Inquiry Report and Advisory Committee Report

Environment Effects Statement and
Draft Planning Scheme Amendments:
Ararat Planning Scheme C30, and
Northern Grampians Planning Scheme C45

Western Highway Section 3
Ararat to Stawell

4 June 2013

Environment Effects Act 1978

Inquiry Panel Report pursuant to Section 9 of the *Act*

Duplication of the Western Highway between Ararat and Stawell

Planning and Environment Act 1987

Advisory Committee Report pursuant to Section 151 of the *Act*

Draft Amendments C30 to the Ararat and C45 to the Northern Grampians Planning Schemes relating to the duplication of the Western Highway between Ararat and Stawell

Trevor McCullough, Chair

Darrel Brewin, Member

Ian Harris, Member

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List of Abbreviations

AAV	Aboriginal Affairs Victoria
AMP1	VicRoads Access Management Policy level 1 – Freeway conditions
AMP3	VicRoads Access Management Policy level 3 – Divided highway conditions
ASS	Acid Sulphate Soils
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
DPCD	Department of Planning and Community Development
DPI	Department of Primary Industry
DSE	Department of Sustainability and Environment
EES	Environment Effects Statement
EPA	Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EVC	Ecological Vegetation Class
FFG Act	*Flora & Fauna Guarantee Act 1988*
ha	Hectares
Habha	Habitat Hectares
HI	Heritage Inventory
LAC Act	*Land Acquisition & Compensation Act 1986*
LOT	Large Old Tree
LPPF	Local Planning Policy Framework
MSS	Municipal Strategic Statement
NES	National Environmental Significance
PAO	Public Acquisition Overlay
P&E Act	*Planning and Environment Act 1987*
RAP	Registered Aboriginal Party
SEPP	State Environment Protection Policy
SPPF	State Planning Policy Framework
TI Act	*Transport Integration Act 2010*
VPP	Victoria Planning Provisions
WCMA	Wimmera Catchment Management Authority

Executive Summary

Summary

VicRoads proposes to duplicate the Western Highway between Ararat and Stawell, as part of a larger Project to duplicate the Western Highway between Ballarat and Stawell.

Section 3 of the Project is approximately 24 kilometres in length and extends from Pollards Lane, Ararat to Gilchrist Road, Stawell. The Project involves upgrading the existing Western Highway to a divided highway standard (AMP3) with two lanes in each direction separated by a central median, along with intersection upgrades. A bypass of the township of Great Western will also be created. Eventually, and subject to traffic volumes and funding, VicRoads expects that the divided highway will be upgraded to a freeway standard (AMP1).

The Minister for Planning made a decision on 27 October 2010 to require VicRoads to prepare an Environment Effects Statement (EES) under the *Environment Effects Act 1978*. An *Environment Protection and Biodiversity Conservation Act 1999* referral was submitted for the Project and it was determined by the Commonwealth Environment Minister that the Project would be a controlled action due to matters of National Environmental Significance (NES) under Sections 18 and 18A of the *Environmental Protection and Biodiversity Conservation Act 1999.* The EES process is applied as an accredited process under the *Environment Protection and Biodiversity Conservation Act 1999* in accordance with the bilateral agreement between the Commonwealth and Victorian Governments.

The EES was exhibited from December 2012 to February 2013 along with Draft Planning Scheme Amendments C30 to the Ararat Planning Scheme and C45 to the Northern Grampians Planning Scheme. The Draft Amendments propose Public Acquisition Overlays to reserve land for the road duplication and also propose inclusion of the '*Western Highway Section 3 – Ararat to Stawell Incorporated Document*' in each Planning Scheme to provide exemption of the Project from requiring further planning approval.

A total of 16 written submissions were received in relation to the exhibition.

An Inquiry Panel comprising Trevor McCullough (Chair), Darrel Brewin and Ian Harris was appointed to hear and consider submissions and report in accordance with Terms of Reference approved by the Minister for Planning on 21 January 2013.

The Inquiry Panel's Terms of Reference are included as Appendix C of this report. In summary, the Panel was tasked with the following:

- *Consider and report on the potentially significant effects of the Project taking into account the procedures and requirements the Minister required for the preparation of the Environment Effects Statement (EES) under section 8B(5) of the EE Act (see Attachment 1 Terms of Reference) and the controlling provisions under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Commonwealth) as outlined in paragraph 9 of the Terms of Reference; and*
- *Address matters relevant to the alignment and design of the Project and the draft planning scheme amendments prepared by VicRoads.*

The main issues raised by submitters included:

- Impact on roadside vegetation;

- Need for an Ararat bypass;
- Severance of land;
- Compensation issues;
- Flooding impact;
- Amenity and noise impacts;
- Visual impact; and
- Economic loss due to access difficulties.

The Inquiry Panel has examined each of the aspects of the EES prepared by VicRoads, including the Technical Reports accompanying each section. All submissions and evidence submitted to the Inquiry have also been considered and the Panel has drawn conclusions in relation to each matter as set out in Part A of this report. In summary the Panel has found that the EES has examined all relevant matters and, subject to the recommendations in Part B of this report on the preferred alignment for the Project, and the implementation of mitigation measures proposed by VicRoads during and after construction, the environment effects of the Western Highway Project Section 3: Ararat to Stawell can be managed, and the adverse long-term effects on surrounding properties and landscape should be minimal.

In relation to the recommended alignment for the Project, the Panel has examined each zone of the proposed alignment in detail, along with the submissions made by individual property owners and other affected parties, and has drawn conclusions in relation to the preferred approach to each zone. The Hearing process was useful in drawing out alternative solutions to issues raised by submitters and VicRoads was receptive to changes to the design and access arrangements to resolve the majority of the issues raised with the Panel. The Panel supports the proposed alignment, subject to the recommended changes to access and service road arrangements and other recommended changes to the definition of the land proposed to be acquired for the Project.

Summary of findings and recommendations

Part A findings:

The Panel finds that, subject to the recommendations in Part B of this report on the preferred alignment for the Project, and the implementation of mitigation measures proposed by VicRoads during and after construction, the environmental effects of the Western Highway Project Section 3: Ararat to Stawell can be managed and the adverse long-term effects on surrounding properties and landscape should be minimal.

Further recommendations:

The Minister for Planning should approve Planning Scheme Amendments C30 to the Ararat Planning Scheme and C45 to the Northern Grampians Planning Scheme via the provisions of section 20(4) of the *Planning and Environment Act 1987*, including:

- **Introduction of the proposed Public Acquisition Overlays in the Ararat and Northern Grampians Planning Schemes consistent with the alignment as recommended in Part B of this report;**
- **Amendments to Clause 52.03 'Specific Sites and Exclusions' of the Ararat and Northern Grampians Planning Schemes to exempt the Western Highway Project (Section 3 Ararat to Stawell) and associated works from requiring planning permits; and**

- **The proposed Amendment to Clause 81.01 of the Ararat and Northern Grampians Planning Schemes to introduce the 'Western Highway Project: Section 3 – Ararat to Stawell Incorporated Document'.**

That should further information become available, the final design of the Great Western bypass should consider the incorporation of flood mitigation measures that would reduce the flooding of Great Western township.

That any works approvals granted now should be subject to a review of the Project's impact on flora and fauna should the Project not have commenced within 15 years.

Part B recommendation:

The Panel recommends:

The adoption of VicRoads recommended alignment for Zone 1, extending from Pollard Lane to Allanvale Road, and its proposed access arrangements at both the Highway duplication and Freeway stages with the following change:

- **The south west side service road proposed between chainage 1400 and 3700 in the Freeway stage should be implemented at the Highway (AMP3) stage.**

The adoption of VicRoads recommended alignment for Zone 2, extending from Allanvale Road to Briggs Lane, and its proposed access arrangements at both the Highway duplication and Freeway stages subject to:

- **More direct access being provided to Grampians Estate Winery via an access lane to an extended service road past the Winery and joining to St Ethels Road.**
- **An off ramp being provided for westbound traffic to Best's Road.**
- **Investigation of the feasibility of retaining Best's Road at grade and altering the grade line of the Highway to go over Best's Road.**
- **Provision of an emergency access gate to enable emergency access from Hurleys Road on to the Highway reserve.**

The adoption of VicRoads recommended alignment for Zone 3, extending from Briggs Lane to Gilchrist Road, and its proposed access arrangements at both the Highway duplication (AMP3) and Freeway (AMP1) stages, subject to:

- **Modification of Public Acquisition Overlay maps to reflect the changes to land to be acquired in the vicinity of the London Road interchange (as tabled at the Hearing);**
- **The deletion of the proposed service road on the west side between Sisters Rocks Bushland Reserve and Panrock Reservoir Road in the Highway (AMP3) stage; and**
- **Reassessment of options for access to properties on the west side between Sisters Rocks Bushland Reserve and Panrock Reservoir Road prior to the construction of the Freeway (AMP1) stage.**

and that this modified alignment be used as a basis for:

- **Detailed design and implementation; and**
- **The implementation of a Public Acquisition Overlay as proposed in the Draft Amendments C30 to the Ararat Planning Scheme and C45 to the Northern Grampians Planning Scheme.**

1 Background

1.1 Project description

The Western Highway is the main road link between Adelaide and Melbourne. It is the key transport corridor through Victoria's west, and is utilised for interstate trade between Victoria and South Australia, along with local industries such as farming, grain production, regional tourism, manufacturing and service activities. The section of Highway west of Ballarat receives more than 5500 vehicles each day, including 1500 trucks, making it one of the busiest rural highways in Australia. This traffic volume is expected to increase significantly by 2040.

The proponent, VicRoads, proposes to duplicate the Western Highway between Ararat and Stawell, as part of a larger Project to duplicate the Western Highway between Ballarat and Stawell. The sections of the broader Western Highway Duplication Project are as follows (see Figure 1):

- Ballarat to Beaufort (Section 1);
- Beaufort to Ararat (Section 2); and
- Ararat to Stawell (Section 3).

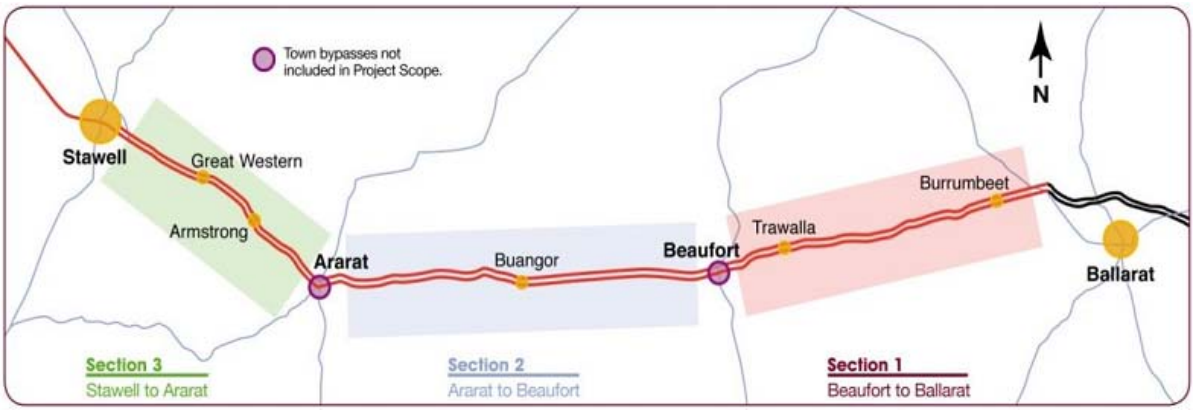

Figure 1 Western Highway Ballarat to Stawell showing sections

Specifically, this EES Inquiry relates to Section 3 of the Project which is approximately 24 kilometres in length and extends from Pollards Lane, Ararat to Gilchrist Road, Stawell. Section 3 is currently an undivided road with a single lane in each direction along with overtaking lanes at some locations. VicRoads expects that the divided Highway will be upgraded to a freeway standard (AMP1) in the long term.

The alignment duplicates the existing Western Highway (partly on the south-west side and partly on the north-east side), after which it follows the Armstrong Deviation, bypassing Armstrong. This is to include a new railway crossing for the westbound new lane located next to the existing rail overpass which will be used for the eastbound lane.

A north-eastern bypass of the township of Great Western will be provided by a new dual carriageway. This bypass will leave the existing Highway just north-west of Delahoy Road and travel east, rejoining the existing Western Highway near Briggs Lane after crossing part of the former Great Western landfill and adjacent quarry.

From Briggs Lane to Hurst Road, the alignment duplicates the existing Western Highway on the south-west side. Two new carriageways are proposed over the railway line and Oddfellows Bridge at Harvey Lane would revert to an on-ramp for southbound traffic. Section 3 finishes south of Gilchrist Road, Stawell.

1.2 Project objectives

The following Project objectives are outlined in the EES (page 2-3):

- *Provide safer conditions for all road users by:*
  - *Reducing the incidence of head-on and run-off crashes;*
  - *Improving safety at intersections;*
  - *Improving safety o access to adjoining properties;*
- *Improve efficiency of freight by designing for High Productivity Freight Vehicles;*
- *Provide adequate and improved rest areas;*
- *Locate the alignment to allow for possible future bypass of Ararat.*

In addition, the EES draft evaluation objectives are as follows (EES page 1-4):

- *To provide for the duplication of the Western Highway between Ararat and Stawell to address safety, efficiency and capacity issues;*
- *To avoid or minimise effects on flora and fauna species and ecological communities listed under the Flora and Fauna Guarantee Act 1988 (Vic) or the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth) and to comply with requirements under Victoria's Native Vegetation Management – A Framework for Action, 2002;*
- *To protect catchment values, surface water and groundwater quality, stream flows and floodway capacity, as well as to avoid impacts on protected beneficial uses;*
- *To avoid or minimise disruption, and other adverse effects on infrastructure, land use (including agriculture) and households, as well as road users resulting from the construction and operation of the highway duplication;*
- *To minimise air emissions, noise, visual, landscape and other adverse amenity effects, during the development and operation of the proposed duplicated highway to the maximum extent practicable;*
- *To protect residents' well-being and minimise any dislocation of residents and severance of communities, to the extent practicable;*
- *To provide net economic benefits for the State having regard to road user benefits, direct costs and indirect costs including with respect to other land uses and economic activities;*
- *To protect Aboriginal and non-Aboriginal cultural heritage;*
- *To provide a transparent framework with clear accountabilities for managing environmental effects and hazards associated with the Protect in order to achieve acceptable environmental outcomes;*
- *Overall, to identify an alignment and conceptual design for the Western Highway Project from Ararat to Stawell that would achieve a sustainable balance of economic, environmental and social outcomes.*

1.3 Terms of reference

The Panel's Terms of Reference were approved by the Minister for Planning on 21 January 2013 and are included as Appendix C of this Report. In summary, the Panel is tasked with the following (as per paragraph 3):

- *Consider and report on the potentially significant effects of the Project taking into account the procedures and requirements the Minister required for the preparation of the Environment Effects Statement (EES) under section 8B(5) of the Environment Effects Act 1978 and the controlling provisions under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Commonwealth) as outlined in paragraph 9 of the Terms of Reference; and*
- *Address matters relevant to the alignment and design of the Project and the draft planning scheme amendments prepared by VicRoads.*

The Terms of Reference, at paragraph 18, state that the Panel must produce a written report for the Minister for Planning which includes:

- *The Inquiry's findings regarding the potential environmental effects (impacts) of the Project and alignment alternatives documented in the EES, including impacts on relevant matters of NES under the EPBC Act;*
- *Advice regarding the availability and effectiveness of feasible mitigation measures or procedures to prevent, minimise or compensate for environmental impacts, including on relevant matters of NES, either proposed by the proponent or suggestions made in public submissions or by relevant agencies;*
- *Any recommended modifications or feasible alternatives to the Project, including in relation to alignment and design, and their likely impacts, including on matters of NES;*
- *A statement of appropriate conditions for approval of the Project under Victorian and Commonwealth law, which should be applied to achieve acceptable environmental outcomes in the context of applicable legislation and policy;*
- *Any matters relevant to the draft planning scheme amendments prepared by VicRoads;*
- *Relevant information and analysis in support of the Inquiry's conclusion and recommendations; and*
- *A description of the proceedings conducted by the Inquiry and a list of those consulted and heard by the Inquiry.*

1.4 Relevant legislation

The Project requires approval under the following:

- Assessment under the Victorian *Environment Effects Act 1978*;
- Approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), Section 18 and 18A (Threatened species and ecological communities). The EES process is to be applied as an accredited process under the *EPBC Act*;
- Under Victorian law, the Project requires the following additional approvals:

- An approved Cultural Heritage Management Plan under the *Aboriginal Heritage Act 2006* to manage works in areas of cultural heritage sensitivity;
- Consent to remove listed flora and fauna under the *Flora and Fauna Guarantee Act 1988*;
- Consent for works on waterway under the *Water Act 1989*; and
- Consent to disturb heritage sits under the *Heritage Act 1995*.

The Project also involves draft planning scheme amendments to the following:

- Draft Amendment C30 to the Ararat Planning Scheme under the *Planning and Environment Act 1987*, which would amend the planning scheme to:
  - Include land required for the Western Highway Project Section 3 in a Public Acquisition Overlay;
  - Exempt the Western Highway Project Section 3 and associated works from requiring planning permits; and
  - Include the 'Western Highway Project Section 3 – Ararat to Stawell Incorporated Document' as an incorporated document in the Ararat Planning Scheme.
- Draft Amendment C45 to the North Grampians Planning Scheme under the *Planning and Environment Act 1987*, which would amend the planning scheme to:
  - Include land required for the Western Highway Project Section 3 in a Public Acquisition Overlay;
  - Exempt the Western Highway Project Section 3 and associated works from requiring planning permits; and
  - Include the 'Western Highway Project Section 3 – Ararat to Stawell Incorporated Document' as an incorporated document in the Northern Grampians Scheme.

