

EPBC Act referral



Australian Government

Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Title of proposal	2020/8768 - Monaro Highway - Lanyon Drive Upgrade Package 1C
Section 1	
Summary of your proposed action	
1.1 Project industry type	Transport - Land
1.2 Provide a detailed description of the proposed action, including all proposed activities	
<p>The proposed action is the Monaro Highway Upgrade Project, Hume, ACT ('the project'). The project is split into two components referred to as Package 1B and Package 1C, each being addressed as separate EPBC referrals.</p> <p>This EPBC referral is associated with Package 1C and comprises a 2 kilometres section of the Monaro Highway involving redesign of the alignment and intersections between David Warren Road (intersection with Monaro Highway) to Sheppard Street (intersection with Lanyon Drive). The key features of Package 1C include:</p> <ul style="list-style-type: none">• Removal of access from Monaro Highway to Alexander Maconochie Centre and David Warren Road;• Extension of David Warren Rd to Lanyon Dr/Sheppard St intersection to compensate for the removal of turning movements at the existing access to the Alexander Maconochie Centre.• Intersection of Lanyon Dr and Sheppard St amended to four-way intersection;• Inclusion of extra right turn lanes from Lanyon Drive to Sheppard Street;• Exit from Monaro Highway southbound carriageway to Lanyon Drive via new exit ramp;• Entry to Monaro Highway southbound carriageway from Lanyon Drive via extended entry ramp;	
1.3 What is the extent and location of your proposed action?	
See Appendix B	
1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)	
<p>The project study area for Package 1C is a section of road located along the Monaro Highway in the Australian Capital Territory situated 1.8 kilometres from David Warren Road (intersection with Monaro Highway) to approximately 200 metres east of Sheppard Street (intersection with Lanyon Drive). The project is located within the suburb of Hume, in the district of Jerrabomberra. There is no Local Government Area applicable to the project study area. The land around the project study area is managed by ACT Government.</p>	
1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?	
<p>The proposed action for Package 1C is approximately 2 kilometres in length. The construction footprint is described as the area required for construction of the proposed action between Sheppard Street and Lanyon Drive intersection upgrades, extension of David Warren Road and new on/off ramps to Monaro Highway from Lanyon Drive. The total construction footprint area is estimated at 11.2 hectares.</p>	
1.7 Proposed action location	
Other - Monaro Highway in the ACT between Sheppard St intersection and David Warren Rd intersection	
1.8 Primary jurisdiction	Australian Capital Territory
1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.9.1 Provide detail	
<p>The whole Monaro Highway Upgrade project (including intersection upgrades at Isabella Drive and Lanyon Drive) is a jointly funded \$200 million project, with the Commonwealth fast-tracking \$30 million to the 2020-21 financial year and the ACT would contribute \$15 million.</p>	
1.10 Is the proposed action subject to local government planning approval?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	



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1.11 Provide an estimated start and estimated end date for the proposed action	Start Date 01/06/2022 End Date 01/01/2024
1.12 Provide details of the context, planning framework and state and/or local Government requirements The proposed action is subject to assessment under ACT Planning and Development Act 2007.	
1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders Consultation Summary Consultation started during the feasibility phase of the project: § Two local residents (Campbell and Baron family) were visited by the project team (TCCS project manager) to discuss the proposed alignments and access to their properties. This visit took place in December 2019. § Pedal Power was also included in the consultation process in relation to cycleways and viability of access within the proposed intersection treatments; § JACS – has been engaged and is providing ongoing comments to the project team - Alexandre Maconochie Centre - Emergency Services Agency § Utility Authorities - ACT Planning Authority, Environment, Planning and Sustainable Development Directorate (EPSDD) - National Capital Authority (NCA) § Representative Aboriginal Organisations Four Aboriginal organisations have been recognised by the Minister as Representative Aboriginal Organisations (RAOs) as defined under the Heritage Act 2004 (ACT). These organisations are: § Buru Ngunawal Aboriginal Consultancy (Buru Ngunawal) § King Brown Tribal Group (KBTG) § Mirrabee (previously Little Gudgenby River Tribal Council) § Ngarigu Currawong Clan (Ngarigu) It is the policy of the ACT Heritage Council that the RAOs should be consulted with regard to the management of, and potential impacts to, Aboriginal cultural values and places within the ACT. In summary, the consultation process has involved: § Contacting each of the RAOs to inform them of the project and of this cultural heritage assessment § Informing the RAOs of the need to carry out an archaeological survey of the project area, and providing them with an opportunity to supply representatives to take part in the survey § Seeking information from the RAOs on the archaeological and Aboriginal cultural context of the study area and the surrounding region § Providing the RAOs with a draft of this report for their review, and inviting comments and feedback on the report, including information on the cultural significance of the project area and any identified Aboriginal objects or places associated with it The timing of the main consultation actions was: § Initial contact with RAOs - Feb 21, 2020 § Discussing suitable dates for the archaeological survey, and providing RAOs with the opportunity to supply a representative - Feb 21, 2020 to Mar 26, 2020 § Invite RAOs to provide information on the region's archaeological and cultural context - Feb 21, 2020 to Ongoing The following representative participated in the archaeological survey on Friday March 27, 2020: § Wally Bell (Buru Ngunawal Aboriginal Consultancy)	
1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project A biodiversity impact assessment report has been completed for Package 1C, in accordance with the requirements of the ACT Planning and Development Act 2007 and the Environment Protection and Biodiversity Conservation Act 1999. Cultural Heritage assessments (Aboriginal and historical) have also been undertaken in accordance with the ACT Heritage Act 2004 and the Environment Protection and Biodiversity Conservation Act 1999. The attached document is email correspondence received from the Department of Agriculture, Water and the Environment regarding a split referral for the project (i.e. Packages 1B and 1C).	



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1.15 Is this action part of a staged development (or a component of a larger project)?

☒ Yes ☐ No

1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action

In July 2019 Jacobs were commissioned by TCCS - Infrastructure Delivery to deliver feasibility and design services for the Monaro Highway Upgrade Project in the Hume region. The project includes redesign of the alignment and intersections of the Monaro Highway between the Alexander Maconochie Centre and Isabella Drive. On 25th of November 2019 the Federal and ACT governments announced that the upgrade to the Monaro Highway was going to be fast-tracked. In December 2019, after an initial assessment of the planning, environmental and approval processes, it was decided that the Lanyon Drive Interchange was the preferable option to be upgraded under the accelerated spending plans. This section of works is called Package 1A. Package 1A was further reviewed and due to design and planning constraints, this package was split into packages 1B and 1C. Package 1B includes upgrades to the northbound carriageway and a flyover on the southbound carriageway of Monaro Highway and Package 1C includes Sheppard Street and Lanyon Drive intersection upgrades, extension of David Warren Road and new on/off ramps to Monaro Highway from Lanyon Drive. It is now proposed these are constructed as two individual schemes. Agreement to submit Package 1A as a split referral for Package 1B and Package 1C was granted by the Department of Agriculture, Water and the Environment on 21 July 2020 (see attachment in Section 1.14)

1.16 Is the proposed action related to other actions or proposals in the region?

☒ Yes ☐ No

1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation)

See answer to previous question.



