Australian Government
Department of the Environment and Energy

Title of Proposal - O'Herns Roads

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Transport - Land

1.2 Provide a detailed description of the proposed action, including all proposed activities.

O’Herns Road is an east-west route in the growing suburb of Epping. The Victorian Government recognises the growing population of Melbourne’s north and the increasing pressure being put on the road network in the Epping, Epping North and Wollert areas and has committed to delivering a significant number of major projects to enhance the effectiveness of Victoria’s transport system.

The project aims to alleviate congestion on High Street, Miller Street and Cooper Street by providing an alternative access onto the Hume Freeway for the northern suburbs.

The O'Herns Road / Hume Freeway Interchange Project is a two stage project that includes the following scope:

STAGE ONE:
• Conversion of the roundabout at the Epping Road, Findon Road, High Street and O’Herns Road intersection to a signalised intersection. It should be noted that Stage One works are to be undertaken as part of the project, however they do not form a part of this referral as they will have no impact on MNES. This referral is only in relation to Stage Two of the works.

STAGE TWO:
• Construction of a new interchange at the Hume Freeway / O'Herns Road
• Auxiliary lanes on the Hume Freeway between O’Herns Road and Cooper St
• Duplication of O'Herns Road (to the north side of the current road) between the Hume Freeway and Manor House Drive

The main construction activity will be civil and structural associated with the construction of the new interchange at O'Herns Road / Hume Freeway, the duplication of O'Herns Road and construction of new auxiliary lanes on the Hume Freeway between Cooper St and O'Herns Rd.

Construction activities will include the following:

- Clearing of vegetation
- General earthworks (including topsoil stripping, excavation, filling and topsoil spreading)
- Landscaping

- Bridge works (including bored and driven piling and retaining wall construction), ,

The main operational activity will be the ongoing road maintenance consistent with VicRoads' and Road Management Act requirements including maintenance of landscaping, storm water drains, road pavement, bridge, electrical assets, traffic signals, road furniture and line marking.

This project will see the direct removal and therefore Significant Impact to approximately 10.318 Hectares of Golden Sun Moth habitat.

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
Project Area	1	-37.636007352792	145.01237353272
Project Area	2	-37.636466147802	145.0123091597
Project Area	3	-37.635608028904	145.00468095726
Project Area	4	-37.634800878322	144.99676307625
Project Area	5	-37.635021783563	144.99476751275
Project Area	6	-37.635183213901	144.9945743937
Project Area	7	-37.635446599489	144.99438127465
Project Area	8	-37.640136405892	144.99354442544
Project Area	9	-37.643373219156	144.9928792376
Project Area	10	-37.64812198913	144.99206384606
Project Area	11	-37.647799184331	144.98944601006
Project Area	12	-37.646321060226	144.98986443467
Project Area	13	-37.643313751418	144.99106606431
Project Area	14	-37.638275811603	144.99212821908
Project Area	15	-37.637434705741	144.99231060929
Project Area	16	-37.635905397961	144.99229988045
Project Area	17	-37.634469519229	144.99220332093
Project Area	18	-37.634112669322	144.99173125214
Project Area	19	-37.633900257849	144.98974641747
Project Area	20	-37.633798300127	144.98864134736
Project Area	21	-37.633322495573	144.98871644921
Project Area	22	-37.633415957422	144.99240716881
Project Area	23	-37.630127728951	144.9933834929
Project Area	24	-37.630297666804	144.99477824158
Project Area	25	-37.633713335251	144.99477824158
Project Area	26	-37.634231619481	144.99765356965
Project Area	27	-37.634469519229	144.99846896119
Project Area	28	-37.634860352874	145.00225624032
Project Area	29	-37.635998856562	145.01237353272
Project Area	30	-37.636007352792	145.01237353272

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).

The proposed project area is located approximately 20 km north of the Melbourne central business district. It encompasses the existing road reserve for O'Herns Road and the Hume Freeway, along with several adjacent areas required for the widening. The general project area covers a number of zones including Road Zone (RDZ1 & 2), General Residential Zone (GRZ1), Special Use Zone (SUZ4), Farm Zone (FZ), Rural Conservation Zone (RCZ1) and Comprehensive Development Zone (CDZ1). The proposed work site also encroaches within an Environmental Significance Overlay (ESO4).

The project is located within the:

- Victorian Volcanic Plain bioregion

- Yarra River Basin (Edgars Creek catchment)- Management area of Melbourne Water and the Port Phillip and Westernport Catchment Management Authority (CMA)

- City of Whittlesea

- ‘Conservation Area 33, O’Herns Road, Epping’ as stated in the Biodiversity Conservation Strategy for Melbourne’s Growth Corridor (DEPI, 2013) forming apart of the Melbourne Strategic Assessment Area.

1.6 What is the size of the development footprint or work area?

48.74Ha = Study Area. Of this 34.308Ha = IMPACT Area. 23.314Ha Outside the MSA area and therefore considered construction area.

1.7 Is the proposed action a street address or lot?

Street Address

Hume Freeway and O'Herns Road
Epping VIC 3076
Australia

1.8 Primary Jurisdiction.

Victoria

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

Yes

1.9.1 Please provide details.

Funding of the project was finalised on 15 November 2016. On 15 November 2016, the State Government and the Commonwealth Government committed $3 billion (50:50 split) to the Victorian Infrastructure Package. A $170 million Urban Congestion Package is included within the Victorian Infrastructure Package in which this project (O'Herns Road Interchange Upgrade Project) is included. The State and Commonwealth Governments have committed a combined $81 million toward the project. The State Government has committed $55.2M and the Commonwealth Government has committed $25.8M

1.10 Is the proposed action subject to local government planning approval?

Yes

1.10.1 Is there a local government area and council contact for the proposal?

Yes

1.10.1.0 Council contact officer details

1.10.1.1 Name of relevant council contact officer.

Darren Jackson

1.10.1.2 E-mail

Darren.Jackson@whittlesea.vic.gov.au

1.10.1.3 Telephone Number

03 9217 2186

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 01/2018

End date 12/2019

1.12 Provide details of the context, planning framework and State and/or Local government requirements.

The proposed action will be undertaken within the context of local, state and commonwealth legislation and policies. These are as follows;

Planning and Environment Act 1987 (incl. Planning Schemes) (Vic)

The *Planning and Environment Act 1987* and municipal planning schemes (in this instance, City of Whittlesea Planning Scheme) manages the use and development of land and native vegetation removal. Under the Victorian system each planning scheme contains both State and local policy provisions as well as provisions that control the use and development of land.

The proposed action will be undertaken within the City of Whittlesea. The proposed action will occur on the Hume Freeway and O'Herns Road. The project area covers a number of zones including Road Zone (RDZ 1 & 2), General Residential (GRZ1), Special Use Zone (SUZ4), Farm Zone (FZ), Rural Conservation Zone (RCZ1) and Comprehensive Development Zone (CDZ1) (Biosis, 2017). Under the Schedule to Clause 52.17 in the Whittlesea Planning Scheme a Planning Permit is not required to remove native vegetation within areas zoned Road 1 Zone or designated with a Public Acquisition Overlay (PAO2) (e.g. land forming the Hume Freeway between the Metropolitan Ring Road and Mount Ridley Road). For areas that fall outside of this area a planning permit is required to remove native vegetation under Clause 52.17.

While parts of the study area are exempt under the Schedule, there are still areas supporting native vegetation that fall outside Schedule to Clause 52.17: adjacent zones to the proposed site are General Residential (GRZ); Industrial 1 (INZ1); Residential 2 (RDZ2); Comprehensive Development (CDZ); Farming (FZ); Special Use (SUZ); and Rural Conservation (RCZ1), identified as 'Conservation Area 33, O'Herns Road, Epping' as stated in the Biodiversity Conservation Strategy for Melbourne's Growth Corridor (DEPI, 2013).

In addition to the zoning described above, the proposed action will impact on Vegetation Protection Overlay 2 (VPO2) and an Environmental Significance Overlay 4 (ESO4) (Figure 1). VPO2 covers the project area north of the existing road reserve of O'Herns Road to the east of the Hume Freeway (Figure 1).Additional permit requirements for the area covered by VPO2 are in place to consider the presence of significant native vegetation and fauna habitat. This is achieved through the full assessment of vegetation prior to any development approval and to protect and maintain significant vegetation and the character of the area.

ESO4 covers the study area to the west of the freeway and north of the existing road reserve of O'Herns Road (see Biosis (2017) – Figures 7.1-7.9 'Planning zones and overlays within the study area, Epping' uploaded with this application).

A planning permit will be required from the City of Whittlesea Council for the proposed works.

The project must also comply with the City of Whittlesea's River Red-gum Retention Policy which will requires the retention of as many *Eucalyptus camaldulensis* rees as possible

Flora and Fauna Guarantee Act 1988 (Vic)

The *Flora and Fauna Guarantee Act 1988* (FFG Act) is the key piece of Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes. Under the FFG Act a permit is required from DELWP to 'take' (remove) protected flora species from public land. A permit is generally not required for removal of protected flora from private land.

Native vegetation on site represents the remnants of listed communities (Western (Basalt) Plains Grassland and Western Basalt Plains (River-Red-gum) Grassy Woodland Floristic Community 55-04), which contains protected flora species, and listed threatened species or habitat for them.