1.5 Consultation process

The EES summarised VicRoads' consultation process for the Project as follows:

- A Technical References Group (TRG) was established prior to the commencement of the EES process. It was established and chaired by DPCD and comprised of representatives from government departments, local councils and other organisations.
- A Profession and Local Services Group (PLSG) was established to ensure that emergency services, private infrastructure operators, local services providers and community representatives were included in the planning process.
- Phase 1 developed a long list of feasible alignment options. A Project area boundary was established at 1500 m either side (east and west) of the existing Highway, which the exception of Great Western where the Project area was 1800 m. The following factors contributed to the 'long list' Phase 1 alignment alternatives:
  - The need for a more appropriate connection with the existing Highway;
  - Allowing for the future bypass of Ararat;
  - Ensuring design and safety standards are achieved;
  - Optimising use of existing infrastructure; and
  - Minimising cultural heritage, ecological and social impacts.
- These were more thoroughly assessed under Phase 2, where a 'long list' of options was developed. This list was refined during a 'rapid assessment workshop' in May 2011, where the alignment options were rated against a table of objectives. Impact ratings considered the following:

- The scale and geographic extent of potential effects, or by policy/legislative compliance and implication;
- The environmental, social and/or economic significance of the potential effects; and
- The level of uncertainty surrounding the potential effects, taking into account the precautionary principle.

- The shortlisted options, and alignment alternatives, were assessed through community consultation, at public meetings held in Great Western on 14 July, and Ararat on 19 July 2011.
- In January 2012, the Phase 3: Environmental Risk Assessment took place. During this process, a key change was made to the proposed alignment north of Great Western in Zone 3.
- Further consultation continued with affected landowners through 2012 and 2013, up to the date of the Hearing.

1.6 Inquiry assessment process

This Inquiry Panel was appointed under Section 9 of the *Environment Effects Act 1978* and as an Advisory Committee in accordance with Section 151 of the *Planning and Environment Act 1987* to hear and consider submissions and report on the Project. For simplicity, it is referred to as **the Panel** throughout this report.

The Panel consisted of:
- Trevor McCullough (Chair);
- Darrel Brewin (Member); and
- Ian Harris (Member).

(i) Hearings and inspections

A Directions Hearing was held on 5 March 2013 at Ararat. The Panel Hearings were held on Monday 8 April and Tuesday 9 April 2013 at Gum San Chinese Heritage Centre, Ararat.

The Panel inspected the site and surrounding areas, making an unaccompanied tour of the Project route on 5 March 2013 and an accompanied site visit on 8 April 2013 along the entire route and with specific visits to the following locations:
- Sister Rocks, Stawell Park Caravan park and roadside vegetation between London and Monaghan Road chainage 22100 to 22900;
- Best's Winery, Best's Road, Great Western;
- Existing quarry site, Sandy Creek Road, Great Western;
- Western View Road, Great Western;
- Grampians Estate Winery, Great Western;
- Mr McKay's property at chainage 9400;
- Military bypass road; and
- Petticoat Gully Road entrance to Highway.

(ii) Exhibition

The EES and draft planning scheme amendments were exhibited between 20 December 2012 and 14 February 2013. Notices were placed in local and regional newspapers, and letters were sent to 170 landowners within the area that the EES relates to. An information

bulletin was sent out to the wider area and was also available at service stations, post offices, shire offices and VicRoads offices.

(iii) Submissions

The Panel has considered all written and oral submissions and all material presented to it in connection with this matter.

A total of 16 written submissions were received in response to the exhibition of the EES documents. A list of all submitters is included in Appendix A.

The Panel heard the parties listed in Table 1 at the Public Hearings.

Submitter	Represented by
VicRoads	Mr Mark Bartley of HWL Ebsworth, instructed by DLA Piper and supported by Mr Grant Deeble of VicRoads, who called the following expert witnesses: - Mr Aaron Organ of Ecology and Heritage Partners on ecology; - Mr Ashley Roberts of GHD on hydrology and flooding; and - Ms Marianne Stoettrup of Matters More Consulting on economic issues
Ararat City Council	Mr Joel Hastings
Best's Wines Pty Ltd	Mr Viv Thomson
Mr Cor Lenghaus	
Mr David Cadby	

Table 1 Parties appearing at the Hearing

Appendix B to this Report lists the documents presented to the Panel at the Hearing.

2 Broad policy context and Project benefits

The following policy context is applicable to the Project:

- *National Transport Links – Growing Victoria's Economy* – This strategy proposes to deliver a significant upgrade to Victoria's key transport links, in terms of road, rail and port networks, between 2009 and 2014.
- *Nation Building Program – Roads to Recovery Melbourne-Adelaide Corridor Strategy* – The Western Highway Project is funded under Roads to Recovery Program as part of the Nation Building Program. The Victorian and Australian Governments have committed $505 million to the Western Highway Project under the program.
- *Melbourne-Adelaide Corridor Strategy – Building Our National Transport Future* – This strategy was developed in 2007 by the Commonwealth Department of Transport and Regional Services for transport infrastructure from Melbourne to Adelaide. It seeks to provide guidance to decision-makers and Project proponents in relation to network initiatives.
- *Western Highway M8/A8 Corridor Strategy – Deer Park to South Australian Border* – This strategy, developed in 1999, aims for the Western Highway Corridor to be developed to the following standards:

- Full freeway standard ('M' road) between the Western Ring Road, Melbourne and the Sunraysia Highway, Ballarat and divided carriageways ('M' road) between Ballarat and Stawell.
- Single lane carriageway highway with overtaking lanes ('A' road) from Stawell to the South Australian border.

- *Western Highway Action Committee (WHAC)* – This Committee was formed in 2000 with members of the local councils that are located along the Western Highway corridor.
- *Central Highlands Regional Transport Strategy* – This strategy, released in 2011, is an integrated strategic transport plan for the Central Highlands Region of Victoria. It was developed by the eight councils comprising the region. The Central Highlands Region is facing a number of policy challenges. The works proposed as part of the Western Highway Project are integrated into this strategy.
- *Arrive Alive (Victoria's Road Safety Strategy)* – This strategy has the objective of reducing the incidence and severity of road crashes on Victorian roads by 30% by 2017. The Project area has a crash history of 5.5 crashes per 100 million vehicle kilometres travelled. It is envisaged that the duplication of the Western Highway will result in improved safety.

The EES stated (page 2-3) that the Project benefits will include the following:

- Improved road safety;
- Increased overtaking opportunities;
- Improved property access safety;
- Improved road geometry; and
- Increased transport and freight efficiency.

3 Identification of Issues

3.1 Summary of issues raised in submissions

The key issues raised in the submissions of the various parties are briefly summarised as follows:

VicRoads (Proponent)

The key issues for VicRoads were:

- Policy justification for the Project and the proposed planning scheme amendments;
- Justification of the VicRoads preferred alignment;
- Conclusions from the detailed studies completed by VicRoads in relation to Planning and Land Use, Traffic and Transport, Soils and Geology, Ground water, Surface water, Biodiversity and Habitat, Cultural heritage, Air quality, Noise and vibration, Social and Economic impacts of the Project as set out in the EES; and
- Conclusions in relation to matters of national environmental significance as set out in the EES.

Municipal Councils

Ararat Rural City Council generally supports the Project and raised a number of more detailed access issues and queried the proposed location of truck stopovers.

Northern Grampians Shire Council generally supports the Project and noted the social and economic impacts on the Great Western community.

Other Public Authorities

The Wimmera Catchment Management Authority made a number of minor comments regarding groundwater and surface water planning issues.

The Western Highway Action Committee supported the Project.

The Department of Sustainability and Environment provided comments on native vegetation, rare and threatened species and net gain assessments.

Individual Submitters

The key issues raised by submitters were:

- Property access;
- Impact on roadside vegetation;
- Need for Ararat bypass;
- Severance of land;
- Loss of agricultural land;
- Compensation issues;
- Flooding impact;
- Amenity and noise impacts;
- Visual impact; and
- Economic loss due to access difficulties.

3.2 Issues dealt with in this Report

The Panel considered all written submissions, as well as submissions presented to it during the Hearing. In addressing the issues raised in those submissions, the Panel has been assisted by the information provided to it as well as its observations from inspections of specific sites.

The Panel has structured this report in two parts:

- Part A – Environment effects; and
- Part B – Alignment, design and planning controls.

Part A responds directly to the requirement for the Inquiry Panel to assess the EES in relation to the requirements of the State *Environment Effects Act 1978* and the Commonwealth *EPBC Act*.

Part B responds to the requirement for the Advisory Committee to consider and provide advice on a preferred alignment and subsequent draft planning scheme amendments.

PART A – ENVIRONMENT EFFECTS

4 Inquiry approach to assessment of effects

The EES, in Chapter 4, sets out the EES evaluation objectives along with the relevant legislation and government policies or guidelines.

The Inquiry Panel has examined each of the objectives under the headings used by VicRoads in the EES and has drawn conclusions in relation to the adequacy of the work done, provided comments on submissions made to the Inquiry and, in some cases made recommendations for further work.

The EES evaluation objective for each Chapter is set out at the start of each Chapter and the relevant issues are discussed in detail under the following headings:

- Chapter 6 - Planning and land use;
- Chapter 7 - Traffic and transport;
- Chapter 8 - Soils and geology;
- Chapter 9 - Groundwater;
- Chapter 10 - Surface water;
- Chapter 11 - Biodiversity and Habitat;
- Chapter 12 - Cultural heritage;
- Chapter 13 - Air quality;
- Chapter 14 - Noise and vibration;
- Chapter 15 - Visual and landscape;
- Chapter 16 - Social; and
- Chapter 17 - Economic.

Matters of National Environmental Significance (NES) are separately assessed in Chapter 18 and a summary of conclusions on environment effects is provided in Chapter 19.

The Panel's assessment necessarily requires elements of interpretation and judgement in concluding whether objectives have been met. The Panel has done this by considering all the material and submissions before it and discussing key issues before reaching conclusions.

The Panel believes that the list of evaluation objectives adopted by VicRoads in the EES is complete and does not require any additional items.

5 Approval requirements

5.1 Commonwealth approval requirements

Environment Protection and Biodiversity Conservation Act 1999

The Project was referred to the Commonwealth Government under the *EPBC Act* by VicRoads. The relevant 'controlling provisions' for the Project are: Threatened species and ecological communities (Section 18 and 18A).

The EES process is applied as an accredited process under the *EPBC Act* in accordance with the bilateral agreement between the Commonwealth and Victorian Governments. Accordingly, the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities will make a decision under the *EPBC Act* based on the EES, rather than undertake a separate assessment process.

5.2 Victorian approval requirements

Environment Effects Act 1978 (EE Act)

The Minister for Planning made a decision on 27 October 2010 to require VicRoads to prepare an EES under the *EE Act*. The reasons given for the decision were as follows:

- The Project is likely to result in significant adverse effects on biodiversity, including native vegetation, listed flora and fauna species and listed ecological communities;
- The Project could have significant effects on Aboriginal and non-Aboriginal cultural heritage;
- The Project could have significant effects on the existing land uses, infrastructure and communities, including by impacting on amenity and landscapes;
- The opportunity to avoid or minimise significant adverse effects through the selection of the roadway alignment and design, as well as mitigation and offsetting measures, requires further detailed investigation; and
- An integrated assessment of environmental effects associated with alternative alignments is needed to inform decision-making.

Planning and Environment Act 1987

The following draft planning scheme amendments were prepared by VicRoads and exhibited in conjunction with the EES:

Draft Amendment C30 to the Ararat Planning Scheme, which would amend the planning scheme to:

- *Include land required for the Western Highway Project Section 3 in a Public Acquisition Overlay;*
- *Exempt the Western Highway Project Section 3 and associated works from requiring planning permits; and*
- *Include the 'Western Highway Project Section 3 –Ararat to Stawell Incorporated Document' as an incorporated document in the Pyrenees Planning Scheme.*

Draft Amendment C45 to the Northern Grampians Planning Scheme, which would amend the planning scheme to:

- *Include land required for the Western Highway Project Section 3 in a Public Acquisition Overlay;*
- *Exempt the Western Highway Project Section 3 and associated works from requiring planning permits; and*
- *Include the 'Western Highway Project Section 3 – Ararat to Stawell Incorporated Document' as an incorporated document in the Pyrenees Planning Scheme.*

5.3 Other approvals

The Project requires the following other approvals:

- *Aboriginal Heritage Act 2006* – this Act and associated regulations require a Cultural Heritage Management Plan (CHMP) to be prepared for activities that are defined as High Impact Activities. Section 49 of the Act specifies that a CHMP must be prepared prior to commencing works for any Project for which an EES has been required.
- Approval from the Minister for Environment and Climate Change to remove native vegetation of very high conservation significance. This is under the *Victoria's Native Vegetation Management: A Framework for Action*, produced by Department of Natural Resources and Environment, 2002, and also under the relevant planning scheme and the P&E Act.
- Licence to remove protected flora and fauna from public land. This is under the *Flora and Fauna Guarantee Act 1988*.
- Licence to construct works on a waterway or to construct a bore. This is under the *Water Act 1989*.
- Consents to disturb archaeology sites and/or permits to carry out works to a heritage place. This is under the *Heritage Act 1995*.
- Permits to remove trees containing habitat or any other fauna habitat or fauna salvage and translocation. This is under the *Wildlife Act 197*5.

6 Planning and land use

6.1 EES objectives

The EES objective for Planning and Land Use Assessment is:

> *To avoid or minimise disruption and other adverse effects on infrastructure, land use (including agriculture) and households, as well as road users resulting from construction and operation of the highway duplication.*

6.2 The Issues

The key issues identified for consideration as part of the Planning and Land Use Assessment (EES Chapter 8) include:

- Potential for non-compliance with planning policies due to the fragmentation of properties;
- Temporary disruption to utility services and decreased amenity during the construction of the Project; and
- Potential for longer term land use change associated with a new road alignment.

The EES identifies measures to avoid, mitigate and manage the potential land use effects.

This Chapter also reviews the draft Planning Scheme Amendments C30 to the Ararat Planning Scheme and C45 to the Northern Grampians Planning Scheme (Public Acquisition Overlays, specific site exclusions and Incorporated Documents) proposed to facilitate the implementation of the Project.

6.3 Policy context

The legislation and policies relevant to planning and land use are summarised in the EES at page 8-1 as follows.

Legislation/Policy	Description
Victoria	
Planning and Environment Act 1987	The *Act* establishes a framework for planning the use, development and protection of land in Victoria in the present and long-term interest of all Victorians. The Act sets out the legislative basis to ensure that standard planning provisions are prepared and approved throughout Victoria. The *Act* sets out procedures for preparing and amending the Victoria Planning Provisions (VPP) and planning schemes, obtaining permits under planning schemes, settling disputes, enforcing compliance with planning schemes, and other administrative procedures. The *Act* provides for a single instrument of planning control in a particular area, the planning scheme, which sets out the way land may be used or developed. The planning scheme is a legal document, prepared and approved under the *Act.* The relevant planning schemes for the study area are: - Ararat Planning Scheme; and

	- Northern Grampians Planning Scheme. -
Land Acquisition and Compensation Act 1986	The process under which private land can be compulsorily acquired is set out in the *Land Acquisition and Compensation Act 1986* (LACA). Under the LACA, land required for a public purpose can be acquired by State Government Departments and Agencies. Acquisition can be done either compulsorily or by negotiation. The LACA provides: - The procedures for the compulsory or negotiated acquisition of land; and - The procedures for the determination of compensation, including disturbance and severance costs.
Transport Integration Act 2010	The *Transport Integration Act 2010* (TIA) provides a policy framework for transport and land use agencies. The TIA: - Provides for an integrated sustainable transport system by unifying all elements of the transport portfolio; - Provides for a triple bottom line (economic, social and environmental) assessment of the transport system; - Provides for a common vision, objectives and principles for integrated and sustainable transport policies and operations; - Provides for the integration of land use and transport planning by including 'interfacing bodies / agencies' under the coverage of the Act; and - Recognises that the transport system should be conceived and planned as a single system rather than competing modes.
Regional	
Central Highlands Regional Strategic Plan, June 2010	The Central Highlands Regional Strategic Plan (CHRSP), June 2010 was prepared by member Councils of the Central Highlands Region and co-ordinated by Regional Development Victoria on behalf of State Government. The CHRSP enunciates a Regional vision and a set of strategic directions and actions to be pursued. The following excerpt from the CHRSP is of direct relevance to the Planning and Land Use directions for the Western Highway: *"3.3.2 Transport Upgrades - The road and rail east - west transport spine across the region with the further planned improvements to the Western Highway, such as the duplication of the Western Highway from Ballarat to Stawell (funded by Auslink). The VicRoads Project scope is to include in the construction the bypasses of Trawalla, Buangor and Great Western The ultimate construction of these critical aspects of infrastructure will strengthen the region's comparative advantage against other regions in the State."*
Wimmera Regional Catchment Strategy	The Wimmera Regional Catchment Strategy (WRCS) is a blueprint for investment in environmental Projects over a five year period. It provides the vision for the future landscape of the Wimmera based on good science and local commitment to a sustainable landscape improvement. The WRCS details Projects and objectives to enhance

	and conserve the following regional assets: - Wetlands, streams and terminal lakes; - Groundwater; - Agricultural land; - Heritage sites; - Parks and reserves; - State forests; - Remnant vegetation.
Wimmera Southern Mallee Regional Plan 2010	The Wimmera Southern Mallee Regional Plan (RMCG, June 2010) (WSMRP) directly references the importance of the Western Highway as "*the Western Highway is the principal road link between Melbourne and Adelaide, serving interstate trade between Victoria and South Australia*". The WSMRP acknowledges the need *"To improve road safety and enhance road freight efficiency, upgrading the Western Highway to a four lane highway between Stawell and the South Australian border is along-term aspiration of the Wimmera Southern Mallee"*. The WSMRP also states as an action, the *"Duplication of the Western Highway to the South Australian border to provide a safe road transport corridor through the region"*.
Local	
Ararat Planning Scheme and Northern Grampians Planning Scheme	A planning scheme sets out objectives, policies and provisions relating to the use, development, protection and conservation of land in the area to which it applies. A planning scheme is established under the *Planning and Environment Act 1987* and regulates the use and development of land through planning provisions designed to achieve those objectives and policies. In this instance, the Ararat Planning Scheme and the Northern Grampians Planning Scheme are relevant to the Project area.
Ararat Residential Land Use Strategy 2005	The objective of this strategy is to address the 30 year housing needs for the town of Ararat. Ararat has significant opportunities to address anticipated housing demand beyond the year 2035. The residential options discussed in this strategy are a high level identification of residential and rural residential land to address the housing needs of Ararat. The options also address many of the Victorian Government criteria for identifying residential land. It is important to note that to clarify a more detailed demand and supply position a local structure plan will have to be undertaken in the identified areas.
Ararat Rural Zone Review 2007	In 2007, a review of Rural Zones was undertaken within the Ararat Rural City. The review was undertaken to assess the 8,000 rural zoned lots which were less than the 40 hectare (ha) minimum lot size. The objective of the review was to provide recommendations to Council associated with the long term planning framework to guide urban residential rural living land in the Farming Zone. The Ararat Rural Zones Review suggested guidelines be incorporated into the planning scheme for residential development on lots less than 40 ha. Recommendations from the Review associated with rural residential development and

	township frameworks were incorporated into the Planning Scheme, however, the guidelines for urban residential development are yet to be incorporated.
Ararat Environmental Sustainability Strategy 2010-2020	In September 2008 Ararat Rural City completed a Local Environment Sustainability Priority Statement (LESPS) which outlines and commits Council to key Accord Principles and forms the basis of future programs. The LESPS forms the action component of the Ararat Environmental Sustainability Strategy 2010-2020. The Strategy explores environmental themes, prioritises a plan of action and guide's Council's long term environmental management and sustainability commitments over the next 10 years.
Ararat Rural City Council Plan 2009-2013	The Council Plan sets the direction for Council to support the community through leadership and service provision. It is built on the following four 'pillars' and one 'Foundation' to achieve the vision of Ararat Rural City being 'Your location of choice': - Our People: We value our people and our community, their sense of place and connectedness and will target our services to meet their needs. - Our Culture: We will strengthen the underlying community fabric by building upon the culture and heritage which defines our identity. - Our Economy: We will enhance our community's prosperity through encouraging sustainable growth. - Our Environment: We value our natural and built environment and want to manage, enhance and protect it, now and for future generations. - Our Organisation (foundation): Our Council is open, fair and honest, engaging with the community to provide leadership and supporting our community through efficient and effective service provision.
Northern Grampians Council Plan 2009-2013	The purpose of the Council Plan is to provide a framework for undertaking a range of actions that will enable the vision, 'Creating a better lifestyle and environment' of the Northern Grampians Shire to be achieved. The plan lists a range of goals and strategies to achieve the shared vision. The goals are: - A healthy, supportive and safe community providing a sustainable, quality lifestyle; - A sustainable natural and built environment that meets current and future needs; - A sustainable economy attracting and encouraging new enterprises while supporting existing businesses; and - Progressive leadership, good governance, efficient and cost-effective services.
Northern Grampians Sustainable Living Strategy 2011	The Northern Grampians Shire Council has developed a Sustainable Living Strategy to: - Establish a strategic vision for the study area; - Provide clear direction for the staging of use and development;