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Section 2

Matters of national environmental significance

2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?

☐ Yes ☒ No

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

☐ Yes ☒ No

2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?

☐ Yes ☒ No

2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

☒ Yes ☐ No

Species or threatened ecological community

Striped Legless Lizard

Impact

The full assessment of significance is in the attached biodiversity assessment report.

There have been no targeted surveys undertaken for the Striped Legless Lizard as part of this assessment, and this species has not previously been identified within the project area. However there is a known population to the east of the project area in the Jerrabomberra East Grassland Nature Reserve, which contains native grasslands and Natural Temperate Grasslands. The Jerrabomberra population would classify as an important population as defined by the referral guidelines for this species. Surveys conducted in 2014 as part of the Eastern Broadacre Striped Legless lizard Survey Program (SMEC 2015) recorded one Striped Legless Lizard individual in grassland dominated by *Phalaris aquatica* and *Avena* sp. about 200 metres east of the proposed David Warren Drive extension. More lizards were recorded to the north in the native grasslands associated with Jerrabomberra East Grasslands.

Considering the exotic grasslands in the study area are contiguous with the grasslands to the east where the Striped Legless Lizard has been recently (2014) identified, it is assumed that exotic grasslands in the project are likely to be used to some degree by individuals of this Jerrabomberra important population. However, the extent to which the study area is utilised by *Delma impar* is unknown. Geographically, the study area is located in a 'dead-end' corner in the very south western extent of the Jerrabomberra population. Field surveys for this assessment found that the grassland in the study area classified as "low-value" by SMEC (2015) was very similar in condition to grassland classified as "recoverable". The decrease in capture rates with distance from the native grassland by SMEC (2015) suggests a continued decline in habitat quality and use with increased distance from the Jerrabomberra East Grassland Nature Reserve. Given this data and the habitat condition noted during surveys for this assessment, habitat value across the whole study area is considered to be very low and unlikely to support population dynamics (for example breeding, recruitment and dispersal). Despite this, the low-condition habitat in the study area may be used by individuals of the Jerrabomberra population for seasonal foraging and shelter.

The proposal will impact 5.9 hectares of exotic grassland, contiguous with land east of the Monaro Highway and north of Lanyon Drive where the proposed David Warren Drive extension is located. Based on the existing barriers to movement (Dog Trap Creek and the gas pressure reduction station and access road) and disturbance, around 3.2 hectares of this exotic grassland may provide low-quality habitat for the Striped Legless Lizard.

A summary of the assessment of significance includes:

§ The proposal will directly impact a small area of unconfirmed *Delma impar* habitat, however is unlikely to lead to a long-term decrease in the Jerrabomberra important population because the habitat that will be impacted low quality compared to the adjacent native grasslands where this population will persist.



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§ Assuming that the area of occupancy of the important population at Jerrabomberra is somewhere between 600 to 1,200 hectares, the proposal would reduce this area by around 3.2 hectares which is somewhere in the range of 0.3 – 0.5 per cent.

§ The proposal (Plate B-1) is located in the very south-western corner of the known occurrence of the Jerrabomberra important population and would not fragment the population.

§ The proposal would directly impact 3.2 hectares of exotic grassland that is contiguous habitat known to be occupied by the Jerrabomberra important population. This habitat is considered to be low-quality and only used for foraging and refuge, which may not meet to definition of critical habitat. The main occurrence of high-quality habitat is east of the proposal.

§ The breeding cycle may be disrupted by habitat removal and construction activities, however the habitat in the study area is unlikely to support breeding.

§ The remaining grassland habitats east of the proposal are similar in quality and highly degraded, therefore would unlikely experience a decrease in condition from edge effects associated with the construction of the proposal.

§ The proposal is unlikely to result in invasive species that are harmful, considering the grasslands are already dominated by exotic species and high-quality habitat is further to the east.

§ The proposal would not introduce disease to *Delma impar*

§ Overall, the removal of habitat and potential mortality/injury of individuals in the construction area would not be consistent with the recovery of *Delma impar*, however most of the recovery strategies around increasing the understanding of this species and protecting known populations.

Based on the information available this assessment finds this proposal is at low risk of causing a significant impact

Species or threatened ecological community

Superb Parrot

Impact

The full assessment of significance can be found in the attached biodiversity assessment report. However the assessment report and assessment of significance for this species considers the impact of the entire package 1A (includes both 1B and 1C). The report will have to be read with this in consideration. The report will have to be read with this in consideration. Neither the impact of Package 1C or the cumulative impact of both packages (as detailed in the biodiversity assessment report) is considered likely to be significant for the Superb Parrot.

Package 1C will result in the removal of 2 hectares of planted native trees that represent potential foraging and connectivity habitat for the Superb Parrot during migration across the landscape. The loss of habitat is minor when the amount of similar (planted roadside vegetation) and higher quality (surrounding remnant woodlands) habitat in the locality is considered. No breeding habitat will be impacted and the habitat in the study area is not considered critical to the survival of this species. Package 1C will not result in the fragmentation of movement corridors for the Superb Parrot. Considering this information, Package 1C is unlikely to result in a significant impact to the Superb Parrot.

Species or threatened ecological community

Swift Parrot and Regent Honeyeater

Impact

The full assessment of significance can be found in the attached biodiversity assessment report. However the assessment report and assessment of significance for this species considers the impact of the entire package 1A (includes both 1B and 1C). The report will have to be read with this in consideration. The report will have to be read with this in consideration. Neither the impact of Package 1C or the cumulative impact of both packages (as detailed in the biodiversity assessment report) is considered likely to be significant for the Swift Parrot or Regent Honeyeater.

Package 1C would result in the removal of 2 hectares of planted native trees that may represent potential foraging and connectivity habitat for Swift Parrot and Regent Honeyeater that are passing through the study area. Package 1C will not impact any breeding or nesting habitat. Large continuous areas of similar quality planted native vegetation will remain in the area after the proposal is complete. The loss of habitat is minor when the amount of similar (planted roadside vegetation) and higher quality (surrounding remnant woodlands) habitat in the locality is considered. Package 1C is unlikely to significantly impact the Swift Parrot or Regent Honeyeater.

