

EPBC Act referral



Australian Government

Department of Agriculture, Water and the Environment

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Title of proposal	2020/8737 - Barwon Heads Road Settlement Road to Reserve Road Duplication Project
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 duplication of approximately 4 km of Barwon Heads Road between Settlement Road, Belmont and Reserve Road, Charlemont, Victoria (Attachment A). It includes:</p> <ul style="list-style-type: none">• Road duplication.• Grade separation of the Melbourne-Warrnambool rail line (road over rail).• New shared use paths.• Intersection upgrades at 6 intersections.• New street lighting, signage and landscaping.• Drainage and utility service upgrades and relocations. <p>The Victorian Government has committed \$318.3m to the action. The proposed action is being delivered by Major Road Projects Victoria (MRPV), a dedicated government body charged with planning and delivering major road projects for Victoria.</p> <p>Preliminary project planning has also commenced for the possible future duplication of an additional 6 km of Barwon Heads Road between Reserve Road, Marshall and Lower Duneed Road, Armstrong Creek. As funding has not been committed for this additional duplication, planning and environmental approvals are currently limited to the 4 km section from Settlement Road to Reserve Road. Separate environmental and planning approvals would be sought, and separate design and procurement processes will be implemented for the 6 km section if funding is provided by the Victorian Government.</p> <p>Currently, the Armstrong Creek Urban Growth Area is Victoria's sixth largest urban growth area overall, and the fastest growing area outside of Melbourne. The growth area will provide housing for up to 65,000 people, and 22,000 jobs with a focus on technology and collaboration opportunities with Deakin University. To capture the maximum value from this major investment, a number of associated road links, including the project, need to be upgraded and completed.</p> <p>Attachment A shows the outline of the Specific Control Overlay (SCO), which forms part of the proposed Planning Scheme Amendment under the Planning and Environment Act 1987. The SCO defines the maximum allowable extent of ground disturbing activities during project construction, however, some parts of this area will remain undisturbed to avoid identified sensitive environmental, heritage and community values.</p> <p>Attachment B further illustrates activities within the proposed SCO, which is summarised as two distinct construction activity categories:</p> <ol style="list-style-type: none">1. Maximum Extent of Ground Disturbing Activities: construction of roadworks, shared use paths, drainage infrastructure, utility service upgrades and relocations, machinery laydown and temporary storage areas.2. Access and temporary traffic management Areas: traffic management within side roads to facilitate safe and efficient access during construction. No significant ground disturbing activities will occur within these areas. <p>The proposed action has long been proposed, with land along the alignment initially reserved as a Fixation of Alignment via a Government Gazette in 1968. Following this, a portion of the alignment (from Tannery Road to South of Reserve Road) was subsequently identified within a Public Acquisition Overlay (PAO3) within the Greater Geelong Planning Scheme. The project will utilise land designated over the last 52 years to develop road infrastructure required to support the largest population growth area in regional Victoria. The long-established history of the road alignment means that an alternative alignment or project design is unfeasible.</p> <p>The MNES relevant to the proposed action are primarily associated with two habitat areas potentially impacted by the project. These include Waurn Ponds Creek, which is traversed by existing road, and Belmont Common/Jerringot Wetlands which is located adjacent to the northern end of the proposed action. Figures 3-A to 3-C in the Environmental Impact Avoidance and Reduction Report (Attachment C) show the locations of these areas.</p> <p>The works at Waurn Ponds Creek will involve the following (Plan 6 of 20, Attachment A):</p> <ul style="list-style-type: none">• Demolition of the existing dual-lane bridge.• Construction of two dual-lane single-span bridges: The alternative option of constructing a single-span four-lane bridge will also be investigated during the detailed design process.	



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- Installation of water sensitive road design drainage infrastructure and landscaping.
- Installation of temporary environmental management controls.

The single-span design of the bridges avoids the need to install bridge piers in the waterway, thereby avoiding permanent disturbance to the creek channel and minimising temporary disturbance during construction.

The works in proximity to Belmont Common and Jerringot Wetlands include (Plans 1 to 3 of 20 in Attachment A):

- Intersection tie-in works at the Settlement Road intersection (northern extent of proposed action).
- Adding extra lanes on the western side of Barwon Heads Road, away from Jerringot Wetlands. In doing so, there is only one small area impacted in the southwest of Jerringot Wetlands where there is marginal encroachment along the wetland fringe.
 - Installing a retaining wall along the edge of the existing road formation adjacent to Jerringot Wetlands (chainage 10120 to 10320). The retaining wall will be constructed by positioning machinery on the existing road, thereby avoiding the need to undertake construction works from within the wetland, with the exception of implementing temporary erosion and sediment controls in proximity to the works area and other minor construction works performed by hand.
 - Installing a roadside shared user path along the edge of and overhanging Jerringot Wetlands. The shared user path will be cantilevered from the retaining wall, therefore avoiding the need to install shared user path footings in the wetland.
 - Raising the existing shared use path adjacent to Belmont Common. No clearing of wetland habitat will be required.
 - Intersection tie-in works at the entrance to Barwon Valley Golf Club from Barwon Heads Road. No clearing of wetland habitat is required.
 - Upgrading and installing stormwater drainage infrastructure within the existing right of way (ROW), including the construction of a gross pollutant trap (GPT) between the road and Belmont Common.
 - Installing drainage and stormwater treatment facilities, including GPTs and a stormwater retention and treatment pond in the south-western corner of Jerringot Wetlands. The pond will marginally encroach into the existing wetland formation but is considered a positive measure that aims to improve stormwater quality.
 - Installation of temporary environmental management controls.

The proposed action will result in clearing of approximately 0.04 ha of wetland habitat, which is primarily associated with installation of the stormwater retention and treatment pond in the south-western corner of Jerringot Wetlands.

Construction programming constraints will be placed on the contractor such that works directly adjacent to the wetlands will not occur during the months when EPBC listed migratory birds are utilising the wetlands.

Specific construction methods will be finalised upon appointment of design and construction contractor and completion of the detailed design. Irrespective of the construction methods employed, the extent of ground disturbance and construction sequencing will be constrained by the impact avoidance and reduction measures described in this referral.

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)

The project area is characterised by urban sprawl in the form of roads, housing, industry, public open space and business structures in the northern half of the project area, and agriculture in the southern half (albeit agricultural land converting into urban development). Vegetation within the study area comprises mostly cleared, modified vegetation in the form of garden/street trees within the northern half of the study area, and agricultural or pasture weeds species within the southern half. Despite the study area's relatively urban location, natural and modified parkland and waterways exist. The Barwon River is east of the proposed action and flows downstream into Lake Connemare.