	- Make recommendations regarding effective and seamless planning controls across the municipal boundary; and - Improve the application of the rural zones across Shire boundaries based on available strategic information. The Western Highway forms the eastern boundary of the study area and as part of the rural zones review, further analysis was undertaken of the current and future tourism opportunities at Great Western arising from the Western Highway Project. The report acknowledges that there are a range of zones within the Great Western township and that zones around Best's Winery could be further investigated to protect future operations following finalisation of the alignment for the Western Highway Project. The report also recommends Council "amend Clause 21.05 of the Planning Scheme to promote the revitalisation of Great Western associated with the Western Highway Duplication". On balance, the report notes that the duplication of the Western Highway provides an opportunity to revitalise the town centre and reinforce its role as a key tourism node in the Triangle. It is noted this report is currently out for comment and is yet to be finalised or implemented.
Country Towns Water Supply and Sewerage Program	The Country Towns Water Supply and Sewerage Program commenced in July 2005. Since then, it has funded sustainable solutions to improve water and sewerage connections to small towns throughout Victoria. As part of the Program, Great Western has received funding to provide a sewerage scheme to the town that will comprise a pump well unit on each property that collects wastewater and grey water and pumps it to a central wastewater treatment plant. The program will seek to avoid any potential impacts on public health or the environment resulting from faulty or ill maintained septic systems. Provision of a sewerage system within Great Western may also assist in facilitating growth of the township.

6.4 Evidence and submissions

(i) Compliance with planning policies

VicRoads submitted that the Project is consistent with State and local planning policies and summarised the main areas of impact as follows:

State Planning Policy Framework

Clause 11.05 – Regional development – The Project assists regional employment during construction, reduces travel times and enhances tourism potential.

Clause 12 – Environmental and landscape values – The Project requires vegetation removal, however the alignment selection process has been managed to minimise impacts.

Clause 14 – Natural resource management – The Project will impact on agricultural land and on the quarry north of Great Western.

Clause 17 – Economic Development – The Project potentially impacts on the economic viability of a number of businesses with more difficult access under the new alignment, in particular the Great Western wineries. The Panel has considered these impacts in some detail and recommendations are made to mitigate impacts.

Clause 18 – Transport – This clause requires that transport routes be located to achieve the greatest overall benefit to the community and with regard to '*making the best use of existing social, cultural and economic infrastructure, minimising impacts on the environment and optimising accessibility, safety, emergency access, service and amenity*'. It also seeks to locate and design new transport routes and adjoining land uses to minimise disruption of residential communities and their amenity. VicRoads submitted that the Project objectives are consistent with this Clause.

Local Planning Policy Framework

The Ararat Planning Scheme contains local policies relating to settlement and housing, environment and economic development that are relevant to the Project.

The Northern Grampians Planning Scheme contains a number of relevant local policies relating to settlement, tourism, environment and heritage.

VicRoads submitted that the Project objectives are consistent with the local planning policies and that impacts can be minimised or mitigated in accordance with policy requirements.

(ii) Disruption during construction

The EES identifies the likelihood of impacts on utility services in the roadside during construction including water, power and communications services. The Project also requires two new crossings of the Melbourne to Adelaide rail line. VicRoads submitted that the short term impacts can be managed as part of the construction management process.

Later Chapters of this Report provide further discussion of the more specific impacts of the Project during construction.

(iii) Longer term impacts

VicRoads submitted that '*the proposed alignment has been designed to minimise impacts on existing land uses by varying the corridor to accommodate either land uses on private property or to avoid significant vegetation where possible*'.

The EES states that the Project will result in long term benefits for the township of Great Western as it will relocate heavy vehicles out of the town, improve safety and reduce noise.

The EES acknowledges that the land use for number of properties may be adversely impacted by partial acquisition:

- Property 3001 (Ms Bacon, Submission 4) at London Road, Stawell will be reduced in size from 8.7ha to 2ha, reducing the future subdivision and development potential of the site. VicRoads advised that they have agreed to acquire the remaining 2ha and amended the PAO maps to reflect this;
- Property 3002 (Ms Laity, Submission 7) at London Road, Stawell. A dam will be isolated from the balance of the property and a significant part of the land will be acquired, reducing the subdivision and development potential of the land. VicRoads advised that they have agreed to acquire the balance of the land containing the dam and the loss of

land and compensation (including loss of potential income) will be assessed by the process provided in the *Land Acquisition and Compensation Act 1986*;

- The Project alignment impacts to a minor degree on the frontage of a number of wine and olive growing properties. VicRoads have advised that the alignment has been designed to minimise impacts on existing vines and trees. Where owners experience loss of land or other impacts on their business they will be compensated in accordance with the process provided by the *Land Acquisition and Compensation Act 1986.* The overall long term impact on the viability of farming and agricultural land is assessed in the EES as minor;
- The Project extends through the Best's Winery property (Submission 1) requiring substantial acquisition. VicRoads advised that the alignment did not directly impact vines on the property. Mr Thomson, representing Best's Wines, confirmed that the proposed alignment did minimise impact on the property, although he is concerned about the lack of a direct access off ramp from the east on to Best's Road and the impact that this may have on cellar door wine sales. This is discussed further in Chapter 17 – Economics;
- The alignment extends across the former landfill and existing quarry sites at Sandy Creek Road, Great Western. In the short term, the quarry may benefit from the supply of material to the Project. In the longer term, there may be some limitations on further extraction as a result of the Project. Some waste material will need to be relocated where the Project impacts the former landfill and this will require EPA approval;
- Several submitters, including Best's Winery (Submission 1) and Mr and Mrs McKenzie (Submission 14), raised concerns about impacts on the movement of stock and machinery arising from the Project, and the impact on access to existing dams. VicRoads submitted that it is unlikely that stock underpasses would be justified as other reasonable alternatives are available. VicRoads advised that they were working with individual property owners to resolve or minimise other impacts and where necessary compensation will be assessed; and
- A number of other properties are impacted to a minor degree by partial acquisition that does not threaten the use or development potential of the land. These landowners will be compensated in accordance with the process provided by the *Land Acquisition and Compensation Act 1986.*

A number of properties are potentially impacted by changes to access arrangements. This is discussed further in relation to individual properties in Chapter 7 and in Chapters 21 to 23. The more specific social and economic impacts on individual landowners are discussed in Chapters 16 and 17 respectively.

6.5 Discussion

The Panel agrees with VicRoads' position that the Project is generally consistent with State and local planning policies provided that the identified impacts of the Project, particularly with regard to environmental impacts and the impacts of land severance, can be appropriately avoided or mitigated. The Panel notes that landowners will be compensated for loss of land, and in some cases the loss of productive capacity of the land, in accordance the *Land Acquisition and Compensation Act 1986*. Other impacts and the proposed mitigation measures are discussed in more detail in the following chapters.

The Panel notes the disruption to services, traffic and farm operations that is expected to occur during construction of the Project. The Panel notes that VicRoads is required to prepare and implement a Construction Environmental Management Plan (CEMP) for all stages of the Project in accordance with the Incorporated Document. The CEMP will include requirements for dust and noise suppression, temporary access arrangements and the like. The Panel also notes the undertaking by VicRoads to engage with local landowners and Councils through all stages of the Project in relation to Traffic Management Plans and other temporary impacts.

The application of Public Acquisition Overlays is an appropriate and frequently used method of reserving land for future public infrastructure. The Panel agrees that it is responsible and proper planning for VicRoads to identify future land requirements for upgraded roads as early as possible in the planning phase. The preferred future road alignment is examined in Part B of this report. Subject to its detailed comments in Part B, the Panel supports the introduction of the necessary Public Acquisition Overlays into the Ararat and Northern Grampians Planning Schemes as required to protect land from development for the preferred alignment. Likewise it is accepted practice to exempt specific Projects from further planning approvals under Clause 52.03 of the relevant Planning Schemes subject to compliance with the conditions set out in an Incorporated Document, as proposed in this case by VicRoads. The Panel has examined the wording of the proposed amendments to Clause 52.03 – Specific Sites and Exclusions – in the Ararat and Northern Grampians Planning Schemes and the proposed Incorporated Documents and recommends their approval. It is noted that no submitters challenged the changes to Clause 52.03 or the Incorporated Document.

The Panel notes that the Draft Planning Scheme Amendments C30 to the Ararat Planning Scheme and C45 to the Northern Grampians Planning Scheme have been exhibited in conjunction with the EES and it has been made clear in the exhibition documents that VicRoads intention is to request Ministerial amendments to the Planning Schemes under Section 20(4) of the *Planning and Environment Act 1987*. Further, it was made clear that there may be no further opportunity for public comment on the Draft Amendments beyond the exhibited process.

The Panel believes that, given the public exhibition process that has been employed, the fact that all interested parties have been given a fair opportunity to be heard, and the transparency of VicRoads regarding the process, it would be appropriate for the Minister for Planning to approve the Planning Scheme Amendments as Ministerial Amendments under Section 20(4) of the *Planning and Environment Act 1987.*

6.6 Conclusions

The Inquiry Panel concludes that:

- The Project is generally supported by State and local planning policy provided that the identified impacts of the project are appropriately managed;
- The short term impacts of the Project can be avoided or mitigated through the use of CEMP;

- The proposed alignment minimises the land use impacts of the Project, and where impacts cannot be avoided, compensation is available to landowners through the processes of the *Land Acquisition and Compensation Act 1986*;
- Subject to the findings of Part B of this report in relation to the preferred alignment, the following changes to the Ararat and Northern Grampians Planning Schemes are recommended:

- The introduction of Public Acquisition Overlays as required to protect land for the Project;
- The proposed amendment to Clause 52.03 'Specific Sites and Exclusions' to exempt the Western Highway Project (Section 3 Ararat – Stawell) and associated works from requiring planning permits;
- The proposed amendment to Clause 81.01 to introduce the 'Western Highway Project: Section 3 –Ararat to Stawell Incorporated Document'; and
- It is appropriate for the Minister for Planning to approve the Planning Scheme Amendments as Ministerial Amendments under Section 20(4) of the *Planning and Environment Act 1987.*

6.7 Recommendations

The Inquiry Panel recommends the following actions in relation to Planning and Land Use impacts of the Project:

The Minister for Planning should approve Planning Scheme Amendments C30 to the Ararat Planning Scheme and C45 to the Northern Grampians Planning Scheme via the provisions of section 20(4) of the *Planning and Environment Act 1987*, including:

- **Introduction of the proposed Public Acquisition Overlays in the Ararat and Northern Grampians Planning Schemes consistent with the alignment as recommended in Part B of this report;**
- **Amendments to Clause 52.03 'Specific Sites and Exclusions' of the Ararat and Northern Grampians Planning Schemes to exempt the Western Highway Project (Section 3 Ararat to Stawell) and associated works from requiring planning permits; and**
- **The proposed Amendment to Clause 81.01 of the Ararat and Northern Grampians Planning Schemes to introduce the 'Western Highway Project: Section 3 – Ararat to Stawell Incorporated Document'.**

7 Traffic and transport

7.1 EES objectives

The EES objective for Traffic and Transport is:

> *To provide for the duplication of the Western Highway between Ararat and Stawell to address safety, efficiency and capacity issues.*

7.2 The Issues

The EES identified traffic benefits of the Project including:

- Increased capacity to handle increasing traffic volumes;
- Travel time savings;
- Improved safety; and
- Improved efficiency for freight vehicles.

The EES assessed several potential adverse impacts on traffic including:

- Changed road environment during construction may result in a temporary general reduction to road safety. Examples of road environment changes include: heavy vehicles entering/exiting construction accesses; additional or closer roadside hazards; variable speed limits; and unfamiliar conditions;
- Changed road environment during construction may result in a short-term general reduction in performance and efficiency of travel modes. Examples of road environment changes include: speed reductions; works resulting in temporary road or lane closures; or cumulative impacts of the simultaneous construction of multiple sections of the Western Highway;
- The duplication has the potential to disrupt local access routes post-construction; and
- Potential for some aspects of road safety to be degraded. For example, wildlife crossing a wider road may increase collisions.

7.3 Policy context

The legislation and policies relevant to traffic and transport are summarised in the EES as follows.

Legislation/Policy	Description
Victoria	
Transport Integration Act 2010	*The Transport Integration Act 2010* sets out the charter for Victoria's transport agencies, including VicRoads, to: - Manage the road system in a manner which supports a sustainable Victoria by seeking to increase the share of public transport, walking and cycling trips as a proportion of all transport trips in Victoria. All new transport Projects must be assessed using a triple bottom line framework which considers the economic, environmental and social costs and benefits of the Project.

Road Management Act 2004	The *Road Management Act 2004* provides 'practical guidance to any person conducting, or proposing to conduct, any works on a road in Victoria.' The Act has been established to promote safe and efficient road networks and a coordinated approach for the management of public roads. The *Road Management Act (General) Regulations 2005* and the *Road Management Act (Works and Infrastructure) Regulations 2005* have been established under the Road Management Act and are to be complied with for all public roads.
VicRoads Access Management Policies (2006)	The VicRoads Access Management Policies provide the design criteria for each road classification. The duplication of Western Highway is to be designed for Access Management Policy 3 (AMP3) and planned for eventual upgrade to Access Management Policy 1 (AMP1).
Arrive Alive 2008-2017, Victoria's Road Safety Strategy	This strategy has the objective of significantly improving road safety across the State and substantially reducing the incidence of deaths and serious injuries on Victorian roads. Improvement works to this section of the Western Highway are expected to offer crash reductions over the life of the Project (30 years), which will ultimately contribute to the achievement of this Government objective.

7.4 Evidence and submissions

As set out in the EES (Chapter 9) and Technical Appendix D, VicRoads expects the Project:

- To improve road safety by such means as increased clear zone widths, bypassing the township of Great Western, providing adequate rest areas, providing central medians and overall improvements to the horizontal and vertical alignment. There would be extra safety improvements for the ultimate freeway upgrade through intersection grade separations and controlling local access via service roads;
- To improve safety in Great Western by reducing traffic volumes and removing freight traffic;
- To improve safety over the Section by providing continuous overtaking opportunities, grade separated intersections (particularly under AMP1), improved alignment geometry and treatment of roadside hazards;
- Increase the capacity of the Highway so it can accommodate the traffic volumes predicted for 2040;
- To provide travel time savings of around three minutes for vehicles travelling along the Western Highway through the study area due to continuous overtaking opportunities, higher posted speed limit, better grade line and a reduction in the number of intersections. Improved travel times would have a number of benefits including improved access and amenity for motorists, improved travel cost efficiency for road-based freight vehicles and improved travel times for emergency vehicles and buses. It is reasonable to assume a travel time saving for the majority of road users, though it is expected that some local landowners/occupiers would have increased travel times, due to reduced access to the Highway, particularly for farm machinery. While this cannot be avoided, it is offset by improved safety of access and mitigated by incorporating sufficient locations to enable U-turns; and

- To enable High Productivity Freight Vehicles to use the Highway/Freeway, thereby contributing to further improvements to freight efficiency.

Mr Hamilton (Submission 2) raised safety concerns about access to his property at 384 Western Highway. VicRoads responded that safe access would be provided via left in left out driveway access and use of U turn opportunities.

Ararat Rural City Council (Submission 11), represented by Mr Joel Hastings at the Hearing requested further detail on the location of truck parking bays. VicRoads indicated at the Hearing that it would be happy to consult with Council on the most appropriate locations.