Species or threatened ecological community

Grey-headed Flying Fox

Impact



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The full assessment of significance can be found in the attached biodiversity assessment report. However the assessment report and assessment of significance for this species considers the impact of the entire package 1A (includes both 1B and 1C). The report will have to be read with this in consideration. Neither the impact of Package 1C or the cumulative impact of both packages (as detailed in the biodiversity assessment report) is considered likely to be significant for the Grey-headed Flying Fox.

The Grey-headed Flying Fox will suffer a small reduction in extent of suitable foraging habitat from the proposal (2 hectares). No breeding camps or other important habitat will be impacted. Package 1C is unlikely to reduce the population size of the Grey-headed Flying Fox or decrease the reproductive success of this species. Package 1C will not interfere with the recovery of the Grey-headed Flying Fox and will not contribute to the key threats to this species. After consideration of these factors, an overall conclusion has been made that Package 1C is unlikely to result in a significant impact to the Grey-headed Flying Fox.

2.4.2 Do you consider this impact to be significant?

☐ Yes ☒ No

2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?

☒ Yes ☐ No

Migratory species

Latham's Snipe

Impact

Latham's Snipe has been recorded nearby in Jerrabomberra Creek and may forage in wetland habitat along Dog Trap Creek and the small area of Carex – Eleocharis wetland in the middle of the highway and south side of the Lanyon Drive intersection. The proposal would not substantially modify, destroy or isolate an area of 'important habitat' for a migratory species, would not result in an invasive species that is harmful to the migratory species becoming established in an area of 'important habitat' and it would not seriously disrupt the lifecycle of an ecologically significant proportion of a population of migratory birds. As such, there is a low risk of a significant impact to a migratory species from the proposal and impacts to migratory species are not considered any further in this report.

2.5.2 Do you consider this impact to be significant?

☐ Yes ☒ No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

☐ Yes ☒ No

2.7 Is the proposed action likely to be taken on or near Commonwealth land?

☒ Yes ☐ No

2.7.1 Is the proposed action likely to have any direct or indirect impact on the Commonwealth land?

☒ Yes ☐ No

2.7.2 Describe the nature and extent of the likely impact on the whole of the environment

The proposed David Warren Drive extension would occur on land that is part of the Emergency Services Agency - Training Centre (Helipad) which is owned and managed by the Commonwealth Justice and Community Safety. Around 4.85 hectares of Commonwealth land is within the proposed project area. There would be no impact to any Commonwealth infrastructure. The biodiversity values within this land is mostly comprised of exotic grasslands and native and exotic vegetation planted along the Monaro Highway.

2.7.3 Do you consider this impact to be significant?

☐ Yes ☒ No



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2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.10 Is the proposed action a nuclear action? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.11 Is the proposed action to be taken by a Commonwealth agency? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

The attached report describes the biodiversity values of the proposal in more detail. The report includes the entire proposal area, including both Package 1B and 1C. Therefore the results of the biodiversity assessment report will need to be read with this in consideration. This referral relates specifically to Package 1C.

The project area is located primarily within Territory Land to the east of the Monaro Highway and some of the designated land boundaries of the existing Monaro Highway. The landscape has been historically modified for the highway and rural activities and as a result is disturbed and predominately cleared of native remnant vegetation. Most woody vegetation within the project area has been planted as part of the highway landscape architecture. Native trees have also been planted (approximately 30 years ago), both in rows/clumps of the same species including Red Box, Apple Box, Candlebark, Brittle Gum, Yellow Box, Southern Blue Gum and Argyle Apple. Other vegetation includes River Oak plantings around the existing Lanyon Drive intersection and Dog Trap Creek, where highly disturbed riparian and wetland vegetation is also present. The main vegetation type is exotic grassland, dominated by African Lovegrass and Phalaris on drier flats and slopes and Tall Fescue more abundant on moist flats and drainage lines. Exotic grassland occurs almost continuously across the study area along the road verges and as groundcover under the planted vegetation. None of the vegetation in the project area meets the description of a native vegetation community or a threatened ecological community. The planted vegetation does provide foraging resources for a range of common fauna species and a selection of threatened fauna including the Swift Parrot, Regent Honeyeater, Superb Parrot and Grey-headed Flying Fox, however the habitats are not considered important for these species. The Striped Legless Lizard may occur in exotic grasslands to the east of the Monaro Highway and north of Lanyon Drive due to the presence of a known population in the Jerrabomberra East Grassland Nature reserve, however habitat for this species in the project area is low-quality.

3.2 Describe the hydrology relevant to the project area (including water flows)

One named (Dog Trap Creek) and several unnamed waterways flow through the project area. Dog Trap Creek is a third-order stream (Strahler) that runs through the project area near the existing Lanyon Drive intersection and converges with Jerrabomberra Creek around 300m to the east of the project area. A number of unnamed first and second order streams also flow through the project area, including the culvert outlet and drainage line to the east of the ESA training base, which drains water south, under the gas pressure reduction station access road and west under the Monaro Highway. These waterways all appear to be relatively low flow systems.

3.3 Describe the soil and vegetation characteristics relevant to the project area

The project area is located within the Williamsdale soil landscape around the Monaro Highway and the Ginninderra Creek soil landscape which maps alluvial soil along Jerrabomberra Creek (information obtained from ACTmapi).

Most woody vegetation within the project area has been planted as part of the highway landscape architecture. Native trees have also been planted (approximately 30 years ago), both in rows/clumps of the same species including Red Box, Apple Box, Candlebark, Brittle Gum, Yellow Box, Southern Blue Gum and Argyle Apple. Other vegetation includes River Oak plantings around the existing Lanyon Drive intersection and Dog Trap Creek, where highly disturbed riparian and wetland vegetation is also present. The main vegetation type is exotic grassland, dominated by African Lovegrass and Phalaris on drier flats and slopes and Tall Fescue more abundant on moist flats and drainage lines. Exotic grassland occurs almost continuously across the study area along the road verges and as ground cover under the planted vegetation. None of the vegetation in the project area meets the description of a native vegetation community or a threatened ecological community.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

The project area is highly modified from its original state and does not contain any outstanding natural features. Areas of higher ecological value are located to the west and east of the project area (Jerrabomberra Nature Reserve) that are known contain threatened ecological communities (e.g. Natural Temperate Grasslands) and provide habitat for a range of threatened grassland species.

3.5 Describe the status of native vegetation relevant to the project area

None of the vegetation in the project area meets the description of a native vegetation community or a threatened ecological community.

