

Yan Yean Road (Stage 2) Upgrade

Minister's Assessment under *Environment Effects Act 1978*



Minister for Planning
March 2021



Environment,
Land, Water
and Planning

OFFICIAL

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We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.



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Glossary

CEMP	Construction environment management plan
CHMP	Cultural heritage management plan
DELWP	Department of Environment, Land, Water and Planning
EES	Environment effects statement
EMF	Environmental management framework
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPR	Environmental performance requirement
EVC	Ecological vegetation class
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i>
IAC	Inquiry and advisory committee
MNES	Matters of national environmental significance
MRPV	Major Road Projects Victoria
PAO	Public Acquisition Overlay
PSA	Planning scheme amendment
SCO	Specific Controls Overlay
SEPP	State environment protection policy
TNRP	Traffic Noise Reduction Policy
TRG	Technical reference group

Executive summary

On 14 October 2018, following receipt of a referral from Major Road Projects Victoria (MRPV) under the *Environment Effects Act 1978*, I decided that an environment effects statement (EES) was required for the Yan Yean Road (Stage 2) Upgrade. The EES was exhibited for public comment from 31 August 2020 to 9 October 2020.

On 26 August 2020, I appointed an inquiry and advisory committee (IAC) to consider the project's EES and draft planning scheme amendment. Planning Panels Victoria received 69 submissions and the IAC held a public hearing from 30 November 2020 to 16 December 2020. The IAC provided its report to me on 15 February 2021. The IAC's report, EES documentation and other material including submissions and documents tabled at the hearing have informed the preparation of my assessment of the environmental effects of the project.

It is my assessment that the project can proceed with acceptable environmental effects, subject to project modifications and an environmental management regime incorporating environmental mitigation, management and monitoring measures endorsed in this assessment. I am also satisfied that impacts on matters of national environmental significance can be managed within acceptable limits.

My assessment includes specific recommendations for the attention of decision-makers including the Minister for Transport Infrastructure, as well as for MRPV. My assessment is provided to relevant statutory decision-makers responsible for the project's approvals under Victorian law. Decision-makers must consider this assessment before deciding whether and how the project should proceed. I also expect decision-makers to write to me to advise how my assessment was considered and applied.

The project is a controlled action under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to potential impacts on matters of national environmental significance. Accordingly, the EES served as the accredited assessment for EPBC Act purposes, pursuant to the bilateral agreement between the Australian and Victorian governments. My assessment will be provided to the Australian Minister for the Environment to inform her decision about whether and under what conditions to approve the project.

1. Introduction

On 6 August 2018, Major Road Projects Victoria (MRPV) referred the Yan Yean Road (Stage 2) Upgrade to me under the *Environment Effects Act 1978* and on 14 October 2018, I decided that an environment effects statement (EES) was required. My decision to require an EES specified procedures and requirements for the EES' investigation and report:

- projected traffic growth volumes and related uncertainties for Yan Yean Road and related roads in the network;
- design alternatives and refinements and their associated impacts, particularly how they avoid and minimise native tree loss with proposed locations of tree and vegetation removal, no go zones and offset requirements and a demonstration that avoid and minimise principles have been applied; and
- consideration of carriageways, medians, shared pathways, footpaths, intersections and other treatments to minimise the loss of preferred foraging trees for the critically endangered *Lathamus discolor* (Swift Parrot) and avoidance of high retention trees of ecological and cultural value.

This document constitutes my assessment of the environmental effects of the project. It represents the final step in the EES process and provides authoritative advice to decision-makers on the likely environmental effects of the project and their acceptability. My assessment is largely informed by the report of the inquiry and advisory committee (IAC) that I appointed, together with the EES and public submissions.

This assessment will inform project approvals under Commonwealth and Victorian law.

1.1 Project description

The EES described the project as duplication of a 5.5 kilometre section of Yan Yean Road between Kurrak Road and Bridge Inn Road, increasing the existing two lanes to four lanes, with two lanes in each direction (Figure 1, overleaf). The project also includes:

- two new roundabouts at Heard Avenue and Youngs Road;
- five new signalised intersections at Bannons Lane, Jorgensen Avenue, North Oatlands Road, Orchard Road and Bridge Inn Road;
- upgrades to the existing signalised intersection at Ironbark Road, including an additional right-hand turning lane, slip lane and traffic island;
- new street lighting at all intersections, road signage and landscaping;
- new 3-metre-wide shared use path on the western side and 1.2-metre-wide footpath on the eastern side of Yan Yean Road; and
- installation of continuous safety barriers running along both sides of the road and in the centre median to protect against tree and car collisions.

The area directly affected by the project comprises land currently used for predominantly low density residential and rural living areas within the metropolitan Green Wedge. The north-western end of the project is within the North Growth Corridor and is experiencing rapid change from rural living to suburban residential. The project is described in more detail in Part 1, Chapter 5 of the EES.

1.2 Structure of the assessment

My assessment follows the general structure:

- Section 2 outlines the EES process and statutory approvals required for the project;
- Section 3 outlines planning controls and the framework for managing the project's environmental effects;
- Section 4 assesses the environmental effects of the project within the legislative and policy framework;
- Section 5 contains my conclusions, including responses to the recommendations of the IAC;
- Appendix A contains the assessment of matters of national environmental significance; and
- Appendix B contains the list of environmental performance requirements and my recommendations.

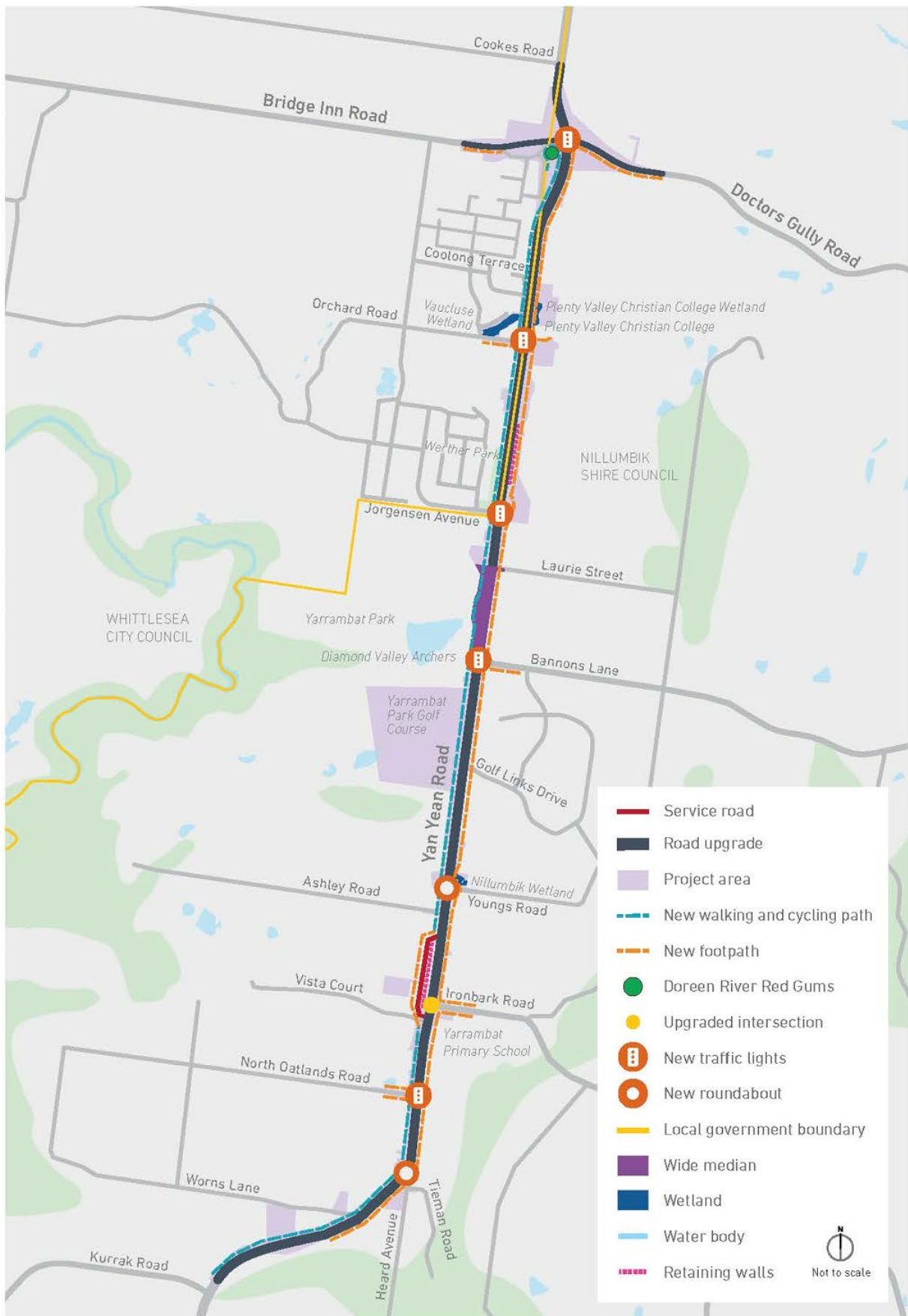


Figure 1. Key components of the project (from Yan Yean Road (Stage 2) Upgrade EES).

2. Statutory processes

2.1 Environment Effects Act

My decision to require an EES obliged MRPV to investigate the potential extent, significance and related uncertainties of the project's environmental effects, particularly on biodiversity values as a result of the proposed clearance of a very large number of trees.

On 29 April 2019, draft scoping requirements were exhibited for public comment. On 2 June 2019, I issued the final scoping requirements that specified the range of matters to be addressed in the EES. A technical reference group¹ was convened by the Department of Environment, Land, Water and Planning (DELWP) in accordance with normal EES practice to advise MRPV and DELWP on the preparation of the EES.

The EES, prepared by MRPV, was placed on public exhibition from 31 August 2020 to 9 October 2020. A draft planning scheme amendment (PSA) (Amendment GC92) to the Nillumbik Shire Council and City of Whittlesea planning schemes was also exhibited with the EES. Planning Panels Victoria received 69 submissions on the EES and the draft PSA, five of which were from state or local government bodies.

On 26 August 2020, with the consent of the Governor in Council, I appointed an inquiry under Section 9(1) of the Environment Effects Act to review submissions and inquire into the environmental effects of the proposal in accordance with its terms of reference, which I approved on 16 August 2020. The inquiry members were also appointed under Section 151 of the *Planning and Environment Act 1987* as an advisory committee to consider the draft amendment.

The IAC held the directions hearing on 27 October 2020, followed by public hearings, from 30 November 2020 to 16 December 2020. The IAC provided its report to me on 15 February 2021. The next step under the Environment Effects Act, requires me to provide my assessment of the environmental effects of the project to statutory decision-makers under Victorian law. The decision-makers must consider my assessment before deciding whether and how the project should proceed.

2.2 Planning and Environment Act

The Planning and Environment Act sets out processes for the amendment of Victorian planning schemes. An amendment to the Nillumbik and Whittlesea planning schemes is required to provide comprehensive statutory planning controls for the project. In the absence of such an amendment, the project would be subject to multiple and uncoordinated permit requirements under various provisions of the relevant planning schemes. The draft amendment included in the exhibited EES is discussed in Section 3.2.

2.3 Aboriginal Heritage Act

A cultural heritage management plan (CHMP) is required under the *Aboriginal Heritage Act 2006* before commencing works associated with the project. The Aboriginal Heritage Act also provides for approval of a CHMP by the relevant registered Aboriginal party, which for this project is the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation.

2.4 Other Victorian statutory approvals

The project requires a permit to remove listed flora and/or fauna from public land under the *Flora and Fauna Guarantee Act 1988* and, if needed, a permit to take or disturb wildlife under the *Wildlife Act 1975*.

1. The technical reference group comprised representatives of DELWP (Planning and Environment portfolios), Aboriginal Victoria, Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation, Melbourne Water, Parks Victoria, City of Whittlesea and Nillumbik Shire Council.

2.5 Commonwealth statutory approval

Major Road Projects Victoria referred the project to the Commonwealth Minister for Environment (Referral 2018/8371) for a determination on whether the project is a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

On 2 April 2019, the delegate for the Minister determined the project to be a controlled action requiring assessment and approval under the EPBC Act because of its potential for significant impacts on matters of national environmental significance (MNES). The EES is an accredited assessment process under a bilateral agreement between the Australian and Victorian governments. My assessment of the potential impacts on MNES (Appendix A) will inform the Commonwealth Minister's decision about whether and under what conditions to approve the project, therefore fulfilling the assessment requirements for MNES under the EPBC Act.

3. Environmental assessment and planning framework

My assessment has been informed by consideration of the EES, public submissions, evidence tabled with the IAC, information and submissions presented at the IAC's public hearing, the IAC report and other relevant resources. Legislation, policy, strategies and guidelines, summarised in Attachment 2 of the EES, and the objectives and principles of ecologically sustainable development, also contextualise my assessment.

To provide an integrated structure for this assessment, key aspects of legislation and statutory policy have been synthesised into evaluation objectives. The objectives were included in the scoping requirements for the EES and used by MRPV in its assessment of alternatives and effects within the EES. The IAC also assessed the project having regard to the draft evaluation objectives.

3.1 Management of environmental effects

I acknowledge that the project will generate both positive and negative environmental effects. To ensure that adverse local effects of the project are effectively mitigated and managed, a sound regulatory framework and environmental control regime is needed. The EES proposed an environmental management regime to be given statutory weight via a PSA. A draft incorporated document was exhibited with the EES with conditions to establish obligations for the preparation of an environmental management framework (EMF) and environmental performance requirements (EPRs). This model has been used for environmental management of several recent major public infrastructure projects which have been approved following assessment under the Environment Effects Act.

Without prejudice to any decisions that may follow in respect to the draft PSA, I am satisfied that the proposed environmental management approach, under which the EMF must be prepared to my satisfaction before project works may commence, is appropriate. Should the project be approved, an EMF will be needed to establish clear accountabilities and framework for environmental management during construction and operation.

Chapter 12 of the EES sets out the proposed EMF including the exhibited EPRs and use of an environmental auditor. The responsibilities and accountabilities for the EMF involves MRPV and the contractor, as well as Department of Transport during the operational phase. The appointed contractor's responsibilities will be stipulated as contractual requirements, including the preparation of a construction environmental management plan (CEMP) consistent with the approved EMF. The CEMP will be a detailed project and site-specific plan governing the environmental management of all project activities, including site establishment, earthworks, construction and reinstatement. At the completion of construction, the Department of Transport would become responsible for the ongoing operation and maintenance of the infrastructure. The broad structure of the EMF was endorsed by most submitters and the IAC.

An essential part of the proposed EMF is the EPRs, which are proposed to set relevant environmental standards, mechanisms and outcomes which MRPV and its contractors need to implement to mitigate or manage the environmental effects of the project. The EPRs were the subject of submissions and focussed consideration through the IAC hearing. In response, MRPV tabled updated versions of the EPRs during the hearing, with refinements resulting from further consideration of issues raised by submitters and advice from relevant experts. The IAC's report includes the latest version of the EPRs as proposed by MRPV, with changes reflecting its specific recommendations on matters examined through the EES and hearing. The IAC's proposed changes and my assessment of EPRs are provided in Appendix B.

Nillumbik Council submitted four changes to the overarching environmental management of the project, all of which were opposed by MRPV. The changes requested were, making the final EMF generally in accordance with that exhibited with the EES; having the independent environmental auditor (IEA) review the final design for compliance with the EMF and EPRs; submitting the CEMP and various other plans to

both councils for approval; and for the compliance audits by the IEA to be three-monthly rather than six-monthly.

The IAC made findings on Nillumbik Council's requests, first, the IAC did not agree with MRPV that the draft PSA already required a statement of the differences between the exhibited EMF and the submission for approval. As such, the IAC recommended a change to the incorporated document to explicitly seek this statement of change, see Section 5, Table 3, Item 17.

Second, the IAC acknowledged that the IEA role as outlined in Chapter 12 of the EES is to review contractor systems and plans, conduct regular audits, provide a six-monthly audit report and review complaints relevant to the EPRs. The IAC found there was currently no requirement for oversight of the final design by the IEA. The IAC found that given the large number of submissions related to the design, and the number of EPRs dependent on the design to mitigate impacts, it was considered appropriate for the final design to be subject to further oversight. I accept this finding in principle. However, I am not convinced the IEA is the most appropriate role for this additional oversight. I recommend MRPV prepare a response to the request for more oversight of the final design, outlining the process to ensure it is compliant with the EPRs and my assessment.

Third, the IAC agreed that councils' involvement in finalising management plans for the project will be very valuable. However, the IAC conceded there are significant challenges when requiring multiple approvers of documents and stated it should be avoided wherever possible. The IAC accepted MRPV's preference to be the approver of the CEMP given MRPV is ultimately responsible for impacts from the project. I accept the IAC's findings, and note that consultation with relevant stakeholders is required as per EPR EMF2.

The IAC also noted that MRPV contended that the role of the IEA includes review of the CEMP but this point was not clear to the IAC from its reading of the EMF. As such, the IAC recommended changes to EPR EMF2 to include this review role and for the review to be made public. While I accept the EMF is perhaps not as clear as one would hope in defining the IEA's role, I do agree with MRPV's assertion that the IEA will review the CEMP. Notwithstanding, I accept the IAC's recommendation to include this requirement in EPR EMF2 for clarity, as well as the requirement to publish the IEA's review.

Fourth, the IAC concluded that given the short construction timeframe, six-monthly audits should be the minimum requirement, and recommended changes to EPR EMF4 to reflect this. I accept this finding.

Additionally, the IAC found tabled document Technical Note 8 a very useful distillation of environmental management plans and documents and their accountabilities, and considered it would be beneficial to consolidate this information in the next version of the EMF prior to seeking approval from the Minister for Planning. The IAC believed it would be beneficial if the EMF was clearer on the relationships between plans and how they will be implemented. I support the IAC's suggestion, and encourage MRPV to consider if this is practicable when preparing the EMF for submission.

I would also draw the MRPV's attention to the EPRs' reference of State Environment Protection Policies, which are subordinate to the soon to be superseded *Environment Protection Act 1970*. The proposed incorporated document includes a condition to address the requirements of the new *Environment Protection (Amendment) Act 2018*, stating the *EMF must be amended to update references and requirements to be consistent with the Environment Protection (Amendment) Act 2018*. These updates are required within 12 months of the new act commencing.

In the interest of efficiency, and with an eye to achieving the highest environmental standards, I encourage MRPV to actively engage with the Environment Protection Authority before submitting its EMF for approval. The best outcome of this consultation would be EPRs drafted in a manner consistent with the changing legislative regime. I appreciate such drafting may not be possible, but I expect feedback on the consultation when seeking approval of the EMF.