Land to be used for the project is predominantly within the existing road and rail reserves, with residential, retail and open space flanking either side of the road and rail corridors.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The proposed action is the duplication of 4 km of Barwon Heads Road between Settlement Road, Belmont and Reserve Road, Charlemont, Victoria.

The total activity area is approximately 85 hectares. Much of this area will not be subject to ground disturbing activities (refer to Section 1.2).

1.7 Proposed action location

Other - 52 lots impacted by permanent works including 22 private parcels and 30 crown managed/owned parcels



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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?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
1.10 Is the proposed action subject to local government planning approval?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
1.11 Provide an estimated start and estimated end date for the proposed action	Start Date	01/11/2020
	End Date	31/12/2023
1.12 Provide details of the context, planning framework and state and/or local Government requirements		
<p>MRPV does not consider the proposed action requires referral to the Minister for Planning under the Environment Effects Act 1978.</p> <p>Victorian Planning Context</p> <p>The Planning and Environment Act 1987 (P&E Act) establishes the framework for planning the use, development and protection of land in Victoria, in the present and long-term interest of all Victorians. The Act sets out the structure and administration of planning in Victoria, provides for the preparation, approval and adoption of planning schemes and regulates the planning scheme amendment process.</p> <p>A planning scheme is a statutory document that sets out objectives, policies and provisions relating to the use, development, protection and conservation of land in the area to which it applies.</p> <p>The project area is subject to the Greater Geelong Planning Scheme and State Government planning approval will be required for the action. As stated above, it is proposed that the planning scheme will be amended by the Minister of Planning to introduce a project specific Incorporated Document to facilitate the use and development of the project without the need to obtain a planning permit.</p> <p>Planning Policy Framework</p> <p>The following Clauses of the Greater Geelong Planning Scheme are of relevance to the project and will be addressed in the project's Planning Scheme Amendment:</p> <ul style="list-style-type: none">• Clause 11 Settlement• Clause 12 Environment and Landscape Values• Clause 13 Environmental Risks and Amenity• Clause 14 Natural Resource Management• Clause 15 Built Environment and Heritage• Clause 17 Economic Development• Clause 18 Transport• Clause 19 Infrastructure• Clause 21.05 Natural Environment• Clause 21.06 Settlement and Housing• Clause 21.07 Economic Development and Employment• Clause 21.08 Development and Community Infrastructure• Clause 21.11 Armstrong Creek Urban Growth Area• Clause 22.09 Cultural Heritage <p>The Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017) are incorporated into the Victoria Planning Provisions and all planning schemes in Victoria. As such, the project's Planning Scheme Amendment process and associated secondary approvals will include compliance with this guideline.</p> <p>Part of the proposed action occurs in the Armstrong Creek Urban Growth Area (ACUGA). To support the development of the ACUGA, the following Precinct Structure Plans have been developed by the City of Greater Geelong:</p>		



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- Horseshoe Bend Precinct Structure Plan
- Draft Marshall Precinct Structure Plan
- North East Industrial Precinct Structure Plan

Precinct Structure Plans are documents that are incorporated into Planning Schemes and provide a “blueprint” for localised development that will occur over many years. The Planning Scheme Amendment process will address the requirements of the Planning Policy Framework and relevant Precinct Structure Plans.

Regulatory Framework

In addition to the Victorian Planning legislative requirements, the provisions of the following Acts will be considered by the project:

- Transport Integration Act 2010
- Crown Land (Reserves) Act 1978
- Flora and Fauna Guarantee Act 1988
- Wildlife Act 1975
- Catchment and Land Protection Act 1994 (Vic)
- Water Act 1989
- Climate Change Act 2017
- Road Management Act 2004
- Aboriginal Heritage Act 2006
- Major Transport Project Facilitation Act 2009.

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

VicRoads and Major Road Projects Victoria have engaged with the community and impacted landowners and occupiers since April 2017. Engagement activities have included:

- Displaying project information on the publicly available MRPV website
- Providing briefings to Members of Parliament and Local Council
- Door-knocks and follow-up letters to all houses along the alignment (pre-COVID-19 restrictions)
- Community update (newsletter) sent to all houses in Marshall, Charlemont, Armstrong Creek, parts of Grovedale and Belmont.
- Update emailed to electronic database of interested stakeholders
- One-to-one meetings held with landowners, businesses and residents impacted by property acquisition
- Two community pop-ups held in Armstrong Creek
- Several meetings directly with interest groups:
 - o Geelong Environment Council
 - o Friends of Waurin Ponds Creek
 - o Geelong Field Naturalists Club
 - o Returned & Services League of Australia - Victorian Branch
 - o Returned & Services League of Australia – Geelong Branch
 - o BikeSafe
 - o City of Greater Geelong Infrastructure Group
- Meetings and discussions held with government stakeholders:
 - o Department of Environment, Land, Water and Planning (DELWP) (State Projects Facilitation Team)
 - o DELWP Impact Assessment Unit
 - o DELWP (Barwon South West)
 - o Corangamite Catchment Management Authority
 - o Environment Protection Authority
 - o Heritage Victoria
 - o City of Greater Geelong
- Preparation of a Cultural Heritage Management Plan is underway in consultation with the Wathaurung Aboriginal Corporation (Registered Aboriginal Party).

A Planning Scheme Amendment community consultation program is also being undertaken for approximately one month throughout July 2020. The program involves targeted mailouts, media releases, advertisements, online media and stakeholder meetings. Stakeholders and the general public are invited to provide feedback or ask questions via a range of platforms. MRPV will respond to every enquiry and accommodate suggestions where possible. Outcomes of the consultation program will be provided to the Minister for Planning with the proposed Planning Scheme Amendment documentation.



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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

Studies included:

Ecology

Heritage

Hydrology

Groundwater

Land acquisition and planning

Urban realm and landscape

Air quality

Preliminary Site Investigation (Contamination)

Transport and traffic

Road traffic noise

Due to the presence of important habitat at Belmont Common and Jerringot Wetlands for the EPBC listed Latham's Snipe *Gallinago hardwickii* and Sharp-tailed Sandpiper *Calidris acuminata*, along with the confirmed or potential presence of other MNES, MRPV engaged a migratory shorebird specialist and team of environmental advisors to peer review previous studies (refer to Appendix D) and support the development of impact avoidance and reduction measures. These investigations informed an understanding of the environmental risks and impacts associated with the proposed action and concluded that these risks and impacts can be managed through various mechanisms, including development and implementation of an Environmental Management Framework.

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

The proposed action is a discrete project. However, there is a related proposal to duplicate an additional 6 km of Barwon Heads Road between Reserve Road, Marshall and Lower Duneed Road, Armstrong Creek, Victoria.