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area

None of the vegetation in the project area meets the description of a native vegetation community or a threatened ecological community.

3.7 Describe the current condition of the environment relevant to the project area



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The project area is located within the designated land boundaries of the existing Monaro Highway. The landscape has been historically modified for the highway and rural activities and as a result is disturbed and predominately cleared of native remnant vegetation. Most woody vegetation within the project area has been planted as part of the highway landscape architecture and includes native indigenous species. Exotic grasses are the dominant ground cover in both planted and cleared areas. Dog Trap Creek is deeply incised and partially eroded, with stabilisation works in some areas. The current condition of the environment relevant to the project area is low.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

The project area is adjacent to the heritage curtilage of the item 'Woden Homestead and Grasslands' (ACT Heritage Register ID# 139). The item 'Hill Station' (ACT Heritage Register ID# 466) is located at both a physical and visual distance from the study area (just under 500 m) and is not likely to be impacted. An unlisted heritage item 'Granite Quarries', is located outside of the study area (70 m) and is not likely to be impacted by the proposed works. No protected heritage items under the Environmental Protection and Biodiversity Conservation (EPBC) Act 1999 (i.e. National or World Heritage items) were listed within the project area.

3.9 Describe any Indigenous heritage values relevant to the project area

An archaeological survey of the project area was carried out. No Aboriginal objects were discovered on the ground surface during the archaeological survey.

This assessment identified one area of potential archaeological deposit (PAD) within the Package 1C project area, which is located in the exotic grassland around Dog Trap Creek east of the Monaro Highway and north of Lanyon Drive. The cultural heritage significance of any subsurface Aboriginal objects that might be present within areas of PAD cannot be assessed at this stage, as no archaeological excavations have taken place to identify whether Aboriginal objects are present in subsurface deposits, and to assess the significance of any Aboriginal objects that might be present.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

The project area is located within Territory Land and some of the designated land boundaries of the existing Monaro Highway. Within the Territory Land a Development Application will be required for the ACT Planning Authority, Environment, Planning and Sustainable Development Directorate (EPSDD). Within Designated Areas the National Capital Authority has responsibility for determining detailed planning policy, and for Works Approval (otherwise known as development assessment).

3.11 Describe any existing or any proposed uses relevant to the project area

The project area is located within Territory Land and some of the designated land boundaries of the existing Monaro Highway.



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Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

Refer to the attachment in Section 3 for a full description of the measures proposed to avoid or reduce impacts.

The following mitigation measures have been recommended during pre-construction and construction to avoid or reduce impacts to the Striped Legless Lizard:

Reptile specific No-Go / exclusion fencing should be established along the eastern boundary of the David Warren Drive extension works, to block passage of any ground-dwelling fauna (specifically the Striped Legless Lizard) from entering the construction site. Exclusion fencing requirements include:

§ Fencing should be designed specifically for the Striped Legless Lizard. Fencing is to be made from a hard and smooth material. Mesh is not to be used as it creates a potential trapping hazard. Fencing should be dug into the ground to limit potential for burrowing.

§ All exclusion fencing will also include signage at reasonable intervals

§ Fencing is to remain in place for the whole period of construction and will not be removed until all works are completed

§ No machinery or construction equipment, waste, storage materials are permitted with No-Go Zones

§ Exclusion fencing is to be inspected prior to the commencement of works. Weekly inspections of the fencing should also be undertaken.

If possible, the removal of suitable habitat identified for Striped Legless Lizard will be undertaken between September – May to coincide with the species' active period. The higher temperatures experienced during this time may allow individuals to disperse out of the construction without risk of injury or the direct handling of individuals.

A qualified ecologist will conduct a pre-clearance surveys to identify areas of suitable habitat for Striped Legless Lizard that will require supervision by an ecologist during initial earth works.

Capture and release protocol of Striped Legless Lizard will be implemented throughout the construction period of this project. This includes the following method adapted from SMEC (2019):

§ An ecologist must be on site during the disturbance or removal of Striped Legless Lizard habitat (as identified in the pre-clearance survey);

§ Stripping of topsoil will be undertaken in the following manner to maximise the probability of safely locating and capturing Striped Legless Lizard;

- A grader with ripping tyres at the rear of the plant will be used to strip the grass and topsoil in areas that are identified as potential Striped Legless Lizard habitat

- Moving slowly, scraping will occur at a depth of approximately up to 20-30 cm

- The ecologist will follow the grader on foot, carefully watching the scraped material and inspecting the newly scraped area for Striped Legless Lizard individuals.

§ Any found must be captured and individuals assessed for injuries and then released immediately (if uninjured) into suitable adjoining habitat within the road reserve outside the project area (preferably within 10 m of capture and within a marked No-Go Zone);

§ Any injured Striped Legless Lizard will be taken to a local vet. Animals will be transported in calico bags to avoid further stress;

§ Any severely injured animals are to be assessed by the ecologist and humanely dispatched immediately on site by the ecologist;

§ All construction must cease immediately within 10 m of the discovery of a Striped Legless Lizard within the construction zone if an ecologist/wildlife handler is not present;

§ Works can only recommence after the Striped Legless Lizard has been relocated by an ecologist/wildlife handler; and

§ All capture and release locations (latitude / longitude) must be documented and reported to the relevant ACT Government Biodiversity Officer at the end of the project.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

Impacts to matters protected by the EPBC Act have been assessed in accordance with the EPBC Act Policy Statement 1.1 Significant Impact Guidelines. Impacts are generally considered to be negligible and the proposed outcome of the project would be that no additional impacts to these matters occur as part of the proposed action. Impacts to the Striped Legless Lizard include loss of potential unconfirmed low-quality habitat and potential injury/mortality during construction. Following the measures outlined in the biodiversity assessment report should ensure that the loss of habitat is no greater than what has been assessed and potentially will be less. Specific measures have been developed for the Striped Legless Lizard to be



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implemented during construction. It is assumed that these will reduce injury and death as much as practically possible, which is likely to be very low considering the low-quality of the habitat.



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Section 5

Conclusion on the likelihood of significant impacts

5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled action

- ☐ World Heritage properties
- ☐ National Heritage places
- ☐ Wetlands of international importance (declared Ramsar wetlands)
- ☐ Listed threatened species or any threatened ecological community
- ☐ Listed migratory species
- ☐ Marine environment outside Commonwealth marine areas
- ☐ Protection of the environment from actions involving Commonwealth land
- ☐ Great Barrier Reef Marine Park
- ☐ A water resource, in relation to coal seam gas development and large coal mining development
- ☐ Protection of the environment from nuclear actions
- ☐ Protection of the environment from Commonwealth actions
- ☐ Commonwealth Heritage places overseas
- ☐ Commonwealth marine areas

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

The only matters listed above that will be impacted by the proposed action are Listed threatened species or any threatened ecological community (2.4) and Listed migratory species (2.5).