In general, my assessment supports the recommendations of the IAC, subject to the specific conclusions and recommendations of my assessment in relation to specific EPRs examined in Section 4 and Appendix B. The final EPRs must be updated by MRPV in consultation with DELWP prior to MRPV submitting them for my approval together with the proposed EMF.

3.2 Planning controls

The project has broad strategic support in planning policies, including Plan Melbourne 2017-2050 (Plan Melbourne) and the Planning Policy Framework. The project is expected to contribute to Outcome 3 of Plan Melbourne that *Melbourne has an integrated transport system that connects people to jobs and services and goods to market*. The project is also intended to further support improvements to transport in Melbourne's outer suburbs and improve local travel options to support 20-minute neighbourhoods.

The IAC found the project is justified because increased traffic volumes is leading to increased congestion and traffic incidents. With regards to planning policy, the IAC found the project supports and implements the planning policy framework, is strategically justified, will deliver a net community benefit, and should proceed subject to addressing specific issues raised by submissions.

An amendment to the Nillumbik and Whittlesea planning schemes is proposed to provide project specific planning controls for the project. In the absence of a PSA, the project would be subject to multiple and uncoordinated requirements under various provisions of the planning schemes. A draft PSA (Amendment GC92) was prepared by MRPV and exhibited with the EES. The purpose of the draft PSA is to:

- facilitate the delivery of the project in a timely, coordinated and consistent manner;
- establish a framework to manage environmental effects during construction and operation; and
- ensure the project can be planned with certainty and commence without delay.

In broad terms, MRPV's draft PSA proposes to:

- insert Yan Yean Road (Kurruk Road to Bridge Inn Road) (Stage 2) Upgrade Project Incorporated Document, August 2020 into the Nillumbik and Whittlesea Planning Schemes;
- apply the Specific Controls Overlay (SCO) to land required for the project;
- apply the Public Acquisition Overlay (PAO) to parcels of land along the road alignment;
- update the purpose of the reservation of land and nominate the Head, Transport for Victoria as the acquiring authority for land; and
- provide a project specific planning control by which the project is to be developed and used.

The draft incorporated document was updated by MRPV through the IAC hearing process. Major Road Projects Victoria tabled a final draft of the incorporated document (Document 65, dated 6 December 2020) with minor changes from the exhibited version (Document 36, dated 27 November 2020). Upon reviewing MRPV's final draft, Nillumbik and Whittlesea councils suggested changes. In response, MRPV tabled Document 120 (dated 23 December 2020), with responses to the councils' suggestions.

The IAC proposed changes to the final draft incorporated document (Document 65) relating to:

- minor updates to the description of use and development for the project;
- not exempting preparatory works, involving the clearance of native vegetation, from the requirement for the EMF;
- updates to the requirements for native vegetation and offsets, to consider consequential loss of native vegetation resulting from new fences;
- reference to St Michael's Anglican Church (HO219 in the Nillumbik Planning Scheme) in Condition 4.6.1; and
- a new condition to provide for final design plans.

The IAC recommended extending the exhibited SCO to include additional parts of the Yarrambat Park Public Golf Course into the project area given the potential need to reconfigure the golf course to offset the need

to construct a golf safety fence adjacent to the 10th hole of the golf course. I note that MRPV prepared Technical Note No. 4, dated 27 November, to advise on alternative strategies to address the risk of golf balls straying from the course after the widening of Yan Yean Road. While I can see the benefit of this approach, the inclusion of additional land to the project area would need to be agreed to by Nillumbik Council as landowner of the golf course. I recommend further consultation between MRPV and Nillumbik Council to determine the potential for reconfiguring the golf course. If the project area is extended into the golf course, MRPV should assess additional environmental or amenity impacts to guide consideration of an appropriate approval.

The IAC found there is merit in rezoning Yan Yean Road (as included in the project land) to Road Zone Category 1 as part of the PSA for the project to recognise the road, once constructed, will contribute to the state's arterial road network. MRPV should determine final property boundaries to inform where the Road Zone Category 1 should apply and then work with the Department of Transport in the preparation of a planning scheme amendment to rezone Yan Yean Road.

In principle, I support the IAC's recommended changes to the incorporated document, subject to:

- a review to tighten the description of the use and development of the project land;
- MRPV preparing a response to the request for more oversight of the final design, outlining the process to ensure it is compliant with the EPRs and my assessment;
- consideration of a staged EMF to more efficiently deliver preparatory works that might involve native vegetation clearing; and
- consideration of whether the project should provide mitigation for consequential losses from fences needed to be relocated as a result of partial land acquisition.

Under the proposed arrangements, the Minister for Planning has been identified as the planning authority for the PSA while Nillumbik and Whittlesea councils will remain responsible for the administration and enforcement of the planning schemes.

Land acquisition

The EES identified the potentially impacted land parcels resulting from the proposed road footprint. Major Road Projects Victoria plans to fully acquire 21 linear road parcels from Nillumbik Council and partially acquire a further 75 parcels including:

- two parcels owned by Whittlesea Council;
- five parcels owned by Nillumbik Shire Council;
- 60 privately owned parcels; and
- eight parcels owned by state government or public utilities.

To facilitate and reserve land for the project, the draft amendment proposes to apply the PAO and designate the Head, Transport for Victoria as the acquiring authority for land for road purposes in the Nillumbik and Whittlesea Planning Schemes. The draft PSA also sought to amend the designation of the land to be for road purposes.

The IAC received submissions outlining differences in scale and extent of land impacts. Specific intersection treatments or changes in access are the primary driver for acquisition and I comment on some of these impacts in Section 4.1. The IAC highlighted the Doreen Recreation Reserve and Yarrambat Park Public Golf Course as experiencing the most impact of public open space areas within the project area.

The IAC considered that overall, the footprint will acquire minimal land and is acceptable. The IAC noted that the project footprint may be reduced further at the detailed design stage and was satisfied impacts could be managed through the various EPRs, including B1, B2, B3, LU2, S2 and S3.

It is my assessment that the proposed EPRs can manage land impacts arising from acquisition. Importantly the relevant EPRs set specific consultation requirements for engagement between MRPV and affected

landowners, businesses, public land managers and utility providers to guide these stakeholders in understanding permanent or temporary land acquisition.

3.3 Consideration of alternatives

As set out in the scoping requirements, the EES was required to describe and assess effects of relevant alternatives for the Yan Yean Road (Stage 2) Upgrade. This needed to include comparative assessment of environmental effects of each alternative, as well as explain why the preferred alternative was selected.

The EES considered three options to the overall project in its assessment of alternatives. The first option proposed no duplication of the carriageways, nor upgrade of intersections or pedestrian and cycling facilities. This option was considered the minimum level of works to improve safety, including installation of guard rails, wire rope safety barriers, minor upgrades to improve access and the use of signage. The second option was to fully upgrade Yan Yean Road from Kurrak Road, stopping at Jorgensen Avenue. The third, and MRPV's preferred option, is to extend the second option works up to Bridge Inn Road.

In addition to those project alternatives, the EES also considered alternatives for different aspects within the preferred project, as described in Chapter 3 of the EES. Through the public hearing process, MRPV supported a modified version of Option B (modified Option B) as set out in tabled document Technical Note 3 and discussed in Section 4.1.

4. Assessment of environmental effects

On balance, it is my assessment that the project can meet its objectives, and that its environmental effects will be acceptable, provided the recommendations of this assessment are adopted and implemented.

Having regard to the evaluation objectives in the scoping requirements, public submissions and the IAC's conclusions on the significant effects of the project, I am satisfied that the localised issues of air quality, noise, and construction laydown areas, along with other short-lived construction impacts can be managed through the implementation of the EMF. The EPRs set out measures to prevent, mitigate or compensate for significant adverse effects of the projects' construction and strike a balance of environmental, economic and social outcomes.

The IAC made several findings and recommendations in respect of the project. My response to its key findings and recommendations, along with my assessment of the main environmental effects of the project, are detailed in the sections below.

4.1 Transport capacity and connectivity

Evaluation objective

To provide for an effective corridor through the northern outer suburbs of Melbourne, to improve travel efficiency, road safety, and capacity.

Assessment context

Transport capacity and connectivity impacts are addressed in Chapter 7 and Technical Report A of the EES and in chapters 5 to 8 of the IAC Report. Four EPRs deal with transport capacity and connectivity matters and have been the subject of recommendations by the IAC.

The IAC identified several key issues in the context of traffic and transport:

- Bridge Inn Road intersection, including design modifications, Doreen River Red Gums, access to the Doreen Neighbourhood Activity Centre, impacts on the Doreen Recreation Reserve and whether suitable pedestrian and cyclist connectivity is provided;
- traffic and access at Yarrambat Park, including northern and southern access facilities, Jorgensen Avenue intersection and whether the Bannons Lane intersection layout is appropriate;
- traffic and access at Ironbark Road, including impacts from the bus bay and passing zone, whether the design has appropriately considered required traffic movements and the impact of property acquisition;
- property access, including safe access into properties and U-turn facilities for long vehicles;
- Orchard Road intersection and Plenty Valley Christian College, including signalling the crossroad and impacts on residents;
- Youngs Road intersection, and whether pedestrian lights should be installed at the roundabout;
- road safety, including whether additional lighting is needed at intersections and/or the speed limit should be reduced;
- construction impacts on traffic; and
- operational traffic volume and whether measures to mitigate impacts on the surrounding streets caused by a redistribution of traffic flows are warranted.

Discussion

Bridge Inn Road intersection

I highlighted the significance of the Doreen River Red Gums when I issued the EES' scoping requirements. The EES states that initial community consultation identified the Doreen River Red Gums on the northeast corner of the Bridge Inn Road intersection as important assets for the community. The Heritage Overlay (HO191) applies to the two trees.

In response, MRPV developed five alternative options for the Bridge Inn Road intersection, with three presented in EES Chapter 3. Of these, one was discounted due to impacts to the Doreen River Red Gums, and another due to limited queueing distance between two staggered intersections. The preferred 'Option B' was subject to detailed assessment.

The IAC gave direction to MRPV to explain any further changes considered for the Bridge Inn Road intersection, to which MRPV responded with Technical Note 3, which presents a modified Option B and is now MRPV's preferred design for the intersection. The IAC accepted modified Option B as the preferred design outcome, subject to recommendations described in Section 5, Table 3, Item 1.

The IAC recognised the Doreen River Red Gums' heritage significance and accepted that Option B, and its modified version, offers a preferred environment for the trees. The IAC agreed with MRPV that alternative designs would make it harder to protect the trees during construction and over the long term. I accept the IAC's preference for the modified Option B at this intersection.

Businesses within the Doreen Neighbourhood Activity Centre raised access and visibility impacts deterring local and passing trade. They also supported the alternative intersection design, Option C. Whittlesea Council supported Option C submitting it maintains existing access arrangements, with access and visibility important considerations.

In response, the IAC heard from MRPV's expert witness Mr Barlow who said the refinements in the modified Option B, when compared to the design presented in the EES, will improve accessibility to the centre to a level generally consistent with the current arrangements – albeit requiring additional manoeuvres in some cases. He also told the IAC that Option C could potentially create a larger barrier between the activity centre and the Old Doreen Store.

Whittlesea Council submitted that Option B would make the 2014 council masterplan for the Doreen Recreation Reserve redundant. MRPV countered that while it was not like for like, Option B did include suitable surplus land to offset the loss along the southern side of the reserve. While I agree with the IAC that MRPV is not responsible for upgrading sports facilities, I encourage Whittlesea Council and MRPV to pursue a mutual outcome through continued discussions. However, it is important that either a right turn out or a U-turn facility be provided to facilitate users travelling south upon exiting the reserve.

The IAC heard discussion of the requirement for Cookes Road intersection to be upgraded for the Bridge Inn Road intersection to function acceptably. The IAC acknowledged this issue and was concerned that the 2031 design year for the project only provides a seven-year operating horizon. However, as the potential upgrade lay beyond the project area and scope of the EES, the IAC found it would be premature to include it in any current approval process. The IAC concluded, while the traffic justification to extend the duplication of Yan Yean Road further north to around Cookes Road is sufficient, this should be pursued through a separate concurrent project and a separate environmental assessment.

Nillumbik Council and other submitters raised concerns with pedestrian accessibility to the Old Doreen Store and to the Doreen Primary School located on Doctors Gully Road. MRPV's modified Option B shows a potential pedestrian path network while noting that the bus stop locations and associated paths would be subject to further consultation. MRPV's expert witness Mr Kelly recommended that EPR TP1 be modified to include a reference to bus stops. I support the project encouraging active transport by including footpaths and shared use paths. However, I do not believe MRPV should be responsible for building footpath connections outside of the project area.

The IAC also recommended the final design include improved connectivity between bus stops on Yan Yean Road and the Doreen Neighbourhood Activity Centre, while conceding it is difficult to locate the northbound stop close to Bridge Inn Road due to the double left turn lanes before the intersection. The IAC suggested a possible solution may be to group the two bus stops near Activity Way on Yan Yean Road,

which would require a safe crossing point to access the southbound stop. The IAC believed this could be incorporated into a signalised intersection as recommended by the IAC in its proposed EPR TP3.

I acknowledge the potential benefits in this solution; however, I don't believe an outcome can be settled until detailed design has further considered the ramifications of this change to the design

I agree with the IAC and prefer modified Option B, and generally accept the IAC's recommendations for this intersection. I am comfortable that my recommended changes to EPR TP3, along with the further design work required by EPR TP1, with the recommended inclusion for consideration of bus stops, will ensure an acceptable outcome is ultimately reached. In finalising its design, I encourage MRPV to pursue opportunities to reduce impacts on property access (e.g. 25 Doctors Gully Road).

Traffic and access at Yarrambat Park

The northern access to Yarrambat Park provides access to shooting clubs, a model aeroplane club, a pony club and the CFA. The pony club and the CFA attract large vehicles to the site.

The EES presented a design that restricts access to the northern entry to left in and left out, with U-turn facilities at Jorgensen Avenue and Youngs Road. The IAC stated that safe and efficient access to and from Yarrambat Park during a bushfire emergency is a significant issue that requires more consideration. MRPV's expert witness Mr Kelly, in his evidence agreed with the IAC, acknowledging that additional consideration is needed regarding access to Yarrambat Park, particularly in relation to access for the CFA. In its submission, the CFA sought the installation of traffic signals at the northern park entry to facilitate all movements on to and from Yan Yean Road.

The IAC found that the project design does not provide for safe and efficient access for the CFA and Pony Club and recommended the detailed design process should consider:

- signalised access for the CFA;
- safe and efficient egress from the Pony Club for southbound horse floats; or
- U-turns for long vehicles on Yan Yean Road, ideally in north and south directions near the Yarrambat Park northern access.

MRPV advised the IAC that it will continue to refine options, referring to its obligation under EPR TP1 to optimise design. I appreciate this is a complex design issue, with competing priorities. I am confident a solution will be found that does not compromise the CFA's ability to perform during emergencies and meets the safety and performance requirements for the road design.

The southern access to Yarrambat Park is approximately 75 metres south of Bannons Lane and provides access to a golf club and an archery club. The golf club is also designated as a CFA Neighbourhood Safer Place for use during emergencies. The current design proposes access at this intersection be limited to left turns in and out.

MRPV's expert witness Mr Kelly stated that further consideration should be given to providing either a direct controlled right turn into this southern access during an emergency event, or a more proximate U-turn facility to the south. The current design requires a 950 m trip south to the U-turn facility at Youngs Road. The IAC agreed with the Nillumbik Council and Mr Kelly that a more direct access from the north is required for when the Neighbourhood Safer Place is in use. I support this finding of the IAC.

In response to submitters querying why the design no longer proposed a long-mooted roundabout at Jorgensen Avenue, MRPV told the IAC that the roundabout option was replaced with signals to reduce the size of the intersection and associated impacts on vegetation and land acquisition. MRPV's expert witness Ms Forbes gave evidence that key sensitivities at the intersection are Werther Park and private property on the east side which contains specimens of Pale-flowered Crane's-bill.

The IAC considered either a roundabout or signals were appropriate traffic control measures and that MRPV must balance a range of competing constraints in selecting the preferred treatment. Ultimately the

IAC found the current design acceptable but conceded the need for signalised access to Yarrambat Park and U-turns for trucks may require a review of the treatment at Jorgensen Avenue. I accept this finding and expect this will happen during detailed design.

The IAC heard several submitters raise concerns with safe access to the residential properties to the north of Bannons Lane up to Laurie Street. The IAC noted the owner of 724 Yan Yean Road regularly made trips with his caravan and reverses it in from Yan Yean Road because he cannot turn the caravan within his property. These submitters raised issue with the location at which the shoulder terminated, requesting that it either be extended further to allow for a car and trailer to prop on the shoulder, before reversing into 724 Yan Yean Road, or a service road be provided for the properties between these two streets.

The IAC found that the project design does not provide for safe and efficient access for 724 Yan Yean Road, and, upon reflection, the IAC did not consider it reasonable to expect existing residents to redesign their own properties to enable vehicles to be able to enter and exit in a forward direction nor is that necessarily practicable. I agree with the IAC on this issue.

The IAC recommended that either a service road be provided along the frontage of the residential properties between Bannons Lane and Laurie Street, or that the shoulder be extended to allow a vehicle to prop safely before reversing into each driveway. The IAC considers that extension of the shoulder is a feasible modification given that the left turn lane runs beside the shoulder in the current design. I accept this finding of the IAC and encourage MRPV to consider either option during detailed design. I note that if detailed design shows a widened median in this location does not avoid significant vegetation impacts, it might be a preferable solution to reduce the median width to accommodate a service road instead.

Some submitters raised concerns with the Bannons Lane intersection. Submitters requested the U-turn lane from the north approach be omitted for various reasons including cost, it unnecessarily complicates the intersection and it does not cater for horse floats. The IAC also heard requests for a slip lane on Bannons Lane to increase capacity for left turns into Yan Yean Road and a request to turn the intersection into a four-leg intersection to provide access to the northern and southern entries to Yarrambat Park which would facilitate the deletion of the jug-handle U-turn near Jorgensen Avenue.

While the IAC did not provide specific findings or recommendations on these matters, I encourage MRPV to consider these options during detailed design, particularly in its discussions with the CFA regarding any potential benefit a four-leg intersection at this location might have during emergency situations. I acknowledge there are competing priorities in this area that MRPV will have to consider to find the preferred design outcome. I am comfortable EPR TP1 provides the direction for this to occur.

Traffic and access at Ironbark Road

Nillumbik Council submitted the design for the portion of Ironbark Road within the project area was not consistent with its streetscape plan and results in the removal of the auxiliary lane on the north side of the road. The council also requested a shared path be provided along the north side of the road connecting to the Yarrambat War Memorial Park. MRPV did not support any of these proposed changes and noted the streetscape plan has not been formally adopted by Nillumbik Council.