The project area includes public land and road reserve managed by VicRoads. Three protected flora species (Black Wattle (*Acacia mearnsii),* Drooping Cassinia *(Cassinia arcuata)* and Cotton Fireweed (*Senecio quadridentatus))* and remnants of the listed flora community Stony Knoll Shrubland (EVC 649)) are present. Stony Knoll Shrubland is considered an endangered community within the Victorian Volcanic Plains bioregion. A protected flora permit from DELWP will be required if any of these species/communities are to be impacted by the proposal (Biosis, 2016).

The following FFG Act listed species have been assessed by Biosis as likely to occur within the project area (Biosis, 2017);

Table 1: Summary of EPBC and FFG Act listed species most likely to occur in the project area (adapted from Biosis, 2017)

Fauna

- Golden Sun Moth, Listed under FFG Act , Species recorded throughout the study area (see

Figure 2 (Biosis, 2017))

- Growling Grass Frog, Listed under FFG Act, Species assumed to be present in wetlands adjacent to the site. None found on site during detailed surveys (Figure 3 in Biosis, 2017).

- Grey-headed Flying Fox , Listed under FFG Act, foraging sites available in remnant and planted trees.

- Lewin's Rail, Baillon's Crake, Little Egret, Eastern Great Egret, Freckled Duck, Blue-billed Duck. Listed under FFG Act, possible movement through wetland habitat particularly in association with local creeks and other drainage lines.

Flora

- Black Wattle, Drooping Cassinia, Cotton Fireweed, Protect under the FFG Act, Recorded within the study area.

Please refer to Figures 3.1 – 3.9: Significant fauna habitat features of the study area, Epping, Victoria contained within the Biosis, 2017 report. Pages 34 - 42.

Catchment and Land Protection Act 1994 (Vic)

The *Catchment and Land Protection Act 1994* (CaLP Act) contains provisions relating to catchment planning, land management, noxious weeds and pest animals.

In the context of this proposed action, the landowner must take all reasonable steps to eradicate regionally prohibited weeds, prevent the growth and spread of regionally controlled weeds, and prevent the spread of and as far as possible eradicate established pest animals. Under the CaLP Act, the State is responsible for eradicating State prohibited weeds from all land in Victoria.

Of particular note are known populations of Lobed Needle-grass (*Nassella charruana)* in the project area, which is classified as a State prohibited weed and managed by the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) . Under the CaLP Act, a permit would need to be obtained from DEDJTR before any material that could potentially contain vegetation propagules could leave the project site.

Water Act 1989 (Vic)

The primary purpose of the *Water Act 1989* is to provide a framework for the allocation and management of surface water and groundwater throughout Victoria. It provides a principal mechanism for maintenance of ecosystem functions including those of aquatic ecosystems.

The proposed development will involve construction works with the potential to impact on the beds/ banks, riparian vegetation, hydrology and water quality of Edgars Creek. Development within the study area will require a works on waterways permit from Melbourne Water.

Aboriginal Heritage Act 2006 (Vic)

The *Aboriginal Heritage Act 2006* provides protection for all Aboriginal places, objects and human remains in Victoria regardless of their inclusion in the Victorian Aboriginal Heritage Register or land tenure. A Cultural Heritage Management Plan (CHMP) must be in place and approved by the relevant Registered Aboriginal Party (RAP) in order to protect and manage Aboriginal cultural heritage. The final CHMP was submitted on 17th July 2017and is currently being reviewed by the Wurundjeri Tribe Land and Compensation Cultural Heritage Council (Wurundjeri) . It is hoped to be finalised by the end of September 2017.

Victoria’s Permitted Clearing of Native Vegetation: Biodiversity Assessment Guidelines ('the Guidelines').

Offsetting is part of the mitigation hierarchy, whereby a proponent must first demonstrate that all feasible steps have been taken to avoid and minimise adverse impacts on biodiversity that may be caused as a result of a project. Any residual impacts that could not be avoided or minimised must then be offset.

In order to ensure a gain to Victoria’s biodiversity that is equivalent to the loss resulting from permitted clearing of native vegetation, compensatory offsets are required. Losses and gains are measured in biodiversity equivalence scores or units.

Under the Guidelines, any losses of vegetation that are assessed under the low risk-based pathway can be offset by the provision of a 'general offset'.

1.13 Describe any public consultation that has been, is being or will be undertaken,

including with Indigenous stakeholders.

Consultation with key stakeholders for this project is being undertaken in accordance with VicRoads policies and processes. VicRoads has produced a Communications & Engagement Plan which includes details on all stakeholders and engagement strategies. This document has been uploaded withh this submission (see ‘O’Herns Road Project - Communications Engagement Plan’).

Public Consultation

VicRoads began significant consultation with the local community in February/March 2017. Consultation involved online engagement and open information sessions outlining the proposed project.

Open information sessions were held on 22 February 2017 at the Aurora Community Association’s monthly meeting, on 19 March 2017 at the Whittlesea Community Festival and on 1 July 2017 at the Epping Views Primary School. Prior to the open sessions, direct invitations were sent to residents impacted by the works. Interested members of the public, not impacted by the works, were also encouraged to attend the sessions.

At the open information sessions, VicRoads provided briefing materials on the rationale for the project, project effects, and timing. Stakeholders were invited to register any concerns they may have regarding the project and offer feedback via ‘Feedback Sheets’, direct email, or phone contact.

The feedback received was given to the project team for incorporation into the project where possible. The main feedback received from the community was as follows:

- General support for the project and a request for the project to be completed as soon as possible to assist in alleviating congestion in the area.

- A request for additional road infrastructure works to be completed outside of this particular project, in order to alleviate congestion in the area.

Results of the online engagement with VicRoads’ responses as to how the feedback would be incorporated into the design was published on VicRoads’ website. This can be found at the following address:

https://www.vicroads.vic.gov.au/planning-and-projects/melbourne-road-projects/oherns-road-

epping-upgrade

Private landowners and residents

VicRoads has begun contacting landowners as of mid-2016 to notify them of planning and investigations works on site to facilitate land access. As of early 2017, VicRoads has begun contacting landowners who will be impacted by the project to discuss matters such as land acquisition and changed road conditions.

The Project team and a representative from VicRoads' Property Services team have met with all owners which VicRoads is proposing to acquire land from and have been informed of the project. In these discussion the project scope and benefits were detailed. Representatives from VicRoads' Property Services team were present to explain the land acquisition process that VicRoads would be undertaking. Owners were:

- Shown copies of the project's concept plans

- Given indicative time frames for the commencement of the project

- Advised of the proposed changes to access to and from their properties, and

- Afforded the opportunity to provide feedback and concerns regarding the project for consideration during the development of the design.

The City of Whittlesea has entered into Section 173 agreements with a number of property owners to the north of O'Herns Road. These properties include 188A, 220 and 230 O'Herns Road.

A section 173 agreement is a Contract between the Council and a landowner that sets out conditions or restrictions on the use or development of the land, or to achieve other planning objectives in relation to the land.

The other properties which were invited to enter into a Section 173 agreement but declined are 200 and 240 O'Herns Road. The property owners have been invited to sign a Section 173 agreement on multiple occasions and are aware of the plans for the O'Herns Road / Hume Freeway interchange project.

Aboriginal Stakeholder Consultation

The site is located within the boundaries of Wurundjeri lands. VicRoads is engaging closely with the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc. (Wurundjeri), the Registered Aboriginal Party for the project area, for the development of the Cultural Heritage Management Plan (CHMP). The CHMP was submitted to Wurundjeri for evaluation on 30 May 2017. The CHMP application is currently being processed and is hoped to be finalised by the end of September.

VicRoads will continue to engage with Wurundjeri for the duration of the project.

Agency Consultation

VicRoads is working with the City of Whittlesea, Development Victoria and the Department of Environment, Land, Water and Planning regarding the project.

VicRoads is liaising with Heritage Victoria on matters related to historic heritage, particularly regarding the Clonard Homestead site and heritage item H2237 (horse-drawn stone carrying sled) to determine its presence or absence on site.

VicRoads has met with Melbourne Water to understand its design and performance requirements of the water bodies and drainage crossing through the project's limit of works, specifically Vearings Road Drain, Koukoura Drive Drain, Edgars Creek and Edgars Road Drain.

VicRoads will continue to engage with Melbourne Water to ensure its requirements are incorporated into the detailed design of the project.

Developers

VicRoads has been liaising closely with the developers of land abutting O'Herns Rd (MAB Corporation and McMullin Property regarding their developments and proposed intersection of adjoining roads with O'Herns Road.

VicRoads has had input into the developer's planning permit applications to the City of Whittlesea (as a referral agency) and is discussing how to best manage the design and construction interface of the intersections in the future.

Service Authorities

VicRoads has met and had discussions with all utility owners including Yarra Valley Water, APA, Ausnet, Telstra, Optus and NBN regarding the project and the services likely to be impacted by the project.

VicRoads is committed to working with the utility owners to understand their design requirements and avoid impact to their assets where possible.

VicRoads will continue to engage with the utility owners to ensure they are agreeable to the project's final detailed design.

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.

Biosis Pty Ltd – O'Herns Road project: Flora and fauna assessment

Biosis Pty Ltd was commissioned by VicRoads to undertake a flora and fauna assessment, including targeted surveys for Golden Sun Moth (*Synemon plana),* Matted Flax Lily (*Dianella ameona*) and the Growling Grass Frog (*Litoria raniformis)*.