Native trees in the Package 1C study area may provide foraging resources during flowering times for nectarivorous species such as the Superb Parrot, Regent Honeyeater and Swift Parrot. Flowering trees may also represent critical foraging habitat for the Grey-headed Flying Fox, due to the presence of two roosting colonies in the region. These species would suffer the loss of up to 2 hectares of planted native vegetation from the Package 1C study area that would provide foraging habitat only. This vegetation may also provide some landscape connectivity for highly mobile species. These habitats in the Package 1C study area are not considered important considering the availability of similar and better quality habitat in the area. Therefore it is unlikely that impacts associated with Package 1C (or the cumulative impact of both Package 1B and 1C) is unlikely to result in a significant impact to these species.

The proposal will impact 5.9 hectares of exotic grassland, contiguous with land east of the Monaro Highway and north of Lanyon Drive where the proposed David Warren Drive extension is located. Based on the existing barriers to movement (Dog Trap Creek and the gas pressure reduction station and access road) and disturbance, around 3.2 hectares of this exotic grassland may provide low-quality habitat for the Jerrabomberra Striped Legless Lizard important population. The full assessment of significance of impacts on this species is provided in the attached Biodiversity Assessment Report. A summary of the assessment of significance includes:

§ The proposal will directly impact a small area of unconfirmed *Delma impar* habitat, however is unlikely to lead to a long-term decrease in the Jerrabomberra important population because the habitat that will be impacted is low quality compared to the adjacent native grasslands where this population will persist.

§ Assuming that the area of occupancy of the important population at Jerrabomberra is somewhere between 600 to 1,200 hectares, the proposal would reduce this area by around 3.2 hectares which is somewhere in the range of 0.3 – 0.5 per cent.

§ The proposal (Plate B-1) is located in the very south-western corner of the known occurrence of the Jerrabomberra important population and would not fragment the population.

§ The proposal would directly impact 3.2 hectares of exotic grassland that is contiguous habitat known to be occupied by the Jerrabomberra important population. This habitat is considered to be low-quality and only used for foraging and refuge, which may not meet the definition of critical habitat. The main occurrence of high-quality habitat is east of the proposal.

§ The breeding cycle may be disrupted by habitat removal and construction activities, however the habitat in the study area is unlikely to support breeding.

§ The remaining grassland habitats east of the proposal are similar in quality and highly degraded, therefore would unlikely experience a decrease in condition from edge effects associated with the construction of the proposal.

§ The proposal is unlikely to result in invasive species that are harmful, considering the grasslands are already dominated by exotic species and high-quality habitat is further to the east.

§ The proposal would not introduce disease to *Delma impar*

§ Overall, the removal of habitat and potential mortality/injury of individuals in the construction area would not be consistent with the recovery of *Delma impar*, however most of the recovery strategies around increasing the understanding of this species and protecting known populations.

Based on the information available this assessment finds this proposal is at low risk of causing a significant impact to the Striped Legless Lizard.



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

Yes, Jacobs Group has been engaged by the Infrastructure Delivery Partners Group (IDPG) on behalf of Transport Canberra and City Services to undertake the preliminary design of the Monaro Highway Upgrade project, of which the Lanyon Drive Interchange is a key component. The IDPG are a part of Major Projects Canberra, the ACT Government directorate with the responsibility for directing and managing all aspects of major projects invested in by the ACT Government. The ACT Government takes a proactive and responsible approach to environmental management.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application

Not applicable.

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

☒ Yes ☐ No

6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework

The Project would be delivered in accordance with relevant ACT Government policies and guidelines.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

☒ Yes ☐ No

6.4.1 EPBC Act No and/or Name of Proposal

- 2014/7327- ACT Economic Development Directorate. Symonston Residential Estate Stage 2, Symonston, ACT
- 2015/7483 - ACT Shared Services Procurement/Transport. Construction of a link road on Majura Parkway, Pialligo, ACT
- 2016/7742 - ACT Procurement/Transport. Construction of the IKEA Canberra Northern Access Road, ACT
- 2016/7781- Land Development Agency. Urban Development of part Block 5 Section 10 Greenway
- 2017/8013 - Environment, Planning and Sustainable Development Directorate. Construction of public housing units within Block 29, Section 36, Mawson, ACT.
- 2017/8061- Chief Minister, Treasury and Economic Development Directorate. Molonglo 3 Water Supply Pipeline, ACT
- 2017/8074 - Chief Minister, Treasury and Economic Development Directorate - ACT Procurement. Canberra Brickworks Development, Blocks 1, 7 and 20, Section 102, Yarralumla, ACT.
- 2017/8093 - Environment Planning and Sustainable Development Directorate. Mulligans Flat Woodland Sanctuary – Gorooyarroo extension of predator proof fence, ACT
- 2019/8449 - City Renewal Authority. City Hill Section 63 Redevelopment Project, ACT
- 2019/8582 - Major Projects Canberra. City to Commonwealth Park Light Rail Project, ACT
- 2019/8491- Major Projects Canberra. City to Commonwealth Park Light Rail Project, ACT
- 2019/8490 - Chief Minister, Treasury and Economic Development Directorate - ACT Procurement. City to Commonwealth Park Light Rail Project, ACT



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Section 7

Information sources

Reference source

Phase 1 Benefits and Constraints Mapping Report (Jacobs 2019)

Reliability

In this report, Jacobs has relied on information from publicly available desktop sources such as ACTmapi, Atlas of Living Australia, ACT Heritage Register, Aboriginal Heritage Information Management System (AHIMS), and other published literature and reports. These sources are listed within the report. The report has been prepared by suitably qualified environmental consultants. As such, a reasonably high level of reliability is assumed in the context of the information presented.

Uncertainties

This report has largely been developed based on a desktop review of the existing available project background information. A walk-through was undertaken on the Option 1 alignment, however due to access restrictions sections of the Option 2 alignment outside the existing road reserve were assessed only from the existing road corridor and other available mapping imagery, including Google earth. The scope and limitations for each discipline assessed, including the extent of consultations with the relevant authorities are detailed further in the specific sections of this report. The Phase 1 Benefits and Constraints Mapping Report identified certain information 'gaps' that informed decisions on further targeted field investigations to be undertaken in Phase 2 of the Study (see below).