Preliminary project planning has commenced for the possible future duplication of the additional 6 km of Barwon Heads Road, however, as funding has not been committed for this, planning and environmental approvals are currently limited to the 4 km section from Settlement Road to Reserve Road.

Separate environmental and planning approvals would be sought, and separate design and procurement processes will be implemented for the 6 km section if funding is provided by the Victorian Government.

The proposed action is not interdependent with any other stage or component of work proposed within the Armstrong Creek Urban Growth Area.

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

☐ Yes ☒ No



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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

Wetland

Port Phillip Bay (western shoreline) and Bellarine Peninsula wetland

Impact

Description

The Lake Connemawarre complex within the Port Phillip (Western Shoreline) and Bellarine Peninsula Ramsar site is located approximately 2.8 km east of the Project area. Belmont Common, Jerringot Wetlands, Waurin Ponds Creek, Warrnambool rail line wetlands and Marshall Drain all traverse the Project area and flow into Barwon River, which subsequently flows into Lake Connemawarre (SMEC 2020).

Potential impacts and mitigation measures

The Lake Connemawarre complex has the potential to be indirectly impacted by the project. However, it is unlikely that the Project would constitute a significant impact as defined under the EPBC Act. An assessment against the relevant significant impact criteria is provided below (and detailed in SMEC 2020).

A substantial and measurable change in the water quality of the wetland – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland, or water temperature which may adversely impact on biodiversity, ecological integrity, social amenity or human health:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of potential impact:

The excavation of riparian and floodplain habitats through the construction phases of the project have the potential to seriously increase sediment loads to the water columns of associated waterways and wetlands. Such impacts can be magnified if construction coincides with high rainfall events or flood conditions.

The Project is required to meet the requirements of the State Environment Protection Policy (SEPP) (Waters of Victoria) for urban stormwater runoff, which requires the protection of beneficial uses and the demonstration of the application of best practice.

The duplication of the existing road and associated traffic is unlikely to lead to substantial long-term changes in salinity, pollutants, nutrients, or temperature from the operational phase of the project.

- Avoidance measures are detailed under Section 6.4 [Environmental Performance Requirements (EPR)] of Environmental impact avoidance and reduction report (SMEC 2020) and summarised in section 4.1 of this referral. Avoidance measures implemented for the Project that warrant highlighting include:
 - o Avoiding encroachment of the road and associated infrastructure into Belmont Common and Jerringot Wetlands, except for a small area required to construct a stormwater retention and treatment pond in the southwest corner of Jerringot Wetlands.



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- ☐ Avoiding the need for construction machinery to enter Belmont Common and Jerringot Wetlands when constructing the new road.
- ☐ Adopting a single span bridge design at Waurin Ponds Creek to avoid the construction of permanent infrastructure in the creek channel.
- ☐ Installation of water sensitive road design treatments at stormwater outlets to enhance stormwater runoff quality.

The Project is unlikely to constitute a significant impact against any other significant impact criteria for Wetlands of International Importance.

2.3.2 Do you consider this impact to be significant?

☐ 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

Growing Grass Frog *Litoria raniformis*

Impact

Description

Growing Grass Frog has previously been recorded in Belmont Common and Jerringot Wetlands. Despite not being detected during targeted surveys, the species is considered to have a moderate likelihood of occurrence (WSP 2020). The species is also known to inhabit the Lake Connemara complex (WSP 2020). Potential impacts on the Lake Connemara complex are described above.

Potential impacts and mitigation measures

Growing Grass Frog has the potential to be directly and indirectly impacted by the project. However, it is unlikely that the Project would constitute a significant impact as defined under the EPBC Act. An assessment against the relevant significant impact criteria is provided below (and detailed in SMEC 2020).

Permanent removal or degradation of terrestrial habitat (for example between ponds, drainage lines or other temporary/permanent habitat) within 200 metres of a waterbody in temperate regions, or 350 metres of a water body in semi-arid regions, that results in the loss of dispersal or overwintering opportunities for an important population:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: Potential loss and degradation of habitat at Jerringot Wetlands, Waurin Ponds Creek and Marshall drain, in areas of suitable habitat.
- Avoidance measures are detailed under Section 6.4 [Environmental Performance Requirements (EPR)] of Environmental impact avoidance and reduction report (SMEC 2020) and summarised in section 4.1 of this referral. Avoidance measures implemented for the Project that warrant highlighting include:
 - ☐ Avoiding encroachment of the road and associated infrastructure into Belmont Common and Jerringot Wetlands, except for the small area required to construct a stormwater retention and treatment pond in the southwest corner of Jerringot Wetlands.
 - ☐ Avoiding the need for construction machinery to enter Belmont Common and Jerringot Wetlands, except for construction of the stormwater retention and treatment pond in the southwest corner of Jerringot Wetlands.
 - ☐ Adopting a single span bridge design at Waurin Ponds Creek to avoid the construction of permanent infrastructure in the creek channel.

Alteration to wetland hydrology, diversity and structure (for example any changes to timing, duration or frequency of flood events) that leads to a decrease in habitat quality:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: Without stormwater treatment, the additional road surface area has potential to impact wetland hydrology at Belmont Common and Jerringot Wetlands.
- Avoidance measures are as described above.

The Project is unlikely to constitute a significant impact against any other significant impact criteria for Growing Grass Frog.



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Species or threatened ecological community

Yarra Pygmy Perch *Nannoperca obscura*

Impact

Description

Yarra Pygmy Perch were recorded at Waurin Ponds Creek during ecological surveys using a variety of sampling methods. More than 50 individuals were caught. Habitat in Waurin Ponds Creek is suitable for supporting Yarra Pygmy Perch with a range of instream and riparian vegetation types, variable water depths and flows, acceptable water quality and a number of common fish species often found to cohabit with the species (WSP, 2020).

Potential impacts and mitigation measures

Yarra Pygmy Perch has the potential to be directly and indirectly impacted by the project. However, it is unlikely that the Project would constitute a significant impact as defined under the EPBC Act. An assessment against the relevant significant impact criteria is provided below (and detailed in SMEC 2020).

Lead to a long-term decrease in the size of an important population of a species:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: Species has been recorded at Waurin Ponds Creek. Habitat near and downstream of the project area supports 'significant populations' of the species. Unmitigated, the project has the potential to lead to a long-term decrease in the size of an important population due to possible impacts to water quality and habitat.

• Avoidance measures are detailed under Section 6.4 [Environmental Performance Requirements (EPR)] of Environmental impact avoidance and reduction report (SMEC 2020) and summarised in section 4.1 of this referral.

