicle access to areas west of the study area. In the north, the dry forest is relatively undisturbed. There are two tracks which cross the study area from west to east, one which appears to be an access to a dwelling to the east of the study area and another which provides access to some water tanks east of the study area. There are also a number of narrow tracks which are likely the result of trail bike activities. Minor rubbish dumping was also observed in the vicinity of the existing Ellerton Drive.

3.3 (m) Any proposed land/marine uses of area

The study area is located entirely within the Queanbeyan LGA. To the south-west of the Queanbeyan River, the subject site is within land zoned SP2 Infrastructure (Roads). North of the river, the subject site crosses an area zoned E4 Environmental Living for approximately 700m, with the remainder within land zoned E2 Environmental Conservation until the intersection with the existing Ellerton Drive. The bulk of the subject site falls within land zoned as E2 Environmental Conservation.

Apart from the proposed road project, no other proposed land uses are known.

4 Measures to avoid or reduce impacts

Specific to the avoidance (where possible) and mitigation of identified impacts to Commonwealth listed entities (as noted in the far right column), the following safeguards are relevant. These have been sourced from the recommendations of the Species Impact Statement. Note, the measures include the requirement to offset box gum woodland CEEC.

Note the wording of the measures contains information as to the timing of the control, ie prior to construction. The controls are standard in nature (ie weed control, habitat replacement, protection of adjacent habitat) and are therefore expected to be effective in implementation. The wording has been developed to be both clear and auditable, as required to demonstrate their effective implementation.

Avoidance of impacts	<ul style="list-style-type: none"> Where works impact upon the Box-Gum Woodland EEC, fauna habitat in good condition or groups of Hoary Sunray (or in close proximity to groups of plants outside of the subject site), all works would be confined within the final road formation unless it is absolutely necessary to utilise the 5 m buffer area. 	All species
	<ul style="list-style-type: none"> In general, vegetation clearing would be kept to the minimum required. Clearing would comply with QCC guidelines. 	All species
	<ul style="list-style-type: none"> Areas outside of the works area would be clearly demarcated with temporary fencing, flagging tape or similar. No works or movement of equipment or machinery would occur within these areas. Mitigation of Construction impacts 	All species
	<ul style="list-style-type: none"> Searches would be undertaken within rock habitats and large fallen logs for threatened reptiles, or any other vertebrate fauna. Any animals found would be relocated to nearby suitable habitat. 	Pink Tail Worm Lizard
	<ul style="list-style-type: none"> All large logs and rock habitats disturbed during the clearing process would be relocated to nearby habitat in public land, particularly within areas that would be utilised by fauna. The land immediate east and south-east of the subject site is most appropriate. Rocks and logs removed from the subject site may also be used to enhance the habitat value at the entrances of the fauna underpasses. 	Pink Tail Worm Lizard

	<ul style="list-style-type: none"> The control of noxious weeds within the subject site prior to the commencement of construction works. The cleaning of dirt and vegetation from vehicles and equipment prior to accessing areas of native vegetation on the site and prior to leaving the site, when working in weedy areas particularly the area north of the Queanbeyan River and within the weedy gully within the dry forest community south of the end of the existing Ellerton Drive. Ongoing monitoring and control of existing weeds and new introductions throughout the construction phase. 	Box-Gum Woodland
	<ul style="list-style-type: none"> Prior to the commencement of any construction activities, all workers entering the area will be required to undertake an environmental induction. The induction will highlight the conservation significance of vegetation and habitats and the measures required to avoid unwanted impacts to these areas. In particular, the location of the Box Gum Woodland EEC and the potential for fauna species to occupy hollows during felling would be highlighted. The induction will be conducted by a qualified ecologist, landscape contractor or Site Manager, familiar with the activities to be undertaken as well as the ecological constraints of the site. 	All species
Mitigation of impacts	<ul style="list-style-type: none"> Weed management would be ongoing for the life of the road, included in QCC's routine weed control practices. Vegetation within the study area adjacent to the road corridor would be included in all on going management. Spill response protocols would be in place to allow for timely and effective containment of hazardous materials and remediation should a spill occur (e.g. herbicides used in weed control). Adequate drainage would be provided along the road edges to prevent hydrocarbons from the road surface being washed in to adjacent vegetation during rainfall events. 	All species
	<ul style="list-style-type: none"> Fire management plan be developed in conjunction with the Rural Fire Service (RFS). 	Box-Gum Woodland Hoary Sunray
	<ul style="list-style-type: none"> Fauna exclusion fencing (at least 1.5 m high mesh) to prevent access to the road by fauna would be included as part of the design. 	Koala Pink Tail Worm Lizard
	<ul style="list-style-type: none"> Two fauna culvert underpasses will be included within the road corridor, but the feasibility of the engineering design will influence their specific placement and design. The locations of the culverts will target the good quality dry grass forest; one at the northern end just south of Taylor Place; and one north of the Queanbeyan River approximately east of Woodman Place. The provisions of natural habitat features including logs, ground timber, and rock piles. The entrances to the underpasses will also include vegetation enhancement and/or rehabilitation with appropriate plantings to improve the connectivity to adjacent habitats and promote movement through the culverts. 	Koala Pink Tail Worm Lizard