In considering this issue, the IAC admitted it was not provided with any evidence regarding the current use of the auxiliary lane, or impact on traffic flows due to the loss of this auxiliary lane and proposed location of the bus stop on the single lane opposite a primary school. However, the IAC accepted that given the volume of traffic on Ironbark Road is expected to increase to over 10,000 vehicles per day, the design should be reviewed to ensure that traffic movements are maintained and where practicable enhanced.

The IAC pointed to EPR TP1 which already contains a similar requirement, but with a limitation to only consider traffic movements at intersections. Given the primary school entry is an access not an intersection, removal of the limitation to intersections would allow EPR TP1 to respond to this issue as well. I accept this recommendation by the IAC. I agree with the IAC's finding that MRPV is providing a substantial

investment in a shared path along Yan Yean Road and continuing beyond the project area to the War Memorial Park is considered an unreasonable addition.

Nillumbik Council submitted that there is a missing link to the shared trail network on Yan Yean Road where a service road is provided to the north of Vista Court. MRPV responded that a footpath would be provided along both sides of the road reservation at this point and cyclists can use the service road. The IAC agreed with the council that there is a missing link in the shared trail network at this location, noting that the one-way service road would cater for northbound cyclists but not for southbound cyclists. The IAC found that the design for pedestrian and cyclist paths at the Vista Court intersection should be reviewed to minimise potential conflicts with motorists, concluding that EPR TP1, modified with the requirement of a road safety audit, is sufficient to manage this review. I agree with the IAC's finding on this issue.

The EES identified access to the Yarrambat Primary School being altered with some property acquired. The school has carparks on both Ironbark Road and Yan Yean Road, with the project proposing to limit the Yan Yean Road carpark to left in and left out. While MRPV submitted that consultation had been undertaken with Yarrambat Primary School and it was satisfied with the arrangements proposed, its expert witness Mr Kelly identified an exceedingly high U-turn demand on Yan Yean Road at the Ironbark Road intersection associated with the school and recommended that further consultation be undertaken with the school regarding access. MRPV conceded that the further assessment suggested by Mr Kelly can be done under the guidance of EPR TP1. In response, the IAC found that the project design should be reviewed to adequately accommodate the Yarrambat Primary School traffic and EPR TP1 will be adequate to manage this impact. I support the IAC's findings on this issue.

Directly south of Yarrambat Primary School is 540-550 Yan Yean Road. The IAC heard a representative for the owner who requested the project consider the provision of U-turns or right turns for large vehicles to enter and exit the property to and from a new driveway at the northern end of their property for which a development proposal is under preparation and the use of retaining walls to minimise property acquisition. In its response, MRPV gave evidence that U-turns for trucks are available within reasonable proximity and stated it was not appropriate for the project to pre-empt a future planning permit application in relation to the provision of a new driveway. The IAC accepted MRPV's response and found the impacts to this property would be appropriately managed. I agree with this finding.

Smile Child Care Centre and Yarrambat Veterinary Hospital share a common driveway. The IAC heard that as a part of the planning permit for the childcare centre the developer was required to construct a right turn lane on Yan Yean Road. This would be removed in the current design of the project. The childcare centre sought the same level of access and noted it had paid a substantial sum of money to construct the right turn lane, believing the EES had not adequately assessed its access requirements. MRPV's expert witness Mr Kelly responded that the right turns would be replaced with U-turns at signalised intersections either side of the childcare and considered this to be the appropriate response.

The IAC accepted MRPV's reasoning for left in and left out only access to these properties but remained concerned with the absence of a left turn lane for the common driveway. The IAC found that upon interrogation of the data in Technical Note 16, if the diverted right turns are added to the left turning traffic for the centre, the justification for a left turn lane may be met.

The IAC concluded that the impact on the need for a left turn deceleration lane should be investigated as a part of the process of optimising the design of the road required by EPR TP1, particularly with the IAC's recommended amendment to EPR LP1 to include references to property access and a road safety audit. I support the IAC's findings.

North Oatlands Road intersection

A number of property owners near North Oatlands Road intersection raised concerns about the impacts from acquiring part of their land and bringing the road closer to their dwellings and questioned the need

for two lanes exiting North Oatlands Road. A submitter also raised objections to removal of existing screening vegetation and fence along their front boundary. They highlighted the vegetation screened views, reduced vehicle noise and filtered pollution. Another submitter was concerned about the proximity of their driveway on North Oatlands Road to the new signalised intersection proposed by the project.

MRPV's expert witness Mr Kelly explained that turn lanes were designed according to the Austroads standards, and that the offset of the driveway at 10 metres from the stop line is acceptable. He also advised that during detailed design the lane designation on North Oatlands Road could be further refined, and the driveway location reviewed.

I agree with the IAC in acknowledging that there will be impacts on properties around the North Oatlands Road intersection due to the road widening on Yan Yean Road and North Oatlands Road. I also agree with the IAC's finding that it is important to minimise impacts on residents where possible and to ensure safe and efficient access. The IAC concluded that the modified EPR TP1, with the inclusion of a road safety audit and references to property access, in conjunction with EPR LU1, among others, are appropriate to manage these issues. I accept the IAC's findings.

Property access along the alignment

The IAC highlighted that a number of submitters raised concerns on the design of driveway entrances, with particular regard to safe entry, and grades. I note the IAC accepted MRPV's response that such details are resolved during detailed design. I agree with the IAC that EPR TP1 will be critical in ensuring acceptable outcomes to this issue, particularly the recommended addition to require a road safety audit with an emphasis on property access.

The IAC acknowledged U-turns for long vehicles would be accommodated in the current design at the Heard Avenue and Youngs Road roundabouts and the jug-handle south of Jorgensen Avenue. It was also acknowledged that the modified Option B for the Bridge Inn Road intersection would add two more U-turn facilities in the north of the project area. The IAC concluded that, subject to acceptance of modified Option B, the proposed spacing of U-turn access along the project was acceptable. The IAC did concede that signage would be needed on Yan Yean Road advising motorists of these northern U-turn facilities given they are located on Bridge Inn Road and Doctors Gully Road and not directly accessible from Yan Yean Road. I support the IAC's findings on this matter.

Orchard Road intersection and Plenty Valley Christian College

The project proposes to replace the roundabout at the Orchard Road intersection with traffic signals. The IAC heard issues of potential 'rat running' if the intersection is signalised, with requests for the road to instead be restricted to left in and left out. A resident of this location also raised safety and amenity impacts, as well as loss of value, due to the proximity of the new traffic lanes to the house with the loss of the nature strip and indented parking.

MRPV's expert witness Mr Kelly gave evidence that Orchard Road is defined as a collector road and the roundabout currently allows all movements at Yan Yean Road. The IAC heard and accepted that providing signals at the intersection is appropriate, safe and efficient for both the Plenty Valley Christian College and the Orchard Road area. The IAC noted that road bumps on Orchard Road are already provided to control 'rat running' and including signalised pedestrian crossings will help to encourage active transport as a mode of travel to Plenty Valley Christian College.

I agree with the IAC's acknowledgement that the project will negatively impact numerous dwellings on Orchard Road, and I would extend this to the number of residents along the length of the project area, as a result of the road widening and property acquisition. I also accept the IAC's conclusion that these impacts will be minimised through measures such as EPR LU1, which seeks to minimise land use impacts, and EPR LU2, which includes the requirement for accordance with the *Land Acquisition and Compensation Act 1986*.

Youngs Road intersection

The project proposes to install a new roundabout at the Youngs Road intersection. Nillumbik Council submitted that pedestrian lights should be provided to give safe access to the bus stops. MRPV responded that the provision of pedestrian signals would be addressed through EPR TP1, noting this EPR also requires consultation with the Council. I accept the IAC's conclusion that this issue should be addressed through the guidance of EPR TP1.

Road safety

Nillumbik Council submitted that additional lighting should be provided at all intersections and a number of submitters sought to reduce the speed limit along the road. RARE Northern Nillumbik submitted that speed limits should be reduced specifically to minimise impacts on wildlife.

The IAC agreed with MRPV's submission that lighting will be addressed during the detailed design stage and pointed to EPR TP1, which requires the design to be optimised to relevant standards, as being sufficient to manage that issue. Additionally, the IAC accepted that MRPV is designing the project to the standard for a 70 km/h speed limit, and that Department of Transport is ultimately responsible for setting speed limits, with the IAC stating that the reduction of speed limits is outside the ambit of this project. I accept the IAC's findings on this issue.

Construction impacts on traffic

Traffic impacts will result from construction activities for the project, with the IAC acknowledging impacts such as increased traffic flow must be generally accepted providing it does not pose a significant safety or operational risk. MRPV believes these impacts would be appropriately addressed through the various EPRs, including EPR TP2 which requires construction be undertaken in stages to minimise impacts. EPR TP2 also provides for a construction traffic management plan to be prepared in consultation with the local councils; both councils submitted the plan should be prepared to their satisfaction.

The IAC accepted MRPV's position regarding approval status for this plan and did not recommend changing the wording for this issue. I accept this finding.

Nillumbik Council also requested an EPR requiring the preparation of a local traffic management plan that monitors local streets for impact, provides mitigation measures, monitors for success and provides additional mitigation if needed. While the IAC did not recommend the requested local traffic management plan, it did note that the requirement to regularly monitor the effectiveness of mitigation measures would be consistent with the requirement for the EMF to be monitored by the Independent Environmental Auditor. The IAC also found this would provide certainty of success. The IAC recommended changes to EPR TP2 which reflects these findings, although the IAC did not accept Nillumbik council's request for a specific reference to minimising traffic on Heard Avenue. I accept the IAC's finding on these issues.

Operational traffic volume

The IAC noted several submitters raised concerns about potential impacts resulting from increased traffic on local and arterial roads into the surrounding area following the completion of the project. Particular streets of concern included Laurie Street, Bannons Lane, Arthur's Creek Road, Ironbark Road and Orchard Road.

In response, MRPV's expert witness Mr Kelly gave evidence that Yan Yean Road's capacity is currently constrained, resulting in some drivers taking alternate routes, whereas following the project's increased capacity along Yan Yean Road, there will be a redistribution of traffic to this route. The IAC accepted Mr Kelly's evidence that the project will result in a change in traffic flows in the area as it adds significant capacity to Yan Yean Road. The IAC noted that this will result in some alternate routes having less traffic and some roads having more traffic as traffic patterns change to minimise delay.

Ultimately the IAC concluded that it would remain the responsibility of relevant road authorities to provide a safe road environment once construction has completed. Adding that while the change in volume to some roads will be noticeable to some residents, particularly those close to the project, neither council raised issues with the change in traffic flows on local roads predicted during operations. I accept the IAC's findings on this issue.

Assessment

- Modified Option B is the preferred option for Bridge Inn Road intersection and should be further refined in detailed design consistent with EPR TP1 and the IAC proposed EPR TP3.
- I support the IAC proposed EPR TP3, with my recommendations as per Appendix 2.
- There may be opportunity to achieve better outcomes at Doreen Recreation Reserve, and I encourage continued consultation between MRPV and Whittlesea Council.
- EPR TP1 to be amended as per Appendix 2.
- I support the IAC proposed new EPR TP4, subject to my recommendations in Appendix 2.
- An upgrade to the Cookes Road intersection has merit but should be pursued as a separate project and not incorporated in this project.
- The recommended EPRs will be sufficient in minimising negative impacts on numerous properties in Orchard Road.
- EPR T1 is appropriate in guiding the adequate provision of pedestrian signals and lighting at intersections across the project through detailed design and further consultation.
- Department of Transport is ultimately responsible for setting speed limits for roads where it is the road authority.
- EPR TP2 to be amended as per Appendix 2.

4.2 Biodiversity

Evaluation objective

To avoid or, at least, minimise adverse effects on native vegetation (including remnant, planted, regenerated and large old trees), listed migratory and protected species/ecological communities and then to address offset requirements consistent with relevant state and commonwealth policies.

Assessment context

Biodiversity impacts are addressed in Chapter 8 and Technical Reports B, B2 and C of the EES and in chapters 6 and 9 of the IAC Report. Twelve EPRs deal with biodiversity matters and have been the subject of recommendations by the IAC.

The IAC identified several key issues in the context of biodiversity:

- the evaluation objective to avoid and minimise effects on native vegetation;
- the project's effects on social, cultural and habitat values from the proposed removal of trees;
- the project's effects on listed communities and species; and
- fauna management, particularly in relation to the proposed fence at the Yarrambat Park Public Golf Course.

Discussion

Native vegetation

Seven ecological vegetation classes (EVCs) were recorded within the project area, five of which are considered either 'endangered' or 'vulnerable' within the Highlands Southern Fall or Victorian Volcanic Plain Bioregions (Table 1). The EES identified a maximum extent of 11.888 ha of these EVCs and 204 scattered trees to be cleared. This was updated during the IAC hearing to a maximum extent of 12.78 ha and four additional scattered trees (208 total) in response to changes to modifications to Option B for the

Bridge Inn Road intersection and the potential realignment of the Yarrambat Park Public Golf Course (Technical Note 19).

Table 1. Predicted maximum loss of EVCs (from EES Technical Report B2).

Ecological vegetation class	Bioregional conservation status	Maximum anticipated loss (Ha)
Grassy Dry Forest	Least Concern	9.086
Valley Grassy Forest	Vulnerable	1.545
Plains Grassy Woodland	Endangered	0.347
Swampy Woodland	Endangered	0.418
Plains Sedgy Wetland	Endangered	0.049
Aquatic Herbland	Endangered	0.066
Tall Marsh	Not listed	0.395
Total		11.888*

* Total anticipated loss increased to 12.78 ha during public hearing.

MRPV submitted that avoidance of native vegetation will be achieved through design responses, with further opportunities to minimise clearance contained within the EPRs. The IAC considered the final impacts on vegetation are uncertain and will remain high regardless of the success of implementing the EPRs. The IAC stated that a complete assessment of proposed impacts, including native vegetation removal required for the Yarrambat Park Golf Course realignment and proposed construction laydown areas, should have been exhibited in the EES. However, the IAC considered the EPRs to avoid and minimise native vegetation to be sufficient. The IAC agreed with MRPV's experts that most of the vegetation to be removed has a bioregional conservation status of 'least concern' and the environmental effects of its removal are unlikely to be significant at a state or regional level. Acknowledging the design refinement to come, I expect that MRPV's final design will not exceed the total extent of native vegetation and number of trees to be removed as documented within the EES and documents tabled during the public hearing.

Nillumbik Council submitted that native vegetation offsets purchased for the project should be required as close as possible to the project area. MRPV responded that whilst they would aim to achieve this it should not be a performance measure. I accept the IAC's assessment that MRPV should locate offsets as close to the project area as possible but that it is not set as a performance requirement. All offsets must be implemented in accordance with the DELWP *Guidelines for the Removal, Destruction or Lopping of Native Vegetation* (DELWP guidelines).

The draft incorporated document allows preparatory works to be undertaken before submitting an EMF. MRPV's expert witness, Ms Forbes, stated that preparatory works requiring clearing of native vegetation would be acceptable if the EMF were provided. The IAC agreed with this approach and considered that while approval of the EMF would be preferable prior to preparatory works, if this could not be achieved it would be appropriate to add a new clause to the incorporated document which enables the EMF to be prepared and approved in stages. The IAC recommended that the incorporated document be revised to no longer exempt preparatory buildings and works in the project area from the conditions set out in Clause 4.4 (i.e. requiring an approved EMF). I agree with the IAC's assessment of the requirements for preparatory works and suggested changes, noting that Clause 4.4.1 would require review by MRPV to ensure it is consistent with these proposed changes to Clause 4.11.

It is my assessment that all native vegetation clearance for the project must be offset in accordance with DELWP guidelines, as required by EPR E1. I agree this includes any vegetation cleared by MRPV in the process of removing and reinstating existing boundary fences. However, I do not accept MRPV is responsible for consequential loss at an unknown point in the future where a landowner chooses to clear vegetation for a new boundary fence unrelated to this project's works.

Trees

The Arboriculture report (Technical Report C) appended with the EES provides a detailed inventory for all trees within the project area. In total 7,031 trees were assessed and assigned retention values based on their health, structure and useful life expectancy. Trees that met the definition of native vegetation included 2,505 native canopy trees in patches and 270 scattered trees. Native (remnant, planted and regenerated) trees included habitat trees for the threatened Swift Parrot, Grey-headed Flying-fox and Brush-tailed Phascogale and common fauna as outlined in the biodiversity impact assessment (Technical Report B2). The landscape strategy (Technical Report G) included an assessment of the 'cultural value of vegetation'. The IAC considered that the arboriculture report and landscape strategy have appropriately characterised the existing trees in the project area and their social and cultural values. I accept this finding and consider that habitat values have also been adequately assessed in the EES.

Many trees are proposed to be impacted. Several submissions related to native vegetation focused on the number of trees proposed for removal. Chapter 9 of the EES assumes a worst-case scenario to state that a total of 4,777 trees, including 3,680 native trees will be impacted. MRPV's expert witness Mr Ryder gave evidence that the estimates assumed all trees within the project area and outside of no-go zones would be lost. He stated that the actual number of trees to be impacted would be less than this. In response to submissions Mr Ryder suggested changes to EPRs E3, AR1-4 and LV2 to refine wording around the management of trees to be retained as well as those to be removed. The IAC recommended that these EPRs be revised consistent with Mr Ryder's evidence. I agree with the amendment of these EPRs.

When questioned by the IAC Mr Ryder said he had not been provided any information about the location of potential compounds outside the project area, but stated that tree removal should be avoided and site compounds should not result in the removal of anything but low value trees. The IAC proposed that all project works including site compounds outside the project area should be subject to the EMF and EPRs. I acknowledge the intent of the IAC's recommendation on this issue, however the SCO, within which the EMF and EPRs are statutory requirements, is a defined area. It is not possible to enforce the EMF and EPRs outside of this area. I therefore expect any works outside the project area would be undertaken in accordance with the relevant approval process and requirements of that land.

Significant communities and species

The EES found one FFG Act-listed community, *Western Basalt Plains (River Red Gum) Grassy Woodland*, to be present in the project area, stating that patches of this community, totalling 0.186 ha, would be removed. MRPV's expert witness Ms Forbes provided evidence that the quality of the patches was poor with a ground layer of weeds, that loss of these was not likely to be significant, and these would be offset. She indicated that the area of removal would be 0.233 ha, rather than the 0.186 ha stated in the EES. The IAC accepted that the proposed impact to this community is unlikely to be significant. I accept this assessment and recommend that the community is offset in accordance with the DELWP guidelines.