The assessment is referenced throughout this referral and contains the following information;

- Describes the vascular flora (ferns, conifers, flowering plants) and vertebrate fauna (mammals, birds, reptiles, frogs, fishes).

- Maps of native vegetation and other habitat features.

- Results of targeted surveys for the EPBC Act listed Golden Sun Moth, Growling Grass Frog and Matted Flax-lily.

- A review of the implications of relevant biodiversity legislation and policy, including Victoria's Permitted clearing of native vegetation: Biodiversity assessment guidelines ('the Guidelines')

and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

- Identifies potential implications of the proposed development and makes recommendations to assist with development design and mitigation of impacts to ecological values.

Environment Effects Act 1978 (Vic)

The *Environment Effects Act 1978* establishes a process to assess the environmental impacts of a project. If applicable, the Act requires that an Environment Effects Statement (EES) be prepared by the proponent. The EES is submitted to the Minister for Planning and enables him to assess the potential environmental effects of the proposed development.

The general objective of the assessment process is to provide for the transparent, integrated and timely assessment of the environmental effects of projects capable of having a significant effect on the environment (DSE, 2006).

The 'Ministerial Guidelines for Assessment of Environmental Effects under the *Environment Effects Act 1978*' (DSE, 2006) provide a range of criteria that can be used to determine whether an EES may be required for a project. These criteria relate to individual potential environmental effects and a combination of (two or more) potential environmental effects.

As the impact of the removal of the small patches of native vegetation identified would result in the loss of less than one hectare of native vegetation, the trigger relating to more than 10 ha of native vegetation or a significant component of the habitat for a threatened species would not be activated. The proposed construction footprint also avoids populations or habitat for the threatened species identified as present or likely to occur by this assessment with the exception of Golden Sun Moth, which is known to occur in surrounding areas of introduced vegetation.

A brief self-assessment was carried out against the referral criteria in the Ministerial Guidelines for Environment Effects Statements and indicated that none of the criteria for EES referral were triggered due to:

- The small area of native vegetation that will be cleared (0.603 ha);

- The degraded nature of the habitat present;

- The limited number of protected species that are present and have the potential to be impacted; and

- The use of effective mitigation measures to prevent significant environmental impacts as a result of the project.

Discussions with DELWP have occurred as a part of ongoing project stakeholder engagement activities. DELWP have confirmed that no EES referral is required based on the above points.

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

No

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

No

Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

• Profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;

• Significant Impact Guidelines 1.1 – Matters of National Environmental Significance;

• Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

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

No

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

No

2.3 Is the proposed action likely to impact on the ecological character of a Ramsar wetland?

No

2.4 Is the proposed action likely to impact on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
Golden Sun Moth (Synemon plana)	Significant Impact. Golden Sun Moth was

Species	Impact
	recorded throughout the study area in areas dominated by Chilean Needle-grass on 7 December, 12 December and 26 December 2016 and 4 January 2017. Binocular searches undertaken on all four surveys were unable to detect Golden Sun Moth within the Hume Freeway median strip. The locations of all Golden Sun Moths recorded during targeted surveys are displayed in Figure 3. Of the confirmed and likely habitat located within the study area, 6.4 hectares is located within the Melbourne Strategic Assessment area and requires no further consideration. Habitat Compensation Fees will be automatically calculated for impacts to Golden Sun Moth within this area (refer to Section 4.1.2 for further detail). For impacts located outside the MSA area, the proposed works will require the removal of 10.98 hectares of Golden Sun Moth habitat. Of this, 0.662 hectares of Golden Sun Moth habitat located at 188A O'Herns Road has already been subject to assessment, approval and offsetting under the EPBC Act for the Aurora residential development and can be disregarded in the current assessment. The proposed works will therefore result in the removal of 10.318 hectares of Golden Sun Moth habitat. VicRoads propose to secure an offset site that supports a Golden Sun Moth population, consistent with the requirements of the EPBC Act Environmental Offsets Policy and the outputs of the associated EPBC Act offset calculator (Biosis, 2017). Please see attached "Self-Assessment Against Significant Impact Criteria" for further information regarding impacts.
Growling Grass Frog (Litoria raniformis)	No Significant Impact. Wetlands located within the project area were surveyed and the results indicated that there are no Growling Grass Frog present. It has been noted that the project will impact on Edgars Creek which is considered to be a habitat corridor linking known populations to the north and south of the project area but with mitigation measures in place, the risk of a significant impact is low (Biosis, 2017). Please see attached "Self-Assessment Against

Species	Impact
	Significant Impact Criteria" for further information regarding impacts.
Grey-headed Fly-fox (Pteropus pollocephalus)	No Significant Impact. Construction of the project will impact on small areas of potential foraging habitat, but impacts will not be significant (Biosis, 2017). Please see attached "Self-Assessment Against Significant Impact Criteria" for further information regarding impacts.

2.4.2 Do you consider this impact to be significant?

Yes

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

No

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

No

2.7 Is the proposed action likely to impact on any part of the environment in the Commonwealth land?

No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

2.9 Will there be any impact on a water resource related to coal / gas / mining?

No

2.10 Is the proposed action a nuclear action?

No

2.11 Is the proposed action to be taken by the Commonwealth agency?

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

2.13 Is the proposed action likely to impact on any part of the environment in the Commonwealth marine area?

No

Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

VEGETATION & FAUNA HABITAT

The majority of the study area has been highly modified and supports predominantly introduced vegetation. The study area was also found to support a range of ecological features including small patches of Stony Knoll Shrubland (EVC 649) . Golden Sun Moth was found to be present throughout the entire study area with the exception of the Hume Freeway centre median where presence was presumed. Created wetlands, farm dams and Edgars Creek within and adjacent to the study area provide habitat for Growling Grass Frog however detailed surveys detected non presence on site.These ecological features are described further below and mapped in Figure 2 and Figure 3 (Biosis, 2017).

Stony Knoll Shrubland (EVC 649).

Introduced Vegetation

The vegetation of the O'Herns Road road reserve consists almost entirely of introduced grasses including Toowoomba Canary-grass (Phalaris aquatic), Oat (Avena spp.), Chilean Needle-grass (Veldt-grass Ehrharta spp.), Large Quaking-grass (Briza maxima) and Brome (Bromus spp). The highly invasive introduced Chilean Needlegrass is widespread. Other exotic herbs such as Clovers Trifolium spp. are abundant. There are scattered native species at low densities such as Kangaroo Grass (Themeda triandra) and Wallaby-grasses (Rytidosperma spp.). Woody weeds such as Montpellier Broom (Genista monspessulana), Sweet Briar (Rosa rubiginosa), Hawthorn (Crataegus monogyna), African Boxthorn (Lycium ferocissimum) and thistles – Spanish Artichoke (Cynara cardunculus) and Spear Thistle (Cirsium vulgare) – are prominent throughout. Planted non-indigenous eucalypts, including Sugar Gum (Eucalyptus goniocalyx), occur along much of the road reserve.

The Hume Freeway road reserve is similarly dominated by introduced grassy vegetation which

is subject to regular mowing. Eucalypts, including River Red-gums (Eucalyptus camaldulensis), have been extensively planted. The batters of the Hume Freeway overpass have been revegetated with native trees and shrubs including the rare Fragrant Saltbush (Rhagodia parabolica).

Native Vegetation

Two patches of Stony Knoll Shrubland totalling 0.12 ha occur on rocky rises at the southern side of O'Herns Road, to the west of the Hume Freeway overpass (see Figure 2.4 and Figure 2.5 in Biosis, 2017). These patches are dominated by Black Wattle (*Acacia mearnsii*) and Hedge Wattle (*Acacia paradoxa*) with a small number of Tree Violet *(Melicytus dentatus*). The ground cover on the knolls is dominated by grasses such as Supple Spear-grass (*Austrostipa mollis*), Kangaroo Grass (*Themeda triandra),* Wallaby Grasses (*Rytidosperma spp.*) and Weeping Grass (*Microlaena stipoides)*. Herbs are moderately common and include Chocolate Lily (*Arthropodium strictum*), Spreading (*Crassula Crassula decumbens*), Grassland Wood-sorrel (*Oxalis perennans*) and Yellow Rush-lily (*Tricoryne elatior*). Two locally uncommon pea species were observed growing on the knolls: Running Postman (*Kennedia prostrata*) and the rare (DEPI, 2014a) Western Golden-tip (*Goodia medicaginea)*. These species are poorly represented in the local area and are typically only confined to better quality remnants. Introduced plants are common to abundant, especially on the margins of the knolls where they dominate the ground layer.

Scattered trees

A total of 12 scattered River Red-gum trees occur within the project ‘impact area’ (Biosis, 2017). Large remnant trees provide a foraging, roosting and breeding resource for locally common fauna species.