	<ul style="list-style-type: none"> Vegetation overhanging barriers that may encourage fauna crossing into the road reserve would be avoided and any plantings within close proximity to the road reserve would be carefully considered so that they do not attract fauna species. 	Koala
	<ul style="list-style-type: none"> Residual impacts to the affected species and communities will be mitigated through an offset developed by QCC in consultation with OEH. 	All species
	<ul style="list-style-type: none"> A monitoring program should be implemented to determine the effectiveness of mitigation measures. 	All species

5 Conclusion on the likelihood of significant impacts

5.1 Do you THINK your proposed action is a controlled action?

- No, complete section 5.2
- Yes, complete section 5.3

5.2 Proposed action IS NOT a controlled action.

N.A.

5.3 Proposed action IS a controlled action

Matters likely to be impacted

- World Heritage values (sections 12 and 15A)
- National Heritage places (sections 15B and 15C)
- Wetlands of international importance (sections 16 and 17B)
- Listed threatened species and communities (sections 18 and 18A)
- Listed migratory species (sections 20 and 20A)
- Protection of the environment from nuclear actions (sections 21 and 22A)
- Commonwealth marine environment (sections 23 and 24A)
- Great Barrier Reef Marine Park (sections 24B and 24C)
- A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
- Protection of the environment from actions involving Commonwealth land (sections 26 and 27A)
- Protection of the environment from Commonwealth actions (section 28)
- Commonwealth Heritage places overseas (sections 27B and 27C)

In the context of current and future development pressures, the removal of approximately 30% (4 ha of the 14 ha) of the local occurrence of White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community, the impacts to this community as a result of the proposal are considered likely to be significant.

6 Environmental record of the responsible party

		Yes	No
6.1	Does the party taking the action have a satisfactory record of responsible environmental management?	x	

Queanbeyan Council is developing a culture of positive environmental outcomes and commits substantial resources to improving our local environment. New processes have been developed to assess environmental risk for construction and operational activities.

Council has an Integrated Sustainability Action Plan for the next 10 years, allocating funds to implement actions from environmental strategies. This project builds on and links to many environmental initiatives in the community. For example it supports the implementation of Council's objectives under our Community Strategic Plan Theme 6 'Ensuring a Sustainable future' and our Sustainability Policy. It links to the achievement of actions under the Queanbeyan Community Climate Change Action Plan (developed with considerable input from the community) & other Council environmental education initiatives for the community, such as the Enviro Expo events & Waterwise program.

Council's Sustainability Environment Advisory Committee (made up of Councillors & community representatives) is also overseeing implementation of actions to improve the sustainability of the Queanbeyan local environment. Council has recently been successful in Environmental Trust funding to implement the "Sustainable Googong" project. This project builds on the momentum, knowledge and resources created from the Sustaining Our Towns project which was run across the SE region from 2009-2012 and had a sustainable housing design component although was more focused on existing housing. The project also supports and promotes going beyond or broader than the Googong sustainability requirements (50% water & 40% energy consumption reduction compared to BASIX 40% and 25%). Googong development will have a water treatment and reuse plant delivering treated water back to the homes for use in toilet flushing and irrigation.