Reference source

Phase 2 Benefits and Constraints Mapping Report (Jacobs 2019)

Reliability

In this report, Jacobs has relied on information from publicly available desktop sources such as ACTmapi, Atlas of Living Australia, ACT Heritage Register, Aboriginal Heritage Information Management System (AHIMS), and other published literature and reports. These sources are listed within the report. A site visit was undertaken on 07 November 2019 by two Jacobs ecologists and included detailed floristic assessments at two locations identified as potentially environmentally sensitive Box-Gum Woodlands during the Phase 1 investigations. The report has been prepared by suitably qualified environmental consultants. As such, a reasonably high level of reliability is assumed in the context of the information presented.

Uncertainties

The desktop assessment and results from the two site inspections undertaken for this environmental constraint analysis provide context into the expected biodiversity values of the study area. It is not intended to be a comprehensive assessment of the biodiversity in the study area. The distribution and type of biodiversity values outlined in this report have been determined from desktop research and limited field survey. The conclusions of this report are therefore based upon available data and limited field survey and are indicative of the environmental condition of the study area at the time of the site visits.

Reference source

Monaro - Hume Upgrade Lanyon Drive Intersection Biodiversity Assessment Report (Jacobs 2020)

Reliability

In this report, Jacobs has relied on information from publicly available desktop sources such as ACTmapi, Atlas of Living Australia, and other published literature and reports. These sources are listed within the report. A site visit was undertaken on 11 and 12 February 2020 by two Jacobs ecologists and included detailed floristic assessments and targeted flora surveys undertaken in accordance with published guidelines. The report has been prepared by suitably qualified environmental consultants. As such, a reasonably high level of reliability is assumed in the context of the information presented.

Uncertainties

Targeted surveys for threatened species were limited due to seasonal restrictions and the lack of suitable habitat for many threatened species. No targeted fauna surveys were undertaken. Most threatened species were assessed through habitat assessment.



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reference source

Monaro Highway Upgrade Program, Hume - Cultural Heritage Assessment - Aboriginal Heritage (Jacobs 2020)

Reliability

In this report, Jacobs has relied on information from publicly available desktop sources such as ACT Heritage Register, NSW Aboriginal Heritage Information Management System (AHIMS) and other published literature and reports. These sources are listed within the report. Consultation was also undertaken with four Representative Aboriginal Organisations. A site visit was undertaken on 27 March 2020 by a Jacobs archaeologist and a representative of the Buru Ngunawal Aboriginal Consultancy, and was aimed at locating Aboriginal sites, objects and areas of PAD. The report has been prepared by suitably qualified environmental consultants. As such, a reasonably high level of reliability is assumed in the context of the information presented. This report is still in a draft stage and requires further assessment.

Uncertainties

This report was developed based on the Phase 1 alignment and outcomes from the Phase 2 options study. The study is defined as the Monaro Highway study area (as determined through Phase 1, with the inclusion of the Lanyon Drive intersection preferred option (as determined in the Phase 2 study).

This report is still in a draft stage and requires further assessment.

Reference source

Eastern Broadacre Striped Legless Lizard Survey – Final Report (SMEC 2015)

Reliability

SMEC was engaged by Strategic Planning Division to undertake a Striped Legless lizard Survey in five sites across the Eastern Broadacre area in eastern Canberra in the spring/summer of 2014. This was to inform the Eastern Broadacre Strategic Assessment. The ACT Survey Guidelines for Striped Legless Lizard (2014) was followed. This involves the distribution and inspection of roof tile arrays. The survey and assessment was undertaken by consultants from SMEC and assumed to be suitable qualified. As such the results of this report are assumed to be reliable.

Uncertainties

In relation to land within the boundary of Package 1C that is considered to be Striped Legless Lizard habitat, the SMEC study was not able to access part and therefore made assumptions which were not verified.



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Section 8

Proposed alternatives

Do you have any feasible alternatives to taking the proposed action?

☒ Yes ☐ No

8.0 Provide a description of the feasible alternative

Planning for the upgrade of the Monaro Highway began in July 2019. Two main alignment options were investigated as part of Phase 1. Option 1 considered the existing alignment of Monaro Highway with upgrade of Lanyon Drive and Isabella Drive intersections, whereas Option 2 considered an alternative alignment north-west of the existing Monaro Hwy. Once the benefits and constraints of each option was highlighted it was recommended that Option 1 (existing alignment) would be explored for the next phases.

8.1 Select the relevant alternatives related to your proposed action

- ☐ Timeframes
☒ Locations
☐ Activities

8.4 Provide a brief physical description of the property on which the alternative proposed action will take place and the project location (e.g. Proximity to major towns, or for off-shore projects, shortest distance to mainland)

Option two was located around 500m to the north-west of the chosen alignment along the existing Monaro Highway. It involved the construction of a new road that traversed the Mugga Lane Solar Park and Mugga Lane Landfill, travelling through grasslands and woodlands along the Dog Trap Creek catchment and southern end of the Woden Homestead, before joining back up the study area near the Alexander Maconochie Centre.

8.5 What is the size of the development footprint or work area of the alternative?

64.6 hectares

8.6 Describe the location

Other - 500m to the north-west of the chosen alignment along the existing Monaro Highway

8.7 Is there a different local government area and council contact for the alternative?

☐ Yes ☒ No

8.8 Provide details of the context, planning framework and State/Local Government requirements

All land within the ACT falls within the planning jurisdiction of either the NCA or the ACT Planning Authority. Within Designated Land a works approval will be required from the National Capital Authority (NCA). Within the Territory Land a Development Application will be required for the ACT Planning Authority, Environment, Planning and Sustainable Development Directorate (EPSDD).

8.9 Describe any public consultation that has been, is being or will be undertaken (including with Indigenous stakeholders)

No public consultation was undertaken during this stage as only desktop assessments were undertaken.