See Figures 2.1-2.9: Vegetation within the study area, Epping, Victoria (1-9) (Biosis, 2017)

See Figures 3.1 – 3.9: Significant fauna habitat features of the study area, Epping, Victoria (Biosis, 2017)

TARGETED SURVEY RESULTS

Golden Sun Moth

Golden Sun Moth was recorded throughout the study area in areas dominated by Chilean Needle-grass on 7, 12 and 26 December 2016 and 4 January 2017. Binocular searches undertaken on all four surveys were unable to detect Golden Sun Moth within the Hume Freeway median strip (presence is presumed). The locations of all Golden Sun Moths recorded during targeted surveys are displayed in Figure 3 of Biosis (2017). The proposed works will require the removal of 10.318 hectares of Golden Sun Moth habitat; therefore, triggering the significant impact threshold for Golden Sun Moth (Commonwealth of Australia, 2009b). Further consideration and assessment against the relevant EPBC Act significant impact criteria is provided in Appendix 3, Table A3.2 (Page 92) (Biosis, 2017).

Growling Grass Frog

As described in Biosis (2017), targeted surveys for Growling Grass Frog were undertaken at four survey sites: O'Herns Road Farm Dam south, O'Herns Road Farm Dam north, Hume Drainage and Hume Wetland. O'Herns Road Farm Dam south (on 165-195 O'Herns Road) was surveyed on 17 November 2016 and 16 January 2017. The remaining sites were surveyed over two nights on 15 and 16 February 2017. All surveys were conducted at an appropriate time of year and during suitable weather conditions when the species would be expected to be active and readily detectable. In addition, a known reference site was visited each evening which confirmed that Growling Grass Frogs were detectable at occupied sites at the time of the surveys. However, the current survey of the proposed project site found no occurrences of Growling Grass Frog, which indicates that the site is unlikely to support a breeding population (Biosis, 2017).

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

Wetlands

Drainage lines crossing the freeway reserve support scattered native aquatic plants. A stormwater treatment wetland complex on the east side of the freeway, south of O'Herns Road

has been planted out with native macrophytes and the margins of these wetlands have been revegetated with a variety of native trees, shrubs and grasses (see Plate 4 in Biosis, 2017).

Creeks

Edgars Creek crosses the project area at O'Herns Road. It is a seasonally ephemeral stream which is fed by the surrounding undulating volcanic plain. The gentle slopes and undulating topography often result in localised areas of poor drainage which may be seasonally wet.

The Vearings Road Drain crosses O'Herns Road on the western side of the freeway and passes under the Hume Freeway as it continues in an easterly direction.

Two other minor creeks cross under O'Herns Road between the Hume Freeway and Redding Rise.

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

Compass Environmental Pty Ltd (2016) completed an environmental site assessment for contamination and describes the geology of the O'Herns Road/ Hume Freeway area as 'underlain by Tertiary Pliocene (Qvn) Newer Volcanics comprising olivine basalt, scoria, thin interbedded sand, clay and tuff' and that 'Quaternary Recent Alluvial (Qra) deposits comprising river alluvium including sand, silt, clay and minor gravel' are present along Edgars Creek.

Biosis (2017) describes the vegetation of the O'Herns Road reserve consisting almost entirely of introduced grasses including Toowoomba Canary-grass Phalaris aquatica, Oat Avena spp., Chilean Needle-grass, Veldt-grass Ehrharta spp., Large Quaking-grass Briza maxima and Brome Bromus spp. The highly invasive introduced Chilean Needlegrass is widespread and dominates the majority of the project area and surrounding land and is found to support Golden Sun Moth throughout the project area (Biosis, 2017).

As previously stated, the majority of the project area has been highly modified and supports predominantly introduced vegetation. The project area was also found to support a range of ecological features including small patches of Stony Knoll Shrubland (EVC 649) .

Pests and Pathogens

Phylloxera is a small (1mm) insect from North America that feeds on the roots of grapevines, causing the death of grapevines within vineyards. Biosis (2017) states that ‘the project area does not fall within a Phylloxera Infested Zone, though it falls partly within a Phylloxera Exclusion Zone and a Phylloxera Risk Zone. As the proposed action is unlikely to result in any grape products or contaminated soil being transported into the project area, no further consideration is required.’

A plant disease that must be considered is Phytophthora which is common in coastal and near coastal woodlands of Victoria. Current data on the distribution of this disease in Victoria is not available, however the heavy clay soils associated with the Victorian volcanic plains provides poor habitat for the spread of the disease (Biosis, 2017).

Biosis (2017) states ‘Neither phytophthora nor phylloxera are considered to be relevant to the proposed works. Machinery hygiene protocols required to mitigate impacts to Growling Grass Frog and spread of weeds will further reduce the risk of transporting phylloxera, phytophthora and other plant pests and pathogens.’

Acid Sulphate Soils

A search of the ASRIS database identified that there is ‘no known occurrence ’of Acid Sulphate Soils (ASS) occurring within the project area.

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

Not applicable to the project area as it has been subject to encroachment by urbanisation and agriculture and is therefore not considered to provide any outstanding natural features.

However adjacent to the project area is the Craigieburn Grasslands Nature Conservation Reserve which is located approximately 2.5km to the west of the project area. The grassland covers approximately 400 hectares between Craigieburn Rd East and OHerns Rd in Melbourne's outer north. It contains Nationally Significant endangered plants such as the Matted Flax-lily *Dianella amoena* and Curly Sedge *Carex tasmanica*. The grassland is also home to Nationally significant fauna such as the Striped Legless Lizard, the Plains-wanderer and the

Golden Sun Moth. The reserve will not be impacted by the project works.

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

Native vegetation on site represents the remnants of listed communities (Western (Basalt) Plains Grassland. The project site also contains protected flora species, and listed threatened species or habitat for them (Biosis, 2017).

Four patches of Stony Knoll Shrubland (EVC 649) totalling 0.108 hectares is present within the project area and is considered to be an endangered community within the Victorian Volcanic Plains bioregion.

The status of the flora species recorded within the study area can be seen in Table 6.

EPBC Act

CR – Critically Endangered

EN – Endangered

VU – Vulnerable

DEPI 2014a:

e – endangered

v – vulnerable

r – rare

PMST – Protected Matters Search Tool

FFG Act:

L – listed as threatened under the FFG Act

P – Protected under the FFG Act (public land only)

Noxious Weed Status

SP – State prohibited species

RP – Regionally prohibited species

RC – Regionally prohibited species

RR – Regionally restricted species

- Native species planted and naturalising

Table 7: Flora species recorded in the project area

Status	**Scientific Name**	**Common Name**
	Rare or Threatened Species	
r	*Goodia medicaginea*	Western Golden-tip
v	*Geranium solanderi* var. *solanderi* s.s.	Austral Crane's-bill
#, r	*Rhagodia parabolica*	Fragrant Saltbush
	Indigenous Species	
	Acacia implexa Lightwood **P**	

Acacia mearnsii Black Wattle

Acacia melanoxylon Blackwood

Acacia paradoxa Hedge Wattle

Acaena novae-zelandiae Bidgee-widgee

Amphibromus spp. Swamp Wallaby-grass

Arthropodium minus Small Vanilla-lily

Arthropodium strictum Chocolate Lily

Asperula conferta Common Woodruff

Atriplex semibaccata Berry Saltbush

Austrostipa mollis Supple Spear-grass

Bolboschoenus caldwellii Salt Club-sedge

Calystegia sepium subsp. *roseata* Large Bindweed

C*arex tereticaulis* Basket Sedge **P**

Cassinia arcuata Drooping Cassinia

Clematis microphylla Small-leaved Clematis

Crassula decumbens var. decumbens Spreading Crassula

Dianella revoluta var. revoluta Black-anther Flax-lily

Dichondra repens Kidney-weed

Duma florulenta Tangled Lignum

Einadia nutans Nodding Saltbush

Eleocharis acuta Common Spike-sedge

Epilobium billardierianum Variable Willow-herb

Eucalyptus camaldulensis River Red-gum

Geranium retrorsum Grassland Crane's-bill

Helichrysum luteoalbum Jersey Cudweed

Kennedia prostrata Running Postman

Lomandra filiformis Wattle Mat-rush

Lomandra longifolia Spiny-headed Mat-rush

Lythrum hyssopifolia Small Loosestrife

Melicytus dentatus Tree Violet

Microlaena stipoides var. stipoides Weeping Grass

Oxalis perennans Grassland Wood-sorrel

Phragmites australis Common Reed

Rubus parvifolius Small-leaf Bramble

Rytidosperma spp. Wallaby Grass

Schoenus apogon Common Bog-sedge **P**

Senecio quadridentatus Cotton Fireweed

Themeda triandra Kangaroo Grass

Tricoryne elatior Yellow Rush-lily

Typha domingensis Narrow-leaf Cumbungi

Veronica gracilis Slender Speedwell

Wahlenbergia luteola Bronze Bluebell

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

The project site shows a downward gradient from NNW to SSE with an overall decrease in elevation of approximately 20 metres. The lowest point is the southern limit of the works on the Hume Freeway at the Cooper Street off ramp, and the highest elevation is at the northern limit of works on the Hume Freeway.

The project site exhibits gentle undulation from the west to the east with a slight rise (approx. 4 m) at the O'Herns overpass, a gradual decline in elevation on O'Herns Rd (approx.. 9m at the entrance to 260 O'Herns Rd) and then a slight increase in elevation (approx.. 2m) at the eastern limit of project works.

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

The project area occurs within a highly modified landscape with few scattered remnants of indigenous vegetation. Broad areas have been developed for agriculture and otherwise developed for residential and industrial purposes. Narrow corridors of habitat along existing creek-lines typically provide the greatest level of habitat connectivity within this degraded landscape (Biosis, 2017).