Some submitters, including Ararat Council, expressed concern about the impacts of construction vehicles on rural roads and on local access arrangements. VicRoads has in place a framework Environmental Management Plan (EMP) as a basis for the appointed contractor preparing and complying with a Construction EMP (CEMP) which would cover such matters. The contractor's obligations would include developing a Traffic Management Strategy and detailed Traffic Management Plans (TMPs) for each of the construction stages to minimise the impacts of construction traffic on use of the Highway.

A number of specific local access issues affecting businesses and residents were raised by submitters. Two submitters also raised issues in relation to the future bypass of the Ararat township. These issues are discussed in more detail in Part B of the Report.

7.5 Discussion

The Panel recognises the extensive work undertaken in the Traffic and Transport Assessment, including:

- Studies of present and past traffic volume data and forecasts, user facilities, crash histories, public transport timetables and needs;
- Consideration of potential construction impacts, such as traffic operations, safety and access, on all road users; and
- An environmental risk assessment of the Project options to identify key environmental issues associated with the construction and operation of the Project.

The Panel notes the conclusion of the Traffic and Transport Assessment Report that design features of the duplication are expected to eliminate a high proportion of existing road safety risks and provide for a higher road safety standard than currently exists.

The Panel notes VicRoads expects most of the adverse impacts on road users to occur during the construction phase, when the proposed works could impact on road safety and transport efficiency. However, the EES assessment concluded that acceptable outcomes would be achieved through the implementation of detailed Traffic Management Plans and through community consultation to inform road users of what to expect during construction.

7.6 Conclusions

The Panel is satisfied the EES adequately addresses the key issues and concludes that the objectives of improved safety and road capacity can be achieved through the proper design and implementation of the road duplication.

The Panel agrees that traffic problems expected during construction can be appropriately managed through careful implementation of detailed Traffic Management Plans, consultation with affected landowners and by providing clear information to road users.

8 Soils and geology

8.1 EES objectives

The EES objective relevant to soils and geology is:

> *To protect catchment values, surface water and groundwater quality, steam flows and floodway capacity, as well as to avoid impacts on protected beneficial uses.*

8.2 The Issues

The EES discusses the geology and soils of the Project area, the potential impacts from the Project on these natural features and vice versa, and the management measures to be implemented to minimise these impacts.

Specifically, the EES:

- Identifies and assesses the potential effects of road construction and operation activities on soil stability, erosion and the exposure and disposal of any waste or hazardous soils (for example highly saline or contaminated soils). The effects these issues have on road construction and operation are also assessed;
- Identifies measures to avoid, mitigate and manage any potential effects, including any relevant design features of the road or techniques for construction;
- Identifies residual effects of road construction and operation activities on soils in the Project area, including any limitations to future land use activities; and
- The EES Scoping Requirements state, 'If contaminated soils are identified, an assessment should be prepared outlining what is known about the contamination and further steps to be implemented'. This is likely to be the case with the former Great Western Landfill.

8.3 Policy context

The legislation and policies relevant to soils and geology are summarised in the EES as follows.

Legislation/Policy	Description
Victoria	
Planning and Environment Act 1987	Section 12 of the Act includes provisions to ensure that potentially contaminated land is suitable for the use allowed within the relevant planning scheme.
Environment Protection Act 1970	Enables EPA Victoria to implement the State Environmental Protection Policy (SEPP) in regard to contaminated land, and the Industrial Waste Management Policy for waste acid sulphate soils. All construction activities must comply with the general performance measures outlined in the legislation.
Catchment and Land Protection Act 1994	Provides a framework for the integrated and co-ordinated management of catchments in regards to long-term land productivity and maintenance of the quality of the State's land and water resources.
State Environmental	The Land SEPP establishes a range of general uses of land in Victoria,

Protection Policy, (Prevention and Management of Contamination of Land) 2002 (Land SEPP)	and is the principle regulation for the management of contaminated land in Victoria. The Land SEPP outlines the process for establishing land contamination and management and remediation of impacted sites.
Industrial Waste Management Policy (Waste Acid Sulphate Soils) 1999	This policy outlines a management framework and specific requirements for the management of acid sulphate soils in an environmentally responsible manner.
Best Practice Environmental Management (BPEM): Siting, Design, Operation and Rehabilitation of Landfills	Guidelines for existing and future landfill operations. Provides planning authorities and regulatory bodies with considerations for works approvals or licensing of existing and new landfill sites.
Best Practice Environmental Guidelines (BPEG), Environmental Guidelines for Major Construction Sites	The BPEG provides a framework within which due diligence obligations can be met and environmental damage can be avoided during the commissioning of construction of freeways, major roads or major developments.
Victorian Best Practice Guidelines for Assessing and Managing Coastal Acid Sulphate Soils (CASS BPG)	The CASS BPG outlines a tiered, risk-based approach to identifying, assessing and managing acid sulphate soils.

8.4 Evidence and submissions

The EES Chapter 10 and Technical Appendix E examined the potential for Section 3 of the Project to encounter adverse geological conditions, affect soil stability, cause soil erosion and expose contaminated and acid sulphate soil (ASS). Based on a review of previous and current land use, the potential for localised contamination in the study area is considered by VicRoads to be moderate.

The EES reports that there is limited information on the soil properties and characteristics of the study area at this stage of Project development, so specific areas which may be more susceptible to soil erosion cannot be accurately identified. However, there is a moderate risk of encountering unstable geological units, which may contribute to soil erosion associated with softer alluvial sediments and historical mine workings.

Several features were identified that indicate potential for land contamination, including farm shearing sheds (often associated with sheep dips), railway lines (historic land management practices), the former Great Western Landfill site, the presence of potentially asbestos bearing rock (Ch. 2800 to 10000), areas of disturbed soils (potential sites of buried waste) and historic mining works (mine tailings). ASS has not been identified within the study area, based on the preliminary assessment, however pyritic and sulphidic rock both outcrop along the proposed alignment. Therefore, targeted sampling would be required prior to construction.

No submissions were received that raised matters in relation to soils and geology.

8.5 Discussion

The study area is the same as the Project area, which encompasses a corridor extending up to 1500 metres (m) either side (east and west) of the edge of the existing Highway, except around Great Western where the study area extends up to 1800 m encompassing the extent of alignment options.

With regard to the geology of the alignment, fault areas are prone to instability and rapid deterioration. A drive through assessment by the consultants GHD did not identify any significant remnant features of the mapped faults intersecting or within close proximity to the proposed alignment. From the photographic evidence assessed, no apparent sign of ground instability or movement was distinguished. However, the broad scale photography means that small-scale localised instabilities or ground movement that result in soil erosion may be difficult to discern. The EES stated that ground instabilities have the potential to develop during earthwork operations, particularly along the banks of the existing creeks and steeply inclined areas. The EES concluded that there is a medium risk of encountering unstable geological units during construction and that site specific soil erosion management plans would be developed as part of the Project Construction Environmental Management Plan (CEMP).

Contaminated soils are specifically a concern around the locality of the former Great Western Landfill. Excavation of material from the former landfill and potential for fuel or chemical spills during construction present a risk of contamination. The EES states that these risks would be managed, firstly through the identification of contaminated soils, any ASS soils and spill risks and then by proper management via the Project CEMP. VicRoads has also held discussions with the EPA associated with the proposed alignment extending through part of the former Great Western Landfill and a process identified to manage impacts.

8.6 Conclusions

The Panel is satisfied that the EES has considered and assessed the issues associated with soils and geology and is satisfied that they have been adequately addressed in the VicRoads design for the Project.

9 Groundwater

9.1 EES objectives

The EES objective relevant to Groundwater is:

> *To protect catchment values, surface water and groundwater quality, stream flows and floodway capacity, as well as to avoid impacts on protected beneficial uses.*

9.2 The Issues

The EES discusses the groundwater environment, including the location, behaviour and quality; including beneficial uses. The impact assessment identified the following key potential issues:

- Changes to groundwater availability from:
- Dewatering created by cuttings
- Groundwater use during construction
- Changes to aquifer character
- Severance to access to groundwater supplies.
- Changes to groundwater quality from:
- Groundwater contamination
- Activation of Acid Sulphate Soil conditions
- Changes in groundwater flow (e.g. from cuttings).
- Salinity of the groundwater is relatively high in the study area.
- The Department of Primary Industries' (DPI) mapping has identified a number of groundwater dependent ecosystems in the study area.

9.3 Policy context

The legislation and policies relevant to groundwater are summarised in the EES as follows.

Legislation/Policy	Description
Victoria	
Water Act 1989	Approval for the extraction, use or disposal of groundwater for the Project may be required under the *Water Act*. It is not yet known if this would be required for the Project. This would be confirmed during the detailed design phase.
Environment Protection Act 1970	The *Environment Protection Act 1970* (EP Act) regulates the discharge of emissions to the groundwater environment by a system of licenses and works approvals. Any discharge into groundwater during the construction of the Project must be in accordance with the requirements of the EP Act. The requirement for this discharge would be confirmed by the construction contractor(s).
State Environment Protection Policy (Groundwaters of Victoria)	The State Environment Protection Policy (SEPP) (Groundwaters of Victoria (GoV)) has been developed under the provisions of the EP Act and sets out segments of the groundwater environment, based on salinity. Each segment has beneficial uses that must be protected. The

	EPA can determine that the beneficial uses of a segment are not applicable to groundwater where: - There is insufficient yield. - The background level of a water quality indicator other than total dissolved solids (TDS) precludes a beneficial use. - The soil characteristics preclude a beneficial use. - A groundwater quality restricted use zone has been declared.

9.4 Evidence and submissions

Regional bore information indicates that the salinity of the groundwater is relatively high in the study area, meaning that it has limited extracted value. The key risk considered in the impact assessment was the intersection of groundwater during construction. Although the likelihood of this occurring is low, if it was intersected then the impact would range from insignificant to moderate.

Cuts below the water table along the proposed alignment could potentially cause groundwater inflows into areas of excavation. This could potentially impact subsurface construction and potentially cause the following issues:

- A reduction in the availability of water to nearby bores through the lowering of the water table;
- Depressurisation of perched groundwater aquifers;
- Loss of water supply to Groundwater Dependent Ecosystems;
- Ground settlement;
- Activation of acid sulphate soils; or
- Mobilisation of contaminated groundwater plumes.

Based upon the information that is currently available, it is expected that there is an elevated risk of intersecting groundwater along the alignment where the depth of cut is greater than 3m. It is therefore estimated that only 1.5km of the proposed 24km alignment has an elevated risk of intersecting groundwater (EES Table 11-3).

Regional mapping by the DPI has identified a number of Groundwater Dependent Ecosystems (GDEs) in the study area that potentially use groundwater to some extent, although they may not necessarily be dependent on it. Very little data is currently available to assess whether or not these GDEs are actually dependent on groundwater. However, the higher salinity groundwater in much of the study area would not be conducive to plant growth.

The alignment passes through the former Great Western Landfill and existing quarries. The deepest cuts of the Project would occur within these locations to a similar depth that has been excavated for the quarry. The quarry operator has indicated that groundwater intrusion is not an issue for current operations.

Testing of the former landfill by consultants Golder in 2011 suggested that wastes were deposited above the groundwater table. The landfill is in the base of an old quarry and may not have been constructed with an engineered lining system. It is therefore possible that leachate from this landfill has impacted upon the groundwater quality in this location. The likelihood of intercepting contaminated groundwater was considered to be low because

Golder's investigations suggest that groundwater occurrence is deep and that a cut located in this area is unlikely to intersect groundwater.

The EES indicates that groundwater risks are mitigated, as the proposed alignment would be predominantly above grade. With limited cuts below the existing grade, there would be limited or no opportunity for the road to directly interact with the groundwater environment.

However the Wimmera Catchment Management Authority (WCMA) (Submission 15) claims the EES does not deal in sufficient detail with threats associated with intersecting groundwater and the issues associated with creating a new point source of saline groundwater discharge. They requested further elaboration of the approach to dealing with saline groundwater should it occur.

VicRoads' response to the WCMA submission states that groundwater impacts have been considered to an appropriate level of detail for this stage of the planning process. Intersecting groundwater and groundwater discharge can be dealt with in a CEMP. The most significant excavation required as part of the Project will be at the operating Great Western quarry, and this site has already been cut close to the depth required by the Project without groundwater discharge. VicRoads will request approval from the EPA if groundwater is encountered and there is a need for disposal. They will also consult with the WCMA.

9.5 Discussion

There is little development of groundwater resources in the region therefore the understanding of groundwater conditions is based on limited available data from existing bores. However, based on the information available, and considering that the Project has few areas of deep cut proposed, the information was considered suitable to inform the impact assessment. It was determined that further investigation of groundwater depth, flows and quality would be required prior to construction.

VicRoads will undertake geotechnical investigations to confirm the groundwater depth during the detailed engineering design phase, and groundwater management measures have been identified to protect and maintain groundwater availability and quality.

The majority of risks associated with groundwater in the Project have been assigned a negligible rating, as most of the carriageway would be constructed either above the existing grade or in shallow cut providing limited opportunity for direct interaction with the groundwater environment. Uncertainties regarding groundwater would be reduced prior to construction with the implementation of geotechnical and groundwater investigations to established baseline conditions, and the assessment would be required to characterise the groundwater occurrence and quality to inform the engineering design.

Overall, the Panel agrees that there would be a low likelihood of encountering groundwater, however it cannot be discounted that groundwater may be unexpectedly encountered at localised areas along the proposed alignment.

9.6 Conclusions

With implementation of the proposed mitigation measures there are not expected to be any significant groundwater impacts. The overall risk to groundwater is low.

The Panel is satisfied that the EES has considered and assessed the issues associated with groundwater and is satisfied that they have been adequately addressed in the VicRoads design for the Project.

10 Surface Water

10.1 EES objectives

The EES objective relevant to surface water is:

> *To protect catchment values, surface water and groundwater quality, stream flows and floodway capacity, as well as to avoid impacts on protected beneficial uses.*

10.2 The Issues

The proposed alignment crosses four significant watercourses; Concongella Creek (7 crossings); Allanvale Creek; Robinsons Creek; and Donald Creek, as well as 28 minor waterways. Where the proposed alignment deviated from the existing Highway to bypass Great Western, new crossings of significant waterways were proposed – two of Concongella Creek and one of Allanvale Creek. In these locations, and at the site of the proposed realignment of Concongella Creek, there could be impacts on the health of the creeks.

The construction of the Project could also result in changes to the flood plain characteristics of Concongella Creek and its tributaries, and could impact on the flooding regime that currently affects some rural properties as well as Great Western township.

Three submissions identified the following issues relating to surface water:

- The Project could cause increased flooding of properties along Concongella Creek; and
- The alignment of the proposed bypass of Great Western could increase the flooding at the convergence of Concongella and Allanvale Creeks, and of Great Western township.

10.3 Policy context

The legislation and policies relevant to surface water are summarised in the EES as follows.

Legislation/Policy	**Description**
Victoria	
Water Act 1989	Any works, which intercept waterways and their floodplains must be undertaken in accordance with the requirements of the *Water Act 1989*. The Wimmera Catchment Management Authority (WCMA) is the responsible authority for issuing licences for works on waterways for most of the Project area and permission would be required from WCMA for the crossing of waterways for the Project. A small part of the south eastern end of the Project area lies within the Glenelg Hopkins Catchment Management Authority region.
State Environment Protection Policy (Waters of Victoria) (2004)	The State Environmental Protection Policy (SEPP) (Waters of Victoria (WoV)) identifies the beneficial uses of waterways, which must be protected. Works undertaken for the Project on or near waterways would need to be managed to reduce the risks to aquatic ecosystems and other beneficial uses of the waterway, as defined by the SEPP (WoV).
Catchment and Land Protection Act 1994	The *Catchment and Land Protection Act 1994* has the objective of establishing a framework for the integrated and coordinated

	management of catchments that will: - Maintain and enhance long-term land productivity while also conserving the environment; and - Aim to ensure that the quality of the State's land and water resources and their associated plant and animal life are maintained and enhanced. The Act provides for the development of Regional Catchment Strategies that must assess the nature, causes, extent and severity of land degradation of the catchments in the region and identify areas for priority attention. Local Planning Schemes must have regard for the Regional Catchment Strategies.
Glenelg Hopkins River Health Strategy (2004-2009) (still in use)	The Glenelg Hopkins River Health Strategy (2004 – 2009) provided a five year blue print for improving the health of rivers and creeks within the catchment. The main aim of the River Health Strategy were to: - Identify and prioritise actions for river restoration, considering environmental, social and economic values; - Identify threats to waterway health and assess the level of risk based on the interaction between threats and values; - Identify priority actions required to protect and enhance high value river reaches; - Identify opportunities to actively involve the community in river health; and - Provide the strategic framework for investment in river health for the five year period.
Wimmera Waterway Health Strategy (still in use)	The Wimmera Waterway Health Strategy has been developed to provide a strategic framework to protect and enhance high value assets of waterways and terminal lakes within the Wimmera Catchment basin. The strategy is aligned within the Wimmera Regional Catchment Strategy five year blueprint for improving the region's rivers and creeks within the catchment. In protecting and improving the region's rivers and creeks, the main objectives of the waterways strategy are to: - Proactively manage the waterways of Wimmera, considering environmental, social and economic values; - Maintain ecologically healthy waterways; - Achieve an overall improvement in the environmental condition of the region's waterways; and - Prevent damage to the waterways from future management activities. The implementation of this strategy is the responsibility of the CMA in partnership with the local community, local government and State Government agencies (Department of Sustainability and Environment, EPA Victoria and Department of Primary Industries).
Local	
Ararat and Northern Grampians Planning	The Ararat and Northern Grampians Planning Schemes include a Land Subject to Inundation Overlay (LSIO), Environment Significance Overlay

Schemes	(ESO) and Vegetation Protection Overlay (VPO). The purpose of these overlays are as follows: - LSIO: Ensure that development within the 1 in 100 year flood extent maintains the free passage of floodwaters, and protects water quality in accordance with the SEPP (WoV). - ESO: To ensure development is compatible with identified environmental values. - VPO: To ensure that development minimises impact to significant vegetation.

10.4 Evidence and submissions

The EES (Chapter 12 and Technical Appendix G) discussed the impact of the Project on the surface water environment including water quality, hydrology, flooding, and waterway health. It indicated that the potential impacts on surface water had been assessed and management measures proposed to minimise these impacts.