Significant flora species proposed to be impacted within the project area include two Matted Flax-lilies (listed under the EPBC Act, FFG Act and Advisory List), one Studley Park Gum (listed under the Advisory list) and three Pale-flower Crane's-bill (listed under the Advisory List). Other protected species under the FFG Act including Gold-dust Wattle, Spreading Wattle, Black Wattle, Golden Wattle, Hop Wattle, Blue Pincushion and Purple Coral-pea are also proposed to be impacted. The assessment of impacts to Matted Flax-Lily are described in detail in Appendix A. Impacts to Matted Flax-lily do not meet significant impact criteria under the significant impact guidelines² and are considered acceptable.

Mitigation measures proposed for significant flora species include the creation of the wide median treatment between Laurie Street and Bannons Lane. MRPV's expert witness Ms Forbes stated that whilst

² Matters of National Environmental Significance: Significant Impact Guidelines 1.1, *Environment Protection and Biodiversity Conservation Act 1999* (Department of the Environment, 2013)

the purpose of the wide median was to avoid impacts to the Matted Flax-lily and Studley Park Gum, it was uncertain if this would be possible. If it is determined during detailed design the Matted Flax-lilies and Studley Park Gum are to be impacted, further mitigation measures will be implemented. For Matted Flax-lily, MRPV proposed salvage and translocation (as described in Appendix A) and for the Studley Park Gum the EES suggested there may be an opportunity to collect seed. The IAC supported these mitigation measures and amended EPR E5 to ensure a salvage and translocation plan is developed before any works impact the Matted Flax-lilies. I support the revised EPR E5.

The mitigation measure of collecting seed of the Studley Park Gum is mentioned in the landscape strategy (Technical Report G). However, no details of collection, propagation or planting methods is provided. I recommend a management plan is developed, in consultation with DELWP, as per my recommended revision of EPR E1.

The IAC proposed rewording of EPRs E1 and E2 and an update to the cultural value of vegetation assessment to attribute scientific value to listed flora species. I agree with these recommendations as they should increase the likelihood of avoidance and mitigation for these higher value species through the implementation of EPRs AR1 and V1.

Listed fauna identified in the EES as having a moderate to high likelihood of occurrence in the project area are:

- Grey-headed Flying-fox (EPBC Act, FFG Act and Advisory List);
- Swift Parrot (EPBC Act, FFG Act and Advisory List);
- White-throated Needletail (EPBC Act, FFG Act and Advisory List);
- Rufous Fantail (EPBC Act);
- Brush-tailed Phascogale (FFG Act, Advisory List);
- Common Bent-wing Bat (FFG Act);
- Tussock Skink (Advisory List); and
- Eastern Snake-necked Turtle (Advisory List).

Grey-headed Flying-fox was the only species detected during surveys. The assessment of impacts to Swift Parrot and Grey-headed Flying-fox are described in detail in Appendix A of this report. Impacts to the Swift Parrot and Grey-headed Flying-fox do not meet significant impact criteria under the significant impact guidelines and are considered acceptable.

Of the listed species, the EES asserted that only Eastern Snake-necked Turtle and Tussock Skink could be resident in the project area. Eastern Snake-necked Turtle was considered to have a high likelihood of occurrence in dams in the area. Targeted surveys for Tussock Skink were not undertaken, but the species was assumed present due to nearby records and the occurrences of suitable habitat within patches with grassy understoreys. MRPV's expert witness Mr McCaffrey stated that assuming presence was a conservative approach and adequate for characterising the environment. Except for Tussock Skink and Eastern Snake-necked Turtle, the EES considered listed species were likely to use the project area for foraging and dispersal only. Habitat removal was quantified in the EES as:

- loss of foraging and dispersal habitat for Swift Parrot including up to 1,593 preferred foraging trees (14 large preferred foraging trees, 74 large secondary foraging trees, 340 small preferred foraging trees and 1165 small secondary foraging trees);
- loss of foraging habitat for Grey-headed Flying-fox including up to 2,521 eucalypts (174 large trees, 2,347 small trees);
- loss and fragmentation of potential dispersal habitat for Brush-tailed Phascogale including approximately 2 ha; and
- loss of potential habitat for Tussock Skink including approximately 1.5 ha.

Given the importance of hollows for fauna, including the threatened Brush-tailed Phascogale, the IAC were concerned that measures to protect hollows were not included in the EPRs. All trees with hollows were identified in the EES and MRPV's expert witness Mr Ryder assured the IAC that retention of hollow-bearing

trees is a preference, and in accordance with EPR E1. He proposed several additions to EPRs E2 and E3 which include pre-clearance inspection of tree hollows, advance blocking and retention or relocation of hollows and provision of replacement hollows. The IAC considered these changes were appropriate and recommended they be included in the relevant EPRs. I agree with this assessment.

The IAC was concerned that many planted trees with hollows were not included in the biodiversity impact assessment, or in the mitigations described in EPR E1, because they do not qualify as native vegetation under the DELWP guidelines. The IAC recommended measures for the retention of planted hollow-bearing trees be included in either a new EPR or, by updating the landscape strategy's cultural value of vegetation assessment to attribute scientific value to all hollow bearing trees. I agree that hollow bearing trees should be retained where possible and consider the most effective way to do this would be to include these in the cultural value of vegetation assessment.

The IAC noted that mapping of key habitats for significant species was not undertaken as part of the assessment. As such, the IAC recommended that potential habitat for significant species, including Brush-tailed Phascogale and Tussock Skink should be mapped. I agree and recommend that habitat mapping for significant species be incorporated into the cultural value of vegetation assessment to inform implementation of fauna sensitive road design measures as required by EPR E2.

Fauna management

The EES identified 78 native fauna species in the area, stating that the greatest ecological impacts of the project are likely to be on common fauna which regularly utilise habitat within the project area. Common fauna would be impacted during both construction and operation of the project. The IAC considered collisions with vehicles and further fragmentation of habitat and barriers to movement as the most important impacts requiring management for common fauna.

The EES considered reduction in habitat connectivity and the barrier effect of the road to have the greatest impacts on mobile ground dwelling fauna such as kangaroos, wombats and echidnas and arboreal mammals such as possums, gliders and potentially Brush-tailed Phascogale. Mitigation measures to reduce impacts on habitat connectivity are contained within EPRs E2 and E3, requiring the implementation of fauna sensitive design measures consistent with the MRPV *Fauna Sensitive Road Design Guideline (2019)*. These measures include the installation of rope bridges, increased signage, selective revegetation and fauna sensitive lighting.

A peer review (Peer Review O) of the biodiversity aspects of the project was undertaken by Mr Miller. Whilst Mr Miller supported all listed measures to avoid and minimise potential impacts on habitat and fauna he recommended that further detail about the quantum and/or location of rope bridges, under-boring, revegetation and contextual planting be provided to determine if the impacts were appropriately mitigated. MRPV's expert witness Ms Forbes provided evidence to the IAC that a fauna management plan was being prepared to provide further detail around mitigation measures in response to Mr Miller's peer review and assist in meeting the EPRs. The IAC agreed with Mr Miller's finding that insufficient detail of mitigation measures was provided to determine the likely effectiveness of mitigation measures for connectivity. The IAC also agreed with submitters that the location of fauna crossing structures should be determined early to ensure efforts are targeted at reducing habitat loss in the most appropriate areas. Ultimately, the IAC supported reference to a fauna management plan in the EPRs and considered that since this could not be included in the EES it should be submitted to and approved by the Minister for Planning before works commence. I agree with amending EPR E2 to include a requirement for a fauna management plan. However, I recommend the plan be prepared in consultation with DELWP rather than submitted to the Minister for Planning for approval. I believe the auditing and approval process stipulated in the EMF is the appropriate mechanism for approving this plan.

The EES found impacts of vehicle collisions resulting in roadkill likely to be highest for ground-dwelling fauna such as Eastern Grey Kangaroos, Wombats, Echidnas and wallabies. Submitters raised concerns that

the EES had not contained any effective measures to prevent the mortality of kangaroos and wombats. The IAC heard examples from literature that signage to slow down for wildlife was rarely effective after the first time a driver observes it and that other mitigation measures such as a bridge or vegetated underpass would need to be considered early in the design process. Nillumbik Council argued that EPR E2 needed to be strengthened regarding measures to reduce collision risk with Eastern Grey Kangaroos. The council submitted that a fauna bridge and crossings plan should be prepared and approved by both councils before works commence and that the Environmental Significance Overlay (ESO) should be included in EPR E2 to avoid impacts at key areas. In response, MRPV submitted that EPR E2 would be updated to include reference to the preparation of a fauna management plan.

The IAC did not consider addition of the ESO to EPR E2 was required. They agreed with the submitters that the EPRs do not provide sufficient measure to minimise collision risks with kangaroos and recommended these measures should be addressed in the fauna management plan. I agree with the IAC's recommendations for a fauna management plan. In addition, I consider that the risks to kangaroo welfare and public safety necessitate particular attention within the fauna management plan, whereby MRPV should, in consultation with DELWP, include kangaroo-specific management measures having regard to the *Guide to preparing a kangaroo management plan for Melbourne's growth corridors* (DELWP 2015).

Mortality and injury to fauna during the clearance of habitat for the project was not discussed within the EES documents. Whilst the impact of removing hollows is discussed within the EES, the immediate risk of mortality during tree removal for wildlife within tree hollows is not discussed. EPR E3 includes general recommendations that would assist in preventing mortality and injury of fauna during vegetation clearing, though these are not detailed. Mr Ryder provided recommendations to the IAC around the manner in which tree hollows should be inspected for fauna prior to removal, and that, in advance of clearing activities, hollows should be temporarily blocked and retained, or relocated to another tree or ground habitat where practicable. The IAC approved of these measures being added to the EPRs, which I agree with. I recommend that the fauna management plan should include detailed procedures for the prevention of fauna mortality and injury during habitat clearance. I expect this would include details such as:

- timing and staging of vegetation removal;
- pre-clearance checks of habitat;
- hollow-blocking and removal measures as recommended by Mr Ryder;
- methods for the removal of habitat to minimise risks to fauna;
- supervision by a zoologist or trained fauna handler during habitat removal;
- salvage and relocation measures;
- contingency measures to be followed for injured fauna; and
- reporting of fauna injuries and mortalities.

Yarrambat Park Public Golf Course

The potential ecological impacts of a 36-metre-tall, 360-metre-wide fence between the Yarrambat Park Public Golf Course and the project were key areas of inquiry for the IAC. Several submitters, including Nillumbik Shire Council, expressed concern at the potential impacts of the fence on fauna. These included flying collisions and restriction of ground movement.

The EES discussed collision or entanglement with particular reference to Swift Parrot and Grey-headed Flying-fox. The EES states Swift Parrots, a species recorded flying at speeds up to 88km/hr, are known to be susceptible to mortality from collisions with fences, including fences around golf courses. It is stated in the biodiversity impact assessment that *up to 2% of the entire Swift Parrot breeding population is killed every year as a result of collisions with windows, fences (especially chain-link fences) and vehicles*. Similarly, the EES noted the potential for Grey-headed Flying-foxes foraging or moving through the area at night to collide with or become entangled in the fence. As noted in the EES and by the IAC, other significant species (including Common Bent-bat, White-throated Needletail and Rufous Fantail) and common bird and bat species were also at risk of collision. The EES was only able to cite anecdotal evidence of no mortalities or

entanglements of Grey-headed Flying foxes from similar golf-course fences in the Melbourne area, with no monitoring results from targeted survey events provided.

The barrier effect of the fence for ground-dwelling fauna, such as kangaroos and Echidnas, was raised in submissions. The IAC noted the fence was in a location where kangaroos cross Yan Yean Road when moving to and from the golf course.

The EES recommended that the fence incorporate ultra-violet reflective elements to increase its visibility to Grey-headed Flying-fox, though this was not included within the EPRs. MRPV's expert witness Mr Smales provided recommendations for the fence design, materials and maintenance to minimise likelihood of Swift Parrot mortalities (Tabled Document 17). He conceded that it would be difficult to determine the appropriate tension required for the netting to prevent death or entanglement and that mortalities may still occur. MRPV's expert witness Ms Forbes suggested the fence could start at a height which would permit kangaroos to travel underneath whilst still providing safety from high-flying golf balls.

Technical Note 4 outlines MRPV's alternative to the fence, entailing draft golf course realignment options with designs either removing the fence entirely or requiring a shorter fence. The draft designs indicated that additional removal of vegetation would be required in the golf course, including vegetation previously identified as 'no-go zones', with one alternative realignment requiring works in previously unsurveyed vegetation outside the project area defined in the EES. Despite none of MRPV's expert witnesses, Ms Forbes, Mr Weller and Mr Smales, being provided with or having reviewed Technical Note 4, they were each familiar with the alternative option to reconfigure the golf course and all stated that the environmental outcome would likely be better were the fence not included in the project.

The IAC found that the proposed golf course fence would result in unacceptable environmental impacts. They stated that given the uncertainty around the level of netting tension required to prevent fauna trauma and death, and the need for ongoing monitoring and maintenance, they were unable to recommend this element of the project design. The IAC considered the impacts from clearing additional vegetation due to realigning the golf course would be less than potential impacts from constructing the fence. The IAC recommended that the SCO be extended to include the Yarrambat Park Public Golf Course land required for the proposed golf course alignment. I agree with this assessment and recommendation.

Assessment

- During detailed design, every effort should be made to reduce the total extent of native vegetation and number of trees to be removed from that presented in the EES and in documents tabled through the hearing. These efforts should be informed by the landscape strategy's cultural value of vegetation assessment.
- The landscape strategy's cultural value of vegetation assessment should be updated to attribute scientific value to listed flora species, habitat mapped for significant fauna and hollow bearing trees.
- MRPV should employ effort to locate vegetation offsets as close to the project area as possible, though this is not a performance requirement.
- The incorporated document should be amended as per Section 5, Table 3, Item 7.
- EPRs E3, E5, AR1, AR2, AR3, AR4 and LV2 should be amended as per Appendix B.
- MRPV is to develop a seed collection management plan in consultation with DELWP. I recommend this plan is included in EPR E1.
- The EES appropriately assessed the potential effects on significant fauna species and mitigation and management measures for these species are appropriate.
- It is unlikely the project will result in significant impacts to listed species of flora and fauna.
- The greatest ecological impacts of the project are likely to be on common fauna which reside or regularly utilise habitat within the project area.

- EPR E2 be amended as per Appendix B to include the requirement for a fauna management plan to be prepared in consultation with DELWP. The fauna management plan should include detailed procedures for the prevention of fauna mortality and injury during habitat clearance.
- The fauna management plan is to include kangaroo-specific management measures prepared in consultation with DELWP and local councils.
- The golf course fence poses a potential collision, entanglement and barrier risk to fauna and should not be constructed.
- MRPV should continue consultation with Nillumbik Council regarding extending the SCO to include Yarrambat Park public golf course land required for the proposed golf course realignment works.

4.3 Social and cultural values

Evaluation objective

To avoid or minimise the adverse effects on social and cultural values, including landscape values, Aboriginal and historical cultural heritage values, and remnant, planted and regenerated vegetation, and to maximise the enhancement of these values where opportunities exist.

Assessment context

Impacts on social and cultural values are addressed in Chapter 9 of the EES, which was informed by a number of technical reports:

- Technical Report B1 – Biodiversity Existing Conditions Report;
- Technical Report B2 – Biodiversity Impact Assessment;
- Technical Report C – Arboriculture Assessment;
- Technical Report D – Social Impact Assessment;
- Technical Report F – Aboriginal and Historical Cultural Heritage Impact Assessment; and
- Technical Report G – Landscape Strategy.

The IAC discussed these issues in chapters 7 and 12 of the IAC Report. Twelve EPRs deal with social and cultural values and have been the subject of recommendations by the IAC.

The IAC considered the key issue for this aspect to be consideration of whether the project will result in an acceptable impact on social and cultural values. In this assessment, the IAC highlighted potential impacts with the greatest risks during both construction and operation of the project. These included changes to access or amenity impacting values such as community, educational, religious or recreational facilities; loss of or damage to vegetation during construction and operation; and changed road conditions during operation affecting access, as well as isolation of community, educational, religious or recreational facilities.

Discussion

The IAC estimated 40% of submissions were concerned about potential social impacts related to land acquisition, impacts on public space, less convenient or direct access, and loss of amenity and landscape character.

During the hearing, MRPV provided expert evidence from Ms Cavanagh on social and cultural issues arising from the project. Ms Cavanagh was not called on to respond to questions, and in her evidence was satisfied that the project would result in an acceptable social outcome.

The IAC accepted Ms Cavanagh's evidence, specifically that EPRs S1, S2, S3, V1 and EMF5 are appropriate in managing potential impacts on social and cultural values such as community, educational or recreational facilities and existing vegetation and landscaping. The IAC did, however, recommend other changes to EPRs related to cultural values and vegetation (presented in Appendix B), to inform its conclusion that the project will result in an acceptable impact on social and cultural values.

Visual impacts

The IAC received numerous submissions concerned about potential visual impacts on the surrounding landscape, particularly arising from the extent of tree loss and the urban appearance in a green wedge area. The IAC heard arguments about affecting the strong rural character of the area, and part of Yarrambat's historic character.

In response, MRPV's expert witness Mr Knight conceded the project would need to rely on the Landscape Strategy to soften the visual impact resulting from removing mature trees, increasing the road footprint, and moving the Bridge Inn Road intersection further east.

The IAC agreed that MRPV has sought to minimise impacts on the road's surrounds by minimising its footprint and extent of land acquisition. Although noting that while this approach will retain more trees east and west of the expanded road reserve, it will result in more trees proposed to be lost in the median and other parts of the reserve. Ultimately, the IAC found this as an acceptable response to managing the potential impact, when combined with the proposed EPRs. I accept the IAC's findings.

Amenity

The IAC received submissions concerned about potential amenity impacts through loss of privacy, lack of public surveillance and light emission from motor vehicles and streetlights.

The IAC found that while the EES acknowledged resident concerns about privacy, it did not recommend a response or associated EPR, and the IAC was therefore uncertain how MRPV concluded impacts would be appropriately managed. The IAC found that privacy should be considered during the detailed design stage if existing screening on private property is removed or privacy eroded as a result of the road reserve being brought closer to a dwelling. I accept this finding.

With regards to public surveillance and light emission, for the former, the IAC considered the sections of path raised as an issue had appropriately balanced vegetation retention and safety; and for the latter, the IAC stated streetlights should be designed to minimise emission into surrounding properties, accepting they will be required to achieve a minimum level of illumination for safety reasons. The IAC concluded that the project generally responds appropriately to potential amenity impacts. I accept the IAC's findings on these two issues.

St Michael's Anglican Church

St Michael's Anglican Church is covered by the Nillumbik Planning Scheme Heritage Overlay (HO219), including a weatherboard building about 8 metres from the Ironbark Road property boundary and its grounds.