The Craigieburn Grasslands Nature Conservation Reserve is located approximately 2.5km to the west of the project area. The grassland covers approximately 400 hectares between Craigieburn Rd East and O'Herns Road. It contains Nationally Significant endangered plants such as the Matted Flax-lily *Dianella amoena* and Curly Sedge *Carex tasmanica*. The grassland is also home to Nationally significant fauna such as the Striped Legless Lizard, the Plains-wanderer and the Golden Sun Moth (MCMC, 2017). The reserve will not be impacted by the project works.

The Clonard Homestead site is located within the project area and is identified as being of regional significance by the National Trust as an historic farming property which represents the type of rural activity that was once common in Melbourne fringe communities (Biosis, 2016b). The homestead contains dry stone walls which are considered 'historically significant' due to the potential to contain archaeological information on the construction and use of the homestead (Biosis, 2016b). Also listed on the Victorian Heritage Register within the Clonard Homestead site is H2237 - the Horse Drawn stone carrying sled of which site presence is currently being confirmed.

The general area, in particular sections of the Aurora residential estate and Alliance Business Park (275 O'Herns Road), is known to support populations of Lobed Needle-grass (*Nassella charruana*). This state prohibited weed occurs within the road reserve of O'Herns Road and the Hume Freeway.

Pest animals identified within the project area are the European Rabbit

(*Oryctolagus cuniculus),* European Hare (*Lepus europeus)* and the Red Fox (*Vulpes vulpes*) (Biosis, 2017).

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

No Commonwealth Heritage Places will be impacted.

O’Herns Road historic heritage assessment identified the following heritage places within the project area (Biosis, 2016b):

Place Name	Heritage listing or register	Designation
Horse-drawn stone carrying sled	Victorian Heritage Register	H2237
Clonard Homestead site	Victorian Heritage Register	H7822-0243
Clonard boundary walls	Whittlesea Planning Scheme Clause 52.37	Hermes 121108
Maryfield dry stone walls	Whittlesea Planning Scheme Clause 52.37	Hermes 12500
100 O’Herns Road drystone wall		

Whittlesea Planning Scheme Clause 52.37

Victorian Heritage Inventory delisted

D7922-0247

Stone cellar or cool store

Victorian Heritage Inventory delisted

D7811-0346

O’Herns road; Eight (8) dry stone walls

Whittlesea Planning Scheme Clause 52.37

Biosis (2016b) states that statutory approvals are not required for 'D' listed places, which are recorded by Heritage Victoria, but are not protected under the Victorian *Heritage Act 1995*. Dry Stone walls are located on both sides of O'Herns Road in discontinuous lengths, and protected under the Whittlesea Planning Scheme.

The horse-drawn stone-carrying sled is included on the Victorian Heritage Register (H2237), with surveys curently being undertaken to determine its presence or absence on site. Heritage Victoria are being consulted in regards to the site surveys and possible management implications for both the Sled and Homestead site.

3.9 Describe any Indigenous heritage values relevant to the project area.

The Activity Area intersects an area of cultural heritage sensitivity under Regulation 41 (a waterway or land within 200 metres of a waterway) of the Aboriginal Heritage Regulations. In accordance with *Aboriginal Heritage Act 2006* Section 46(a) a mandatory Cultural Heritage Management Plan (CHMP) has been developed and submitted to Wurrundjeri on the 17th July 2017. Comments are currently being addressed in order to have the CHMP approved.

Cultural heritage assessments were carried out as part of the CHMP development and were as follows;

A Desktop Assessment was undertaken to provide background information on the activity and

its impacts, other archaeological studies, previously recorded Aboriginal places, the environment and to develop a prediction model for the Activity Area.

A Standard Assessment was undertaken to provide information on the ground surface visibility, previous disturbance to the Activity Area and identify areas of archaeological potential.

A Complex Assessment was undertaken to test the prediction model and areas of archaeological potential within the Activity Area (Biosis, 2017b).

Four Aboriginal places were recorded during the Complex Assessment, and have been described in the CHMP (Biosis, 2017b) as follows;

O’Herns Road Epping 5 (VAHR 7822-4043)

This place is a subsurface artefact distribution which was recorded on a stony rise. The rise is a prominent mound, some 63m EW and 22m NS, which has been truncated by road construction. It rises by two metres above the surrounding plain. The surface is vegetated with exotic grasses and weeds, with small shrubs. Basalt floaters are exposed, particularly where the feature has been disturbed along its northern face.

Five artefacts were recorded, all from one 1m x 1m square (TP 1A), at depths of 100 mm to 200 mm. Four of the artefacts are of reddish silcrete and may be part of a single flake reduction event. Also recorded from this location, however, was a fragment of quartz core. The recorded artefacts are likely to be part of a more extensive distribution associated with the stony rise. It is unknown whether the quartz and silcrete flakes are contemporary or derive from different visits by Aboriginal people over a longer period.

O’Herns Road Epping 6 (VAHR 7822-4044)

The rise is a prominent mound, some 55m EW and 27m NS, which has been truncated by road construction. It rises by about 2.5 metres above the surrounding plain. The surface is vegetated with exotic grasses and weeds, with small shrubs.

Two artefacts were recorded, both from the same 1m x 1m square. The artefacts were recorded on the edge of a fissure in the underlying basalt at 100 millimetres depth. These comprised a complete silcrete flake and a distal quartz flake. The recorded artefacts are likely to be part of a more extensive distribution associated with the stony rise. It is unknown whether the quartz and silcrete flakes are contemporary or derive from different visits by Aboriginal people over a longer period.

Hume Freeway Epping 1 (VAHR 7822-4045)

This place is a subsurface artefact distribution recorded on a stony rise located on the west side of the Hume Freeway reserves, in the northern part of the Activity Area. The stony rise is 26m EW and 36m NS, and rises by about a metre above the surrounding plain. The surface is vegetated with exotic grasses, leaving exposed basalt floaters.

Two artefacts were recorded, both from the same 1m x 1m square, at depths of 100 mm to 200 mm. Two artefacts were recorded on the edge of a fissure in the underlying basalt at 100 millimetres depth. These comprised a complete silcrete flake and a distal quartz flake. The two recorded artefacts are likely to be part of a more extensive distribution associated with the stony rise. It is unknown whether the quartz and silcrete flakes are contemporary or derive from different visits by Aboriginal people over a longer period.

Hume Freeway Epping 2 (VAHR 7822-4046)

This place is a subsurface artefact distribution recorded on a stony rise located on the east side of the Hume Freeway reserves, to the south of O’Herns Road. The rise is a shallow mound with some exposure of surface rock. The rise is 21 metres NS by 15 metres EW, rising by some 0.5m above the surrounding plain.

A single artefact (a quartz distal flake) was recorded from 1m x1m square, at a depth of 150 mm. By analogy with other artefact occurrences on stony rises in the region, the recorded artefact is likely to be part of a more extensive distribution associated with the stony rise.

Of the four new Aboriginal places identified during the above assessments, two are able to be avoided while a salvage and monitoring strategy has been agreed for the other two sites (Biosis, 2017b).

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

The project works will be undertaken within the freehold road reserve owned and managed by either VicRoads or Whittlesea Council. A number of adjacent private freehold properties will be impacted which are currently used as access tracks or for farming activities (all within the City of Whittlesea area).

VicRoads will acquire all land prior to the commencement of construction. If land is needed earlier for pre-construction works such as utility service relocation, before the land acquisition process has been finalised, VicRoads will seek landowner consent and enter into licence agreements where applicable to allow works to commence prior to the finalisation of land acquisition. VicRoads is currently progressing the land acquisition process.

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

The project area is predominantly road reserve managed by VicRoads or Whittlesea Council and includes two operating roadways; the 2-lane roadway (O'Herns Rd) (Whittlesea Council) and the 4-lane Hume Freeway (VicRoads). The area of proposed works within the road reserve will continue to be used as a roadway. Those parcels of land required for the Project, which are not currently road reserve, will be acquired and therefore become road reserve as part of the project. These areas are either identified for development or relatively undeveloped private land.

Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

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

VicRoads has an environmental specification (*Section 177 – Environmental Management (Major*) which forms the standard project contractual requirements for the avoidance and minimisation of impacts for each aspect of the environment. The contract specification will be adapted to address all site specific identified risks, and proposed mitigation measures as outlined in Tables 3-5.

Maps provided in the Biosis report (Figures 2.1 - 2.8 attached below) highlight in blue the Impact Areas associated with the project. Any land inside the blue areas are considered works zones whilst any areas outside this are considered **No Go Zones** and will not be impacted by project works. This will be further detailed in the Contract Specific Clauses to be produced by VicRoads which will highlight these No Go Zones and thier significance.

The following specific mitigation measures to reduce the environmental impact of the proposed project have been recommended by Biosis (Biosis, 2017):

Protection of General Biodiversity Values

- The primary measure to reduce impacts to biodiversity values within the study area is to minimise removal of native vegetation and terrestrial and aquatic habitat. The construction contractor will finalise the design and in doing so will ensure that impacts to biodiversity values are as low as reasonably practicable.

- Works areas will be clearly defined with no disturbance beyond the edge of the designated

construction area.

- All areas of vegetation to be retained will be fenced as no-go-zones for the duration of the works. This includes tree protection zones of remnant scattered trees.