The Concongella Creek is the predominant waterway in the Project area with many tributaries, flowing generally to the northwest, and crossing the existing Highway in a number of locations. Where there are existing crossings of significant waterways (other than Concongella Creek at chainage 8200) river health impacts of the Project would be minor as there are existing crossings already causing a river health impact at these locations. All of the existing waterway crossing structures would be upgraded and duplicated with a similar type of crossing structure, e.g. a culvert would be replaced with a culvert, to retain or enhance the ability to convey flood waters and minimize the impact on river health.

At the two locations where new crossings are proposed (at the confluence of Concongella Creek and Allanvale Creek and on Concongella Creek downstream of Great Western) and at the location (chainage 8200) where Concongella Creek would need to be realigned for more than 100m, the impacts would be moderate. However in all three cases this could be reduced to minor through detailed design measures.

The EES indicated that construction of the Project would result in changes to floodplain characteristics that could result in flooding impacts as follows:

- Major potential flooding impact on Great Western township - could be reduced to minor. This would require mitigation measures based on detailed surveys, further hydraulic assessments, modelling, detailed design of carriageways and waterway crossings as well as ongoing consultation with the WCMA, local council and potentially affected landowners. Design measures could include the selection of appropriate waterway openings and providing areas for the storage of flood waters;
- Moderate potential flooding impacts on rural properties with dwellings at significant crossing locations - could be reduced to minor by undertaking detailed flood modelling and implementing appropriate detailed design of the new Highway and waterway crossings;
- Minor potential flooding impacts on rural properties with no dwelling at significant properties; and
- Minor potential flooding impacts at minor waterway crossings.

Overall the Project could provide opportunities to improve existing conditions of waterways in the vicinity of the Project area and improve water quality treatment outcomes.

Three submissions were received that raised issues relating to surface water. These are summarized below and followed by VicRoads response:

- Mr and Ms Kilpatrick (Submission 6) – Owners of the property "St Ethels" 1.5 kilometres east of Great Western on the current Highway on which is located a historic house. Mr and Ms Kilpatrick submitted that the property was flooded in 2011 when the existing downstream Highway bridge was unable to handle the flood water, but the house avoided being flooded when the water overtopped the Highway. The submitters were concerned that any raising of the Highway would increase the flooding of their property.
- VicRoads' response – The design of the new waterway crossing (including the new service road proposed at this location) would need to be done in such a way to maintain current flood conditions in terms of flood levels and distribution of flow, i.e. replicating the current hydraulic conditions. This could be achieved by staggering culvert arrangements with primary culverts sized to match current culvert flows and secondary culverts offset and configured to accommodate higher flow levels.
- Mr Cadby (Submission 9 with additional information presented at the Hearing) – Owner of a property located in Western View Road in Great Western. Mr Cadby submitted that he had experienced flooding of Great Western first hand in 2011 and raised concerns that the flooding of Great Western could be increased by the new complex interchange proposed at the confluence of Concongella Creek and Allanvale Creek, and also by the new crossing of Concongella Creek by the Great Western bypass downstream of Great Western.
- VicRoads' response – The design of the new interchange southeast of Great Western would need to be done in such a way as to maintain current flow regimes. For example, if the Highway level was to be raised to avoid overtopping then the equivalent flow capacity would need to be maintained by new culverts located along 1km on road. These measures could be combined with attenuation measures at upstream locations e.g. at the new crossing Allanvale Creek. In relation to the new crossing of Concongella Creek by the bypass downstream of Great Western, the proposed changes at or near the confluence of Concongella Creek and Hyde Creek would be relatively minor and are not expected to impact significantly on backwater flooding of Great Western township.
- Mr Baker – Wimmera Catchment Management Authority (WCMA) (Submission 15) – Suggested the use of the CSIRO Hazard ratings for definitions of Minor, Moderate and Major impacts. He also supported comments that more detailed and refined hydrologic and hydraulic modelling would be required, and provided additional definitions and disclaimers.
- VicRoads' response – Did not consider that CSIRO Hazards rating was warranted in the context of the flood assessment undertaken for the EES. VicRoads acknowledged that more detailed modelling would be required for detailed design and accepted the validity of the definitions and disclaimers. Further discussion will be undertaken with WCMA during detailed design stage.

10.5 Discussion

The Panel accepts VicRoads' evidence that where the new Highway alignment followed the existing Highway and there were existing crossings of significant waterways (other than Concongella Creek at chainage 8200), the river health impacts of the Project would be minor as there would be little additional impact from the additional crossing infrastructure. The Panel also accepted that at the two locations where new crossings were proposed (at the confluence of Concongella Creek and Allanvale Creek and on Concongella Creek downstream of Great Western) the assessed moderate impact could be reduced to minor impact through detailed design measures. Also at the location, (chainage 8200) where Concongella Creek would need to be realigned for more than 100m, the Panel accepted that moderate impact could be reduced to minor through detailed design measures.

The Panel considers that construction of the Project could result in changes to the flood plain characteristics of Concongella Creek and its tributaries and could impact on the flooding regime that currently affects some rural properties. In relation to the Kilpatricks' submission, the owners of the property "St Ethels" who experienced flooding in 2011, the Panel considers that it would be essential that the design of the new waterway crossing at this location (including the new service road) should be done in such a way to maintain current flood conditions in terms of flood levels and distribution of flow.

The Panel appreciated the concerns expressed by Mr Cadby that Great Western township's flooding threat could be increased by the new interchange proposed at the confluence of Concongella Creek and Allanvale Creek, and/or by the new crossing of Concongella Creek by the Great Western bypass downstream of Great Western. The Panel therefore considered that it was essential that the new interchange southeast of Great Western be designed such a way so not to cause any additional flooding of Great Western township.

In relation to the new crossing of Concongella Creek on the bypass downstream of Great Western, the Panel accepted VicRoads' submission that the proposed changes at or near the confluence of Concongella Creek and Hyde Creek would be relatively minor and unlikely to impact significantly on backwater flooding of Great Western township.

The Panel, on the advice given by Mr Roberts at the Hearing, understands that there is currently no flood mitigation plan for Great Western township. The Panel considers that this is unfortunate given the serious flooding experienced by Great Western township in 2011 (and also as indicated by the 100 year flood level modelling information in the EES). The Panel considers that the planning of the bypass of Great Western which involved significant new waterway crossings, presented a potential opportunity for enhanced flood mitigation measures to be constructed in conjunction with the bypass at little or no extra cost.

The Panel considers that if the further detailed surveys and modeling indicated that such flood mitigation measures (such as specifically sized or positioned waterway openings and/or upstream flood retention areas) could be incorporated into the design at little or no extra cost, then these measures should be constructed as part of the Project.

10.6 Conclusions

The Panel considers that the Project would have minor impact on the health of all affected waterways if appropriate design measures were implemented at all waterway crossings.

The Panel considers that, as the Project has the potential to impact on the flooding regime of Concongella Creek, it is essential that the design of the new waterway crossings near the Kilpatricks' property, and associated with the Great Western bypass, be done in such a way as not increase the flood threat at these locations. The Panel also considers that if the information becomes available, then the final design of the Great Western bypass should incorporate some enhanced flood mitigation measures that would reduce the flooding of Great Western township.

10.7 Recommendation

The Panel recommends:

> **That should further information become available, the final design of the Great Western bypass should consider the incorporation of flood mitigation measures that would reduce the flooding of Great Western township.**

11 Biodiversity and habitat

11.1 EES objectives

The EES objective relevant to the biodiversity and habitat assessment is:

> *To avoid or minimise effects on flora and fauna species and ecological communities listed under the Flora and Fauna Guarantee Act 1988 or the Environment Protection and Biodiversity Conservation 1999 and to comply with requirements under Victoria's Native Vegetation Management – A Framework for Action.*

11.2 The Issues

The EES indicated that impacts on ecological values would arise from the removal of remnant native vegetation, including threatened flora populations that were recorded in the Project area. Potential impacts to significant fauna would arise from the removal of remnant native vegetation, of habitat supporting significant fauna and of corridors and 'stepping stones' that facilitate the movement of significant fauna.

The Biodiversity and Habitat Assessment identified that species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and also species listed under the State *Flora and Fauna Guarantee Act 1988* (FFG Act) could be impacted by the Project. The Assessment also identified that the Project would impact on Ecological Vegetation Classes (EVCs) of very high conservation significance and result in the loss of up to 882 Large Old Trees (LOTs), of which 792 are of very high conservation significance.

Victoria's native vegetation management policy *Native Vegetation Management - A Framework for Action (NRE 2002)* applied to this Project, and Net Gain offsets for the losses of native vegetation communities and scattered native trees would be required.

Four submissions identified the following issues relating to flora and/or fauna:

- The loss of trees along Best's Road and the loss of a stand of trees west of Hurleys Lane;
- The impact on flora and fauna of high conservation value;
- The loss of LOTs, remnant vegetation areas and the impact on vegetation along the existing Highway verge;
- The need to reinstate natural surroundings; and
- The impact on wildlife habitat and that the new Highway would be a greater barrier to the movement of wildlife.

11.3 Policy context

The legislation and policies relevant to biodiversity and habitat are summarised in the EES as follows.

Legislation/Policy	Description
Commonwealth	
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	The *Environment Protection and Biodiversity Conservation Act*, 1999 (EPBC Act) provides that certain actions – in particular, actions that are likely to have a significant impact on a matter of National Environmental Significance (NES) – are subject to a rigorous assessment and approval process. The matters of NES identified in the Act as triggers for the Commonwealth assessment and approval regime are: - World Heritage Properties - National Heritage places - Ramsar Wetlands - Threatened species and ecological communities - Migratory species - Commonwealth marine areas and Nuclear actions (including uranium mining). The Project has been designated as a controlled action under EPBC Act as there is a potential to impact on listed threatened species and communities. More detail on matters of NES can be found in Chapter 18 of this report.
Victoria	
Flora and Fauna Guarantee Act 1988 (FFG Act)	As the Project is occurring (partially) on public land and is being undertaken by a public authority (VicRoads), the Project is required to meet the objectives of the FFG Act, which require: - Demonstrating that measures have been taken to avoid impacting on FFG Act listed species and communities. - Potentially threatening processes, which may impact on FFG Act listed species and communities, have been avoided or minimised. - Under the FFG Act, a permit would be required from the Department of Sustainability and Environment (DSE) for the removal or disturbance of FFG Act listed flora species and flora that form part of a listed community.
Planning and Environment Act 1987	A permit would be required for the removal or disturbance of native vegetation within the study area. This is discussed further in Chapter 8 (Planning and Land Use).
Wildlife Act 1975	The inspection, removal or relocation of fauna species for the Project would require a permit under the *Wildlife Act 1975.*
Fisheries Act 1995	A permit would be required under the *Fisheries Act 1995*, if the Project is going to injure or destroy species protected under the Fisheries Act.
Catchment and Land	It is very likely that noxious weeds (declared under the *CALP Act*) would

Protection Act 1984 (CALP Act)	be present in the study area. Therefore, the construction and maintenance of the highway would need to comply with the provisions of the Act, which protect against spreading of these weeds.
Victoria's Native Vegetation Management – A Framework for Action	In accordance with this policy, the alignment for the highway is required to be selected to avoid impacting on native vegetation and where this is not possible, to minimise the impacts on native vegetation. A net gain assessment is required for the Project to calculate the offsets potentially required for the areas of native vegetation and habitat that cannot be avoided, where the removal of native vegetation and habitat would be required. Appendix 4 of the Framework states that clearing of 'very high' conservation significance vegetation is not permitted unless exceptional circumstances apply (i.e. impacts are an unavoidable part of a development Project, and approval is obtained from the Minister for Environment and Climate Change based on considerations of environmental, social and economic values from a state wide perspective).

11.4 Evidence and submissions

The Biodiversity and Habitat Assessment, Chapter 13 and Technical Appendix H in the EES, identified two species which are listed under the EPBC Act and are also listed under the FFG Act, which would be impacted by the Project:

- Golden Sun Moth (critically endangered); and
- Trailing Hop-bush (Vulnerable).

The assessment also identified seven additional State listed species that could be impacted by the Project:

- Emerald-lip Greenhood (rare, DSE Advisory List);
- Rising Star Guinea-flower (rare, DSE Advisory List);
- Rosemary Grevillea (rare, DSE Advisory List);
- Barking Owl (FFG Act listed, endangered, DSE Advisory List);
- Brown Toadlet (FFG Act listed);
- Brown Treecreeper (south-eastern ssp.) (near threatened, DSE Advisory list); and
- Brush-tailed Phascogale (FFG Act listed, vulnerable, DSE Advisory list).

The Assessment also found that three bioregions would be transected - Goldfields Bioregion (GB), Central Victorian Uplands Bioregion (CVUB) and the Wimmera Bioregion (WB), and five Ecological Vegetation Classes (EVCs) would be intersected. These EVCs are:

- Plains Grassy Woodland (endangered in all three bioregions);
- Grassy Woodlands (vulnerable in GB, endangered in CVUB and WB);
- Creekline Grassy Woodland (endangered in all three bioregions);
- Grassy Dry Forest (depleted in all three bioregions); and
- Heathy Woodland (depleted in all three bioregions).

The Surface Water Assessment, Chapter 12 and Technical Appendix G, indicated that no National or State aquatic significant species were identified.

The EES indicated that the design of the final alignment was developed to avoid or minimise the impact on biodiversity and habitat values wherever possible. Measures taken included: siting lengths of the new carriageway on adjacent predominantly cleared farm land outside the existing vegetated Highway; incorporating a wide central median between the two carriageways in some areas; and locating both new carriageways on cleared land while retaining the existing Highway as a service road in other areas.

The EES stated that during the options assessment process, matters of National Environmental Significance (NES) and vegetation of Very High and High conservation significance received priority for avoidance or reduction of impacts where possible. However, it was not possible to entirely avoid impacts on matters of NES. Through design measures, it is expected that the impact on Trailing-hop Bush plant could largely be avoided, but up to 29.92ha of confirmed and 99.94ha of potential Golden Sun Moth habitat could be affected (see also Chapter 18).

In accordance with the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) guideline, the Project would have a significant impact on Golden Sun Moth habitat. However the impact as rated for the Project area was considered to be moderate as although greater than 1% of the Project area population would be removed, it would be less than 1% of the regional area population.

The Assessment considered that the impacts on other State listed species would be minor as the Project would impact on less than 1% of the regional populations of these species. Mitigation measures including micro-alignment during the detailed design and construction would be implemented to further minimise the impact on State listed species.

The Assessment also indicated that the Project could impact on three fauna species listed on the DSE Advisory List – Fat-tailed Dunnart, Black-chinned Honeyeater and Bearded Dragon.

The Project would impact approximately 133ha of EVCs (equating to 39.38 Habitat hectares), of which about 116ha were of very high conservation significance. This is considered to be a moderate impact because the loss would be 0.1 -1% of the area of EVCs of very high or high conservation significance within the relevant bioregions. Consent from the Minister for Environment and Climate Change would be required for the removal of vegetation of very high conservation significance.

The Assessment stated that the Project could result in the loss of up to 882 Large Old Trees (LOTs) of which 792 are of very high conservation significance. An additional 79 scattered trees may also need to be removed. Mitigation measures should be able to reduce the loss of LOTs within native vegetation patches and of scattered trees. These measures would include micro-alignment during detailed design and construction planning. The Assessment indicated that Project impact on LOTs and scattered trees would be moderate.

VicRoads would be required to obtain offsets for vegetation losses in accordance with *Victoria's Native Vegetation Management – A Framework for Action* and the *Environmental Offsets Policy – Consultation Draft* under the EPBC Act. The Assessment indicated that preliminary investigations had determined that offsets would be available and that VicRoads could source appropriate offsets from one or a combination of BushBroker, Trust for Nature, the VicRoads Net Gain Bank and private offset brokers.

Four submissions were received that raised issues in relation to biodiversity and habitat. These are summarised below and followed with VicRoads' responses:

- Mr Thomson – Best's Winery (Submission 1 with additional material presented at the Hearing) – Proposed that Best's Road should be relocated onto cleared farmland either east or west of its present alignment so that clearing of the well vegetated roadsides of Best's Road could be avoided for the construction of the grade separated intersection with the new Highway (proposed in the AMP3 phase). During discussion at the Hearing an alternative option was considered viz to leave Best's Road at grade and construct bridges to pass the new Highway over Best's Road.
- VicRoads' response: Indicated at the Hearing (after additional preliminary investigation undertaken by Mr Organ during the Hearing) that the vegetation along Best's Road was of value and the option to pass the new Highway over Best's Road would be considered.
- Mr Lenghaus (Submission 3 with additional material presented at the Hearing) – Was concerned that the proposal would have a major impact on the roadside vegetation between Ararat and Armstrong which currently acts as a wildlife corridor and refuge linked to other remnant areas of native vegetation. He was concerned that populations of birds and animals would disappear including of the endangered Golden Sun Moth and that the new Highway would be an obstruction to the movement of fauna across the new road.
- VicRoads' response (including Mr Organ's Expert Witness Statement): Where it could be achieved, the impact on roadside vegetation had been reduced by alignment modifications and that the removal or disturbance of any existing vegetation would be countered by native vegetation offsets. Also new roadside planting would use site indigenous flora species as a replacement for vegetation lost during construction. In relation to fauna crossing of the new Highway, specifically researched and designed crossings would be built as part of the Project.
- Department of Sustainability and Environment (DSE) (Submission 8) – *Native Vegetation* - Raised issues relating to the loss of areas of native vegetation, LOTs and hollow-bearing trees. The Department noted that approximately 133ha of native vegetation of which about 116ha was of very high conservation significance would be impacted and compared this with the total area permitted for clearing in the whole of Victoria in 2010-11 which was 159ha. DSE further indicated that the Project development followed the three-step approach required in the native vegetation framework, the proposed offset strategy was sound and the proposal for an environmental management plan was supported. *Rare and Threatened species* – DSE indicated that Conservation Management and Salvage & Translocation Plans would need to be prepared to DSE's satisfaction. DSE also raised the issue that, as the FFG listed Small Milkwort (*Comesperma polygaloides*) was not detected until after the EES was published, it required consideration and also whether the EPBC listed White Box/Yellow Box/Blakely's Red Gum community was present in the Project area. *Net Gain Assessment and Offset Management Strategies* – DSE raised issues needing resolution including methodology for calculating LOTs, validation of degraded treeless areas and completion of surveys for golden Sun Moth.
- VicRoads response' (including Mr Organ's Expert Witness Statement):
    - *Native Vegetation* - LOTs within patches have not been measured, but have been estimated within the proposed alignment, and losses are likely to be less as the distribution of LOTs within the patches varies. Accurate numbers of LOTs to be

removed will be determined during detailed design. Scattered trees with hollows have been avoided wherever possible and those within vegetation patches will be identified and avoided wherever possible during detailed design.