In its submission, Nillumbik Council referred to Technical Report F of the EES which recommends measures for protecting St Michael's Anglican Church. MRPV submitted that St Michael's Anglican Church is outside the project area so potential impacts would be limited to the property frontage and likely to involve relatively minor works. MRPV's expert witness Ms Gray considered any temporary occupation of the front site or permanent works are not expected to have a negative impact.

The IAC agreed with Nillumbik Council, and considered the project should better respond to St Michael's Anglican Church. The IAC found that MRPV's proposed changes to the incorporated document and EPRs would appropriately respond to the site's heritage significance, noting they broadly merge the recommendations heard during the hearing to achieve the outcomes sought by Nillumbik Council and the two expert witnesses. The IAC's recommended changes are in Section 5, Table 3, Item 5. I accept the IAC's recommendations on this issue.

Surplus land and master plan

The Bridge Inn Road intersection design Option B would result in six areas of surplus land, as shown in Figure 2. The surplus land, and its ultimate use, was the subject of a number of requests from both councils during the hearing. Overall, both councils submitted to the IAC that surplus land acquired at this intersection, regardless of the final design, should be master planned to address amenity and urban design issues. MRPV accepted the councils' request for a surplus land use plan, and in response, proposed a new EPR LU3. MRPV's expert witness Mr Barlow also recommended final zones and uses for the six parcels.

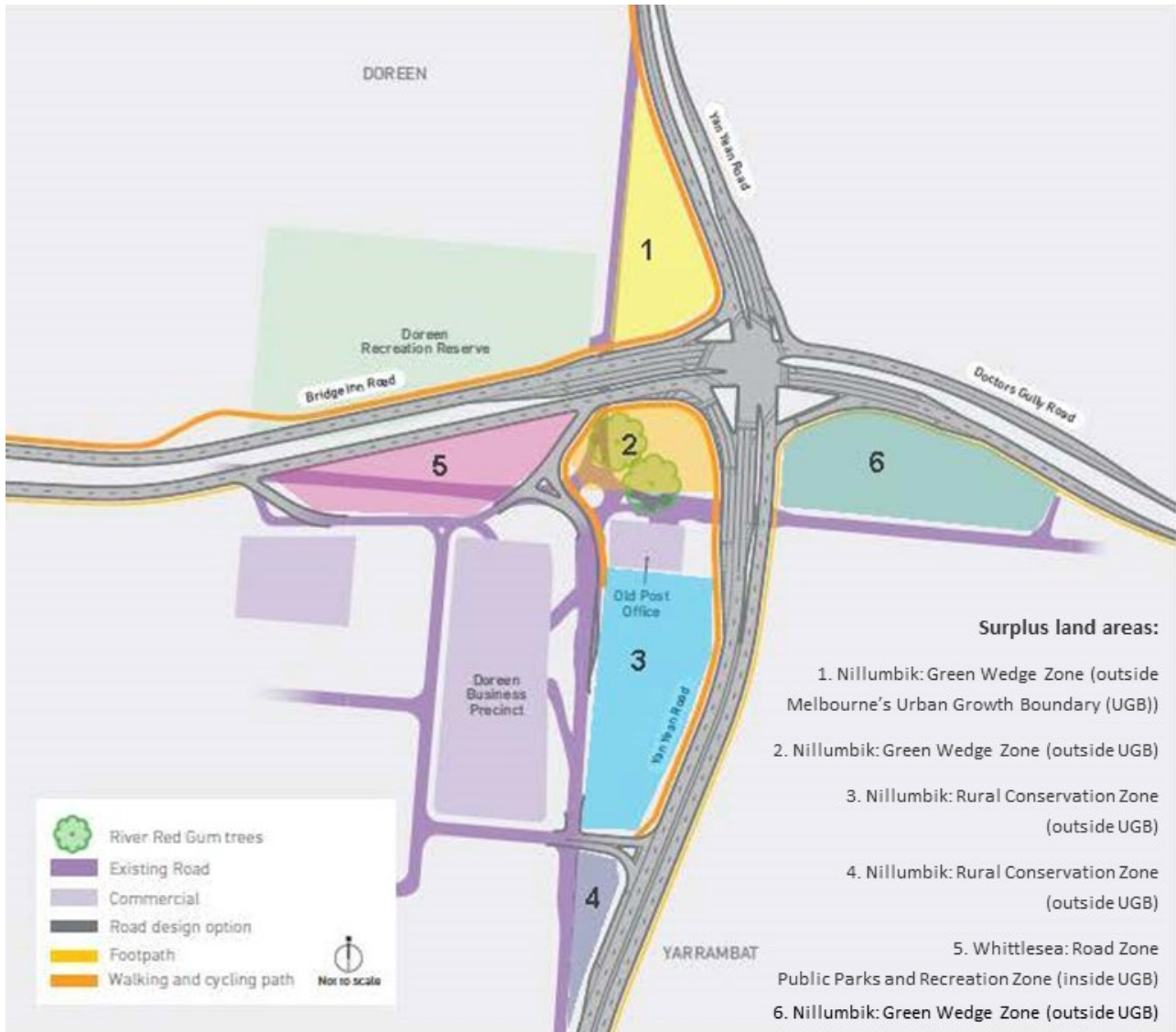


Figure 2. Bridge Inn Road intersection surplus land (from IAC Report)

The IAC determined the ultimate uses and zones for the surplus land should be determined after the road design details have been finalised and in consultation with Whittlesea and Nillumbik Councils. The IAC agreed a master plan should be prepared, with specific directions that the plan:

- consider consolidating part of Area 1 into the Doreen Recreation Reserve as part of its modified design;
- ensure that Area 3 retains clear views between the activity centre and the new road and consider land uses which would help integrate the Old Doreen Store with the rest of the activity centre and complement existing businesses; and
- inform the landscape strategy so that it can include landscaping and reinstatement works on surplus land parcels.

To reflect these findings the IAC proposed amendments to EPR LV1 and a new EPR LU3, consistent with the wording proposed by MRPV during the hearing. I accept the recommendations of the IAC on this matter.

Assessment

- The proposed EPRs in conjunction with detailed design will ensure the project has acceptable impacts on social and cultural values.
- The project generally responds appropriately to potential amenity impacts, noting detailed design should consider the privacy of residences where existing screening is removed or there is a significant change to road setback distance.
- I support the proposed changes to EPRs HH1, HH2 and HH3.
- I support the IAC proposed new EPR LU3 and associated revision of EPR LV1.

4.4 Localised impacts

In response to my reasons for decision, the EES focused on potentially significant effects of the project that were related to transport and capacity, biodiversity, and social and cultural values. There will be, however, other localised impacts realised during construction and operation. These more localised impacts are discussed in EES chapters 10 and 11 which was informed by Technical Reports I to M covering air quality and greenhouse gases, surface water, noise and vibration, economic impacts and construction laydown areas. The IAC discussed these issues in chapters 5, 10 and 12 of the IAC report.

Table 2 outlines the IAC’s assessment of these localised impacts and discusses the overall significance of impacts against the management regime proposed. Generally, I support the findings of the EES and IAC in relation to localised impacts. It is my assessment that the impacts can be effectively managed through well-established practices include comprehensive EPRs and a robust EMF. I offer recommendations for refining the EPRs in Appendix B.

Table 2. Other social and environmental impacts.

Issue	IAC findings and recommendations	EPRs
Air quality	The IAC found the existing EPR, with MRPV’s proposed amendment, appropriate for managing potential impacts and accepted evidence the CEMP will include measures for dust management. The IAC also found the project will result in acceptable operational air quality. I support these findings.	AQ1
Greenhouse gases	The IAC found the EES appropriately considered greenhouse gases but recommended two new EPRs. The proposed EPRs, in the IAC’s view, seek to mitigate the potential inefficient use of resources and integrate sustainable development principles including a timber reuse strategy. I support the IAC’s new EPR to encourage efficient use of resources during construction but I do not support a timber reuse strategy EPR as the landscape strategy already provides commitments to reuse timber.	SU1 SU2
Surface water	The IAC found potential impacts to Smugglers Gully, the environmental waterway at Plenty Valley Christian College and other sensitive receivers will be appropriately managed, with the IAC concluding that the project is unlikely to have a significant impact on surface water environments. The IAC found that, subject to minor changes, the EPRs provide appropriate management of potential changes to stormwater flows and risks to receiving water environments. I accept the IAC’s findings and generally support its proposed changes to EPRs SW1 and SW2.	SW1 SW2
Construction laydown areas	The IAC agreed with MRPV that the Environmental Audit Overlay is not concerned about a potential laydown area with an existing and proposed non-sensitive land use. The IAC accepted MRPV’s rejection of a condition to require an environmental audit before preparatory works commence on a laydown area, stating it wasn’t necessary where the works would not introduce a sensitive land use or transport soil offsite. I accept the IAC’s findings. The IAC found that the five potential construction laydown areas identified in the EES have been appropriately nominated, subject to them being reinstated to their original condition after the project is completed. I accept the IAC’s findings.	CL1

/cont.

Table 2 (cont). Other social and environmental impacts.

Issue	IAC findings and recommendations	EPRs
Noise and vibration	<p>The IAC supported further modelling of construction noise impacts to inform mitigation measures once equipment and details are finalised by the chosen contractor. The IAC recommended amending EPR NV1 to specifically require a construction noise and vibration plan consistent with the recommendation in EES Technical Report I. I support this change to EPR NV1.</p> <p>In reviewing operational noise, the IAC found MRPV's reference to the VicRoads <i>Traffic Noise Reduction Policy (2005)</i> (TNRP) in EPR NV2 to be inappropriate. EES Technical Report I states the project does not meet the trigger for amelioration in line with this policy because despite this project proposing a duplication of at least two lanes, <i>it does not propose to remove any building that currently provides noise shielding to sensitive receivers behind.</i> The IAC considered this to be problematic.</p> <p>I agree with the IAC, and once again, as with several recent assessments of transport projects, I am forced to reiterate my view that the Department of Transport completes its review of this policy, which I note commenced in 2015. As I wrote in my assessment of North East Link, <i>in the absence of any further action from the Department of Transport, it is perhaps advisable that such policy development is undertaken by other agencies, such as the Environment Protection Agency.</i></p> <p>In its deliberations of operational noise impacts, the IAC turned to Clause 13.05-15 in both planning schemes, which aims to assist in controlling noise effects on sensitive land uses. The IAC noted this clause references a VicRoads policy, <i>A Guide to the Reduction of Traffic Noise (2003)</i> (GRTN). The IAC quoted from the policy noting that for existing roads, <i>consideration will be given to reducing noise levels to less than 68 dB(A).</i> The IAC also highlighted the statement, <i>VicRoads does not attenuate traffic noise generated by the arterial road network, unless works are undertaken to significantly increase the road's traffic carrying capacity.</i></p> <p>The IAC believes that this is a slightly different 'test' to that provided under the TNRP and concluded that the proposed duplication will significantly increase the carrying capacity of Yan Yean Road. Therefore, the IAC found that some form of mitigation should be considered for noise sensitive receptors likely to experience levels above 68 dB(A).</p> <p>I acknowledge the GRTN would appear to be a guide prepared for the general public wanting to know practical steps they can take to reduce the level of traffic noise, rather than a policy to govern VicRoads' practices. However, the guide is publicly available on the VicRoads' website and is giving clear advice as to when VicRoads would trigger amelioration measures. It is also referenced in the planning schemes for both councils.</p> <p>I generally support the IAC's amendment to EPR NV2 to address this issue, subject to my recommendation in Appendix B.</p>	NV1 NV2
Economic impacts	<p>The IAC believed the project's level of overall economic impact will be largely dependent on how the Bridge Inn Road intersection affects the Doreen Activity Centre. The IAC recommended a new EPR B4 which requires business related measures for this activity centre to be prepared and implemented in consultation with Department of Transport, Nillumbik Council and Whittlesea Council. The IAC concluded that subject to implementation of its recommendations for the intersection design and relevant EPRs, the project is likely to result in an acceptable economic impact.</p> <p>The IAC did not support Nillumbik Council's requested EPR to require compensation for any economic loss resulting from road works. The IAC noted that compensation is a complicated matter administered through separate statutory and commercial processes.</p> <p>The IAC accepted MRPV's revisions to EPR B2 which aim to promote businesses to existing and potential customers during the construction phase.</p> <p>I accept the IAC's findings and support the amendments to EPR B2 and inclusion of the new EPR B4.</p>	B1 B2 B3 B4

5. Conclusion

The project will give rise to impacts for residents and commuters of the area, primarily during the construction phase. However, the existing levels of congestion and associated accidents from up to 24,000 daily vehicles justify the need for the project. This justification is further bolstered when considering the benefits of the project, which beyond the significant safety improvements, includes a new walking and cycling path to encourage active transport and improve connectivity to the Principal Bicycle Network. I am also encouraged at the potential beneficial uses being explored for the surplus land at the Bridge Inn Road intersection.

Major Road Projects Victoria has undertaken substantial efforts in reducing its impacts to the ecological environment, firstly during preparation of the EES and continuing with this approach through the IAC hearing process. The already reduced project footprint will continue to be refined in detailed design, and in conjunction with my recommendation to remove the proposed golf safety fence in favour of specific hole realignment at the golf course, will contribute to minimised impacts on biodiversity.

My overall conclusion is that the project can proceed with acceptable environmental effects, subject to design, construction and operational mitigation and management measures meeting the standards endorsed in this assessment.

My assessment addresses the environmental effects of the project that have been adequately investigated through the EES process. My assessment does not endorse impacts resulting from subsequent project changes which have different or more severe environmental effects. My assessment also does not extend to an expanded or upgraded version of the project nor to other related projects that might interact with the project.

My responses to the IAC's detailed recommendations are presented in Table 3. My comments on the proposed EPRs recommended by the IAC are presented in Appendix B.

Table 3. Response to IAC recommendations.

ID No.	IAC recommendation	Summary response	Section
1	<p>Amend the environmental performance requirements, as shown in Appendix E, to:</p> <ul style="list-style-type: none"> a. add new permanent and temporary work requirements in HH1 b. reference the former Post Office and General Store at 920 Yan Yean Road, Doreen in requirement HH3 c. add a new LU3 which requires a Bridge Inn Road/Yan Yean Road Surplus Land Master Plan to be developed and implemented in consultation with Whittlesea City Council and Nillumbik Shire Council before the Project operates d. revise LV1 to require the Landscape Strategy to be implemented consistent with the Bridge Inn Road/Yan Yean Road Surplus Land Master Plan before the Project operates e. add a new B4 which requires business related measures for the Doreen Neighbourhood Activity Centre f. amend TP1 to include a reference to bus stops in the third dot point g. add a new TP3 which requires the Bridge Inn Road intersection to be based on the modified Option B design but optimised in accordance with TP1 and include: <ul style="list-style-type: none"> – a direct right turn into the Bridge Inn Road service road – traffic signals at the Yan Yean Road/Activity Way intersection – improved connectivity between the Doreen NAC and the shared path and bus stops on Yan Yean Road – advanced directional signage for the Doreen NAC – provision for vehicles to exit the Doreen Recreation Reserve and head south on Yan Yean Road. 	Generally supported, noting my comments on specific EPRs in Appendix B.	4.1

/cont.

Table 3 (cont). Response to IAC recommendations.

ID No.	IAC recommendation	Summary response	Section
2	Extend the Specific Controls Overlay to include Yarrambat Park Public Golf Course land required for the proposed golf course realignment works.	Generally supported, however I recommend further consultation between MRPV and Nillumbik Council to agree to determine the suitability of a reconfigured golf course to inform what additional land may be required for the project. MRPV should also undertake a detailed assessment of any likely environmental and amenity impacts of an expanded project area in this location.	3.2 4.2
3	Amend the environmental performance requirements, as shown in Appendix E, to: a. amend TP1 by: <ul style="list-style-type: none"> – adding ‘including property accesses’ to the fourth dot point – adding a new dot point: ‘Road Safety Audits should be undertaken in accordance with Department of Transport guidelines, with particular emphasis on property access’. b. add a new EPR TP3 to redesign the section of Yan Yean Road from and including the southern access to Yarrambat Park to Jorgensen Avenue which: <ul style="list-style-type: none"> – is in accordance with TP1 – provides more direct access to the Yarrambat Park Public Golf Course from the north for when the site is used as a Neighbourhood Safer House – provides access to the northern end of Yarrambat Park through a signalised intersection – considers an alternate cross-section north of Bannons Lane to improve safety for the abutting residents. 	Generally supported, except the pre-empting of detailed design by specifying a signalised intersection in the northern end of the park. Instead, I recommend further consultation between MRPV and the CFA, as required by EPR TP1, to identify through the detailed design process, a suitable option for access and egress when Yarrambat Park is used as a staging area in emergencies.	4.1
4	Amend the environmental performance requirements, as shown in Appendix E, to: a. remove the limitation ‘at intersections’ from the second dot point of TP1 b. add a reference to Yarrambat Township in the fifth dot point of TP1.	Noting the IAC did not amend its proposed EPRs to reflect point b, I support the changes to EPR TP1 as submitted to me. That is, without amending the EPR as per point b.	4.1
5	Amend the environmental performance requirements, as shown in Appendix E, to: a. add new permanent and temporary work requirements in HH1 b. delete HH2 which is addressed through other requirements c. reference St Michael’s Anglican Church (HO219) in requirement HH3. Amend the Incorporated Document, as shown in Appendix F, to reference St Michael’s Anglican Church in condition 4.6.1.	Generally supported.	4.3
6	Amend the environmental performance requirements, as shown in Appendix E, to add in TP2: a. a requirement to implement mitigation treatments where significant safety or operational risk may occur b. a requirement to monitor the need for, and success of, mitigation treatments as appropriate c. the word ‘consider’ to the start of the sixth dot point d. the word ‘implement’ to the start of the eight dot point.	Generally supported, subject to adding classification that the monitoring is for roads in the vicinity of project construction activities.	4.1

/cont.

Table 3 (cont). Response to IAC recommendations.