Avoidance measures implemented for the Project that warrant highlighting include:

- o Adopting a single span bridge design at Waurin Ponds Creek to avoid the construction of permanent infrastructure in the creek channel, which will also result in less disturbance during construction.
- o Implementing design and construction methodology that results in the smallest possible area of disturbance to the watercourse and surrounds.
- o Where possible, avoiding works on/near the waterway during the key spring Yarra Pygmy Perch breeding season (September to October).

Fragment an existing important population into two or more populations:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: Species has been recorded at Waurin Ponds Creek. Unmitigated, the project has the potential to fragment an existing population.
- Avoidance measures are as described above.

Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: The project may lead to a temporary reduction in water/habitat quality at Waurin Ponds Creek. There is the potential for short-term impact to water quality following significant rain events that controls cannot contain.
- Avoidance measures are as described above.

The Project is unlikely to constitute a significant impact against any other significant impact criteria for Yarra Pygmy Perch.

Species or threatened ecological community

Little Galaxias *Galaxiella toourtkoourt*

Impact

NOTE: In 2015 a taxonomic review of Dwarf Galaxias *Galaxiella pusilla* resulted in the species being split into two separate species: Dwarf Galaxias *Galaxiella pusilla* and Little Galaxias *Galaxiella toourtkoourt*. The EPBC Act list of species has not yet been updated to include Little Galaxias. As such, significant impact criteria for Dwarf Galaxias have been applied when considering potential impacts to the population identified as Little Galaxias in the Project area. For more detail refer to Section 2.1 of Environmental impact avoidance and reduction report (SMEC 2020).



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Description

Little Galaxias, formerly Dwarf Galaxias, were recorded in Waurm Ponds Creek in 2010 (Streamline Research Pty Ltd). Recent studies for the BHRD project (Jacobs, 2018; WSP, 2020) did not detect Little Galaxias in any wetland or waterway habitats within the Project area and subsequently concluded that it had a low likelihood of occurrence based on instream habitat conditions and an abundance of the invasive Mosquitofish *Gambusia holbrooki*.

Potential impacts and mitigation measures

Little Galaxias has the potential to be directly and indirectly impacted by the project. However, it is unlikely that the Project would constitute a significant impact as defined under the EPBC Act. An assessment against the relevant significant impact criteria is provided below (and detailed in SMEC 2020).

Lead to a long-term decrease in the size of an important population of a species:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: Species has been recorded at Waurm Ponds Creek in 2010. Recent studies did not detect Little Galaxias in any wetland or waterway habitats within the Project area, however a precautionary approach has been applied. Unmitigated, the project has the potential to lead to a long-term decrease in the size of an important population due to possible impacts to water quality and habitat.

• Avoidance measures are detailed under Section 6.4 [Environmental Performance Requirements (EPR)] of Environmental impact avoidance and reduction report (SMEC 2020) and summarised in section 4.1 of this referral.

Avoidance measures implemented for the Project that warrant highlighting include:

- o Adopting a single span bridge design at Waurm Ponds Creek to avoid the construction of permanent infrastructure in the creek channel, which will also result in less disturbance during construction.
- o Implementing design and construction methodology that results in the smallest possible area of disturbance to the watercourse and surrounds.
- o Where possible, avoiding works on/near the waterways during the key spring Little Galaxias breeding season (May to October).

Fragment an existing important population into two or more populations:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: Species has been recorded at Waurm Ponds Creek. Unmitigated, the project has the potential to fragment an existing population.
- Avoidance measures are as described above.

Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: The project may lead to a temporary reduction in water/habitat quality at Waurm Ponds Creek. There is the potential for short-term impact to water quality following significant rain events that controls cannot contain.
- Avoidance measures are as described above.

The Project is unlikely to constitute a significant impact against any other significant impact criteria for Little Galaxias.

Species or threatened ecological community

Swift Parrot *Lathamus discolor*

Impact

Description

There are six records of Swift Parrot in the Victorian Biodiversity Atlas within 5 km of the Project area, with the most recent being from 2006. Birddata and eBird databases show multiple additional records for this species in the wider study area, with the most recent records from 2019 at various locations around the greater Geelong region. The species may frequent areas in the study area to forage on known food sources such as Melbourne Yellow Gum *Eucalyptus leucoxylon* ssp. *connata* (WSP 2020).



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Potential impacts

One Melbourne Yellow Gum will be impacted within the project area. This is considered unlikely to result in a significant impact regardless of mitigation, and therefore no further impact assessment has been considered for Swift Parrot

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

Listed migratory species: Latham's Snipe and Sharp-tailed Sandpiper

Impact

Description - Latham's Snipe

Latham's Snipe is a regular visitor to Belmont Common and Jerringot Wetlands and individuals are present during spring and summer each year in numbers exceeding 0.1% of the flyway population threshold, and national significance threshold of 18 individuals. While breeding sites for migratory shorebirds are located outside of Australia, the proposed works may disrupt the usage of suitable habitat within the project area (SMEC, 2020).

Description - Sharp-tailed Sandpiper

Sharp-tailed Sandpiper is an irregular visitor to suitable habitat areas within the project area, but individuals are recorded annually within the study area in nearby wetland areas associated with Lake Connnewarre. They have been recorded on three occasions in Belmont Common and Jerringot Wetlands, and once in numbers exceeding their national significance threshold of 85 birds (SMEC 2020).

Potential impacts and mitigation measures

Both Latham's Snipe and Sharp-tailed Sandpiper have the potential to be directly and indirectly impacted by the project. However, it is unlikely that the Project would constitute a significant impact as defined under the EPBC Act. An assessment against the relevant significant impact criteria is provided below (and detailed in SMEC 2020).

Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species:

- Likelihood of significant impact without avoidance measures: High
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: The area of Belmont Common and Jerringot Wetlands likely to be lost or altered as a result of the proposed works is 0.04 ha, comprising degraded Floodplain Riparian Woodland (EVC 56) and Tall Marsh (EVC 821).
- Avoidance measures are detailed under Section 6.4 [Environmental Performance Requirements (EPR)] of Environmental impact avoidance and reduction report (SMEC 2020) and summarised in section 4.1 of this referral.

Avoidance measures implemented for the Project that warrant highlighting include:

- o Avoiding encroachment of the road and associated infrastructure into Belmont Common and Jerringot Wetlands, except for the small area (0.04 ha) required to construct a stormwater retention and treatment pond in the southwest corner of Jerringot Wetlands. Micrositing of the stormwater pond at the time of construction will further minimise encroachment into the wetlands.
- o Avoiding the need for construction machinery to enter Belmont Common and Jerringot Wetlands, except for construction of the stormwater retention and treatment pond in the southwest corner of Jerringot Wetlands.
- o Specific scheduling of construction works, no-go zones, plant siting and positioning and noise restrictions to avoid and minimise impacts to Latham's Snipe and Sharp-tailed Sandpiper when present in Belmont Common and Jerringot Wetlands. Construction no-go zones are detailed in Environmental impact avoidance and reduction report (SMEC 2020).

Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species:

- Likelihood of significant impact without avoidance measures: Moderate
- Likelihood of significant impact with avoidance measures: Low
- Description of impact: It is possible proposed works may lead to the establishment of invasive species in suitable habitat areas.



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<ul style="list-style-type: none">Avoidance measures are as described above, plus:<ul style="list-style-type: none">Construction machinery hygiene controls will be implemented to reduce the risk of introducing or spreading weeds and pathogens (in accordance with 'Arrive Clean, Leave Clean' (Department of Environment 2015) or similar guidance). <p>Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species:</p> <ul style="list-style-type: none">Likelihood of significant impact without avoidance measures: ModerateLikelihood of significant impact with avoidance measures: LowDescription of impact: While breeding sites for migratory shorebirds are located outside of Australia, the proposed works may disrupt the usage of suitable habitat within the project area. Foraging and roosting may also be temporarily disrupted during construction works.Avoidance measures are as described above. <p>The Project is unlikely to constitute a significant impact against any other significant impact criteria for listed migratory species.</p>

2.5.2 Do you consider this impact to be significant? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.7 Is the proposed action likely to be taken on or near Commonwealth land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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



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

Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

The majority of the project area is intensively managed roadsides, agricultural or urban land with small patches of remnant vegetation and planted vegetation. Larger areas of remnant vegetation located adjacent to Barwon Heads Road are associated with the Belmont Common and the Jerringot Wetlands (WSP 2020).

Field surveys identified a total of 114 vascular plant species in the project area, of which 41 (34%) were indigenous and 57 (51%) introduced species, and 16 (14%) non-indigenous native species (WSP 2020). Targeted surveys were undertaken for those species of conservation significance initially considered at least moderately likely to occur (WSP, 2020).

Two species of state conservation significance listed on the Victorian Advisory list (DEPI, 2014) were observed being Ivy-leaf Duckweed *Lemna trisulca* – rare (Vic) and the Melbourne Yellow Gum *Eucalyptus Leucoxydon* ssp. *Connata* – vulnerable (Vic). The project area supports patches of wetland and swampy woodland vegetation attributable to Coastal Saltmarsh EVC 9, Brackish Sedgeland EVC 13, Swamp Scrub EVC 53, Plains Grassy Woodland EVC 55, Floodplain Riparian Woodland EVC 56, Lignum Swamp EVC 104, Plains Grassland EVC 132, Sedge Wetland EVC 136, Aquatic Hermland EVC 653, Submerged Aquatic Hermland EVC 819, Tall Marsh EVC 821, and Unvegetated Mudflat EVC 990. Remnant vegetation has largely been displaced by weedy exotic species, although persists in small fragmented patches and as scattered indigenous canopy-trees (WSP, 2020).

Direct observations of 31 fauna species were made during the field assessment being: including 20 birds, 2 of which were exotic, one reptile and one amphibian. Habitats for fauna species available across the project area were observed during the field assessment.

A detailed description of flora and fauna species occurring or potentially occurring in the project area is provided in:

- BHRPC-Migratory Shorebird Assessment Report (SMEC 2020)
- Barwon Heads Road Flora and Fauna Impact Assessment (WSP, 2020)

NOTE: the preliminary environmental management strategies in WSP, 2020 have been superseded by Environmental Impact Avoidance and Reduction Report: Barwon Heads Road Duplication Project (SMEC, 2020).

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

The Barwon River is the largest watercourse flowing through Geelong, however, most of its catchment lies outside the City of Geelong. The river rises in the Otway Ranges and flows generally north-east to Inverleigh then turns east through Geelong and the Connemare/Reedy Lakes system on the Bellarine Peninsula to the sea at Barwon Heads (WSP, 2019). Barwon Heads Road is located on the edge of the right bank of Barwon River floodplain and generally runs parallel to the direction of flow of the Barwon River floodplain. The proposed action crosses Waurin Ponds Creek, which is a tributary to the Barwon River.

The Barwon River provides major freshwater inputs into the Lake Connemare Complex of wetlands including Hospital Swamp, Reedy Lake, Salt Swamp and Lake Connemare. The Lake Connemare Complex supports a diverse range of habitats for water birds, due to the juxtaposition of different fresh and estuarine wetland habitat types. The closest part of the Lake Connemare Complex is approximately 1 km to the east and downstream of the project area (WSP, 2020).

Settlement Road and Barwon Heads Road bound the Jerringot Wetland and Belmont Common to the west. The City of Greater Geelong draft Master Plan for Jerringot Wetland notes, the key sources of inflow to the Jerringot Wetland are primarily driven by local stormwater and potential groundwater from the urban and commercial catchments west of Settlement Road and Barwon Heads Road.

The Jerringot Wetlands and Belmont Common Wetland provide habitat connectivity via the Barwon River floodplain and Waurin Ponds Creek to the Lake Connemare wetland complex. Connectivity of habitat to the Lake Connemare wetland complex is also provided further down-catchment at Armstrong Creek.

Open swales occur along the roadside as surface hydrology has been channelised during construction of the existing road.

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

The majority of the project area is intensively managed roadsides, agricultural or urban land with small patches of remnant vegetation and planted vegetation. Larger areas of remnant vegetation are located adjacent to Barwon Heads Road adjacent to Belmont Common and the Jerringot Wetlands.



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

From Settlement Road to Tannery Road, Barwon Heads Road is indicated to be constructed along an approximate geological boundary with recent deposits including river alluvium which are associated with the Barwon River and are indicated to be present on the east side of the existing road. These river alluvium deposits are indicated to comprise sand, gravel and clay, referred as 'swamp deposits'.

Further south between approximately Tannery Road and Boundary Road Quaternary age high level alluvium deposits are noted over the majority of this segment of road corridor. This unit is indicated to comprise outwash sands, gravel and clay.

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

There are no outstanding natural features within the project area.

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

A large portion of the project area is within the road reserve. The wider landscape outside the road reserve has generally been cleared of remnant vegetation and is utilised for residential, public open space and agricultural purposes supporting a suite of exotic species typical of this land use.

The project area supports patches of wetland and swampy woodland vegetation attributable to Coastal Saltmarsh EVC 9, Brackish Sedgeland EVC 13, Swamp Scrub EVC 53, Plains Grassy Woodland EVC 55, Floodplain Riparian Woodland EVC 56, Lignum Swamp EVC 104, Plains Grassland EVC 132, Sedge Wetland EVC 136, Aquatic Herbland EVC 653, Submerged Aquatic Herbland EVC 819, Tall Marsh EVC 821, and Unvegetated Mudflat EVC 990.