6.2	<p>Has either (a) the party proposing to take the action, or (b) if a permit has been applied for in relation to the action, the person making the application - ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?</p>	x	
	<p>In 2012 Queanbeyan City Council pleaded guilty to a pollution of waters incident for a sewerage overflow event and were prosecuted by NSW EPA. This incident occurred on 4th and 5th November 2007. Untreated sewerage escaped into the Queanbeyan River following an electricity outage that caused the failure of sewer pumps. Council was fined \$80,000 by the NSW Land and Environment Court.</p>		
6.3	<p>If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?</p> <p>If yes, provide details of environmental policy and planning framework</p> <p>QCC is not a corporation</p>		NA
6.4	<p>Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?</p> <p>Provide name of proposal and EPBC reference number (if known) Stage 2 Edwin Land Parkway Jerrabomberra to Karabar, NSW EPBC 2009/5162</p>	x	

7 Information sources and attachments

(For the information provided above)

7.1 References

1. Gabites Porter 2010, Queanbeyan's Transport Plan, the Googong and Tralee Traffic Study 2031. <http://www.qcc.nsw.gov.au/Growing-Our-City/Community-Development/Future-Planning>
2. nghenvironmental 2014, Species Impact Statement, Ellerton Drive Extension. This document will be made publically available in the near future. It is attached to this referral (provided as Attachment 4).
3. Cultural Heritage Management Australia 2012, Archaeological Assessment of the Proposed Ellerton Drive Extension, Queanbeyan. This document may be made publically available as part of the REF exhibition. It is attached to this referral (provided as Attachment 5).
4. Queanbeyan City Council 2013, Ellerton Drive Extension Community Consultation on Concept Plans and Preliminary Works. <http://www.qcc.nsw.gov.au/Growing-Our-City/City-Infrastructure/Infrastructure-Projects/Ellerton-Drive-Extension>

7.2 Reliability and date of information

The information in Section 3 has been sourced exclusively from the references provided above. The key sources have been the SIS and Archaeological Assessment. The sources are considered reliable; reliability is analysed for each source below:

The Googong and Tralee Traffic Study 2031.

- specialist report prepared for QCC in 2010
- prepared by a specialist with appropriate experience and qualifications (senior transportation engineer)
- developed by a working party consisting of QCC, RTA, developers and the consultant assisted with the development of the document
- the report was finalised after a peer review by a senior transport planner and senior transportation engineer
- the report methodology includes analysis against a computer model developed for Queanbeyan
- testing was undertaken for each option as part of the analysis

Species Impact Statement, Ellerton Drive Extension.

- specialist report prepared for QCC in 2014
- prepared by a specialist with appropriate experience and qualifications (senior ecologists)
- the report was finalised with input from NSW Office of Environment and Heritage and review by a Certified Environmental Practitioner
- the report clearly identifies the methodology and any limitations and uncertainties
- a precautionary approach is used to address limitations and uncertainties, specifically with regard to level of impact and mitigation strategies

Archaeological Assessment of the Proposed Ellerton Drive Extension.

- specialist report prepared for QCC in 2012
- prepared by a specialist with appropriate experience and qualifications (archaeologist)
- the report was carried out according to NSW Office of Environment and Heritage guidelines and with input from Aboriginal stakeholders
- the report clearly identifies the methodology and any limitations and uncertainties
- a precautionary approach is used to address limitations and uncertainties, specifically with regard to level of impact and mitigation strategies

Ellerton Drive Extension Community Consultation on Concept Plans and Preliminary Works.

- Internally prepared by QCC, 2013
- the report identifies the methodology used and key results in a transparent manner and is considered to be reliable
- the report is not an assessment, as such, uncertainty is not relevant to this study