ID No.	IAC recommendation	Summary response	Section
7	<p>Amend the environmental performance requirements, as shown in Appendix E, to:</p> <ol style="list-style-type: none"> include consequential losses for new fences in E1 in line with Nillumbik's submission include requirements to finalise and implement the no-go zones identified through detailed design. <p>Amend the Incorporated Document, as shown in Appendix F, to:</p> <ol style="list-style-type: none"> require information for application requirements 1, 5 and 9 before preparatory works. revise Clause 4.11 to no longer exempt preparatory buildings and works on the Project Land before the conditions set out in Clause 4.4 are satisfied include reference to consequential losses for new fences in Clauses 4.5.1, 4.5.2 and 4.5.5. 	<p>I do not support including consequential losses for activities not related to the project as per my discussion in Section 4.2.</p> <p>I support finalising and implementing no-go zones through detailed design.</p> <p>For recommended changes to the incorporated document:</p> <ul style="list-style-type: none"> I support removing exemption for preparatory works involving vegetation clearance under Clause 4.11, and MRPV should consider if a staged EMF would be appropriate; I do not support including consequential losses; and Clause 4.4.1 requires amending to be consistent with changes to Clause 4.11. 	3.2 4.2
8	Amend the environmental performance requirements, as shown in Appendix E, to revise EPRs E3, AR1, AR2, AR3, AR4 and LV2 consistent with Mr Ryder's evidence.	Generally supported.	4.2
9	<p>Amend the environmental performance requirements, as shown in Appendix E, to:</p> <ol style="list-style-type: none"> revise EPR E5 to require the salvage and relocation plan to be developed where direct impacts are anticipated remove references to flora in EPR E2 amend E1 to include references to listed flora <p>Update the Cultural Value of Vegetation heatmap assessment to attribute scientific value to listed flora species to assist in avoiding and minimising impacts on these species through the implementation of Environmental Performance Requirements AR1 and V1.</p>	Generally supported.	4.2
10	Update the cultural value of vegetation heatmap assessment to attribute scientific value to hollow bearing trees.	Generally supported.	4.2
11	<p>Amend the environmental performance requirements, as shown in Appendix E, to:</p> <ol style="list-style-type: none"> update E2 to refer to Figure 5.5 of the Environment Effects Statement Technical Appendix B1. include reference to the preparation of a Fauna Management Plan as submitted by Major Road Projects Victoria and require for final approval by the Minister for Planning prior to works commencing. 	Generally supported, however recommend the fauna management plan be prepared in consultation with DELWP.	4.2
12	Amend the environmental performance requirements, as shown in Appendix E, to update AQ1 in line with recommendations from Mr Conway.	Generally supported.	4.4
13	<p>Amend the environmental performance requirements, as shown in Appendix E, to:</p> <ol style="list-style-type: none"> add a new requirement SU1 which seeks to mitigate the potential inefficient use of resources. add a new requirement SU2 to integrate sustainable development principles including through implementation of Timber Reuse Strategies. 	I support the new EPR SU1, however reject EPR SU2 as the landscape strategy provides direction for timber reuse already.	4.3
14	Amend the environmental performance requirements, as shown in Appendix E, to refer to best practice in EPRs SW1 and SW2 and to provide for approval from asset managers in SW2.	Generally supported.	4.4

/cont.

Table 3 (cont). Response to IAC recommendations.

ID No.	IAC recommendation	Summary response	Section
15	<p>Amend the environmental performance requirements, as shown in Appendix E, to:</p> <p>a. revise NV1 to require a construction noise and vibration plan consistent with the recommendation in Technical Appendix I.</p> <p>replace reference to the VicRoads Traffic Noise Reduction Policy (2005) in NV2 with a requirement to mitigate potential significant noise effects as defined by 'A Guide to the Reduction of Traffic Noise' (VicRoads, 2003) in consultation with property owners and to consider measures such as quieter pavement surfaces and measures including signage to reduce engine brake noise.</p>	Generally supported.	4.4
16	<p>Amend the environmental performance requirements, as shown in Appendix E, to add the following new requirement to B2:</p> <ul style="list-style-type: none"> • Provide marketing support to small businesses along the alignment in consultation with and with the consent of the business, for example, by assisting small businesses to advertise using mediums such as social media, 'buy local' postcards, and discount vouchers and utilising project infrastructure as billboard space for promotion. 	Generally supported.	4.4
17	<p>Amend the environmental performance requirements, as shown in Appendix E, to:</p> <p>a. include requirement in EMF2 for review of the Construction Environmental Management Plan and other relevant plans by the Independent Environmental Auditor.</p> <p>b. require audits in EMF4 to be conducted at least every six months.</p> <p>Amend the Incorporated Document, as shown in Appendix F, to:</p> <p>a. refer to the exhibited Environmental Management Framework in Chapter 12 of the Environmental Effects Statement.</p>	Generally supported.	3.1
18	<p>Prepare, adopt and approve Planning Scheme Amendment GC92 be subject to the following changes:</p> <p>a. Revise the incorporated document as shown in Appendix F.</p> <p>b. Extend the Specific Controls Overlay to include Yarrambat Park public golf course land proposed to be redeveloped.</p> <p>c. Rezone Yan Yean Road Stage 2 land from Road Zone Category 1 to Road Zone Category 2.</p>	Generally supported, subject to further consideration of matters I outlined in sections 3.1, 3.2, 4.1 and 4.2 of my assessment and noting the proposed rezone would be from Category 2 to Category 1.	3.1 3.2 4.1 4.2



HON RICHARD WYNNE MP

Minister for Planning

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Appendix A Matters of national environmental significance

Under the bilateral agreement between the Australian and Victorian governments, the EES and this assessment must examine the project's likely impacts on matters of national environmental significance (MNES), as identified in the Commonwealth controlled action decision under the EPBC Act. The controlling provisions are listed threatened species and communities (sections 18 and 18A).

This appendix consolidates information on likely effects of the proposal on MNES protected under the EPBC Act, drawing upon the assessment of specific matters discussed in the body of my assessment. This includes assessment findings on biodiversity in Section 4.2 of my assessment.

Potential impacts on MNES are summarised in Chapter 8 and Technical Appendix B2 of the EES. More detailed information about potential impacts that relate to my assessment of impacts on MNES can be found in Appendix B1, Appendix G and Attachment V of the EES. The EES identifies the key issues for MNES as impacts on two Matted Flax-lily plants, removal of foraging habitat for Swift Parrot and Grey-headed Flying-fox, and the potential risk of collision by Swift Parrot and Grey-headed Flying-fox with the proposed golf course fence.

Part C of the IAC report examined the likely impacts on MNES. The overall finding of the IAC was the project is unlikely to have a significant impact on MNES providing mitigation and management measures are implemented. This is also explored below in relation to each of the specific MNES.

A.1 Threatened species

Three species listed as threatened under the EPBC Act were identified in the EES as having the potential to be impacted by the project: Matted Flax-lily – listed as endangered, Swift Parrot – listed as critically endangered and Grey-headed Flying-fox – listed as vulnerable. The potential for significant impacts on Matted Flax-lily and Swift Parrot were the reason the project was deemed a 'controlled action' under the EPBC Act by DAWE. The scoping requirements for the EES also mentioned Matted Flax-lily and Swift Parrot as species requiring special attention.

Swift Parrot (*Lathamus discolor*)

Swift Parrot is a highly mobile and fast-flying migratory species, with the entire population migrating between breeding areas in Tasmania to overwintering areas in eastern mainland Australia and back again, each year. The species disperses throughout eastern Australia (Victoria, NSW and occasionally southern Queensland and eastern South Australia), foraging on flowers and lerps in preferred habitat trees. In 2011 the population was thought to be composed of less than 2000 mature individuals but has likely declined since (Appendix B2). The EES determined that 1693 potential habitat trees for the species are likely to be impacted by the project, this was revised to 1682 during the IAC hearing following proposed design changes. In addition to the removal of habitat trees for this and other nearby projects, other impacts considered by the EES included impacts related to aggressive birds, collision with vehicles and collision with the golf course fence.

The IAC heard and accepted evidence by MRPV's expert witness, Mr Weller, that whilst the species may utilise foraging habitat within the project area on rare occasions, the habitat value within the majority of the project area is low relative to higher value habitat in the nearby Plenty River corridor. Mr Weller stated the species has not been recorded in the project area or close proximity, but routinely occurs within the nearby Plenty Gorge Park and Plenty River corridor. Technical Appendix B1 notes that the Plenty River corridor (around 1km west of the Project area) is an important movement corridor for the species.

Nillumbik and Whittlesea Councils made submissions that removal of nectar-producing eucalypts from the project area might displace aggressive nectar-feeding birds into higher quality Swift Parrot habitat in Plenty Gorge Park or the Plenty River corridor. MRPV's expert witnesses Mr Weller and Mr Smales argued that the

high densities of aggressive birds occurring in the Plenty Gorge Park would not increase with clearing for the project.

The assessment of potential impacts of the project for the species undertaken against the criteria defined in the Significant Impact Guidelines³ found that a significant impact was unlikely. The IAC agreed with the findings of this assessment.

The EES included a quantitative cumulative impact assessment of preferred habitat removal for the species, for this and other projects within a 10km radius, including the already completed Stage 1 of the Yan Yean Road Upgrade. Mr Weller provided evidence to the IAC that the cumulative impact of the clearing is unlikely to result in a significant impact as assessed under the Significant Impact Guidelines. The IAC agreed with the findings of this assessment.

I agree that the impacts of removal of habitat removal for this project and the cumulative impacts of habitat removal from this and other projects within 10km, as assessed against the Significant Impact Guidelines do not qualify as a significant impact. Consequently, there is no statutory requirement for removed habitat for the species to be offset under the EPBC Act.

The EES identified the proposed golf course fence as a collision risk for Swift Parrots. MRPV submitted Technical Note 4 in response to submissions that sought avoidance of the proposed golf course fence. This technical note presented options to realign the golf course which would avoid the need for a golf course safety fence. Whilst realignment of the golf course would require the removal of additional vegetation, including some preferred foraging trees for Swift Parrot, MRPV's expert witnesses Mr Weller, Mr Smales and Ms Forbes each stated that the environmental outcome would likely be better if this alternative was pursued and the fence were not included in the project. Mr Smales provided evidence to the IAC that collisions with fences are known to result in Swift Parrot deaths. He provided recommendations for the fence design, material, tension and maintenance with the aim of minimising Swift Parrot collision deaths should the fence be constructed but conceded these measures would be difficult to implement and may not prevent deaths. He said, if the fence were constructed and maintained as outlined in Annexure C to his expert witness statement, despite the risk of Swift Parrot deaths, it would be unlikely to result in a significant impact as assessed under the Significant Impact Guidelines. The impacts of Swift Parrot mortality from fence collisions were not included in the EES assessment against the Significant Impact Guidelines. The IAC accepted Mr Smales' evidence but found the golf course fence should not be pursued. I agree that the golf course fence should not be included as it poses an unacceptable risk to this critically endangered species.

The IAC considered that replacement planting of preferred foraging trees would not be an effective mitigation measure in the short term, only in the long-term. In the context of ongoing loss of habitat for the species across its range, I support replacement planting of preferred foraging trees for the medium and long-term benefit of the species. Whilst native vegetation to be removed will be offset in accordance with requirements of the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017) there will be no requirement for these offsets to include foraging trees for the species or to be in close proximity to known important habitat such as Plenty Gorge. It is my recommendation that plantings of preferred foraging species for Swift Parrot be prioritised for revegetation in the project area in accordance with the EPRs and landscape strategy.

Matted Flax-lily (*Dianella amoena*)

Matted Flax-lily is a small, perennial lily which occurs only in grassland and grassy woodland habitats from the south-west to east of Victoria. This habitat has been largely cleared with the remaining population of the species highly fragmented. In 2010 there were estimated to be only around 1400 plants remaining, in

³ Matters of National Environmental Significance: Significant Impact Guidelines 1.1, Environment Protection and Biodiversity Conservation Act 1999 (Department of the Environment, 2013)

about 120 locations. The species is threatened by clearing and weed invasion. The EES identified two Matted Flax-lilies within the project area, which would potentially be impacted by the project. Each of the plants has around 100 and 75 ramets (genetically identical propagules) respectively.

The Matted Flax-lilies occur in the proposed wide median between Bannons Lane and Laurie Street. While the EES states that there is a potential to retain the plants within the wide median, the impact assessment assumes the worst-case scenario that they will be impacted. If detailed design indicates the plants are likely to be impacted, they will be salvaged and translocated in accordance with a translocation plan approved by DELWP and DAWE. The IAC found the wide median is unlikely to result in the avoidance of the Matted Flax-lilies. Nillumbik Council supported translocation of the plants and submitted that, if required, translocation should be within the same bioregion. The IAC considered this an appropriate mitigation measure for the species and recommended that EPR E5 be revised slightly to ensure that a salvage and translocation plan is developed before any works impact on the plants. The plan would be implemented prior to the commencement of works. The IAC stated that they would prefer translocation to be within the same bioregion. I agree with this assessment and have recommended revisions to the wording of EPR E5 to ensure a salvage and translocation plan is implemented after the detailed design.

The EES included an assessment of potential impacts on the species in accordance with Significant Impact Guidelines and it was determined that a significant impact was unlikely. The key reasons for this determination were that the population is small and isolated and their removal would not lead to a decline for the species. Impacts to the two Matted Flax-lilies will be mitigated by salvage and translocation if required. The IAC agreed the project is unlikely to have a significant impact on Matted Flax-lily. I accept this assessment.

Grey-headed Flying-fox (*Pteropus poliocephalus*)

Grey-headed Flying-fox is endemic to forests of south-eastern Australia and is distributed from mid-Queensland to Southern Victoria and South Australia. The species is a partial migrant with some individuals undertaking large scale movements in response to flowering and fruiting patterns. Nightly flights for food of up to 50km from the roost have been recorded. The main camp in Melbourne is at Yarra Bend. The species is thought to be declining in abundance as a result of habitat clearing (Threatened Species Scientific Committee, 2001)⁴. The species was recorded in proximity to the study area during the EES surveys.

The EES determined that the project will fell 2,521 trees with loss of Grey-headed Flying-fox habitat. In addition to the direct removal of habitat trees, other impacts considered during the EES included temporary disturbance from noise and light during construction, and collision with the golf course fence.

In Technical Appendix B2 it is stated that the golf course fence poses a collision and entanglement risk to Grey-headed Flying-foxes foraging in proximity to the fence or transiting through the area. Whilst it is stated in Appendix B2 there have not been reported collisions or entanglements of the species at other golf course fences in the Melbourne area, there is no post-construction monitoring data to support this. The IAC stated that they did not attribute much weight to the anecdotal evidence of consultation with golf course operators. I agree with the IAC, without quantitative evidence to prove otherwise, it must be assumed that the fence is a risk to individual Grey-headed Flying-foxes.

The assessment of potential impacts of the project on the species, undertaken against the Significant Impact Guidelines, found that a significant impact was unlikely. The IAC agreed with the findings of this assessment. I accept this assessment but note that the proposed golf course fence poses an unacceptable collision risk for the species and should not be built.

In the context of ongoing loss of habitat for the species across its range, I support replacement planting of preferred foraging trees for the medium and long-term benefit of the species. It is my recommendation

⁴ Threatened Species Scientific Committee (2001). Commonwealth Listing Advice on *Pteropus poliocephalus* (Grey-headed Flying-fox).

that plantings of preferred foraging species for Grey-headed Flying-fox be prioritised for revegetation in the project area in accordance with the EPRs and landscape strategy.

A.2 Assessment

- Impacts to the threatened Swift Parrot, Matted Flax-lily and Grey-headed Flying-fox do not meet significant impact criteria under the Significant Impact Guidelines and are considered acceptable.
- The golf course fence poses a potential collision risk to individual Swift Parrots and Grey-headed Flying-foxes and should not be pursued.
- EPR E5 be amended as per Appendix B.

Appendix B Environment performance requirements

The IAC recommended specific changes to many of the EPRs that MRPV tabled in closing submissions at the IAC hearing. That version of the EPRs had itself developed from the EPRs published in the exhibited EES. I commend MRPV for the changes it proactively adopted in response to matters raised by submitters. I generally support the IAC's recommended version of each EPR except where qualified in the Minister's assessment column.

Table B.1 lists MRPV's third version of the EPRs that it tabled at the IAC hearing in December 2020 and incorporates recommended changes from the IAC as additions and deletions.

Table B.1. Minister's assessment of IAC's recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister's assessment
ACH1	<p>Cultural Heritage Management Plan</p> <p>Implement and comply with the Cultural Heritage Management Plan approved under the <i>Aboriginal Heritage Act 2006</i>.</p>	
AQ1	<p>Air quality management</p> <p>The CEMP must include processes and measures to manage air quality during construction, including in accordance with the relevant air quality objectives set out in the State Environment Protection Policy (Ambient Air Quality) and other relevant statutory requirements. <u>Best practice</u> These measures will include, but not be limited to:</p> <ul style="list-style-type: none"> • Ensure that all vehicles and machinery are fitted with appropriate emission control equipment, maintained frequently and serviced to the manufacturers' specifications • Smoke from internal combustion engines must not be visible for more than ten seconds • Protect <u>Manage</u> stockpiles to prevent and minimise dust emissions • Review construction methodology in response to potential dust generation during dry and windy weather conditions, and in response to site inspection, monitoring results or complaints related to air and / or dust disruption <p>Provide the opportunity for the community to raise issues / concerns through a 24-hour phone number (see also EPR S2).</p>	
AR1	<p>Avoid and minimise tree removal</p> <p>During detailed design and construction, review potential tree impacts (particularly large/higher value trees and high value vegetation as identified within the Landscape Strategy's 'Cultural Value of Vegetation Assessment'), and provide for maximum tree retention where possible. This may be achieved through:</p> <ul style="list-style-type: none"> • Design permanent and temporary works to avoid where possible, and otherwise minimise, adverse effects on trees (see also EPRs E1, AR2 and AR3) • The location and width of walking and cycling paths and footpaths is to be varied further to minimise Tree Protection Zone encroachment where possible • Apply suitable construction techniques to minimise impact on Tree Protection Zones, including limiting excavation depth or building above grade. Include additional retaining walls in the design for high priority trees where appropriate • Optimise design of Safety Barriers to retain trees, such as avoiding trenching • Prepare a Tree Impact Assessment which includes consideration of necessary cut and fill and grading requirements (3D design) which can be undertaken in stages <p>Establishment of no-go zones identified in <u>the finalised Yan Yean Road Stage 2 – Project Design and No Go Zones Attachment VI Map Book</u> to exclude and protect the trees within the project area, with fencing to be as per the Australian Standard 4970-2009 Protection of Trees on Development Sites.</p>	

/cont.