8.10 Describe any environmental impact assessments that have been, is being or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project for the alternative

Only desktop assessments were undertaken during this phase of options analysis. The scope of the Phase 1 environmental investigations was to:

- Undertake a high-level desktop assessment of environmental constraints and benefits associated with the two options being considered for the Monaro Highway upgrade, supplemented where possible with information from site inspections and stakeholder consultation
- Prepare constraints maps showing the study area and the highway upgrade options against known constraints relating to:
 - Ecology, heritage, land contamination, noise sensitive receivers, strategic land use and infrastructure, and property ownership



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

<ul style="list-style-type: none">• Provide advice on the benefits of each option in relation to tree clearing and overall disturbance footprint, drainage and flooding issues, visual and acoustic amenity, strategic land use and property severance, and heritage <p>Other desktop assessments included Noise and Vibration, Land Use, Flooding and Soil Contamination.</p>
8.11 Is this action part of a staged development (or a component of a larger project)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8.12 Nominate any matters of National Environmental Significance that are likely to be impacted by this alternative proposal by ticking the relevant checkboxes <input checked="" type="checkbox"/> Listed threatened species or any threatened ecological community <input checked="" type="checkbox"/> Listed migratory species
8.12.1 Provide further information on potential impacts of matters of environmental significance that you have nominated above <p>The key ecological constraints identified in the assessment include:</p> <ul style="list-style-type: none">• Patches of lowland grass woodland and natural temperate grasslands• West Jerrabomberra Nature Reserve (i.e. Grasslands)• Wetlands (Carex/Typha) – important link for fauna movement, potential threatened fauna habitat for waterbirds and frogs• Hollow-bearing trees and dead standing trees with hollows which provide potential shelter and nesting habitat for some listed threatened woodland bird and bat species• Potential areas of threatened species habitat (Little Eagle, Perunga Grasshopper and Tarengo Leek Orchid).• Parts of the study area are likely to provide important permanent habitat for threatened species, as well as refuge habitat for vagrant species when travelling between areas of higher quality habitat, particularly Jerrabomberra Wetlands. <p>Additionally, some cryptic species such as Golden Sun Moth, Perunga Grasshopper and Tarengo Leek Orchid and other threatened flora have potential to occur in moderately intact grassland or woodland.</p>
8.13 Describe any impacts on the flora and fauna relevant to the alternative proposal <p>See answer to previous question.</p>
8.14 Describe the hydrology relevant to the alternative proposal (including water flows) <p>Dog Trap Creek is the only notable water course within the study area and flows in a north easterly direction in a shallow channel approximately parallel to the Monaro Highway between Mugga Lane and Lanyon Drive. It crosses beneath the highway about 120 metres north of Lanyon Drive, before flowing east to where it joins Jerrabomberra Creek. A smaller (ephemeral) drainage channel, flowing from south to north, crosses the Monaro Highway near Sheppard Street and flows into Dog Trap Creek about 375 metres north of the highway.</p>
8.15 Describe the soil and vegetation characteristics relevant to the alternative proposal <p>The project is situated in a historically rural landscape that has been highly modified, disturbed, predominately cleared and dominated by exotic grassland. Exotic grassland is mostly dominated by <i>Eragrostis curvula</i> (African Lovegrass) on drier flats and slopes and <i>Phalaris aquatica</i> (Phalaris) on moist flats and drainage lines. The landscape has a range of remnant and planted native vegetation. There is scattered regrowth and large paddock trees throughout study area.</p> <p>There are patches of mixed Eucalypt tree plantings of similar age classes approximately 20-40 years old, located along the Monaro Highway and intersections. Dominant native tree species include, <i>Eucalyptus polyanthemos</i> (Red Box), <i>E. bridgesiana</i> (Apple Box), <i>E. blakelyi</i> (Blakely's Red Gum), <i>E. rubida</i> (Candlebark), <i>E. mannifera</i> (Brittle Gum), <i>E. viminalis</i> (Ribbon Gum), <i>E. melliodora</i> (Yellow Box), <i>E. bicostata</i> (Southern Blue Gum) and <i>E. cinerea</i> (Argyle Gum).</p> <p>Woodland and derived grassland may also provide potential habitat for threatened flora species such as <i>Leucochrysum albicans</i> var. <i>tricolor</i> (Hoary Sunray) (vulnerable under EPBC Act), <i>Swainsona recta</i> (Small Purple Pea) ((Endangered under NC Act and EPBC Act) and <i>Rutidosia leptorrhynchoides</i> (Button Wrinklewort) (Endangered under NC Act and EPBC Act). <i>Swainsona sericea</i> (Silky Swainson-pea) (vulnerable under the BC Act and listed in the Nature Conservation Protected Native Species List 2015) also has potential to occur in the study area.</p> <p>The study area also comprises a network of drainage and creek lines generally dominated by <i>Carex appressa</i> (Tall Sedge) and co-dominated by <i>Typha orientalis</i> (Broadleaf Cumbungi). There are also farm dams scattered throughout study area. Further survey work is required to investigate large creek lines and wetlands in locations north of Monaro Highway and along Dog Trap Creek.</p> <p>Other vegetation includes <i>Casuarina cunninghamiana</i> (River Oak) plantings around Lanyon Drive, and exotic plantings comprising <i>Salix babylonica</i> (Weeping Willow), <i>Populus alba</i> (White Poplar), and <i>P. nigra</i> (Cottonwood Poplar). There are also scattered patches of <i>Rubus fruticosus</i> agg. (Blackberry) near Isabella Drive intersection, which is listed as a Weed of National Significance (WoNS).</p>



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

8.16 Describe any outstanding natural features and/or unique values relevant to the alternative proposal

The key ecological constraints identified in the assessment include:

- Patches of lowland grass woodland and natural temperate grasslands
 - West Jerrabomberra Nature Reserve (i.e. Grasslands)
 - Wetlands (Carex/Typha) – important link for fauna movement, potential threatened fauna habitat for waterbirds and frogs
 - Hollow-bearing trees and dead standing trees with hollows which provide potential shelter and nesting habitat for some listed threatened woodland bird and bat species
 - Potential areas of threatened species habitat (Little Eagle, Perunga Grasshopper and Tarengo Leek Orchid).
 - Parts of the study area are likely to provide important permanent habitat for threatened species, as well as refuge habitat for vagrant species when travelling between areas of higher quality habitat, particularly Jerrabomberra Wetlands.
- Additionally, some cryptic species such as Golden Sun Moth, Perunga Grasshopper and Tarengo Leek Orchid and other threatened flora have potential to occur in moderately intact grassland or woodland.

8.17 Describe the remnant native vegetation relevant to the alternative proposal

The project is situated in a historically rural landscape that has been highly modified, disturbed, predominately cleared and dominated by exotic grassland. The landscape has a range of remnant and planted native vegetation. There is scattered regrowth and large paddock trees throughout study area.

8.18 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the alternative proposal

The project area is located on low sloping plains within the Jerrabomberra Creek catchment.

8.19 Describe the current state of the environment relevant to the alternative proposal

The project is situated in a historically rural landscape that has been highly modified, disturbed, predominately cleared and dominated by exotic grassland. The landscape has a range of remnant and planted native vegetation. Exotic grasses are the dominant groundcover in both planted and cleared areas. Dog Trap Creek is deeply incised and partially eroded, with stabilisation works in some areas. The current condition of the environment relevant to the project area is low.