7.3 Attachments

	✓ attached	Title of attachment(s)
You must attach		
figures, maps or aerial photographs showing the project locality (section 1)	✓	Figure 1, Section 1.
GIS file delineating the boundary of the referral area (section 1)		Attachment 1. Shape files of study area and subject site.
figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)	✓	Attachment 2. Matters of national environmental significance, locality Attachment 3. Matters of national environmental significance, study area
If relevant, attach		
copies of any state or local government approvals and consent conditions (section 2.5)		
copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.6)		
copies of any flora and fauna investigations and surveys (section 3)	✓	Attachment 4. Species Impact Statement, Ellerton Drive Extension.
technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3 and 4)	✓	The Googong and Tralee Traffic Study 2031 - http://www.qcc.nsw.gov.au/Growing-Our-City/Community-Development/Future-Planning
report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)	✓	Attachment 5. Archaeological Assessment of the Proposed Ellerton Drive Extension Ellerton Drive Extension Community Consultation on Concept Plans and Preliminary Works - http://www.qcc.nsw.gov.au/Growing-Our-City/City-Infrastructure/Infrastructure-Projects/Ellerton-Drive-Extension

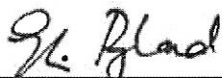
8 Contacts, signatures and declarations

Project title:

8.1 Person proposing to take action

Name Ms Eli Ramsland
Title Projects Engineer
Organisation Queanbeyan City Council
ACN / ABN (if applicable) 12 842 195 133
Postal address PO Box 90, Queanbeyan NSW 2620
02 6285 6264
Telephone
Email council@qcc.nsw.gov.au
Declaration I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.
I understand that giving false or misleading information is a serious offence.
I agree to be the proponent for this action.
I acknowledge that I may be liable for fees related to my proposed action following the introduction of cost recovery under the EPBC Act.

Signature



Date 11 August 2014

8.2 Person preparing the referral information (if different from 8.1)

Name Brooke Marshall
Title Manager, nghenvironmental Snowy Mountains and South Coast
Organisation trading name NGH Environmental Pty Ltd
ACN / ABN ACN: 124 444 622. ABN: 31 124 444 622
Postal address PO BOX 470
BEGA NSW 2550
Telephone 61 2 6492 8333
Email ngh@nghenvironmental.com.au
Declaration I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.
I understand that giving false or misleading information is a serious offence.



08/08/2014

REFERRAL CHECKLIST

HAVE YOU:

- Completed all required sections of the referral form?
- Included accurate coordinates (to allow the location of the proposed action to be mapped)?
- Provided a map showing the location and approximate boundaries of the project area?
- Provided a map/plan showing the location of the action in relation to any matters of NES?
- Provided a digital file (preferably ArcGIS shapefile, refer to guidelines at [Attachment A](#)) delineating the boundaries of the referral area?
- Provided complete contact details and signed the form?
- Provided copies of any documents referenced in the referral form?
- Ensured that all attachments are less than three megabytes (3mb)?
- Sent the referral to the Department (electronic and hard copy preferred)?

Attachment A

Geographic Information System (GIS) data supply guidelines

If the area is less than 5 hectares, provide the location as a point layer. If the area greater than 5 hectares, please provide as a polygon layer. If the proposed action is linear (eg. a road or pipeline) please provide a polyline layer.

GIS data needs to be provided to the Department in the following manner:

- Point, Line or Polygon data types: ESRI file geodatabase feature class (preferred) or as an ESRI shapefile (.shp) zipped and attached with appropriate title
- Raster data types: Raw satellite imagery should be supplied in the vendor specific format.
- Projection as GDA94 coordinate system.

Processed products should be provided as follows:

- For data, uncompressed or lossless compressed formats is required - GeoTIFF or Imagine IMG is the first preference, then JPEG2000 lossless and other simple binary+header formats (ERS, ENVI or BIL).
- For natural/false/pseudo colour RGB imagery:
 - If the imagery is already mosaiced and is ready for display then lossy compression is suitable (JPEG2000 lossy/ECW/MrSID). Prefer 10% compression, up to 20% is acceptable.
 - If the imagery requires any sort of processing prior to display (i.e. mosaicing/colour balancing/etc) then an uncompressed or lossless compressed format is required.

Metadata or 'information about data' will be produced for all spatial data and will be compliant with ANZLIC Metadata Profile. (http://www.anzlic.org.au/policies_guidelines#guidelines).

The Department's preferred method is using ANZMet Lite, however the Department's Service Provider may use any compliant system to generate metadata.

All data will be provide under a Creative Commons license (<http://creativecommons.org/licenses/by/3.0/au/>)