Table B.1 (cont). Minister’s assessment of IAC’s recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister’s assessment
AR2	<p>Tree Protection Management Plan</p> <p>Prior to construction commencing, develop and implement a Tree Protection Management Plan (see also EPRs E3 and AR3) based on the recommendations of Australian Standard 4970-2009 Protection of Trees on Development Sites. This will be in consultation with the City of Whittlesea and Shire of Nillumbik and informed by a project arborist (with a minimum qualification of Diploma in Arboriculture (AQF level 5 or equivalent), which covers:</p> <ul style="list-style-type: none"> • Trees to be removed or retained which will be informed by Tree Impact Assessment • Condition or significance of trees to be removed • Options for relocation and reinstatement of trees if feasible • All tree protection zones and structural root zones • All tree protection fenced off areas and areas where ground protection systems will be used • Installation of services should avoid tree protection zones of retained trees. If any services are required within the tree protection zone of a retained tree, they are to be installed via boring under the tree protection zone or hydro excavation where appropriate in accordance with the Tree Protection Management Plan • All services to be located within the tree protection zone. All services will either be located outside of the tree protection zone or bored under the tree protection zone • Location of tree protection measures and ground protection <p>To reduce tree removal and retain trees for as long as possible, tree removal will be undertaken as late as possible during construction works.</p>	
AR3	<p>Doreen river red gums</p> <p>At the Bridge Inn Road intersection, the two Doreen river red gums will be retained. Prior to any works, a detailed Tree Protection Plan will be prepared by a suitably qualified arborist and must be signed off by MRPV. This will include tree protection measures relevant to proposed works such as a calculated no-go zone and Tree Protection Zones and specific controls for works (including excavation, utility installation, lighting) within the calculated Tree Protection Zones of the Doreen river red gums as follows:</p> <ul style="list-style-type: none"> • Works must not occur within the no-go zone determined in the Tree Protection Plan • The maximum depth of excavation must not exceed 800 millimetres below the existing ground surface within the Tree Protection Zones identified in the Tree Protection Plan • There must be no damage to the tree canopy of the Doreen river red gums • Fence/crash barrier, signage footings and road furniture can be installed within the identified Tree Protection Zones identified in the Tree Protection Plan. All footings should be of pier or pad type and strip footings should be avoided. but are not to be more than one metre below the existing ground surface level and must not be strip footings or similar if they exceed 800 millimetres below the existing ground surface level • Any utilities or services such as conduits or pipes to be installed within the Tree Protection Zones identified in the Tree Protection Plan, but outside of the no-go zone identified in the Tree Protection Plan, are to be bored with a minimum of one metre cover to the existing ground surface and are to be no greater than 500 millimetres in diameter • Arrangements for appropriate long-term access to water are to be provided to the Doreen river red gums • The finished level of any surface adjacent to the no-go zone must be +/- 200 millimetres of the existing road and no additional fill can be placed within the undisturbed areas of the Tree Protection Zones identified in the Tree Protection Plan • Reinstatement – the area that is available, must be converted to mulched garden bed with complementary indigenous plantings such as acacias. Reinstatement of existing pavement areas within the Tree Protection Zones identified in the Tree Protection Plan shall be to a minimum depth of 500 millimetres <p>The Tree Protection Plan must provide an assessment of the tree canopies and any recommended pruning, cabling or other works. All canopy management works are to be in accordance with AS4373-2007 Pruning Amenity Trees. All tree pruning is to be completed by qualified arborists with a minimum Certificate III in arboriculture or equivalent.</p>	

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Table B.1 (cont). Minister's assessment of IAC's recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister's assessment
AR4	<p>Reinstatement</p> <p>Reinstatement of soft and hard landscaping is to be in accordance with the Project's Landscape Strategy (see also EPRs E6 and LV2) and include:</p> <ul style="list-style-type: none"> • Protecting retained trees • Ensuring new tree planting does not adversely impact existing vegetation <p>There is to be no broad-scale tillage of soil within Tree Protection Zones of retained trees. Topsoil is not to be added within the Tree Protection Zone of a retained tree.</p>	
B1	<p>Avoid and minimise business disruption</p> <p>Avoid and minimise to the extent practicable any reduction in the level of access, amenity or function of any business or commercial facility, including any reduction in car parking available for businesses or commercial facilities.</p> <p>Ensure that the construction program minimises impacts on businesses and facilities to the extent practicable, with consideration of operating hours and peak visitation times (see also EPR B2).</p>	
B2	<p>Implement a Trader Engagement Plan</p> <p>Prepare and implement a Trader Engagement Plan in accordance with <i>Victorian Small Business Engagement Guidelines</i> to manage impacts to non-acquired businesses and to engage with business and property owners throughout the construction phase. The plan shall include:</p> <ul style="list-style-type: none"> • Timely information on key project milestones • Changes to traffic conditions and duration of impact • A project construction schedule developed in coordination with transport authorities and City of Whittlesea and Shire of Nillumbik and in consultation with businesses to minimise cumulative impacts of this and other projects • Plans for signage to notify customers of proposed changes to business operations, including the setting of suitable timeframes for notification prior to commencement of changes • Measures to ensure access to businesses is maintained for customers, delivery and waste removal unless there has been prior engagement with affected businesses (including mutually agreed mitigation measures as required). This could include the installation of directional and business signage to assist customers and minimising reduction in carparking available to shoppers and traders • Process for registering and management of complaints from affected businesses and potential support services offered • Ensure emergency services are notified ahead of major works • Provide the opportunity for issues / concerns to be raised through a 24-hour phone number (see also EPR S2). <p>Provide marketing support to small businesses along the alignment in consultation with and with the consent of the business, for example, by assisting small businesses to advertise using mediums such as social media, 'buy local' postcards, and discount vouchers and utilising project infrastructure as billboard space for promotion.</p>	
B3	<p>Business access and car parking</p> <p>All permanent access to and parking for business and commercial facilities affected by the works is to be restored, in consultation with the relevant stakeholders, including associated landscaping and restoration works. Any temporary access arrangements put in place for the duration of construction must be removed when construction has ceased, unless they become the permanent arrangement. Any reduction in current parking numbers at existing businesses will be avoided; however, where a loss in existing car parking is unavoidable, losses must be minimised and occur in consultation with relevant stakeholders.</p>	
B4	<p>Doreen Neighbourhood Activity Centre</p> <p>Develop and implement measures as part of the Project in consultation with the Department of Transport, Whittlesea City Council and Nillumbik Shire Council to avoid and minimise loss of exposure of the Doreen Neighbourhood Activity Centre to the arterial road network, including:</p> <ul style="list-style-type: none"> • Design permanent and temporary works to the extent practicable to ensure that a reasonable level of visibility of the Doreen Neighbourhood Activity Centre is maintained when approaching the Doreen Neighbourhood Activity Centre on Yan Yean Road or Bridge Inn Road; <p>Installation of wayfinding, directional and/or business identification signage to provide advanced notice to motorists on Yan Yean Road or Bridge Inn Road of the Doreen Neighbourhood Activity Centre in accordance with relevant Department of Transport guidelines.</p>	<p>Generally supported, however I acknowledge potentially competing priorities between the level of visibility of the activity centre and landscaping to reduce visual impacts.</p> <p>I also encourage MRPV to consider how this EPR will be achieved in a manner consistent with requirements of the new EPR LU3.</p>

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Table B.1 (cont). Minister’s assessment of IAC’s recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister’s assessment
CL1	<p>Spoil management</p> <p>The CEMP must include processes and measures to manage contaminated soil in accordance with the relevant objectives set out in State Environment Protection Policy (SEPP) – Prevention and Management of Contamination of Land and other relevant statutory requirements and guidelines. These include, but are not limited to:</p> <ul style="list-style-type: none"> • Environment Protection (Industrial Waste Resource) Regulations 2009 • Industrial Waste Management Policy (Waste Acid Sulfate Soils) 1999 • National Environment Protection (Assessment of Site Contamination) Measures 1999, amended 2013 (ASC NEPM) • WorkSafe Occupational Health and Safety Regulations 2007 (Asbestos) • PFAS National Environmental Management Plan 1.0 2018 • AS 4482.1-2005 Guide to the investigation and sampling of sites with potentially contaminated soil. <p>The processes and measures must include:</p> <ul style="list-style-type: none"> • Characterising soil prior to disposal or reuse • Identifying soil containing asbestos and if present, developing management strategies in accordance with the WorkSafe Regulations • Assessing geological formations with naturally enriched metals and applicable spoil management options and or off-site disposal to the satisfaction of EPA Victoria • Identifying suitably licensed facilities for the disposal or treatment of contaminated soil • Management measures for storage, handling and transport of spoil for the protection of health, amenity and the environment • Management of wastewater • Management of dust, potential stormwater run-off and seepage from stockpiled materials • Undertaking a baseline site assessment of areas proposed for construction laydown prior to use <p>Protection of the beneficial uses of land associated with current and planned future use.</p>	
E1	<p>Native vegetation</p> <p>Develop and implement measures to avoid where possible, and otherwise minimise impacts on native vegetation, listed species and ecological communities and the Studley Park Gum through detailed design and construction, including:</p> <ul style="list-style-type: none"> • Minimising footprint and disturbance of temporary and permanent works, such as through detailed design of: <ul style="list-style-type: none"> – The wide median between Bannons Lane and Laurie Street – The Bridge Inn Road intersection – The Jorgensen Avenue intersection – The Youngs Road roundabout – The Yarra Valley Water pump station relocation – The walking and cycling path in Werther Park – The walking and cycling path built within Tree Protection Zones • At the Bridge Inn Road intersection, the Doreen river red gums will be retained. A Tree Protection Management Plan is required to protect trees during construction (see also EPR AR3) • Further minimisation of native tree loss during detailed design, prioritising retention of large and hollow bearing trees • Trees for which the Project will impact <10% of the Tree Protection Zone (TPZ) are likely to be able to be retained. For these specific trees, once construction methods are better known, a detailed arborist assessment must be conducted • Finalise the Yan Yean Road Stage 2 – Project Design and No Go Zones, 15 December 2020 to include further no-go zones as identified through detailed design • Implement the no-go zones identified in the finalised Yan Yean Road Stage 2 – Project Design and No Go Zones EES Attachment VI Map Book. <p>Native vegetation removal must be offset in accordance with DELWP’s Guidelines for the removal, destruction or lopping of native vegetation 2017 (DELWP 2017c), including consequential losses along proposed boundary fence lines.</p>	<p>Generally supported, but I do not agree with the project accounting for consequential losses.</p> <p>I also recommend MRPV develop a management plan in consultation with DELWP regarding seed collection activities. I expect this plan would include aspects such as seed collection, propagation, planting, ongoing management and monitoring and commitments for the minimum number of plantings and minimum survivorship.</p>

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Table B.1 (cont). Minister’s assessment of IAC’s recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister’s assessment
E2	<p>Flora and fauna - design</p> <p>Design the Project to avoid and otherwise minimise impacts, to the extent practicable, on listed species and ecological communities, the Studley Park Gum, wildlife and their habitat, including:</p> <ul style="list-style-type: none"> • Utilising the MRPV Fauna Sensitive Road Design Guideline (2020) to incorporate fauna sensitive design, including: <ul style="list-style-type: none"> – Use of fauna-friendly fencing where fencing is required where possible (avoidance of chain-mesh fencing and barbed wire). If non-metal mesh fencing is required, it must be designed to minimise collision risk – Use of fauna sensitive lighting where lighting is required – Avoidance of transparent materials in the construction of bus shelters, barriers, fencing, and signage to minimise the potential for birds or other fauna to collide with them – Targeted signage to minimise roadkill and investigation of other measures during detailed design which may be trialled to minimise collision risk, particularly for Eastern Grey Kangaroos – Providing rope bridges in key connectivity areas (as shown in Figure 5.5 of Technical Appendix B1) for arboreal mammals, to be installed as early as practicable during construction – Provision of replacement hollows <p>Preparing a Fauna Management Plan in consultation with the Department of Transport, Nillumbik Shire Council and Whittlesea City Council. The final Fauna Management Plan should be approved by the Minister for Planning prior to works commencing.</p>	<p>Generally supported, however propose the fauna management plan should be prepared in consultation with DoT, the councils and DELWP rather than provided to Minister for Planning for approval.</p> <p>The fauna management plan should also include detailed procedures for the prevention of fauna mortality and injury during habitat clearance described in Section 4.2.</p> <p>The fauna management plan should also include kangaroo-specific mitigation measures as described in Section 4.2.</p>
E3	<p>Flora and fauna – construction</p> <p>The CEMP must include requirements and methods in accordance with the MRPV Fauna Sensitive Road Design Guideline (2020) for avoiding, or where avoidance is not feasible, minimising impacts on flora and fauna, including:</p> <ul style="list-style-type: none"> • Contingency and reporting procedures for the event that a listed threatened species is identified in order to mitigate any potential for significant impacts on the listed threatened species • Protection of all vegetation inside and adjacent to the project area (where the Tree Protection Zone intersects the project area) that is not required to be removed, provided that such measures should be limited to activities undertaken inside the project area • Fencing no-go zones (refer to Attachment VI <i>Map Book</i>) to prevent access during construction • Vegetation clearing controls and protection measures, including protocols such as pre-clearing surveys, advanced blocking of known tree hollows, two-stage clearing, minimised clearing during spring where practicable, and phased removal wherever practicable (see also EPR V1) • Pruning of trees to be retained must not exceed one third of total canopy area. Pruning and removal of trees must only be conducted following pre-clearance surveys, in the presence of an ecologist. Prior to being removed, all identified hollows in any tree or branch are to be inspected for signs of fauna • Measures during clearing and construction including weed and disease hygiene, pathogen mitigation, management, monitoring and reporting measures to reduce weed introduction and spread • Fire risk management measures • Development and implementation of a Tree Protection Management Plan for protection of retained trees (see also EPRs AR2 and AR3) • Development and implementation of protocols around the handling of fauna during construction • Retention of dead, declining, or impacted trees and retention/relocation of tree hollows for habitat where appropriate and practicable following completion of a risk assessment • Minimise impacts of construction lighting through consideration of siting, direction and fixtures • Egress points for fauna (particularly kangaroos) in construction fencing. Construction personnel to report fauna entrapment and traffic control to slow or stop vehicles when wildlife is sighted to minimise collision risk <p>Trench management, including avoiding open trenches overnight where practicable. Where trenches cannot be closed, check trenches for fauna early in the morning.</p>	<p>Amend to include point concerning rehabilitation of laydown areas allowing revegetation as presented by MRPV in Tabled Document 121.</p>

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Table B.1 (cont). Minister's assessment of IAC's recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister's assessment
E4	<p>Swift Parrot Management Plan</p> <p>Implementing the mitigation measures specified in the Swift Parrot Management Plan, including:</p> <ul style="list-style-type: none"> Using existing stacksites and existing road formation for material lay down areas for storage, plant and vehicle storage and site compounds Establish and maintain no-go zones (refer to Attachment VI <i>Map Book</i>) to reduce impacts on Swift Parrot Design, where possible, to avoid incorporating chain-mesh or barbed wire fences as well as clear glass for any structures (bus shelters, barriers). If chain-mesh fencing is required at Yarrambat Golf Course, it must be designed to minimise collision risk for Swift Parrot Inducting construction workers to communicate permit conditions, environmental requirements regarding fauna management and no-go zones <p>Controlling noise and dust during works in accordance with relevant standards (see also EPRs NV1 and AQ1).</p>	
E5	<p>Matted Flax-lily</p> <p>Where direct impacts on Matted Flax-lily occurare anticipated, a salvage and translocation plan must be developed and implemented to the satisfaction of the Department of Environment, Land, Water and Planning and the Commonwealth Department of Agriculture, Water and the Environment, prior to the commencement of relevant works.</p>	<p>I accept the IAC's proposed change, and also recommend revision of this EPR to include implementation after detailed design, but still prior to commencement of works.</p>
E6	<p>Strategic revegetation</p> <p>Strategic revegetation in accordance with the Project's Landscape Strategy (see also EPRs AR4 and LV2) to minimise long term fragmentation impacts by:</p> <ul style="list-style-type: none"> Using indigenous species as appropriate from relevant ecological vegetation classes to maximise fauna habitat value and connectivity, including trees likely to be used by Swift Parrot and Grey-headed flying fox <p>Incorporating indigenous mid-storey and ground layer plants as appropriate to complement retained habitat.</p>	
E7	<p>Avoid introduction or spread of weeds and pathogens</p> <p>The CEMP must include measures to avoid the spread or introduction of weeds and pathogens during construction, including vehicle and equipment hygiene.</p>	
E8	<p>Operational maintenance</p> <p>During operation, maintain all fences, signage and fauna crossings, and soil hygiene controls for areas of retained native vegetation in accordance with Department of Transport processes and standards for declared roads in Victoria.</p>	
EMF1	<p>Environmental Management System</p> <p>Implement an Environmental Management System that complies with AS/NZS ISO 14001:2015 Environmental management systems - Requirements with guidance for use.</p>	
EMF2	<p>Environmental Management Plans</p> <p>Prepare and implement a Construction Environmental Management Plan (CEMP) and other relevant plans as required by the EPRs and in accordance with this Environmental Management Framework (EMF). The development of the CEMP and sub-plans must include consultation with relevant stakeholders as listed in this EMF and as required under any statutory approvals. The CEMP and all sub-plans shall be approved by MRPV before construction commences (excluding preparatory buildings and works permitted under the Incorporated Document).</p> <p>Before approval, the CEMP and other relevant plans are to be reviewed by the Independent Environmental Auditor and that review must be made public at the time of approval.</p>	<p>Amend wording for IEA review to be published on MRPV's website for consistency with other audit report requirements as per EPR EMF4.</p>
EMF3	<p>Complaints management</p> <p>Prepare and implement a process for recording, managing, and resolving complaints received from affected stakeholders during construction. The complaints management system must be consistent with the Project's Communications and Stakeholder Engagement Plan (see also EPR S2) and Australian Standard AS/NZS 10002:2014 Guidelines for Complaint Management in Organisations.</p>	