Two species of state conservation significance listed on the Victorian Advisory list (DEPI, 2014) were observed being Ivy-leaf Duckweed *Lemna trisulca* – rare (Vic) and the Melbourne Yellow Gum *Eucalyptus Leucoxydon* ssp. *connata* – vulnerable (Vic).

Remnant vegetation has largely been displaced by weedy exotic species, although persists in small fragmented patches and as scattered indigenous canopy-trees (WSP 2020).

Approximately 6.5 ha of native vegetation is present in the project area. Clearance of some of this native vegetation is unavoidable due to expansion of the necessary infrastructure, while other areas will be avoided by careful placement of construction laydown areas, utilities and services.

Native vegetation avoidance measures will be implemented through the project development process and controls will be implemented during construction. It is anticipated direct impacts to the wetlands and native vegetation will be further reduced as the design and construction methodology continues to be refined.

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

Barwon Heads Road generally runs parallel to the direction of flow of the Barwon River floodplain. Breakwater Road runs perpendicular to Barwon Heads Road and the floodplain. The site is generally low lying, relatively flat, with a slight gradient sloping generally to the south towards Barwon River.

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

The majority of the project area is intensively managed roadsides or agricultural, residential or public open space land with small patches of remnant vegetation and planted vegetation. A large portion of the project area has been reformed for the purpose of channelising of surface hydrology along roadsides or forming road batters.

Large areas of remnant vegetation are associated with the Belmont Common and the Jerringot Wetlands. Although it is situated on the Barwon River floodplain, the wetland is fed by stormwater runoff from the surrounding urban area and is thus subject to varying water quality and flows.

Waurm Ponds creek forms the boundary of the Geelong Suburbs of Belmont and Marshall and flows in an easterly direction and meets the Barwon River. The floodplain also supports an ephemeral wetland area in the vicinity of the project area which may provide supplementary habitat for Latham's Snipe and Growling Grass Frog pending water availability and depths.

Northeast of Barwon Heads Road between Woolscour Lane and Norcott Road there is an aggregation of wetlands which are situated along the Geelong-Warrnambool rail line. There are approximately five wetlands in this aggregation of varying sizes, shapes and supporting different vegetative qualities and subsequent habitat opportunities. Barwon Heads Road traverses the drainage line that leads to several of these wetlands, and ultimately Waurm Ponds Creek itself just before it joins the Barwon River.



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

The unnamed drain (referred to in this Referral as Marshall drain) is located approximately three km south of the intersection of Barwon Heads Road and Settlement Road. Barwon Heads Road already crosses the drain via a series of box culverts. The primary consideration for this area is potential downstream impacts to the Port Phillip (Western Shoreline) and Bellarine Peninsula Ramsar site.

The wider landscape outside the road reserve has largely been cleared of remnant vegetation and is utilised for agricultural, residential or public open space purposes supporting a suite of exotic species typical of this land use. Remnant vegetation has largely been displaced by weedy exotic species, although persists in small fragmented patches and as scattered indigenous canopy-trees (SMEC, 2020; WSP, 2020).

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

There are no Commonwealth Heritage Places relevant to the Project Area.

There are no State significant heritage places within the project area listed on the Victorian Heritage Register or Victorian Heritage Inventory. One locally historic place has been identified through a heritage overlay in the Greater Geelong's Planning Scheme. The Memorial Wall HO1757 – South Barwon Reserve Memorial has been identified as historically and socially significant at a local level (GJM, 2020). As such, historical heritage values will be managed in accordance with the Planning and Environment Act 1987.

3.9 Describe any Indigenous heritage values relevant to the project area

Three recorded Aboriginal Places located within the project activity area (the Specific Controls Overlay shown in Attachment A). The recorded Aboriginal Places include VAHR 7721-0985, VAHR 7721-0991 and VAHR 7721-1338 (Jacobs, 2018).

The project activity area is located within a landscape rich in water resources such as Waurm Ponds Creek and further afield, the Barwon River, and is likely to have been a favourable location for Aboriginal occupation and resource procurement.

A Cultural Heritage Management Plan is being prepared in consultation with the Registered Aboriginal Party (Wathaurung Aboriginal Corporation), with the complex assessment recently commenced. Once completed, Aboriginal cultural heritage values will be managed in accordance with the Cultural Heritage Management Plan in accordance with the Aboriginal Heritage Act 2006.

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

Land is a mix of crown land, freehold land and leasehold land.

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

The project area is within the City of Greater Geelong between Settlement Road, Belmont, and Reserve Road, Marshall. The project area is approximately 4km in length, with the majority in or adjacent to the existing Barwon Heads Road reserve.

The road reserve interfaces with a variety of land uses including retail, commercial, residential, industrial, agricultural and civic uses and includes a section of the Melbourne – Warrnambool Railway line. The project sits amongst the communities in and around Belmont, Marshall and Charlemont. These areas continue to grow in population, employment opportunities, education and health, which the project aims to support.

The project area includes a mixture of road reservations, public and private property acquisition for permanent works to the east and west of Barwon Heads Road, and temporary land occupation requirements. Part of the project area is subject to a Public Acquisition Overlay Schedule 3 (PAO3) for road development purposes. This will facilitate part of the road development, while a planning scheme amendment will seek to apply an additional Public Acquisition Overlay to the other parts of the project area required for permanent works



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

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

Design of the project has occurred through strong collaboration within the MRPV multidisciplinary project team, guided by industry best practice methodology to identify, avoid and reduce impacts to identified environmental and heritage features.

Integrated design development included an iterative process of workshopping the design and construction methodology. The outcomes were the establishment of practical solutions that will be taken forward to the detailed design and construction phase of the project.

Due to the presence of important habitat at Belmont Common and Jerringot Wetlands for the EPBC listed Latham's Snipe and Sharp-tailed Sandpiper, along with the confirmed or potential presence of other MNES along the proposed alignment, MRPV engaged a migratory shorebird specialist and team of specialist environmental advisors. This team participated in an iterative process of workshopping the design and construction methodology to identify practical solutions that will avoid any significant impacts to MNES.