- *Rare and Threatened species* - Conservation Management and Salvage & Translocation Plans will be prepared to DSE's satisfaction. Mr Organ, on behalf of VicRoads, indicated at the Hearing that translocation of plants should only be used as last resort and was unsuitable for some species such as orchids. VicRoads indicated that, after discussion with SEWPaC, it had determined that the EPBC listed White Box/Yellow Box/Blakely's Red Gum community was not present in the Project area.
- *Net Gain Assessment and Offset Management Strategies* – LOTs required for offsets would be determined during final design, validation of degraded treeless areas must be undertaken by DSE and Golden Sun Moth surveys were completed in 2011/2012 and the results were presented in the Flora and Fauna Impact Assessment report.

- Mr Cadby (Submission 9 with additional material presented at the Hearing) – Indicated that the stand of inland red gums west of Hurleys Road had no particular significance.
- VicRoads' response (including Mr Organ's Expert Witness Statement): Efforts had been made to retain large scattered trees wherever possible.
- Mr & Ms McKenzie (Submission 14) – Raised the need to reinstate the natural surroundings.
- VicRoads' response (including Mr Organ's Expert Witness Statement): Revegetation of disturbed areas would be undertaken with site indigenous vegetation (all vegetation layers).

11.5 Discussion

The Panel considers this Project presents some significant challenges in relation to the impact on biodiversity values and habitat areas. The proposed Highway construction would lead to the loss of areas of remnant vegetation, a number of rare and vulnerable plants, many habitat areas including some utilised by endangered and rare fauna species, and a large number of LOTs.

However, the Panel is satisfied that the design of the final alignment had been developed to avoid biodiversity and habitat values wherever possible through measures such as planning lengths of new carriageway outside the existing vegetated Highway on adjacent predominantly cleared farm land, incorporating sections of wide central median between the two carriageways, and locating both new carriageways on cleared land while retaining the existing Highway as a service road to protect vegetated areas of existing Highway.

(i) Listed communities and species of flora and fauna

The Panel was satisfied that priority had been given to avoiding or minimising the impact on species listed under the EPBC Act and/or the FFG Act. However the Project could have an impact on Trailing Hop-bush and would have an impact on Golden Sun Moth habitat. As these species are Nationally listed under the EPBC Act as well as under the State FFG Act, the impact is discussed under Chapter 18 Matters of Environmental National Significance.

The Panel accepted VicRoads' submission that the impacts on other State listed flora and fauna species (under the FFG Act) would be minor as the Project would impact on less than 1% of the regional populations of these species. The Panel noted that mitigation measures including micro-alignment during the detailed design and construction would be implemented to further minimize the impact on State listed species.

(ii) Remnant Vegetation Areas

The Panel notes that the Project would have a significant impact on local areas of remnant vegetation and habitat areas including some sections along the existing road verge between Ararat and Armstrong (acknowledged as significant in the Ararat Planning Scheme by a Vegetation Protection Overlay). The relative extent of the area of native vegetation required to be cleared was highlighted by DSE's submission by comparing the 133ha required for the Project with the 159ha approved for clearing in the whole State in 2010-11.

The Panel accepts VicRoads' submission that clearing this would be assessed as moderate impact because the loss would be 0.1 -1% of the area of EVCs of very high or high conservation significance within the relevant bioregions.

Although the Panel considers that the extent of the area of native vegetation that would be lost is undesirable, it accepted DSE's submission that the planning of the Project had followed the three-step approach as required in *Victoria's Native Vegetation Management – A Framework for Action* and that the proposed offset strategy was sound, i.e. VicRoads would be required to obtain offsets for vegetation losses in accordance with the framework. It also noted that consent from the Minister for Environment and Climate Change would be required for the removal of vegetation of very high conservation significance.

The Panel notes that preliminary investigations determined that VicRoads could source appropriate offsets from one or a combination of BushBroker, Trust for Nature, the VicRoads Net Gain Bank and private offset brokers.

The Panel considers that a relatively small area of vegetation clearance could be avoided if the option to construct the new Highway over Best's Road (leaving Best's Road at grade with most of its verge vegetation left intact) is adopted.

(iii) Large old trees

The Panel is concerned with the large number (up to 882) of Large Old Trees (LOTs) of which 792 were of very high conservation significance that could be lost. In addition a further 79 scattered trees also may need to be removed. The Panel noted Mr Organ's evidence that LOTs within patches had been estimated, not measured, and the actual number of LOTs to be removed would be determined during detailed design. The Panel accepts that mitigation measures such as micro-alignment during detailed design and construction planning could reduce the number of LOTs that would need to be removed and that new roadside planting using site indigenous flora species would replace the lost trees in the long term.

(iv) Movement of wildlife

The Panel accepts Mr Lenghaus' submission that the new Highway could be a more difficult barrier to the movement of wildlife than the existing Highway. However, the Panel also

accepts VicRoads' response that wildlife crossing have been successfully researched and constructed on other new Highways and would be incorporated into the final design.

(v) Other matters

The Panel notes that as the funding had not been approved for construction of this Project, it was unclear when work would start on the ground. As natural systems are dynamic and the circumstances of flora and fauna species change with time, the Panel is concerned that some approvals granted now may be considered inappropriate in relation to flora and fauna in the future, especially if there is a considerable delay before work commences. The Panel therefore considers that any approvals granted now should be subject to a review of the Project's impact on flora and fauna, if work has not commenced within 15 years.

The Panel notes that the Project area included all the area required for the AMP1 standard Highway, i.e. complete system of service roads and grade separated interchanges, which may not be built for many years (20-30 years). This area would be larger than the area required for the AMP3 standard Highway and the Panel noted VicRoads' submission that the additional land required to upgrade the Highway from AMP3 to AMP1 standard would not be acquired until that occurred. Although Mr Organ, in response to questioning at the Hearing, was unable to provide information on the greater impact on native vegetation of the AMP1 standard design as compared with the AMP3 standard design, it was apparent from the EES plans that the area of native vegetation affected by the AMP1 standard would be more than that required by the AMP3 standard highway i.e. less than that indicated in the Assessment.

The Panel considers that satisfactory ongoing management of the protected remnant vegetation areas, such as those located in the wide median or on verges, would be essential for their long term viability. It considers that VicRoads should seek DSE's input into the ongoing management arrangements for these areas, especially in the case where an existing Bushland Reserve is proposed to be incorporated into one of the sections of wide medians.

11.6 Conclusions

The Panel considers that priority has been given to avoiding or minimising the impact on species listed under the EPBC Act and the FFG Act. However, the Project will impact on EPBC and FFG listed species (discussed in Chapter 18), while the impacts on other State listed species would be minor.

The Panel considers that although the extent of the area of native vegetation that would be lost is undesirable, it accepts that these losses would be offset as required by *Victoria's Native Vegetation Management – A Framework for Action.* The Panel considers that a relatively small area of vegetation clearance could be avoided by modifying the design to construct the new Highway over Best's Road and leaving Best's Road at grade with most of its verge vegetation intact.

The Panel considers that the detailed design planning should give priority to avoiding LOTs wherever possible and incorporating well researched wildlife crossings.

The Panel considers that as there is no timeline for the commencement of construction of this Project, any works approvals granted now should be subject to a review of the Project's impact on flora and fauna should work not have commenced within 15 years.

The Panel considers that as satisfactory ongoing management of the protected remnant vegetation areas such as on the wide median and verges is essential for their long term viability, VicRoads should seek DSE's input into the ongoing management arrangements for these areas.

11.7 Recommendation

The Panel recommends:

> **That any works approvals granted now should be subject to a review of the Project's impact on flora and fauna should the Project not have commenced within 15 years.**

12 Cultural heritage

12.1 EES objectives

The EES objective relevant to Aboriginal cultural heritage is:

To protect Aboriginal and non-Aboriginal cultural heritage.

The EES objective relevant to non-Aboriginal (Historical) cultural heritage is:

To protect Aboriginal and non-Aboriginal cultural heritage.

12.2 The Issues

The key cultural heritage issues relate to avoiding or appropriately managing historical cultural heritage sites and features already identified and any unexpected sites and features discovered during the Project's detailed design and construction phases. The EES indicates that the proposed alignment would avoid Sisters Rocks, which is of significance to the Aboriginal community, and result in a moderate-minor impact on Aboriginal cultural heritage. The proposed alignment would result in an overall moderate impact on non-Aboriginal (historical) cultural heritage.

One submission related to the non-Aboriginal heritage place of St Ethel's winery.

12.3 Policy context

Legislation/Policy	Description
State	
Aboriginal Heritage Act 2006	The *Aboriginal Heritage Act 2006* forms the framework within which Aboriginal heritage assessment is undertaken in Victoria. The Act provides for the protection and management of Victoria's Aboriginal heritage with processes linked to the Victorian planning system. Cultural Heritage Management Plans (CHMPs) and Cultural Heritage Permits are processes to manage activities that may harm Aboriginal cultural heritage. The Act recognises Aboriginal people as the primary guardians, keepers and knowledge holders of Aboriginal cultural heritage. Registered Aboriginal Parties (RAP)s are the organisations of Aboriginal people in the management and protection of Aboriginal cultural heritage. RAPs have responsibilities relating to the management of Aboriginal cultural heritage under the Act.
Heritage Act 1995	The purpose of the *Heritage Act 1995* is to "provide for the protection and conservation of places and objects of cultural heritage significance and the registration of such places and objects" (s.1). There are two levels of protection for cultural heritage places: - Victorian Heritage Register: The Victorian Heritage Register lists the State's most significant heritage places and objects. These can be searched on the Victorian Heritage Database. - Victorian Heritage Inventory: The Victorian Heritage Inventory,

	commonly known as the Heritage Inventory (HI), lists all known historical archaeological sites in Victoria. It includes information about sites and artefacts, including a description and assessment of significance. Under the Act, it is an offence to damage or disturb unregistered archaeological places or objects (s.127) of registered places or objects without consent (s. 129) and the discovery of archaeological places or objects must be reported (s.132). An archaeological object (see relic in the Act) is any archaeological deposit or artefacts which are 50 or more years old (s.3). An archaeological site (or place) under the Act is any area in which archaeological objects are situated (s.3).
Planning and Environment Act 1987	In the *Planning and Environment Act 1987*, places of heritage significance are able to be protected under Planning Schemes, according to Objective 15 of State Planning Policy Framework. Places of heritage significance to a locality can be protected by a Heritage Overlay (HO). HOs are contained within Planning Schemes and assist in protecting the heritage of a local government area. HOs include places of local significance as well as places included in the Victorian Heritage Register (VHR). There are two Planning Schemes affecting the Section 3 study area, the Ararat Planning Scheme and Northern Grampians Planning Scheme. There are a number of Heritage Overlays within or in proximity to the study area in the Ararat Planning Scheme. These include: - HO112 – Fountain Head Brewery Residence, Military Bypass Road, Armstrong; - HO113 – 'Westgate', Westgate Road, Armstrong; and - HO114 – Hard Hill Mining Site at Garden Gully Road and Hard Hill Road, Armstrong. There are two Heritage Overlays within or in proximity to the study area. These include - HO1 – Seppelts Champagne Cellars, 36 Cemetery Road, Great Western; and - HO7 – Hard Hill Mining Site, Garden Gully Road, Great Western. In the Northern Grampians Planning Scheme.

12.4 Evidence and submissions

The EES (Chapter 14) and Technical Appendices I, J and K contained details of the cultural assessments and indicated that the proposed alignment would directly affect six registered Aboriginal cultural heritage places – three of minor significance (artefact scatter) and three of moderate significance (scar tree). In the context of the Project, and considering that the sites impacted have been assessed as minor to moderate significance, the overall impact of the Project was considered to be minor to moderate.

During the options assessment the two then Registered Aboriginal Parties (RAPs) viz Martang Pty Ltd and Barengi Gadjin Land Council Aboriginal Corporation were consulted and

both indicated that the area known as 'Sisters Rocks' although not registered on the Victorian Aboriginal Heritage register, was a site of particular cultural significance (it should be noted that in February 2012 the application of the Martang Pty Ltd to be a RAP was declined by the Victorian Aboriginal Heritage Council). The proposed alignment had been designed to avoid the Sisters Rocks site and minimise the extent of the changes on the culturally significant views towards the Black Ranges.

The locality had potential for the presence of Aboriginal mortuary trees (a significant type of Aboriginal place where human remains and grave goods had been placed within a tree trunk or branch). However no mortuary trees with human remains were found during the assessment. If such trees were found during construction, then the strict contingency measures as required under the *Aboriginal Heritage Act 2006*, would be met.

In accordance with the *Aboriginal Heritage Act 2006*, a Cultural Heritage Management Plan (CHMP) is required for the Project. A complex assessment and final CHMP would be completed subsequent to the EES process and submitted to Aboriginal Affairs Victoria (AAV) and the Registered Aboriginal Party for approval for evaluation and approval by AAV. The CHMP would include management recommendations on managing potential impacts on Aboriginal cultural heritage sites.

The EES indicated that 13 Heritage Inventory registered and identified non-Aboriginal sites would be potentially impacted by the proposed alignment. These sites included the former sites and/or remnants of Junction Creek Township, Armstrong Hotel, Armstrong Primary School, Armstrong Alluvial Gold Mining Areas, Armstrong Tollgate and several house sites. Two sites are listed as historic sites on Crown land managed by DSE (Great Western Lead Mine Site and Sisters Rocks Graffiti Site).

The proposed alignment had been designed to largely avoid the Sisters Rocks site, i.e. avoid the graffitied rocks, and to avoid the St Ethel's Winery, which comprised an original winery house and shed/cellar (mud brick and timber) in good condition and currently occupied.

The EES indicated that all sites were assessed to be of local significance and that the Project overall had been assessed as having a moderate impact on Non-Aboriginal (historical) cultural heritage due to the small number (nine) of locally significant sites requiring removal or relocation. It indicated that the management measures proposed for these nine sites were to seek Heritage Victoria's consent for their destruction.

An Environmental Management Plan (EMP) would be prepared which would include contingency measures to manage the discovery of any unknown historical cultural sites and features found during construction of the Project.

One submission was received which raised issues relating to cultural heritage issues (Non-Aboriginal) and is summarised below with VicRoads response:

- Mr & Ms Kilpatrick (Submission 6) – Owners and occupiers of the 'St Ethel's' historic partly mud brick former winery building raised the issues of potential increased flooding (see Chapter 10) and due to proximity of the Project to the building, the impact that construction machinery might have on the basic structure of the historic building.
- VicRoads' response (presented at the Hearing) – That measures would be undertaken to minimise the impact of construction activities on the building. These would include vibration testing prior to construction commencing to determine the techniques that

could be used during construction that would result in the least impact occurring on the building.

12.5 Discussion

The Panel notes that the proposed alignment would directly affect six registered Aboriginal cultural heritage places of which three were assessed to be of moderate significance (scar tree). It also notes that the proposed alignment had been designed to avoid the Sisters Rocks site and minimise the extent of the changes on the culturally significant views towards the Black Ranges.

The Panel accepts VicRoads' evidence that, considering that the sites impacted had been assessed as minor to moderate significance, the overall impact of the Project on Aboriginal cultural heritage sites would be minor to moderate and that a CHMP would be prepared to manage the risks associated with all potentially affected sites. The Panel noted that the locality had potential for the presence of Aboriginal mortuary trees and that if such trees were found during construction, then strict contingency measures as required under the *Aboriginal Heritage Act 2006*, would need to be met.

The Panel noted that 13 non-Aboriginal sites would be potentially impacted by the proposed alignment, while the Sisters Rocks site would be partially avoided and St Ethel's Winery completed avoided. However the Panel appreciates the concerns of the Kilpatricks' that given the proximity of their historic property to the proposed Project, it might be impacted by construction activities and the Panel considered that measures needed to be taken to reduce this risk.

The Panel accepted VicRoads' evidence that as all historical cultural heritage (Non-Aboriginal) sites had been assessed to have been of local significance and due to the small number of locally significant sites (nine) requiring removal or relocation, the Project overall would have a moderate impact on historical cultural heritage (Non-Aboriginal). The Panel noted that no specific submissions had been received in relation to any of these sites and no evidence presented indicating reasons why they should not be removed. The Panel noted that the management measures proposed to apply to these sites were to apply to Heritage Victoria for consent for their destruction.

The Panel also noted that none of the sites covered by the Heritage Overlay in either the Ararat or Grampians Planning Scheme are likely to be affected by this Project.

The Panel also noted that an EMP would be prepared which would include contingency measures to manage the discovery of any unknown historical cultural sites and features that might be found during construction of the Project.

12.6 Conclusions

The Panel considers that the Project would have a minor to moderate impact on historical cultural heritage (Aboriginal) and that a CHMP would be a satisfactory mechanism to manage the risks associated with all potentially affected sites.

The Panel considers that although the Project overall would require the removal of nine non-Aboriginal cultural heritage sites of local significance, based on the evidence provided, the impact of their removal would not be of sufficient concern to reject the granting of approvals for this Project.

13 Air quality

13.1 EES objectives

The EES objective relevant to Air Quality Assessment is:

> *To minimise air emissions, noise, visual, landscape and other adverse amenity effects, during the development and operation of the proposed duplicated highway to the extent practicable.*

13.2 The Issues

The EES assessment states that it considered the following key air quality issues:

> *The construction and operation of the Project would result in generation of dust from construction activities and gaseous pollutants due to traffic movement. However, dust management protocols and environmental management measures would be required to minimise impact during construction. In addition, operational emissions are already present along the existing highway and any future increases in emissions are likely to be negligible. Also operational emissions and construction dust are not expected to affect domestic water supplies and all assessed air pollutants are predicted to be below the Intervention Level for Air Quality Management used in Victoria.*

One submission raised issues relating to air quality i.e. dust generated during construction.