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Table B.1 (cont). Minister's assessment of IAC's recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister's assessment
EMF4	<p>Environmental compliance</p> <p>Appoint a certified Independent Environmental Auditor to:</p> <ul style="list-style-type: none"> • Prior to commencement of relevant works, review the Contractor's systems and plans to ensure they are adequate for compliance with this EMF, relevant EPRs, CEMP, and any other plans required by the EPRs, and conditions of Project approvals • Conduct regular audits (<u>at least</u> every six months) of Contractors' compliance with this EMF, relevant EPRs, CEMP, and any other plans required by the EPRs, conditions of Project approvals, and as required by MRPV • Prepare a six monthly audit report summarising the Contractor's compliance and results of audits and provide to MRPV to be published on the MRPV website • Ensure the six monthly audit report is also provided to the Contractor(s), the Minister for Planning and to other statutory approval authorities as required <p>Review complaints referred by MRPV relevant to the EPRs.</p>	
EMF5	<p>Operation and maintenance</p> <p>Any potential impacts during operation and maintenance will be managed in accordance with the Department of Transport's environmental management system and standards for managing declared roads in Victoria.</p>	
GW1	<p>Groundwater management</p> <p>The CEMP must include measures to manage groundwater impacts in accordance with the relevant water objectives set out in the State Environment Protection Policy (Waters), Water Industry Regulations 2006 (Vic) and other relevant statutory requirements.</p>	
HH1	<p>Historic heritage Doreen river red gums</p> <p>At the Bridge Inn Road intersection, retain the two Doreen river red gums that are identified in the Heritage Overlay HO191 (see also EPR AR3) <u>and retain the Post Office and General Store building at 920 Doctors Gully Road.</u> For works within the Heritage Overlay that impact historic heritage, prepare a Heritage Impact Statement in consultation with Shire of Nillumbik and implement no-go zones in accordance with the CEMP (see also EPR AR3).</p> <p><u>Design permanent and temporary works to avoid where possible, and otherwise minimise, potential impacts on heritage values of St. Michael's Anglican Church identified in Heritage Overlay HO219, the Post Office and General Store building at 920 Doctors Gully Road, Doreen and the two Doreen River Red Gums identified in Heritage Overlay HO191.</u></p> <p><u>The CEMP must include processes and measures to manage historical heritage, such as implementation of no-go zones.</u></p>	
HH2	<p>St. Michael's Anglican Church</p> <p>Design permanent and temporary works to avoid where possible, and otherwise minimise, potential impacts on the heritage values of the St. Michael's Anglican Church that are identified in the Heritage Overlay HO219. The CEMP must include processes and measures to manage historical heritage, such as implementation of no-go zones, within the Construction Environmental Management Plan.</p>	
HH3	<p>Archaeological discovery protocol</p> <p>The CEMP must include an archaeological discovery protocol that specifies measures to avoid and minimise impacts on any previously unidentified historical archaeological sites and values discovered during construction. The management protocol must be consistent with the requirements of the <i>Heritage Act 2017</i> and include procedures for ceasing work if human remains or archaeological artefacts are discovered, notifying Heritage Victoria of the find, obtaining consent to deal with the find, and dealing with the find in accordance with the consent.</p> <p>All personnel on site must undertake a Cultural Heritage Awareness Induction prior to commencing work, which will include information on the Doreen River Red Gums, <u>St Michael's Anglican Church and the former Post Office and General Store building at 920 Doctors Gully Road, Doreen.</u></p>	

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Table B.1 (cont). Minister's assessment of IAC's recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister's assessment
LU1	<p>Minimise land use impacts</p> <p>The Project must be designed and constructed to minimise the design footprint and avoid, to the extent practicable, any temporary and permanent impacts on the following land uses:</p> <ul style="list-style-type: none"> – Parks and reserves – Recreational and community facilities – Residential properties and other sensitive land uses such as educational facilities – Commercial and industrial sites. <ul style="list-style-type: none"> • Consolidate or minimise the fragmentation of, and provide access to, residual land parcels to support future viable land use to the extent practicable and consistent with land zoning and the planning policy framework <p>Consultation must occur with land managers and/or authorities responsible for the implementation of the relevant strategic land use plans and policies, including City of Whittlesea, Shire of Nillumbik, Melbourne Water and Yarra Valley Water.</p>	
LU2	<p>Land acquisition</p> <p>Where permanent land acquisition is unavoidable:</p> <ul style="list-style-type: none"> • Early and consistent consultation with affected land owners and occupiers must occur • Continue one-on-one consultation with affected landowners and occupiers to outline the acquisition and compensation process, discuss changed access arrangements and provide clear timelines of proposed action <p>Compensation for interests in acquired land must be assessed in accordance with <i>Land Acquisition and Compensation Act 1986</i>.</p>	
LU3	<p><u>Bridge Inn Road/Yan Yean Road Surplus Land Use Plan</u></p> <p><u>Prior to operation of the Project, MRPV in consultation with Whittlesea City Council and Nillumbik Shire Council, must develop and implement a Bridge Inn Road/Yan Yean Road Surplus Land Use Plan. The Bridge Inn Road/Yan Yean Road Surplus Land Use Plan must set out the process for establishing the future use of surplus land at the Bridge Inn Road/Yan Yean Road intersection, including:</u></p> <ul style="list-style-type: none"> • <u>Proposed future use(s) of each parcel of surplus land created by the development of the Bridge Inn Road/Yan Yean Road intersection;</u> • <u>Preferred future landowner/land manager for each surplus parcel; and</u> • <u>A process for transferring landownership where required.</u> <p><u>Note:</u></p> <p><u>Surplus land is land acquired for the Project but not to be required for permanent Project infrastructure or related purposes.</u></p>	
LV1	<p>Implement the Landscape Strategy</p> <p>Implement the Landscape Strategy (refer to Technical Report G) during detailed design and construction to minimise adverse effects on landscape values and visual impacts, particularly in relation to:</p> <ul style="list-style-type: none"> • Retaining and reinforcing key existing views as identified within the Landscape Strategy • Heritage values • Existing and proposed landmark elements across the Project • High value vegetation as identified within the Landscape Strategy's 'Cultural Value of Vegetation Assessment' • Community and recreational centres and open space, including existing Council masterplans for Doreen Recreational Reserve, Yarrambat Park & Golf Course and Yarrambat Township • Residential and business interfaces. <p><u>Before operation, implement the Landscape Strategy to provide landscaping and reinstatement works to surplus land parcels consistent with the future use(s) of those surplus parcels proposed in the Bridge Inn Road/Yan Yean Road Surplus Land Use Plan (refer to EPR LU3).</u></p> <p>See also EPRs E6, AR1, AR4, LV2, <u>LU3</u> and V1.</p>	

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Table B.1 (cont). Minister’s assessment of IAC’s recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister’s assessment
LV2	<p>Replanting and reinstatement of vegetation</p> <p>Replanting and reinstatement of vegetation must occur in accordance with the Project’s Landscape Strategy (see also EPRs E6, AR1, AR4, LV1 and V1) in consultation with the relevant land manager, Nillumbik Shire Council and Whittlesea City Council (as appropriate), including:</p> <ul style="list-style-type: none"> • Ensure tree planting is fully coordinated with services, easements and utilities including required height limits and offsets • Ensure new tree planting is climate resilient and suitable for the local context • Maximises the enhancement of landscape, Aboriginal and historical cultural heritage, and vegetation and habitat connectivity values, where opportunities exist • Provide replacement screening vegetation where feasible to reduce impacts to visual amenity • Enhance existing vegetation along the road corridor and around infrastructure elements • Provide contextual planting along roads and walking and cycling paths where feasible to achieve tree canopy cover for shade, shelter and habitat creation and connectivity • Seek to improve user amenity through identifying opportunities within public open space in accordance with relevant Council masterplans • Enhance intersections and identified gateways with distinctive native plantings to act as visual marker along the road corridor • Where existing vegetation on private residential property is removed due to the acquisition of land, for dwellings that will be located within 7 metres of the road or cycling and walking paths provide replacement screening vegetation to provide privacy to those dwellings. Where there is insufficient space to achieve replacement screening vegetation within the road reserve, the replacement screening vegetation should be provided on the private land, subject to landowner agreement <p>All advanced tree stock must be assessed by the project arborist before installation and must be in accordance with AS2303-2018 Tree Stock for Landscape Use. Certification reports for trees to be planted are to be supplied to MRPV.</p>	
NV1	<p>Construction noise management</p> <p>The CEMP must include measures to manage construction noise and vibration in accordance with EPA Publication 1254 (Noise Control Guidelines), EPA Publication 480 (EPA Environmental Guidelines for Major Construction Sites) and other relevant statutory requirements. The CEMP should include measures, such as (but not limited to):</p> <ul style="list-style-type: none"> • Fit and maintain appropriate mufflers on earth-moving and other vehicles on the site • Enclose noisy equipment • Provide noise attenuation screens, where appropriate • Where an activity is likely to cause noise impacts to nearby residents, restrict operating hours to between 7 am and 6 pm weekdays and 7 am to 1 pm Saturday, except where, for practical reasons, the activity is unavoidable. All reasonable measures must be implemented to mitigate the impacts of such unavoidable works • Undertake targeted noise monitoring of construction activities that are expected to cause higher impacts (as appropriate) and modify management actions as necessary • Advise local residents when unavoidable out-of-hours work will occur • Schedule deliveries to the site so that disruption to local amenity and traffic is minimised • Prepare and Implement a Construction Noise and Vibration Plan consistent with the recommendation in Technical Appendix I • A noise and vibration communications sub-plan, consistent with the Communications and Stakeholder Engagement Plan (see also EPR S2), for informing the community of work scheduling and working hours <p>Provide the opportunity for the community to raise issues / concerns through an attended 24-hour phone number (see also EPR S2).</p>	
NV2	<p>Achieve traffic noise objectives</p> <p>Design and construct the Project to mitigate potential significant noise effects as defined by ‘A Guide to the Reduction of Traffic Noise’ (VicRoads, 2003) in consultation with property owners and to consider measures such as quieter pavement surfaces and measures including signage to reduce engine brake noise so that operational noise will be addressed in accordance with the VicRoads Traffic Noise Reduction Policy (2005).</p>	<p>I support the intent of this change, however recommend further consideration by MRPV as to how to define significant noise effects in this EPR, and to investigate what mitigation levels would be practicable. I note the guide’s reference to mitigation for levels above 68 dB(A) may be a sound starting point.</p>

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Table B.1 (cont). Minister’s assessment of IAC’s recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister’s assessment
S1	<p>Social access and amenity</p> <p>To develop and implement measures to avoid and minimise impacts on social and cultural values, including:</p> <ul style="list-style-type: none"> • Design permanent and temporary works to avoid where possible, and otherwise minimise adverse effects on trees (see also EPR AR1) <p>Detailed design to protect and, where practicable, improve access to amenity for potentially affected residents, users of the transport corridor (pedestrians, cyclists, horse riders and motorists), open space, social and community infrastructure and commercial facilities, and implementing the principles of Crime Prevention Through Environmental Design.</p>	
S2	<p>Implement a Communications and Stakeholder Engagement Plan</p> <p>Prior to construction, develop and implement a Communications and Stakeholder Engagement Plan to engage and consult the community and affected stakeholders and discuss progress of construction activities. The Communications and Stakeholder Engagement Plan must include measures to:</p> <ul style="list-style-type: none"> • Identify a process for identifying community issues and the recording, management and resolution of complaints from affected stakeholders including business owners, community service providers, education providers, public and active transport key user groups and residents, consistent with Australian Standard AS/NZS 10002:2014 Guidelines for Complaint Management in Organisations • Communicate and engage with the community and potentially affected stakeholders in relation to: <ul style="list-style-type: none"> – Construction activities including temporary works and impacts that may affect the community, businesses or individual stakeholders (e.g. dust, noise, vibration and light) and relevant mitigation – Changes to transport conditions and relevant mitigation (e.g. road closures, detours) • Ensure that communities are notified of construction and changes well in advance of works commencing as approved by MRPV • Ensure that the consultation program includes provision for onsite signage of affected properties that provide a service to the local or regional community • Continue consultation with people affected by the relocation of memorials • Outline the timing of works that will affect particular local areas, to be updated to reflect current and anticipated conditions • Communicate incidents and emergencies, including notification methods and timeframes in the event of a major incident or overrun • Ensure the workforce has appropriate community awareness and sensitivity • Implement innovative communications tools and methods to enhance the Project’s ability to effectively communicate and engage with the community and stakeholders including best available technology in addition to conventional means <p>Make provision for a 24-hour phone number to be available to the community to report concerns.</p>	
S3	<p>Reinstatement of access</p> <p>To mitigate impact to community facilities and the community after construction, driveway and access will be reinstated. Where access cannot be reinstated, alternative access is required to be provided in consultation with stakeholders.</p>	
SU1	<p><u>Integrate sustainable design and construction practices to minimise, to the extent practicable, resource use particularly greenhouse gas emissions from construction of the Project.</u></p>	
SU2	<p><u>Integrate sustainable development principles including through the implementation of Timber Reuse Strategies to ensure beneficial reuse of felled timber.</u></p>	<p>I don’t support this recommendation as the project’s landscape strategy already provides direction for timber reuse and must be implemented as per EPR LV1.</p>

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Table B.1 (cont). Minister's assessment of IAC's recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister's assessment
SW1	<p>Surface water management</p> <p>The CEMP must include processes and measures to manage surface water in accordance with the relevant 'Best practice' water objectives set out in the State Environment Protection Policy (Waters), Melbourne Water Performance Criteria and other relevant statutory requirements. Mitigation and management measures would be informed by Melbourne Water and Council requirements, EPA Publications 275, 480 and 960 and include:</p> <ul style="list-style-type: none"> • Best practice sediment and erosion control, including measures to prevent contamination of surface waters from contaminated soils if / when encountered and the management of dewatering of earthworks areas following storm events • Maintenance of existing flow paths, drainage lines and floodplain storage or, where modification of existing flow paths cannot be avoided, mitigating the effects of changes to flow to the extent practicable • Water quality monitoring during construction and management of drainage infrastructure to be carried out in accordance with MRPV's Integrated Water Management Guideline (2020) • Stormwater or flood modelling and implementation of mitigation solutions and management measures for temporary works as required • Flood emergency management including consideration of scheduling works • Maximising the visual and aesthetic amenity of waterways having regard to any relevant development plans in consultation with Melbourne Water <p>Refuelling in designated areas where hardstand is present and removal of impacted soils following minor spills.</p>	
SW2	<p>Design to minimise surface water impacts</p> <p>Design the Project to minimise impacts on the hydrologic and / or hydraulic regime of waterways and stormwater risks, including:</p> <ul style="list-style-type: none"> • Develop a detailed drainage model based on the 3D road detailed design to comply with Austroads, Council and Melbourne Water guidelines. A spill risk assessment will be conducted for each outfall based on the likelihood of a spill, which is estimated based on the road characteristics (geometry) of the outfall catchment, and its proximity to the downstream water sensitive receptors (i.e. consequence of the spill). Outfalls with a high spill risk are to provide spill containment • Discharge and runoff to meet the relevant water objectives set out in the State Environment Protection Policy (Waters), Melbourne Water Performance Criteria and other relevant statutory requirements • For outfalls to major main drains or waterways, determine specific requirements in consultation with Melbourne Water • Minimise risk from changes to flood levels, flows and velocities. Permanent works must not increase overall flood risk at relevant locations or modify the flow regime of waterways without the acceptanceapproval of the relevant flood plain manager, drainage authority or asset owner • Minimise impacts on private, Council and Melbourne Water drainage assets <p>Comply with Melbourne Water Performance Criteria and MRPV's Integrated Water Management Guideline (2020).</p>	
TP1	<p>Optimise design for active and road users</p> <p>Optimise the design in consultation with appropriate road management authorities, Shire of Nillumbik and City of Whittlesea to:</p> <ul style="list-style-type: none"> • Minimise adverse impact on travel times for all transport modes, including walking and cycling • Maintain, and where practicable, enhance the traffic movements at intersections within the project area • Design the road, walking and cycling elements and other recreation activities to meet relevant road and transport authority requirements • Where existing traffic movements are altered by the Project, ensure that alternative movements are incorporated into the design, <u>including property accesses</u> • Maintain, and where practicable, enhance pedestrian movements, horse rider access, bicycle connectivity, and walking and cycling paths, including access to public open space and reserves <p><u>Road Safety Audits should be undertaken in accordance with Department of Transport guidelines, with particular emphasis on property access.</u></p>	<p>Include 'bus stops' in the third bullet point.</p> <p>Revise final sentence to state 'road safety audits must be undertaken'.</p>

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Table B.1 (cont). Minister's assessment of IAC's recommended EPRs.

No.	EPR Version 3 as amended by the IAC	Minister's assessment
TP2	<p>Traffic Management Plan</p> <p>The Project should be constructed in stages to minimise impact on road users and prior to commencement of relevant works, a Traffic Management Plan (TMP) must be developed and implemented to minimise disruption during construction in accordance with AS1742.3-2009 and in consultation with relevant authorities including Department of Transport, Shire of Nillumbik and City of Whittlesea. The TMP will clearly outline measures to:</p> <ul style="list-style-type: none"> • Minimise road closures, access restrictions and disruption to all road users, public transport users and active users, including pedestrians, cyclists and horse riders • Minimise impacts on local streets such as from 'rat running' during construction closures • Provide for safe construction practices in accordance with road authority requirements • Provide alternative routes for affected road users, public transport users and active users where practicable • Maintain property accesses during construction where practicable or provide alternative access • Consider potential routes for construction haulage and construction vehicles travelling to and from the project, recognising sensitive receptors and avoiding the use of local streets where practicable • Maintain community safety through appropriate measures such as providing convenient and safe access across Yan Yean Road at all bus stops, activity nodes and places of community significance • Implement suitable measures, developed in consultation with emergency services, to ensure emergency service access is not inhibited as a result of project construction activities • Ensure affected community is notified in advance (in accordance with EPR S2) of changed traffic conditions • Implement suitable measures, developed in consultation with the road authority, to mitigate significant safety or operational risks on local streets that occur as a result of project construction activities <p>Monitor the road network to identify the need for and success of mitigation measures.</p>	<p>Amend last bullet point, adding classification that the monitoring is for roads in the vicinity of project construction activities.</p>
TP3	<p>Redesign the Bridge Inn Road intersection to be based on the modified Option B design but optimised in accordance with TP1 and include:</p> <ul style="list-style-type: none"> • a direct right turn into the Bridge Inn Road service road • traffic signals at the Yan Yean Road/Activity Way intersection • improved connectivity between the Doreen NAC and the shared path and bus stops on Yan Yean Road • advanced directional signage for the Doreen NAC <p>provision for vehicles to exit the Doreen Recreation Reserve and head south on Yan Yean Road.</p>	<p>Amend second and fifth dot points to instead consider these options, noting they would only be incorporated if found to not compromise the safety and efficiency of the overall intersection design, nor have additional unacceptable ecological impacts.</p>
TP4	<p>Redesign the Project at the section of Yan Yean Road from and including the Yarrambat Park southern access to Jorgensen Avenue to:</p> <ul style="list-style-type: none"> • be in accordance with Environmental Performance Requirement TP1 • provide more direct access to the Yarrambat Park Public Golf Course from the north for when the site is used as a Neighbourhood Safer House • provide access to the northern end of Yarrambat Park through a signalised intersection <p>consider an alternate cross-section north of Bannons Lane to improve safety for the abutting residents.</p>	<p>Amend third dot point, as I recommend further consultation between MRPV and the CFA regarding a suitable option for access and egress when Yarrambat Park is used as a staging area in emergencies.</p> <p>Amend fourth dot point to include consideration of improved access, as well as safety.</p>
V1	<p>Avoid and minimise impacts on vegetation</p> <p>Design permanent and temporary works to avoid where possible, and otherwise minimise adverse effects on, high value vegetation as identified within the Landscape Strategy's 'Cultural Value of Vegetation Assessment'.</p> <p>Removal of vegetation will be phased wherever practicable to temporarily reduce visual impacts (see also EPRs E3 and AR4).</p>	