Protection of Golden Sun Moth

The proposed project works will result in a significant impact to Golden Sun Moth, to reduce impacts, the following measures are proposed;

- The primary measure to reduce impacts to this species is to minimise the project footprint and clearly demarcate all areas of retained habitat as 'no-go' zones during construction. Works should be clearly defined with no disturbance beyond the edge of these zones.

- Ensure that vehicles and machinery brought into the construction area are free of soil and/or seeds to minimise weed spread.Avoid introducing weeds or nonindigenous plants into site or adjacent habitat.

- Utilise local fill wherever possible, and ensure only clean fill is imported onto the site.

- Revegetate disturbed areas with known food plants for Golden Sun Moth where possible, such as indigenous Wallaby Grasses, or monitor disturbed areas post-construction to ensure that no invasive weeds establish that could threaten the persistence of retained habitat.

Protection of Growling Grass Frog

Biosis (2017) found no Growling Grass Frog within the project area (as stated previously) but assumed their presence in areas adjacent to the project area within available wetland habitats. To avoid significant impact to the Growling Grass Frog, the following measures are proposed;

- Direct impacts to wetland habitat will be avoided. Retained areas of wetland habitat will be clearly identified as ‘no-go’ zones and communicated to all construction personnel during site inductions. This includes tree protection zones of remnant scattered trees. Particular protection will be given to maintaining the water quality of Edgars Creek, through retention of riparian vegetation, and sediment and chemical control measures.

- Indirect impacts, such as sedimentation and run-off, will be managed in a Construction Environmental Management Plan (CEMP) to ensure that retained wetland areas are not adversely impacted.

- Construction will avoid the large artificial wetland complex in the Hume Freeway Reserve along with over-wintering habitat immediately adjacent to the wetland. This will be a designated no-go zone and managed to ensure no indirect impacts (e.g. sedimentation). This will be communicated to all construction personnel during site inductions.

- Crossing of Edgars Creek must maintain habitat continuity to at least the current condition. This will be achieved by designing an appropriate crossing of the creek. Particular protection will be given to maintaining the water quality of Edgars Creek, through retention of riparian vegetation, and sediment and chemical control measures.

- Crossing structures over Edgars Creek should be designed to be broadly in accordance with *Growling Grass Frog Crossing Design Standards: Melbourne Strategic Assessment* (DELWP 2017). These standards provide guidance on the design of passages under infrastructure (primarily roads) crossing Growling Grass Frog areas, to ensure that populations can continue to interact through migration.

- All potential breeding habitat will be avoided using ‘no-go’ zones during construction.

- Plant will be washed down prior to entering the Edgars Creek crossing construction site. Project works will follow guidelines set out in ‘*Hygiene protocols for the control of diseases in Australian frogs’* (Murray, et al., 2011) relevant to the works being undertaken:

    - Wheels and tires of vehicles to be cleaned and disinfected prior to first entering the site.

    - Wheels and tyres should be disinfected away from the site so that the disinfecting solution can infiltrate the soil rather than running off into adjacent waterways.

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.

The potential impacts to MNES have been considered during the project design phase and minimised as far as is practicable.

The primary MNES that has potential to be significantly impacted will be the Golden Sun Moth. In order to reduce the impacts, the previously described mitigation measures (section 4.1) will be put in place. The outcomes of these measures will be as follows;

- Reduction in potential habitat loss and degradation.

- Reduction in risk of direct mortality of the Golden Sun Moth.

- Reduction in risk of new weeds establishing within local area through hygiene protocols which prevents species composition change and reduction in suitability for the species.

- Disturbed areas will be successfully revegetated with known Golden Sun Moth food plants such as Wallaby Grass (*Rytidosperma spp.)*

Biosis (2017) states that the proposed works are likely to result in a significant impact to Golden Sun Moth, therefore the proposed action is likely to be deemed a ‘controlled action’ by the Australian Government Minister for the Environment. Environmental offsets will therefore be required for residual impacts to Golden Sun Moth outside the MSA area, in accordance with the EPBC Act Environmental Offsets Policy (Commonwealth of Australia 2012).

VicRoads propose to secure an offset site that supports a Golden Sun Moth population, consistent with the requirements of the EPBC Act Environmental Offsets Policy and the outputs of the associated EPBC Act offset calculator.

Offsets will be secured for Golden Sun Moth habitat and remnant vegetation removal to ensure a gain to Victoria’s biodiversity that is equivalent to the loss resulting from the permitted clearing of native vegetation and Golden Sun Moth habitat.

Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties

No

5.1.2 National Heritage Places

No

5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

5.1.4 Listed threatened species or any threatened ecological community

Listed threatened species and communities - Yes

5.1.5 Listed migratory species

No

5.1.6 Commonwealth marine environment

No

5.1.7 Protection of the environment from actions involving Commonwealth land

No

5.1.8 Great Barrier Reef Marine Park

No

5.1.9 A water resource, in relation to coal/gas/mining

No

5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

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.

A Controlled Action has been identified for Significant Impacts to Golden Sun Moth for this project. Please see below for furher details regarding other Potential MNES.

A preliminary flora and fauna assessment (Biosis, 2016) identified 12 threatened flora species, 17 threatened fauna and 5 threatened ecological communities classified as MNES under the EPBC Act that have the potential to occur within 5 km of the project area. The preliminary assessment identified potential habitat for only two identified EPBC listed species within the project area, the Golden Sun Moth and Growling Grass Frog and recommended targeted surveys be carried out.

Targeted surveys (Biosis, 2017) were carried out and recorded no Growling Grass Frog within the project area. However, the surveys did confirm the presence of Golden Sun Moth, and calculated that the proposed works will impact 10.318 hectares of Golden Sun Moth habitat.

Potential Matters of National Environmental Significance (MNES) (Biosis, 2017)

MNES

Scientific Name

MNES

Common Name

Status within Project Area /

Likelihood of Occurrence

Comments

Flora

Dianella amoena

Matted Flaxlily

Not recorded/Low

Recorded nearby. Targeted survey was undertaken in areas of suitable habitat, however the species was not recorded and is therefore unlikely to be present.

Amphibromus fluitans

River Swamp
Wallaby-grass

Not recorded/Low

May occur in seasonally inundated areas but most suitable habitat in the study area is either planted or heavily disturbed and over-run with introduced grasses.

Diuris basaltica

Small Golden
Moths Orchid

Not recorded/Low

Habitat within the study area is highly modified and this sensitive species is unlikely to persist.

Glycine
latrobeana

Clover Glycine

Not recorded/Low

Habitat within the study area is highly modified and this sensitive species is unlikely to persist.

Lachnagrostis
adamsonii

Adamson's

Blown-grass

Not recorded/Low

Habitat within the study area is highly modified and this species has not been recorded in the local area.

Leucochrysum albicans var. tricolor

Hoary Sunray

Not recorded/Low

Habitat within the study area is highly modified and this species has not been recorded in the local area.

Pimelea spinescens subsp. Spinescens

Spiny Riceflower

Not recorded/Low

Habitat within the study area is highly modified and this species has not been recorded in the local area.

Prasophyllum frenchii

Maroon Leek-orchid

Not recorded/Low

Habitat within the study area is highly modified and no evidence of orchid species was recorded during the flora survey.

Pterostylis cucullata

Leafy Greenhood

Not recorded/Low

Habitat within the study area is highly modified and no evidence of orchid species was recorded during the flora survey.

Senecio
macrocarpus

Large-headed
Fireweed

Not recorded/Low

Habitat within the study area is highly modified and no evidence of orchid species was recorded during the flora survey.

Thelymitra
matthewsii

Spiral Sun-orchid

Not recorded/Low

Habitat within the study area is highly modified and no evidence of orchid species was recorded during the flora survey.

Xerochrysum
palustre

Swamp
Everlasting

Not recorded/Low

No suitable habitat present and no evidence of this species was recorded during the flora survey.

Fauna

Pteropus poliocephalus

Grey-headed
Flying-fox

Local records present/High

May make occasional use of the study area
during foraging movements.

Litoria raniformis

Growling Grass

Frog

Not detected but previously recorded to the north and south of the study area/High

While not detected during targeted surveys, likely to move along Edgars Creek at O'Herns Road crossing. Species known to occur in Edgars Creek upstream and downstream of O'Herns Road.

Synemon plana

Golden Sun Moth

PRESENT. Recorded in parts of the study area.

Grassland habitat associated with the road reserve of the freeway and O'Herns Road.

Delma impar

Striped Legless Lizard

Not recorded/Low

Not recorded in the local area by targeted surveys. Potential modified grassy woodland and introduced grassland habitat occurs throughout the study area.

Pedionomus torquatus

Plains-wanderer

Few local records. Low to negligible.

Species listed either have no suitable habitat or are locally extinct.

Rostratula australis

Australian Painted Snipe

Botaurus poiciloptilus

Australasian Bittern

Lathamus discolor

Swift Parrot

Grantiella picta

Painted Honeyeater

Anthochaera phrygia

Regent Honeyeater

Dasyurus maculatus maculatus (SE mainland population)

Spot-tailed Quoll

Dasyurus viverrinus

Eastern Quoll

Petauroides volans

Greater Glider

Prototroctes maraena

Australian Grayling

Galaxiella pusilla

Dwarf Galaxias

Maccullochella peelii peelii

Murray Cod

Macquaria australasica

Macquarie Perch

Nannoperca obscura

Yarra Pygmy
Perch

Ecological Communities

Grassy Eucalypt Woodland of the Victorian Volcanic Plain

N/A

None of these communities were
Recorded

No other patches of native vegetation
correspon**d** to any other listed community.

Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of Southeastern Australia

Natural Temperate Grassland of the Victorian Volcanic Plain

Seasonal Herbaceous Wetlands (Freshwater)
of the Temperate Lowland plains

White Box-Yellow Box- Blakely's Red Gum Grassy Woodland and Derived Native Grassland

Biosis (2017) identified fifteen migratory species as being recorded or having the potential to occur within 5 km of the project area. Biosis (2017) states ‘while some of these species would be expected to use the study area on occasions, and some of them may do so regularly or may be resident, it does not provide important habitat for an ecologically significant proportion of any of these species’ and as a result no significant impact to migratory species is expected. The species are listed below.

Species name

Common name

Most recent record

Acrocephalus stentoreus

Clamorous Reed Warbler

2013

Apus pacificus

Fork-tailed Swift

1991

Ardea ibis

Cattle Egret

2009

Ardea modesta

Eastern Great Egret

2013

Calidris ruficollis

Red-necked Stint

2012

Gallinago hardwickii

Latham's Snipe

2012

Hirundapus caudacutus

White-throated Needletail

1990

Hydroprogne caspia

Caspian Tern

2012

Merops ornatus

Rainbow Bee-eater

2007

Monarcha melanopsis

Black-faced Monarch

PMST

Motacilla flava

Yellow Wagtail

PMST

Myiagra cyanoleuca

Satin Flycatcher

2010

Myiagra cyanoleuca

Eastern Osprey

PMST

Rhipidura rufifrons

Rufous Fantail

2004

Tringa nebularia

Common Greenshank

PMST

Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

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

VicRoads has initiated and completed a significant number of both major and minor road projects across the State, all of which have the potential for environmental impact. In any one year, it is estimated that approximately 200 projects are completed, of which, on average, five projects per year are referred for approval under the EPBC Act.

Although not established under the *Corporation Act 2000*, VicRoads publically reports its environmental performance in the Annual Report. In recent years, the environmental incident reporting system was upgraded to automatically track and escalate issues as appropriate. Since January 2010, there have only been [3] significant environmental incidents reported (significant is defined as Level 4 and Level 5 incidents) of which only one related to EPBC issues and resulted from contractor non-compliance with VicRoads specifications and requirements. Details are as follows:

Incident occurred on 6th December 2010;VicRoads notified the Department of Environment on 8th December 2010, and;The incident was investigated by VicRoads and corrective action taken.

In addition, neither VicRoads or its directors have been refused a licence, permit or authority under any environment protection legislation or had any such licence, permit or authority suspended, revoked or withdrawn in Australia or elsewhere been prosecuted for an offence under any environment protection legislation either in Australia or elsewhere been found guilty of an indictable environmental office either in Australia or elsewhere.

A search of EPA Victoria's prosecutions database as at 2nd February 2017, [http://www.epa.vic.gov.au/our-work/compliance-and-enforcement/epa-sanctions/prosecutions/search-prosecutions] in relation to enforcement of the Environment Protection Act 1970 and the Pollution of Waters by Oil and Noxious Substances Act 1986, has indicated no prosecutions involving VicRoads.

VicRoads has been involved in the following EPBC compliance audits:

EPBC 2005/1990 - Construction of Bayles Bridge

Approval conditions attached to a project by VicRoads to replace the Bayles Bridge in Victoria were audited on 25 to 26 October 2006. The conditions related to the protection of Growling Grass Frog (*Litoria raniformis*), Southern Brown Bandicoot (*Isoodon obesulus obesulus*) and Dwarf Galaxias (*Galaxiella pusilla*).

The audit identified compliance with eight of the 12 conditions of approval. Two instances of non-compliance were found, these related to the implementation of an offset strategy and bridge construction material. Five elements of the conditions were found to be partially compliant. These related to construction methods and materials, water quality testing, and reporting to the Department. A formal warning was issued to VicRoads and recommendations for rectification of the compliance issues made. The non-compliances have been addressed to the satisfaction of the Department in accordance with the Department's Compliance and Enforcement Policy.

EPBC 2008/4486 - Geelong Ring Road - Section 4A, Victoria

A compliance audit of the Geelong Ring Road - Section 4A, Victoria, was conducted by the Department on 21 August 2012.

There are seven particular manner requirements set out in the decision notification. VicRoads demonstrated compliance with requirements 2, 5, 6 and 7 relating to best practice erosion, siltation and sediment controls being implemented; controls to manage a one in two year average recurrence interval event being implemented and maintained; construction activities that could potentially impact on the breeding of the Yarra Pygmy Perch (*Nannoperca obscura*) and the Growling Grass Frog not being undertaken during September and October in associated habitat; and the construction area being fenced off to ensure that areas outside of the construction area are not impacted.

Non-compliance was found with elements of requirements 1, 3 and 4 relating to the implementation of the Project Environment Protection Strategy and water quality monitoring requirements for the project. The non-compliances have been addressed to the satisfaction of the Department in accordance with the Department's Compliance and Enforcement Policy.

EPBC 2010/5741- Western Highway Project Section 2: Beaufort to Ararat, Victoria

VicRoads self-reported an alleged breach of conditions attached to EPBC 2010/5741 to the Department the day following the potential impact to an area less than 0.1 hectares of Grassy Eucalypt Woodland of the Victorian Volcanic Plain (GEWVVP).

Condition 5 of the approval required VicRoads to implement the Threatened Species Management Plan approved by the Department. The Plan required no-go zones to be installed at the section of the site where unapproved works were undertaken. Vegetation, located outside the no-go zone, that had been marked and agreed to be cleared by VicRoads and its Contractor was fallen and stored in the no-go zone by a subcontractor.

An audit by the Department determined that although condition 5 of EPBC 2010/5741 had been contravened, no matters of national environmental significance were impacted in this instance.

No further action was taken by the Department at that time.

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 Will the action be taken in accordance with the corporation's environmental policy and planning framework?

Yes

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

VicRoads has a comprehensive environmental management system designed to identify and minimise environmental impact from its construction and maintenance activities. VicRoads approach to environmental management is modelled on ISO 14001- *Environmental Management Systems.*

The main elements of VicRoads environmental management system are:

- VicRoads Sustainability and Climate Change Policy (2014)

- VicRoads Sustainability and Climate Change Strategy (2010-2015)

- VicRoads Environmental Risk Management Guidelines (2012);

- VicRoads Biodiversity Guidelines (2005)

- VicRoads Fauna Sensitive Road Design Guidelines (2012)

- Roadside Management – A balanced approach: VicRoads Roadside Management Strategy (2011)

- Environmental procedures for management of projects;

- Project Environment Protection Strategies;

- Contract specifications with specific environmental clauses

- Surveillance audits of contractor activities based on a risk based approach

- Independent environmental audits of contractor environmental management systems prior to commencement of major worksIndependent environmental audits throughout the life of major construction projects

- Training modules including e-learning modules for environmental aspects of project construction

When managing projects, VicRoads exercises high standards of environmental diligence both in the contract preparation and administration. The VicRoads Environmental Risk Management Guidelines provide more detail about VicRoads systems which are utilised to manage risk and protect the environment and how these systems and tools are implemented throughout the life cycle of a project (see ‘Environmental Risk Management Guidelines’ attached to this submission).

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

6.4.1 EPBC Act No and/or Name of Proposal.

VicRoads has previously referred a large number of actions under the EPBC Act. In order to keep the list short, only those referrals submitted since January 2010 are provided (see below);

- 2016/7809 VICROADS/Transport - Land/chainage 10.90 and 15.00 Pyrenees Hway/Victoria/Road safety works, Pyrenees Hway, Green Gully, Vic 27/10/2016

- 2014/7252 Roads Corporation trading as VicRoads/Natural Resources Management/Mortlake Ararat Road, Lake Bolac/Victoria/Construction of the Mortlake Ararat Road firebreak, Lake Bolac, Vic 26/06/2014

- 2013/6850 Roads Corporation (Vicroads)/Transport - land/between Warren St in Echuca Vic & Perricoota Rd in Moama NSW/VIC/Construction of a second Murray River crossing Echuca-Moama, Vic 30/04/2013

- 2013/6792 ROADS CORPORATION VICROADS/Transport - Land/Kilmore within the Shire of Mitchell/Victoria/Construction of the Kilmore - Wallan bypass road 18/03/2013

- 2012/6642 ROADS CORPORATION T/A VICROADS/Transport - Land/western fringe of Kaniva in far west Victoria/Victoria/Upgrade of Western Highway rail overpass at Kaniva, VIC 26/11/2012

- 2012/6640 VicRoads Western Region/Transport - Land/Between Nurcoung and Minimay in West Wimmera Shire/Victoria/Road Safety Improvement Works - Natimuk Frances Road 23/11/2012

- 2012/6417 VicRoads Geelong Ring Road Project/Transport - Land/Winchelsea/Victoria/Barwon River Bridge & Hesse Street Intersection, Winchelsea, VIC 5/06/2012

- 2012/6291 VicRoads /Transport - land/Grovedale, approximately 85km south west of Melbourne /VIC/Pioneer Road and bridge Duplication 24/02/2012