13.3 Policy context

The legislation and policies relevant to air quality are summarised in the EES as follows.

Legislation/Policy	Description
National	
National Environmental Protection (Air Quality) Measure (AQ NEPM)	AQ NEPM defines the Commonwealth requirements for national standards for air pollutants criteria in Australia. These aim to establish protection levels for exposure to selected air pollutants. The six key air pollutants relevant to a road Project are: - Carbon monoxide - Sulphur dioxide - Lead - Ozone - Nitrogen dioxide - Particulate matter
National Environment Protection (Air Toxics) Measure (Air Toxics NEPM)	The Air Toxics NEPM establishes 'monitoring investigation levels' for five air toxics: - Benzene

	- Formaldehyde - Benzo(a)pyrene as a marker for Polycyclic Aromatic Hydrocarbons (PAH) - Toluene - Xylenes
State	
Transport Integration Act 2010	Part 2, Division 2, Section 10 of the Act outlines the transport objectives relating to environmental sustainability. These are: 'The transport system should actively contribute to environmental sustainability by: - Protecting, conserving and improving the natural environment; - Avoiding, minimising and offsetting harm to the local and global environment, including transport-related emissions and pollutants and the loss of biodiversity; - Promoting forms of transport and the use of forms of energy and transport technologies which have the least impact on the natural environment; - Improving the environmental performance of all forms of transport and the forms of energy used in transport'.
Environment Protection Act 1970	Air quality in Victoria is managed by the *Environment Protection Act 1970* (EP Act); and the relevant State Environment Protection Policies created under Section 16 of the Act: - State Environment Protection Policy (Air Quality Management) 2001 – SEPP (AQM); and - State Environment Protection Policy (Ambient Air Quality) 1999 – SEPP (AAQ).
State Environment Protection Policy (Air Quality Management) 2001 SEPP (AQM)	Construction dust emissions and operational vehicle emissions (gases and particulates) would be managed by, and would need to comply with, the provisions of this policy which has been developed under the provisions of the EP Act (mentioned above). The criteria against which vehicle emissions from road corridors are to be assessed are referred to in Clause 40 of the policy – "Management of Large Line and Area-Based Sources of Emissions". Sub-clause (1) states that the Environment Protection Authority (EPA Victoria) 'will develop protocols for environmental management' (PEMs) for large line sources such as road Projects. A PEM for road construction and operation has yet to be finalised. In the interim, EPA Victoria has adopted the Intervention Levels (defined by Schedule B of SEPP (AQM) to apply to specific roadway Projects. Background air pollutant levels are required by the SEPP (AQM) for use in modelling of emissions from the Project. These background values are used as a basis for existing air pollution levels along the Project area and are added to overall predicted values within the model to be compared against the SEPP (AQM) intervention levels.

State Environment Protection Policy (Ambient Air Quality) 1999 SEPP (AAQ)	SEPP (AAQ) (developed under the EP Act) adopts the requirements of the Air Quality NEPM and operates in conjunction with SEPP (AQM). The SEPP (AAQ) is concerned with ambient air quality in Victoria and outlines seven environmental indicators that require measurement and reporting for compliance against State objectives and goals (concentrations within the ambient air shed) and which must be taken into consideration when proposing any changes to the environment, such as this current Project.

13.4 Evidence and submissions

The Air Quality Assessment (EES Chapter 15 and Technical appendix L) summarised the tasks completed to satisfy the requirements of the SEPP (AQM), including:

- A review of existing climatic data (temperature, wind and rainfall) and ambient air quality;
- Modelling of both construction and operation emissions to determine the impact of dust and vehicle emissions on the local environment; and
- Consideration of potential impacts upon air quality during construction and operation of the Project.

The Assessment indicated that dust generated by construction activities would affect air quality beyond the construction corridor with slightly greater effects in the west that the east due to meteorological behaviour. Construction dust was predicted to have a maximum impact zone of approximately 520 metres from the western edge of the construction zone and approximately 470 metres from the eastern edge of the construction zone. There were not likely to be any other emissions of concern generated by construction activities.

Residential and commercial premises were considered to be sensitive locations with regard to health and amenity impacts resulting from dust. The Assessment indicated that there were 117 potential sensitive receptors located within the construction dust impact zone which would require additional dust management control during construction to minimise adverse impacts on amenity. Potentially sensitive receptors also related to intensive agricultural practices, such as vineyards and olive groves, as dust fallout onto plant foliage can impact on growth rates of crops or affect grapes at harvest.

The Assessment indicated that dust issues are not uncommon with road construction projects and are best addressed by the implementation of dust management controls under a Construction Environmental Management Plan (CEMP) developed for the Project. This Plan would require that any dust generated from road construction activities should not interfere with crops, stock or dust sensitive receptors. Dust would need to be monitored close to sensitive receptors using a portable laser light scattering instrument with an alarm and dust deposition gauge. Construction dust management techniques could include suppression, appropriate construction scheduling and keeping construction vehicles to well defined haulage routes.

In relation to domestic water supplies, i.e. the impact on residents who rely on rain water that falls on residential roofs and is collected in tanks, the Assessment indicated that construction dust emissions generally comprise medium to larger size fractions (greater than

PM10) and as such fallout from the air column more readily than smaller size fractions. Therefore the larger sized particles are not likely to be a problem for domestic supplies derived from rain events, while any more persistent smaller sized particles would need to be managed through dust mitigation measures.

In relation to emissions arising from traffic on completion, the Assessment indicated that any increase in operational emissions arising from the Project was expected to be negligible. It indicated that all the assessed air pollutants from vehicles using the road are expected to be below the Intervention Level for Air Quality Management in Victoria at the outer boundary of the carriageway. In fact as the proposed alignment would improve traffic flows and lower travel times, it may lead to overall decreased vehicle emissions from vehicles using the new Highway. The Assessment also indicated that operational emissions were not expected to affect domestic water supplies.

One submission (from Mr Jamieson – Submission 5) raised concern that if the dust created during construction was of similar levels to that currently occurring during the construction of the Ballarat to Beaufort section, then there would be potential dust impacts on household water tanks and general invasion of dust into residences, sheds and other assets and discomfort to residents and stock. VicRoads response was that this should not be an issue after the implementation of dust management measures.

13.5 Discussion

The Panel accepted VicRoads evidence that any increase in operational emissions arising from the Project was expected to be negligible and that any air pollutants would be below the Intervention Level for Air Quality Management used in Victoria at the outer edge of the road lane. Therefore, with exception of dust, the Panel considers that the Project is unlikely to a have significant impact on air quality during either construction or operation.

The Panel notes that construction dust could potentially impact on a significant area extending approximately 520 metres from the western edge of the construction zone and approximately 470 metres from the eastern edge of the construction zone. Within this impact zone there were 117 potentially sensitive receptors including residential and commercial premises, as well as intensive agricultural properties growing crops including grapes and olives. The Panel notes that dust fallout onto the foliage could impact on the growth rates of crops or affect grapes at harvest time. However, the Panel accepts VicRoads submission that the management of dust is an issue not uncommon to road construction projects and can be managed through a CEMP.

The Panel notes Mr Jamieson's concern regarding the potential impact of dust generated during construction on water supplies or amenity, but considers that the mitigation measures proposed by VicRoads should be adequate to address this issue.

13.6 Conclusions

The Panel considers that with exception of dust, the Project, both during construction and operation, is unlikely to a have significant impact on air quality.

The Panel considers that dust generated during construction could be a potential issue with sensitive receptors including vineyards, but considers that this issue can be satisfactorily managed through a CEMP.

14 Noise and vibration

14.1 EES objectives

The EES objective relevant to Noise and Vibration are:

> *To minimise air emissions, noise, visual, landscape and other adverse amenity effects during the construction and operation of the proposed duplicated highway to the extent practicable.*
>
> *To avoid or minimise disruption and other adverse effects on infrastructure, land use (including agriculture) and households, as well as road users resulting from the construction and operation of the highway duplication.*

14.2 The Issues

The key noise and vibration issues are whether the construction and operation phases of the Project will produce unacceptable noise and vibration impacts at sensitive receptors and, if so, whether they can be managed using management or other mitigation techniques and measures.

Five submissions raised issues relating to noise and/or vibration during construction or operation of the new Highway.

14.3 Policy context

The legislation and policies relevant to noise and vibration are summarised in the EES as follows.

Legislation/Policy	**Description**
State	
Transport Integration Act 2010	The *Transport Integration Act 2010* sets out a vision, objectives and principles for transport in Victoria. It makes clear that the transport system needs to be integrated and sustainable - in economic, environmental and social terms. Part 2, Division 2, Section 10 of the Act outlines the transport objectives with regard to environmental sustainability, these are: "The transport system should actively contribute to environmental sustainability by: (a) protecting, conserving and improving the natural environment; (b) avoiding, minimising and offsetting harm to the local and global environment, including through transport-related emissions and pollutants and the loss of biodiversity; (c) promoting forms of transport and the use of forms of energy and transport technologies which have the least impact on the natural environment; (d) improving the environmental performance of all forms of transport and the forms of energy used in transport."

Traffic Noise Reduction Policy (VicRoads, February 2005)	There is currently no State Environment Protection Policy (SEPP) for road traffic noise along state-controlled roads. Instead, traffic noise along these roads is controlled using the *VicRoads – Traffic Noise Reduction Policy 2005*. The policy seeks to regulate noise levels where a new alignment is built. New alignment refers to those areas where a new carriageway is constructed outside the current (i.e. pre-existing) road reserve boundary. **Existing Road Corridor Works (Retrofitting)** This Project would be exempt from the retrofitting program as the existing road was built prior to 1979. **New Alignment and Corridor Expansion Works** The Traffic Noise Reduction Policy seeks to limit noise at sites where arterial roads and freeways are built on new alignments or existing networks are widened as follows: - Category A – For residential dwellings, aged person homes, hospitals, motels, caravan parks and other buildings of a residential nature, the noise level objective will be 63dB(A) L10 (18hr) measured between 6 am and midnight; - Category B – For schools, kindergartens, libraries and other noise sensitive community buildings, the noise level objective will be 63dB(A) L10 (12hr) measured between 6 am and 6 pm; and - Where the noise level adjacent to Category A or B buildings prior to road improvements is less than 50dB(A) L10 (18hr), consideration will be given to limiting the noise level increase to 12dB(A).
Australian Standard (AS) 2702-1984: Acoustics-Methods for the Measurement of Road Traffic Noise	This Standard sets out methods for the measurements of the noise emitted by road traffic. The Standard describes minimum instrument requirements, preferred scales of measurements, and the location of measurement sites and non-acoustic data which are to be recorded in conjunction with the acoustic measurements.
Traffic Noise Measurement Requirements for Acoustic Consultants (VicRoads, November 2005)	The Traffic Noise Measurement Requirements are based on AS 2702 and have been developed to ensure that all measurements are of high quality and consistent over time.
EPA 1254-2008: Noise Control Guidelines	The guideline provides a schedule of working hours and noise limits for construction sites. These are broken up into normal working hours, weekend/evening work hours and the night period and are presented in Table 16.5 of the EES. This guideline makes an allowance for unavoidable construction works through the night provided that residents are notified of the intended work, its duration and times of occurrence and provides mitigation measures that need to be considered.
EPA 480-1996: Environmental Guidelines for Major Construction Sites	This document is designed to provide developers and contractors with guidelines on how to implement sound practices that minimise environmental impacts and eliminate health risks and nuisance to residents near a construction site.

14.4 Evidence and submissions

The Noise and Vibration Assessment (EES Chapter 16 and Technical Appendix M) examined the existing ambient noise environment and the potential impacts that the Project could have on sensitive receptors (in this case, mostly dwellings).

The EES summarises the methodology for the noise and vibration assessment which, in brief, was:

- An existing conditions assessment involving the deployment of six noise loggers at various points along the study area;
- Construction noise modelling to predict construction noise at various distances from an indicative two-kilometre section of the Project around Briggs Road; and
- Noise modelling to predict the operational impact of the Project on the surrounding area based on traffic volume forecasts at completion (estimated as 2016), and in 2026.

The main findings of the Assessment for the construction phase of the Project were that:

- Construction of the Project has the potential to create adverse effects from noise and vibration at some sensitive receptors;
- Noise from construction during the day would be of negligible risk because management techniques are available, including noise reduction technology on machinery and generally receptors are not as sensitive to noise during the day; and
- Although construction could have a higher impact during the evenings, at night and at weekends (and could exceed the EPA 2008 guidelines), it was expected that construction at these times would only occur in exceptional circumstances. In such cases, there would be consultation with potentially impacted residents and implementation of a noise mitigation strategy.

The EES Assessment states that energy from construction activities can also be transformed into vibration. Based on the predicted peak vibration levels for the Project, vibration may just be perceivable at sensitive receptor locations within 50 metres for construction activities involving rolling and compacting.

Fourteen sensitive receptors are located within 50 metre of the proposed alignment and may experience vibration impacts during construction. This vibration would be intermittent and short-term and likely to be tolerable if prior warning was given to any affected residents. While this vibration may be noticeable, the vibration levels are not expected high enough to cause damage to the structural integrity of buildings or infrastructure. The two possible exceptions discussed at the Hearing were the property on the western side of the existing Highway near Armstrong (which will be acquired as part of the project) and the mud brick building at St Ethels.

The Assessment also summarised the likely outcomes of noise from traffic volumes on the Highway during the operation of the Project (based on 2026 traffic and noise level predictions). The model predicts that operational noise levels will increase regardless of whether the Project proceeds or not, predominantly due to increased traffic levels. In some areas the proposed alignment will be closer to sensitive receivers than the existing alignment and therefore noise levels may increase while in other areas it would be further away and noise levels should reduce.

The model predicts that:

- There would be no exceedances of the VicRoads Traffic noise Reduction Policy 2005;
- Decreased noise levels would occur at 67 houses, with 30 houses experiencing a noticeable decrease i.e. 5dB(A) or more, compared with continuing use of the existing Highway alignment;
- The same noise levels would occur at 21 houses compared with continuing use of the existing Highway alignment; and
- Increased noise levels would occur at 153 houses, with 28 houses experiencing a noticeable increase i.e. 5dB(A) or more, compared with continuing use of the existing Highway alignment.

In summary, in 2026 more dwellings will have experienced a noticeable reduction of traffic noise than a noticeable increase arising from the new alignments compared with continuing to use the existing Highway alignment.

The Assessment also indicated that there are sensitive receptors, particularity northeast of Great Western that require further investigation to determine whether noise mitigation measures would be required. The specific areas involved and extent of noise attenuation measures required would need to follow completion of detailed design.

Five submissions expressed concern regarding the potential noise or vibration matters. These are summarised below followed by VicRoads response:

- Mr & Ms Jamieson (Submission 5) – Concerned that noise and vibration during construction works would be disruptive and that as the new Highway will be closer to their house there will be increased noise. Also the attenuation provided by the existing cutting and vegetation will be removed.
  - VicRoads' response: EPA Guidelines for Noise Control will apply for construction working hours, if necessary VicRoads will provide noise mitigation measures, and VicRoads will offer to conduct an assessment of the dwelling prior to construction in order to assess potential for vibration damage.
- Mr Kilpatrick (Submission 6) – Concerned with the potential impact of the construction of the Project on the basic structure of the mud brick residence built in the 1860's.
  - VicRoads' response: VicRoads will offer to conduct an assessment of the dwelling prior to construction to document conditions in the event that damage might occur.
- Mr Cadby (Submission 9 with additional information presented at the Hearing) – Concerned that the Great Western Bypass alignment is too close to Western View Road will have noise impacts.
  - VicRoads' response: The best alignment for Bypass has been selected.
- Ms Gellert (Submission 10) – Supported alignment.
- Mr Guthrie of Grampians Estate (Submission 16) – Concerned that the current high levels of noise from traffic on the existing Highway are already of concern to the Great Western Estate business and would be made worse if the new Highway alignment was closer.
  - VicRoads' response: Proposed alignment will be closer to the business and any loss of land will assessed under the process provided by the Land Acquisition & Compensation Act 1986.

14.5 Discussion

The Panel notes that construction of the Project has the potential to create adverse impacts arising from noise and/or vibrations and appreciated the concerns expressed by some submitters.

In relation to noise, the Panel accepts VicRoads submission that the EPA Guidelines for Noise Control will apply during construction working hours. The Panel accepts that noise generated by construction work carried out during the day could be managed by techniques such as noise reduction technology used on machinery, and that sensitivity to noise is generally a less of an issue during the day than at other times. The Panel understands that construction activities that may need to be undertaken during the evenings, at night or at weekends and the noise generated at these times could be of more concern. However the Panel notes VicRoads submission that construction at these times is only expected to be required in exceptional circumstances and in these cases, VicRoads would consult with all potentially impacted residents and implement appropriate noise mitigation strategies.

The Panel considers that vibration may be an issue during construction of the Project especially arising from the use of rolling or compacting equipment. The Panel notes that 14 receptors potentially sensitive to vibration were located within 50 metre of the proposed alignment and may experience vibration impacts. However as these vibration events would be intermittent and short-term, it would likely be tolerable if prior warnings were given to all affected residents.

The Panel accepts in general VicRoads submission that, while construction vibration may be noticeable, the levels would not generally be expected to be high enough to cause damage to the structural integrity of buildings or infrastructure. The Panel appreciates Mr Kilpatrick's concern with the potential impact of vibrations from construction activities on the mud brick building at St Ethels and notes VicRoads commitment to conduct an assessment of this (and any other) dwelling prior to construction in order to assess any potential for vibration damage. The Panel also notes that, as indicated at the Hearing, VicRoads could use construction techniques in this area that would result in less vibration being generated.

In relation to the noise impact arising from the operation of the Project, the Panel notes that the Assessment model predicted that Highway noise levels will increase regardless of whether the Project proceeds or not, predominantly due to increased traffic levels. The Panel notes that the model predicted that should the Project be completed by 2026, more dwellings will have experienced a noticeable reduction of traffic noise (decrease of 5dB(A) or more), than a noticeable increase in traffic noise (increase on 5dB(A) or more) arising from the new alignment as compared with the continued use the existing Highway alignment.