Outcomes of this process have been documented in the Environmental Impact Avoidance and Reduction Report (SMEC 2020; Attachment C), provided as supporting information for this referral. Key measures implemented to avoid and reduce impacts are summarised below:

- Direct impacts to wetland habitats at Belmont Common and Jerringot Wetlands have been predominantly avoided, with the exception of 0.04 ha in the southwest corner of Jerringot Wetlands for the construction of stormwater retention and sediment pond. Avoidance has been achieved by:
 - o careful selection of the road alignment to ensure that widening occurs to the west, thereby avoiding expansion of the road wherever possible towards the wetlands beyond the current road formation.
 - o developing a structural engineering solution that enables the shared use path along the edge of the road abutting Jerringot Wetlands to be cantilevered, therefore avoiding the need to install footings in the wetland (see Figure 6, SMEC 2020b).
 - o micro-siting of the stormwater retention and treatment pond in the south-western corner of Jerringot Wetlands to avoid wetland habitat as much as possible.
- Direct impacts to Wauru Ponds Creek, Marshall Drain and Warrnambool Rail Line drainage corridor have been avoided by ensuring a single span bridge over Wauru Ponds Creek and implementing watercourse crossing methodology that results in the smallest possible area of disturbance.
- Impacts to Belmont Common, Jerringot Wetlands, Wauru Ponds Creek, Marshall Drain and Warrnambool Rail Line drainage corridor during construction will be minimised by establishing setbacks and no-go zones to protect wetlands, waterways, native vegetation and habitats. Strategic timing of works has also been formulated to avoid activity seasons of the Latham's Snipe and Sharp-tailed Sandpiper.
- Best-practice measures will be implemented to avoid and minimise impacts during construction under a Construction Environmental Management Plan and in accordance with relevant guidelines (e.g. EPA water quality standards, waste management, pre-clearance fauna surveys, construction hygiene, etc.)
- Surface water management infrastructure will be designed and managed to improve water quality, maintain flood protection and protect bank stability.
- Landscaping will be undertaken with species that achieve the reinstatement of habitats and protection of sensitive areas.

Potential environmental impacts will be further mitigated and managed through implementation of an Environmental Management Framework, which will be embedded in the design and construction contract with MRPV, prepared in consultation with local government and approved by the Minister for Planning under the Incorporated Document.

An Environmental Management Framework will be developed for the proposed action, which will be embedded in the design and construction contract with MRPV, prepared in consultation with local government and approved by the Minister for Planning under the Incorporated Document. Requirements of the Environmental Management Framework will include implementation of an ISO 14000 certified Environmental Management System, supported by development and implementation of a Construction Environmental Management Plan (CEMP) and relevant subplans. Periodic monitoring and independent compliance auditing will also be undertaken during the course of the works.

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

As identified in Section 4.1, impact avoidance and minimisation will be achieved in accordance with the Project's Environmental Management Framework (EMF) and associated Environmental Performance Requirements (EPRs). Whilst the EPRs included in this Referral are currently in draft form, they will be submitted as part of the Draft EMF to the Minister for



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Planning for approval under the Project's Incorporated Document. Once approved, implementation and compliance with the EMF and EPRs will be legal and contractual requirement in the project's construction contract.

Environmental outcomes to be achieved during design and construction of the proposed action are detailed in the Environmental Impact Avoidance and Reduction Report (SMEC 2020; Attachment C, Sections 5 and 6).



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

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 proposed development has sought to avoid and reduce potential impacts through integration of measures into the design and construction of the project. This process has involved the engagement and participation of independent environmental and ecological specialists in the development of specific impact avoidance and reduction measures.

MRPV also engaged specialist independent consultants to assess the proposed action against the relevant EPBC Act Significant Impact Guidelines. The assessment indicated that following the implementation of measures described in this referral, the residual risk of a significant impact is low. Refer to Section 4.2 of the Environmental Impact avoidance and Reduction Report (SMEC, 2020).



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

The Proponent is a division of the Victorian Major Transport Infrastructure Authority, which is a project office in relation to the Victorian Department of Transport. The Proponent is responsible for the delivery of major road projects in Victoria, which were (until mid-2018) delivered by the Major Projects Division of VicRoads.

Due to this very recent establishment of the Proponent and MTIA, the Proponent considers that VicRoads' environmental management record is relevant to this referral.

VicRoads has an established history of environmental management evidenced through its annual reporting. 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.

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 main elements of MRPV's environmental management system are:

- MRPV Environmental Management Framework template (2019)
- MRPV Risk Management Guideline (2019)
- MRPV Fauna Sensitive Road Design Guideline (2019)
- MRPV Integrated Water Management Guideline (2019)
- MRPV Sustainability and Climate Change Policy (2019)
- Environmental procedures for management of projects including sensitive design, and where appropriate, specific guidance documents (e.g. integrated water management)
- 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 works
- Independent environmental audits throughout the life of major construction projects
- Training modules including e-learning modules for environmental aspects of project construction
- When managing projects, MRPV exercises high standards of environmental diligence both in the contract preparation and administration.

The Proponent will utilise the established EMF. MRPV has a well established environmental management system for managing the potential environmental impacts of major road projects and their approach to environmental management is modelled on AS/NZS ISO 14001- Environmental Management Systems.

The contractor will be required to prepare, implement and maintain a CEMP in accordance with AS/NZS ISO 14001. The information in the SMEC Environmental Impact Avoidance and Reduction Report (May 2020) and this referral will be incorporated into the mitigation and management actions that will need to be adopted by the Proponent and any contractors' works to avoid and minimise impacts on MNES.

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

Title of referral
Valid Date



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

2019/8487

DEPARTMENT OF TRANSPORT/Transport - Land/Multiple lots/Victoria/Healesville - Koo Wee Rup Road Upgrade, Vic
23/08/2019

2019/8476

DEPARTMENT OF TRANSPORT/Transport - Land/Lots 1\LP3554 and 26\LP3554./Victoria/Mickleham Road and
Craigieburn Road West Upgrade, Vic
28/06/2019

2018/8371

DEPARTMENT OF ECONOMIC DEVELOPMENT JOBS TRANSPORT AND RESOURCES/Transport - Land/Doreen and
Yarrambat, Victoria/Victoria/Yan Yean Road Stage 2 Upgrade, Vic
15/02/2019

2017/8091

Department of Economic Development, Jobs, Transport, and Resources (Major Road Projects Authority)/Transport -
Land/5km east of Mordialloc/Victoria/Mordialloc Bypass Project, Vic
30/10/2017

2017/8070

Department of Economic Development, Jobs, Transport, and Resources (VIC)/Transport - Land/Lot 1 and 2 of Title Plan
333725, Crown Allotment 33D and Crown Allotment's 84L, 84M, 84N, 2001, 3 /Victoria/South Gippsland Highway
Realignment, Koonwarra, Vic
19/10/2017

2017/8052

ROADS CORPORATION/Transport - Land/21A PARISH OF MARYVALE and 3C PARISH OF BOOLA
BOOLA/Victoria/Latrobe River Bridge Replacement Project, Tyers Road, Vic
26/09/2017

2017/8018

ROADS CORPORATION/Transport - Land/Geelong-Bacchus Marsh Road, Balliang East, VIC, 3340/Victoria/Geelong-
Bacchus Marsh Road Upgrade Project
22/08/2017

2017/8008

Department of Economic Development, Jobs, Transport, and Resources (Major Road Projects Authority)/Transport -
Land/Hume Freeway and O'Herns Road, Epping, VIC, 3076/Victoria/O'Herns Road and Hume Freeway Interchange Project,
Vic
22/08/2017



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

Section 7

Information sources

Reference source

WSP (2020), Flora and Fauna Impact Assessment

Reliability

High: Prepared by qualified professionals with specialist local skills and experience

Uncertainties

As per the qualifications detailed in the report.