- 2012/6264 Roads Corporation t/a VicRoads/Transport - land/Between Mitta Mitta and Omeo /VIC/Upgrade and seal existing unsealed sections of the Omeo Highway 23/01/2012 - 2012/6238 VicRoads- Geelong/Transport - land/Foxhow Road approx 140km west of Melbourne/VIC/Foxhow Road Realignment 6/01/2012

- 2011/6180 VICROADS WESTERN REGION/Transport - Land/Between Stawell and Halls Gap/Victoria/Grampians Road Safety Improvement Project 7/11/2011

- 2011/6054 Roads Corporation t/a VicRoads (Western Victoria)/Transport - land/Within Grampians National Park (GNP)/VIC/Flood Recovery Works 28/07/2011

- 2011/5805 VicRoads/Transport - Land/Between Willow drive and Livingstone Rise, Hampton Park VIC/Victoria/Hallam Road Duplication between Pound Rd & Ormond Rd

11/01/2011

- 2010/5784 VICROADS/Transport - Land/Healesville - Koo Wee Rup Road/Victoria/Pakenham Bypass to South Gippsland Highway 20/12/2010

- 2010/5744 VicRoads/Transport - Land/Between Ararat and Stawell/Victoria/Duplication of the Western Highway 24/11/2010

- 2010/5741 VicRoads/Transport - Land/Between Old Shirley Road Beaufort & Heath Street Ararat/Victoria/Western Highway Project: Beaufort to Ararat 19/11/2010

- 2010/5738 VicRoads/Department of Transport/Transport - land/Williams Landing/VIC/Palmers Road Rail Overpass and Bridge Works 18/11/2010

- 2010/5705 VicRoads/Transport - land/Between Burrumbeet and Beaufort/VIC/Upgrade of the Western Highway 25/10/2010

- 2010/5640 VICROADS/Transport - Land/Stammers Road, Traralgon East to Templetons Road, Fulham /Victoria/Princes Highway Duplication - Traralgon East to Fulham 10/09/2010

- 2010/5604 Roads Corporation trading as VicRoads/Transport - land/Henty HWY, approx 6.5km southwest of Hamilton /VIC/Construction of road deviation to side of existing carriageway and new bridge 4/08/2010

- 2010/5509 VicRoads /Transport - land/Between Princes Freeway, Laverton North & Greensborough /VIC/M80 Ring Road Upgrade, Part 2 25/05/2010

- 2010/5375 VicRoads/Transport - land/Nhill /VIC/Proposed Heavy Vechicle Trailer Exchange 26/02/2010

- 2010/5369 VicRoads/Transport - Land/Taylors Lakes/Victoria/Calder Freeway/Kings Road Interchange & Kings Road Duplication Project 23/02/2010

- 2010/5332 VicRoads/Transport - land/Fulham to Sale/VIC/East Princess Highway Duplication 25/01/2010

- 2010/5328 VicRoads/Natural Resources Management/Norbank Road to Morris Road, Lake Bolac/Victoria/Ararat-Mortlake Road Grassland Restoration Project 21/01/2010

- 2010/5314 VicRoads/Transport - land/Western Highway Chainages 119515 to 127662/VIC/Western Highway Duplication - Ballarat to Burrumbeet 14/01/2010

Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
Biosis (2017). O'Herns Road project: Flora and fauna assessment. Melbourne: Report for VicRoads.	Reliable Source	No uncertainities
Biosis (2016b). Historic Heritage assessment, O'Herns Road Epping, Victoria. Melbourne: Prepared for VicRoads.	Reliable source	The location of one(1) previously described heritage item (H2237- ‘horse-drawn stone carrying sled’)
Biosis (2017). Biosis (2017). Road Duplication at Oherns Road, Epping, Victoria: Cultural Heritage Management Plan 14428 Report for VicRoads – Metropolitan Projects Western. Authors: K. F. Robb, W. Truscott and M.Lawler, Biosis Pty Ltd, Port Melbourne. Project no. 22663.	Reliable source	No uncertainties
Biosis (2017). Biosis (2017). Road Duplication at Oherns Road, Epping, Victoria: Cultural Heritage Management Plan 14428 Report for VicRoads – Metropolitan Projects Western. Authors: K. F. Robb, W. Truscott and M.Lawler, Biosis Pty Ltd, Port Melbourne. Project no. 22663.	Reliable source	No uncertainties
Biosis (2017b). Road Duplication at O’Herns Road, Epping, Victoria: Cultural Heritage Management Plan 14428. Port Melbourne: Biosis Pty Ltd.	Reliable source	No uncertainties

Reference Source	Reliability	Uncertainties
Compass Environmental Pty Ltd. (2016). Phase I Site History Assessment. Hawthorn East.	Reliable source	No uncertainties
Department of the Environment and Energy (2016). Protected Matters Search Tool Report. Available online from: http://www.environment.gov.au/epbc/pmst/index.html / Accessed 02/02/2017	Reliable source	No uncertainties
Murray, K., Skerratt, L., Marantelli, G., Berger, L., Hunter, D., Mahony, M., & Hines, H. (2011). Hygiene protocols for the control of diseases in Australia frogs. A report for the Australia Government Department of Sustainability, Environment, Water, Population and Communities.	Reliable source	No uncertainties

Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

Alternatives that have been discussed and considered during project planning but were unable to meet project objectives were as follows;

- Reduced entry and exit ramps works footprint

- Non-duplication of O'Herns Road

- Narrow lane widths on O'Herns Road and Hume Freeway ramps

The only alternative to the proposed approach is ‘Do Nothing’, as the project must occur within a defined and restricted road reserve and the alignment of the duplication is defined by the location of the existing overpass and the duplicated section to the east.

The ‘Do Nothing’ option is not a preferred option as the project is being carried out to alleviate congestion and improve road safety on the surrounding road network by providing an alternative access onto the Hume Freeway for the northern suburbs via the construction of the O'Herns Road Interchange.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No

Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Project Director

9.2.2 First Name

Damien

9.2.3 Last Name

Afxentis

9.2.4 E-mail

Damien.Afxentis@roads.vic.gov.au

9.2.5 Postal Address

1 McNab Avenue
Footscray VIC 3011
Australia

9.2.6 ABN/ACN

ABN

61760960480 - ROADS CORPORATION

9.2.7 Organisation Telephone

0423 605 625

Australian Government
Department of the Environment and Energy

9.2.8 Organisation E-mail

Damien.Afxentis@roads.vic.gov.au

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

Not applicable

Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature: N/A Date: N/A

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

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

Person proposing the action - Declaration

I, Damien Afxentis, 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 of or for the benefit of any other person or entity.

Signature: Date: 11/8/2017

I, Damien Afxentis, the person proposing the action, consent to the designation of Lake Host as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature: Date: 11/8/2017

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

Team Leader

9.5.2 First Name

Luke

9.5.3 Last Name

Host

9.5.4 E-mail

luke.host@roads.vic.gov.au

9.5.5 Postal Address

1 McNab Avenue
Footscray VIC 3011
Australia

9.5.6 ABN/ACN

ABN

61760960480 - ROADS CORPORATION

9.5.7 Organisation Telephone

03 8572 7991

9.5.8 Organisation E-mail

Luke.Host@roads.vic.gov.au

Proposed designated proponent - Declaration

I, Luke Host, 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.

Australian Government
Department of the Environment and Energy

Signature:..... Date: 10/08/2017

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Enviro and Planning Co-ord

9.8.2 First Name

Nerilee

9.8.3 Last Name

Kerslake

9.8.4 E-mail

Nerilee.Kerslake@roads.vic.gov.au

9.8.5 Postal Address

1 McNab Avenue
Footscray VIC 3011
Australia

9.8.6 ABN/ACN

ABN

61760960480 - ROADS CORPORATION

9.8.7 Organisation Telephone

03 8572 7991

9.8.8 Organisation E-mail

Nerilee.Kerslake@roads.vic.gov.au

Referring Party - Declaration

Australian Government
Department of the Environment and Energy

I, Nerilee Kerslake, I 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: 11-8-17

Appendix A - Attachments

The following attachments have been supplied with this EPBC Act Referral:

1. 046-pid-a-md-18_area.cpg
2. 046-pid-a-md-18_area.dbf
3. 046-pid-a-md-18_area.prj
4. 046-pid-a-md-18_area.shp
5. 046-pid-a-md-18_area.shx
6. environmental_risk_management_guidelines_2012_1272592_.pdf
7. flora_and_fauna_assessment_biosis_-_july_2017_-_part_1.pdf
8. flora_and_fauna_assessment_biosis_-_july_2017_-_part_2.pdf
9. flora_and_fauna_assessment_biosis_-_july_2017_-_part_3.pdf
10. flora_and_fauna_assessment_biosis_-_july_2017_-_part_4.pdf
11. flora_and_fauna_assessment_biosis_-_july_2017_-_part_5.pdf
12. flora_and_fauna_assessment_biosis_-_july_2017_-_part_6.pdf
13. flora_and_fauna_assessment_biosis_-_july_2017_-_part_7.pdf
14. flora_and_fauna_assessment_biosis_-_july_2017_-_part_8.pdf
15. no_go_zones_oherns_rd.pdf
16. oherns_road_project_-_communications_engagement_plan.docx
17. section_177_-_environmental_management_major.pdf
18. self-assessment_against_significant_impact_criteria.pdf