8.20 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the alternative proposal

No protected heritage items under the EPBC Act were listed within the study area, and the proposed work would not require a referral under the EPBC Act regarding heritage.

A search of the ACT Heritage Register was undertaken on 23rd August 2019 and the following historical heritage objects or places were identified within the study area:

Rose Cottage (112)
Tralee and Couranga Homesteads (2701)
Hill Station (466)
Travelling Stock Route (250)
Woden Homestead and grasslands (139)

8.21 Describe any Indigenous heritage values relevant to the alternative proposal

A search of the ACT Heritage Register was undertaken on 23rd August 2019.

The Tralee corridor (the valley through which the Monaro Highway runs) has a level of cultural significance for some Aboriginal groups in the region. It represents a likely major travel route between the Canberra Valleys / Southern Tablelands and the Cooma Plain, due to its form as a funnel point between the Bullen / Brindabella Ranges and the Tinderry Ranges.

Preliminary research indicates that Hume Potential Archaeological Deposit (PAD) 6 represents an area of particular sensitivity and artefact density within the study area and is considered to be of high scientific significance to the ACT. It is likely that it also carries cultural significance to the local Aboriginal people and traditional custodians.

Option 2 intersects with both Aboriginal and historical registered sites and would likely result in both physical and visual impacts to those places / objects and accordingly, diminish their heritage significance and / or potentially cause damage to an Aboriginal place or object.

8.22 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the alternative proposal

Option 2 was located primarily within Territory Land, though sections within the existing Monaro Highway corridor are Designated land.

8.23 Describe any existing or any proposed uses relevant to the alternative proposal

Option 2 was located partly within the existing Monaro Highway corridor, though also intersected Mugga Lane Solar Park and Mugga Lane Landfill, travelling through grasslands and woodlands along the Dog Trap Creek catchment and southern



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end of the Woden Homestead.
8.25 Do you have another alternative? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8.25.1 Describe the details of the proposed alternative proposal <p>Three options were considered as part of Phase 2 investigations, which included two Lanyon Drive intersection options. The alternative option (Option 1) included an exit ramp and overpass to the north west of the existing Monaro Highway. The three options considered were largely similar, with the primary differences being the absence or presence of exit/entry lanes at the Lanyon Drive intersection. Therefore, the primary difference in impacts from a biodiversity perspective was the amount of vegetation clearing required for each option. Based on the number of entry/exit ramps, Option 1 would have potentially resulted in the largest area of vegetation loss when compared to the other options.</p> <p>Additionally, Option 1 involved construction of entry/exit roads to the northwest of the intersection between Monaro Highway and Lanyon Drive. These works would have been within the curtilage of the Non-Aboriginal heritage item 'Woden Homestead and Grasslands'. Option 1 would have the largest heritage impact.</p>



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 9

Person proposing the action

9.1.1 Is the person proposing the action a member of an organisation?

☒ Yes ☐ No

Organisation

Organisation name	TRANSPORT CANBERRA AND CITY SERVICES DIRECTORATE
Business name	
ABN	37307569373
ACN	
Business address	PO Box 158, Canberra, 2601, ACT, Australia
Postal address	
Main Phone number	0401 333 179
Fax	
Primary email address	stuart.oxborrow@act.gov.au
Secondary email address	

9.1.2 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

☐ Small business
☒ Not applicable

9.1.2.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations *

☐ Yes ☒ No

9.1.3 Contact

First name	Stuart
Last name	Oxborrow
Job title	Senior Engineer
Phone	
Mobile	0401 333 179
Fax	
Email	stuart.oxborrow@act.gov.au
Primary address	Transport Canberra and City Services, PO Box 158, Canberra City, 2601, ACT, Australia
Address	

Declaration: Person proposing the action

I, Stuart Oxborrow, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity.

Signature: Stuart Oxborrow Date: 27 August 2020

I, Stuart Oxborrow, the person proposing the action, consent to the designation of Stuart Oxborrow as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: Stuart Oxborrow Date: 27 August 2020



Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Proposed designated proponent

9.2.1 Is the proposed designated proponent a member of an organisation?

☒ Yes ☐ No

Organisation

Organisation name	TRANSPORT CANBERRA AND CITY SERVICES DIRECTORATE
Business name	
ABN	37307569373
ACN	
Business address	PO Box 158, Canberra, 2601, ACT, Australia
Postal address	
Main Phone number	0401 333 179
Fax	
Primary email address	stuart.oxborrow@act.gov.au
Secondary email address	

9.2.2 Contact

First name	Stuart
Last name	Oxborrow
Job title	Senior Engineer
Phone	02 62074502
Mobile	
Fax	
Email	stuart.oxborrow@act.gov.au
Primary address	PO Box 158, Canberra City, 2601, ACT, Australia
Address	

Declaration: Proposed Designated Proponent

I, Stuart Oxborrow, the
proposed designated proponent, consent to the designation of
myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature: Stuart Oxborrow Date: 27 August 2020



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Referring party (person preparing the information)**9.3.1 Is the referring party (person preparing the information) a member of an organisation?**

☒ Yes ☐ No

Organisation

Organisation name JACOBS GROUP (AUSTRALIA) PTY LTD
Business name
ABN 37001024095
ACN
Business address 177 Pacific Hwy, North Sydney, 2060, NSW, Australia
Postal address
Main Phone number 02 9928 2100
Fax
Primary email address Kharina.Protasiewytch@jacobs.com
Secondary email address

9.3.2 Contact

First name Kharina
Last name Protasiewytch
Job title Civil Engineer
Phone 0451917729
Mobile
Fax
Email Kharina.Protasiewytch@jacobs.com
Primary address 177 Pacific Hwy, North Sydney, 2060, NSW, Australia
Address

Declaration: Referring party (person preparing the information)

I, Kharina Protasiewytch, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature:  **Date:** 27 August 2020

Protasiewytch,
Kharina

Digitally signed by Protasiewytch, Kharina
DN: cn=Protasiewytch, Kharina, ou=Users,
email=Kharina.Protasiewytch@jacobs.com
Date: 2020.08.27 19:44:01 +10'00'



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Appendix A	
Attachment	
Document Type	File Name
govt_approval_conditions	EMAIL - Split referral request response from DAWE_21 July 2020.pdf
govt_approval_conditions	EPBC Pre-referral project background information.pdf
supporting_tech_reports	IA224400-RP-EN-074_Lanyon Drive_Biodiversity Assessment Report_Draft.pdf

Appendix B
Coordinates
Area 1
-35.384851506613,149.17212952567
-35.385674945975,149.17125681009
-35.384610264709,149.17197599197
-35.384374847532,149.17183374223
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Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

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