Also, the preliminary environmental impact avoidance and management recommendations are presented in this report as draft and subject to further assessment. They have since been superseded by SMEC (2020), Environmental Impact Avoidance and Reduction Report.

Reference source

SMEC (2020), Environmental Impact Avoidance and Reduction Report

Reliability

High: Prepared by qualified professionals with specialist local skills and experience pertinent to the relevant MNES.

Uncertainties

Environmental Performance Requirements included in this report are currently in draft form. Whilst the intent is unlikely to change, the specific wording may be refined during development of the Project's Environmental Management Framework and subsequent assessment by the Minister for Planning under the Project's Incorporated Document.

Reference source

SMEC 2020a BHRPC-Migratory Shorebird Assessment Report

Reliability

High: Prepared by qualified professionals with specialist local skills and experience pertinent to the relevant MNES.

Uncertainties

As per the qualifications detailed in the report

Reference source

Water Technology (2020), Hydraulic modelling for Barwon Heads Road Duplication Project – Model review and validation

Reliability

High: Prepared by qualified professionals with specialist local skills and experience

Uncertainties

Findings are preliminary. Further assessment will be undertaken as the project design is advanced.

Reference source

WSP (2019), Barwon Heads Road Duplication Preliminary Surface Water Impact Assessment

Reliability

High: Prepared by qualified professionals with specialist local skills and experience

Uncertainties

Findings are preliminary. Further assessment will be undertaken as the project design is advanced.



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

Reference source
Jacobs (2017), Barwon Heads Road Duplication Geotechnical Desktop Study
Reliability
High: Prepared by qualified professionals with specialist local skills and experience
Uncertainties
Findings are preliminary. Further assessment will be undertaken as the project design is advanced.

Reference source
GJM (2020), Strategic Heritage Report - South Barwon Memorial
Reliability
High: Prepared by qualified professionals with specialist local skills and experience
Uncertainties
Findings are preliminary. Further assessment will be undertaken as the project design is advanced.

Reference source
GJM (2020), Strategic Heritage Report - Bluestone Dwelling at 375 Barwon Heads Road, Charlemont
Reliability
High: Prepared by qualified professionals with specialist local skills and experience
Uncertainties
Findings are preliminary. Further assessment will be undertaken as the project design is advanced.

Reference source
Jacobs, (2017), Barwon Heads Road Duplication Historical Heritage Desktop Assessment
Reliability
High: Prepared by qualified professionals with specialist local skills and experience
Uncertainties
Findings are preliminary. Further assessment will be undertaken as the project design is advanced.

Reference source
Jacobs (2018) Barwon Heads Road Duplication, Belmont to Connemara CHMP (#14866)
Reliability
High: Prepared by qualified professionals with specialist local skills and experience
Uncertainties
Findings are preliminary. Further assessment will be undertaken as the project design is advanced.



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Section 8
Proposed alternatives
Do you have any feasible alternatives to taking the proposed action? Yes <input checked="" type="checkbox"/> No



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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	DEPARTMENT OF TRANSPORT
Business name	MAJOR ROAD PROJECTS VICTORIA
ABN	69981208782
ACN	
Business address	L26/180 Lonsdale St, Melbourne, 3000, VIC, Australia
Postal address	
Main Phone number	1800 105 105
Fax	
Primary email address	contact@roadprojects.vic.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	Craig
Last name	Mckiernan
Job title	Senior Manager - Planning and Environment
Phone	
Mobile	
Fax	
Email	craig.mckiernan@roadprojects.vic.gov.au
Primary address	230 Colac Rd, Highton, 3216, VIC, Australia
Address	

Declaration: Person proposing the action

I, _____, 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: Date:

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

Signature:.....Date:



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	DEPARTMENT OF TRANSPORT
Business name	MAJOR ROAD PROJECTS VICTORIA
ABN	69981208782
ACN	
Business address	L26/180 Lonsdale St, Melbourne, 3000, VIC, Australia
Postal address	
Main Phone number	1800 105 105
Fax	
Primary email address	contact@roadprojects.vic.gov.au
Secondary email address	

9.2.2 Contact

First name	Craig
Last name	Mckiernan
Job title	Senior Manager - Planning and Environment
Phone	0474 880 001
Mobile	
Fax	
Email	craig.mckiernan@roadprojects.vic.gov.au
Primary address	230 Colac Rd, Highton, 3216, VIC, Australia
Address	

Declaration: Proposed Designated Proponent

I, _____, 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: Date:



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

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	DEPARTMENT OF TRANSPORT
Business name	MAJOR ROAD PROJECTS VICTORIA
ABN	69981208782
ACN	
Business address	L26/180 Lonsdale St, Melbourne, 3000, VIC, Australia
Postal address	
Main Phone number	1800 105 105
Fax	
Primary email address	contact@roadprojects.vic.gov.au
Secondary email address	

9.3.2 Contact

First name	Craig
Last name	Mckiernan
Job title	Senior Manager - Planning and Environment
Phone	0474 880 001
Mobile	
Fax	
Email	craig.mckiernan@roadprojects.vic.gov.au
Primary address	230 Colac Rd, Highton, 3216, VIC, Australia
Address	

Declaration: Referring party (person preparing the information)

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:



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Appendix A	
Attachment	
Document Type	File Name
action_area_images	APPENDIX A BHRD Conceptual Design Maps.1.pdf
action_area_images	APPENDIX B BHRD Specific Controls Overlay Breakdown Maps.1.pdf
action_area_images	APPENDIX C BHRD Environmental Impact Avoidance and Reduction Report.1.pdf
shp	30042754T_X_PL_00_SCO.shp
flora_fauna_investigation	APPENDIX D BHRD Migratory Shorebird Assessment Report.1.pdf
flora_fauna_investigation	APPENDIX E BHRD Barwon Heads Road Flora and Fauna Impact Assessment.1.pdf

Appendix B
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