The Panel notes that there are an estimated 28 houses that could experience a noticeable increase in noise of 5dB(A) or more, compared with continuing use of existing Highway. Many of these located northeast of Great Western. The Panel therefore considers that it is essential that these residences are subject to further investigation during development of the detailed design to determine the extent and nature of noise attenuation measures that are likely be required.

14.6 Conclusions

The Panel considers that, subject to implementation of the mitigation measures proposed, any noise or vibration issues that may arise during the construction of the Project could be satisfactorily managed. The Panel also considers that provided that further investigation is undertaken during the detailed design stage in regard to the residences that are predicted to experience noticeable increased noise levels (i.e. more than 5dB(A)) and that appropriate noise attenuation measures are constructed, then the adverse noise impacts arising from the operation of the Project will be mitigated.

15 Visual and landscape

15.1 EES objectives

The EES objective relevant to Visual and Landscape is:

> *To minimise air emissions, noise, visual, landscape and other adverse amenity effects, during the construction and operation of the proposed duplicated highway to the extent practicable.*

15.2 The Issues

The Project could potentially have a moderate visual impact on the landscape and/or residences in several areas, i.e. at duplication and overpass of Garden Gully Road in Armstrong (impacting on the landscape character and adjacent dwellings), where the new Highway bypasses Great Western (impacting on the surrounding landscape) in areas with significant natural or cultural values including Sisters Rocks (impacting on the outlook and general amenity) and at the proposed interchange with London Road (impacting on landscape character).

Four submissions identified the following issues with respect to visual and landscape amenity:

- Removal of trees and other vegetation, and that the shallower cuttings proposed would reduce the current screening of traffic using the Highway;
- Construction of the London Road interchange would detract from the current rural landscape values;
- Construction of the Great Western bypass would affect the amenity of the Western View Road area; and
- Locating a carriageway closer to a number of residences than the current Highway would affect their amenity.

15.3 Policy context

There are no national or State legislation or policies specifically relevant to visual and landscape impacts. However, environmental, heritage and planning legislation and government policies, which are indirectly relevant to landscape and visual impacts are outlined in the following table.

Legislation/Policy	**Description**
Commonwealth	
Environment Protection and Biodiversity Conservation Act 1999	Under the EPBC Act, any work that could significantly impact threatened flora and fauna species and vegetation communities listed under the EPBC Act requires referral to and potentially, approval of the Minister for Sustainability, Environment, Water, Population and Communities
Victoria	
Flora and Fauna	Under the *Flora and Fauna Guarantee Act 1988* rare, threatened and

Guarantee Act 1988	significant flora and fauna are protected, and require approval from the Department of Sustainability and Environment for removal.
Heritage Act 1995	The Victorian *Heritage Act 1995* provides for the protection and conservation of places and objects of cultural heritage significance and the registration of such places and objects. Heritage Victoria maintains a list of State-significant heritage places and objects, which are protected under the *Heritage Act 1995.* The Victorian Heritage Register is the highest level of protection and lists the non-Aboriginal heritage places/objects. The Victorian Heritage Inventory lists the archaeological sites in Victoria that are older than 50 years. The value of heritage places and objects can be related to the landscape and visual setting.
Aboriginal Heritage Act 2006	The Act forms the framework within which Aboriginal heritage assessment is undertaken in Victoria. The ***Act*** provides for the protection and management of Victoria's Aboriginal heritage with processes linked to the Victorian planning system. Cultural Heritage Management Plans (CHMPs) and Cultural Heritage Permits are processes to manage activities that may harm Aboriginal cultural heritage.
Planning and Environment Act 1987	The *Act* establishes a framework for planning the use, development and protection of land in Victoria. Under it, a Planning Permit is required to remove/disturb native vegetation within the study area. The Victorian Planning Policy Framework is developed under the *Planning and Environment Act 1987*. Items relevant to the landscape and visual assessment include: Clause 15: Environment - Planning authorities should plan for regional open space networks to be used for recreation and conservation of natural and cultural environments. - Planning and responsible authorities should ensure that open space networks are linked through the provision of walking and cycle trails and rights of way. - Planning and responsible authorities should ensure that land use and development adjoining regional open space networks, national parks and conservation reserves complements the open space in terms of visual and noise impacts.
Native Vegetation Management Framework 2002	The Native Vegetation Management Framework 2002 is implemented under the *Planning and Environment Act 1987.* The removal of any remnant patches of native vegetation or scattered indigenous trees requires consideration of Victoria's Net Gain Policy, described within the Native Vegetation Management Framework.
Landscape and Visual Assessment Guidelines 2009	There are no relevant Government guidelines relating to landscape and visual assessment relevant to the scope of this Project. The Landscape Assessment Guidelines, 2009 by Heritage Victoria provides an approach to visual assessment, but is specifically limited to determining and

	assessing the impacts upon sites of cultural heritage significance. None of the cultural heritage elements (identified by Heritage Overlays) value are related to their landscape setting or visually impacted upon by the Project. However, there are generally utilised guidelines and processes that have become 'industry standard' and are used in the preparation of this landscape and visual assessment. These are: - Landscape Character Types of Victoria, 1983 by Leonard M and Hammond R; and - Guidelines for Landscape and Visual Impact Assessment, 2003 by the Landscape Institute and the Institute of Environmental Management and Assessment
Local	
Ararat Rural City Planning Scheme	The Local Planning Policy Framework contains a number of points relevant to the landscape and visual assessment. In summary, the policy identifies the following directions: - The municipality contains a number of places of historic and cultural significance which are important to the local and wider community and must be protected and enhanced for their conservation and tourism potential. There are a number of overlays that are relevant to the landscape and visual assessment. A summary of each overlay is provided below: Heritage Overlay (HO): There are a number of Heritage Overlays within or in proximity to the study area. These include: - HO112 – Fountain Head Brewery Residence, Military Bypass Road, Armstrong; - HO113 – 'Westgate', Westgate Road, Armstrong; and - HO114 – Hard Hill Mining Site at Garden Gully Road and Hard Hill Road, Armstrong. Vegetation Protection Overlay VPO1 Significant and Remnant Vegetation Areas: - The Vegetation Protection Overlay VPO1 seeks to protect areas of significant vegetation for their ecological value. Vegetation Protection Overlay VPO2 Roadside Protection Vegetation Areas: - The Vegetation Protection Overlay VPO2 seeks to protect areas of significant remnant roadside vegetation and wildlife habitat and acknowledges the contribution this vegetation provides to the quality of travel experience and visual quality; and - A number of roads, including the Western Highway within the study area are covered by this overlay.
Northern Grampians Planning Scheme	The Local Planning Policy Framework contains a number of points relevant to the landscape and visual assessment. In summary, the policy identifies the following directions: • Identifying, protecting and conserving significant items, places and areas of natural and cultural heritage.

	• Protecting and enhancing native flora and fauna to improve biodiversity; and • Conserving and protecting sites and precincts of natural, archaeological, architectural, cultural and historic significance. There are a number of overlays that are relevant to the landscape and visual assessment. A summary of each overlay is provided below: Heritage Overlay: There are two Heritage Overlays within or in proximity to the study area. These include - HO1 – Seppelts Champagne Cellars, 36 Cemetery Road, Great Western; and - HO7 – Hard Hill Mining Site, Garden Gully Road, Great Western. Environmental Significance Overlay ESO1 Significant Ridge Environs: - The Environmental Significance Overlay ESO1 seeks to maintain the landscape qualities of the ridge system, especially when viewed from surrounding areas and the protection of remnant native vegetation. Areas covered by this overlay are outside the study area.

15.4 Evidence and submissions

The Visual and Landscape Assessment (EES Chapter 17 and Technical Appendix N) examined the potential effects of the Project on landscape character and the visual amenity of residents.

Most of the proposed alignment would be adjacent to the existing Highway and within the 'Vegetated Highway' landscape character area and this landscape was assessed as having a high capacity to accommodate change. The Project would not significantly diminish the character of this area subject to mitigation measures including retention of existing roadside vegetation where possible and new roadside planting being undertaken as part of the Project. Key areas where the landscape character is likely to be diminished include where new road structures are proposed in 'Vegetated Rural' or 'Rural landscape' character types and at the proposed interchanges at Armstrong, Great Western and London Road.

Many dwellings located along the Highway already have an existing view of traffic on the Highway and where the new alignment uses the existing Highway, the visual impact on these dwellings would be minor. Where a new alignment is proposed such as around Great Western or where the existing Highway is to be elevated there could be an increased visual impact on nearby dwellings. The proposed alignment could also have a moderate impact on areas of cultural or natural significance, such as Sisters Rocks. With sensitive mitigation, such as good design and screen planting, these impacts could be reduced.

The EES indicated that the detailed design for the Project would include a landscape plan, ensuring that the most appropriate landscape and visual outcomes are achieved. With the incorporation of appropriate mitigation measures, the Project would have an overall minor impact on visual and landscape characteristics.

Four submissions raised issues in relation to visual and landscape matters. These are summarised below followed by VicRoads response:

- Mr & Ms Jamieson (Submission 5) – Concerned with the removal of trees and vegetation, and shallower cuttings than on the existing Highway would result in less screening of traffic than currently occurs.
- VicRoads' response: VicRoads will develop an appropriate landscaping design for roadside planting which will be sympathetic to natural surroundings. Loss of vegetation from the submitters' property can be considered for compensation under the *Land Acquisition and Compensation Act 1986.*
- Ms Laity (Submission 7) – The remaining 14.5ha of the 31.1ha current rural property proposed for acquisition for the London Road interchange will be overshadowed by the proposed interchange.
- VicRoads' response: VicRoads does not intend to purchase this land.
- Mr Cadby (Submission 9, with additional material presented at the Hearing) – Concerned that the proposed alignment is too close to Western View Road and will have negative visual amenity impacts. Requests that cutting through quarry and adjacent land be as deep as possible to 'hide' road from residences.
- VicRoads' response: Taking a range of factors into account, the option of the route proposed provided a better outcome than the option of a route more distant from Western View Road. The level of the proposed road has been lowered as much as possible taking into account all factors.
- Ms Gellert (Submission 10): Supports proposed alignment, as any closer alignment would affect social environment.
- VicRoads' response: Noted

15.5 Discussion

The Panel accepts VicRoads submission that the landscape values of the vegetated Highway verge especially between Ararat and Armstrong would not be significantly diminished providing that the existing roadside vegetation was retained wherever possible. In addition the Panel considers that new appropriate roadside planting would need to be implemented as part of the Project.

The Panel notes that there were a number of key areas where the landscape character is likely to be diminished and/or residences affected. These areas were:

- At the duplicated overpass of Garden Gully Road in Armstrong, impacting on the landscape character and adjacent dwellings;
- Where the new Highway bypasses Great Western impacting on the surrounding landscape;
- In the area near Sisters Rocks impacting on the general amenity and outlook; and
- At the proposed interchange at London Road impacting on the landscape character and adjacent dwellings.

However the Panel accepted VicRoads' submission that the potential visual and landscape impacts at all these locations and adjacent to the property owned by the Jamiesons, could be reduced through sensitive design, screen planting and other planting appropriate to the specific locations.

The Panel was not convinced by Mr Cadby's concern that proposed alignment of the Great Western bypass was too close to Western View Road and would significantly negatively

impact on the amenity on his residence in Western View Road. The Panel accepts VicRoads' submission that the level of the proposed bypass had been lowered through the existing quarry area as much as possible taking into account all design factors.

With the mitigation measures proposed, the overall visual and landscape impact of the Project should be minor.

15.6 Conclusions

The Panel concludes that with appropriate detailed design and implementation of the landscape plan including suitable planting, the Project overall will have a minor impact on visual and landscape values and the issues of concern raised by the submitters should be able to be addressed.

16 Social

16.1 EES objectives

The EES objective relevant to the Social Impact Assessment is:

> *To protect residents' well-being and minimise any dislocation of residents or severance of communities, to the extent practicable.*

16.2 The Issues

The issues relevant to social impact include the potential to affect amenity and aesthetics, such as visual and noise amenity, increased travel time for some local people, loss of amenity during construction, severance of accessibility to properties and land acquisition.

Eight submissions identified the following social issues:

- Potential loss of trade to wineries near Great Western due to limited access from the proposed bypass;
- Impact of the new alignment in severing properties;
- Impact of increased noise levels due the new Highway;
- Impact of land acquisition;
- Impact of construction on a historic building with sensitive fabric; and
- Impact of Great Western bypass on the amenity of properties in Western View Road.

16.3 Policy context

Legislation/Policy	Description
National	
Environment Protection and Biodiversity Conservation Act 1999	This Act notes the principles of ecologically sustainable development which should be applied in all Project assessments. Section 136 of the Act also states that the Minister must consider economic and social matters in deciding whether or not to approve the taking of an action requiring assessment and approval under the Act, and what conditions to attach to an approval.
Native Title Act 1993	Amongst other objectives this Act exists for the recognition and protection of native title. In formalising the *Native Title Act 1993* the High Court: (a) rejected the doctrine that Australia was terra nullius (land belonging to no-one) at the time of European settlement; (b) held that the common law of Australia recognises a form of native title that reflects the entitlement of the indigenous inhabitants of Australia, in accordance with their laws and customs, to their traditional lands; and (c) held that native title is extinguished by valid government acts that are inconsistent with the continued existence of native title rights and interests, such as the grant of freehold or leasehold estates ('Preamble', *Native Title Act 1993).*

State	
Transport Integration Act 2010	This Act highlights the need for: - Social and economic inclusion (Section 8) - Economic prosperity (Section 9) - Integration of transport and land use (Section 11) - Safety, health and wellbeing (Section 13).
Public Health and Wellbeing Act 2008	This Act recognises the State's role in promoting, protecting and reducing inequalities in public health and wellbeing. It promotes collaboration between all levels of Government and industry, business, communities and individuals. The following objectives in the Public Health and Wellbeing Act 2008 (Part 2, Section 4) need to be considered in the social impact assessment of the Project: Part 2, Section 4 Objective (1) The Parliament recognises that: - the State has a significant role in promoting and protecting the public health and wellbeing of persons in Victoria - public health and wellbeing includes the absence of disease, illness, injury, disability or premature death and the collective state of public health and wellbeing - public health interventions are one of the ways in which the public health and wellbeing can be improved and inequalities reduced - where appropriate, the State has a role in assisting in responses to public health concerns of national and international significance. (2) In the context of subsection (1), the objective of this Act is to achieve the highest attainable standard of public health and wellbeing by: - protecting public health and preventing disease, illness, injury, disability or premature death - promoting conditions in which persons can be healthy - reducing inequalities in the state of public health and wellbeing. The Act also defines the following principle: Part 2, Section 7 Principle of primacy of prevention (1) The prevention of disease, illness, injury, disability or premature death is preferable to remedial measures. Part 2, Section 10 Principle of collaboration (2) Public health and wellbeing, in Victoria and at a national and international level, can be enhanced through collaboration between all levels of Government and industry, business, communities and individuals.
Planning and Environment Act 1987	This Act has the objective of securing 'a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria'. It also addresses the protection of public utilities

	for the benefit of the community.
Traditional Owner Settlement Act 2010	The purposes of the *Traditional Owner Settlement Act 2010* are to advance reconciliation and promote good relations between the State and traditional owners and to recognise traditional owner groups based on their traditional and cultural associations to certain land in Victoria. This includes recognising traditional owner rights and conferring rights on traditional owner groups as to access to or ownership or management of certain public land, as well as decision making rights and other rights that may be exercised in relation to the use and development of the land or natural resources on the land. Traditional owner groups are represented within the study area.
Central Highlands Regional Strategic Plan	The Central Highlands Regional Strategic Plan is the key overarching regional policy for the two municipalities covering the study area. The Strategic Plan considers that the planned upgrade of the Western Highway would strengthen the region's comparative advantage against other regions in the State, as it would strengthen links with the rapidly growing western region of Melbourne. The Project can contribute to the overall goals of the Plan by minimising impacts on agricultural productivity, improving transport access for residents and businesses, enhancing the experiences of tourists and making the Western Highway safer for all road users.
Local	
State Planning Policy Framework (SPPF) Ararat & Northern Grampians Planning Schemes	The SPPF is the planning policy which underpins all land use planning in Victoria. It consists of a series of clauses which set out specific policies for specific areas of planning. The relevant planning schemes for the Project are those for the Rural City of Ararat and the Northern Grampians Shire. The following clauses from the framework are relevant in determining the appropriate social objectives for the Project: - Clause 10 Operation of the State Planning Policy Framework - Clause 11 Settlement - Clause 16 Housing - Clause 18 Transport - Clause 19 Infrastructure
Rural City of Ararat Council Plan 2009-2013	This Council Plan sets the direction for Council for the current time period. The plan sets out a series of strategic directions for the community which are built on four pillars: - Our People - Our Culture - Our Economy - Our Environment.
Rural City of Ararat, Municipal Public Health and Well-being Plan 2009-2013	Further objectives around access to transport are set out in the Municipal Public Health and Well-being Plan (MPHWP) dated 2009-2013. The over-arching objective is to improve social connectedness. The Plan notes that people are most commonly connected to family,

	schools, work and different types of community groups, clubs and organisations. Social inclusion is a key determinant of mental health and wellbeing. Transport connections and accessibility play an important role in developing and maintaining social connections. This issue is therefore important to assess in a Social Impact Assessment. The transport-related objectives in the MPHWP are focussed on public transport. They are to achieve: - Increased usage and utilisation of public transport - Improved public transport services for the municipality. As the Western Highway is a major public transport route, this objective is directly relevant to the current Project.
Northern Grampians Shire Council Plan 2009	The Council Plan documents several strategic objectives for development of the Shire's communities. These goals, and the specific objectives which may relate to the Western Highway Project, are as follows: - Ensure inclusiveness and access for all people; - Ensure appropriate management and development of roads, bridges, footpaths and shared paths; - Plan and implement road safety and traffic management improvements; and - Support the provision of adequate tourism infrastructure to encourage business development.
Great Western Community Plan 2009-2013	The Great Western Community Plan sets out the key development priorities of the community of Great Western. The Plan lists eight priority issues which are affecting the future of Great Western. The Priority Issue 1 – The Effects of the Bypass on Great Western, is most relevant to the Project: - Priority Issue 1: The Effects of the Bypass on Great Western. The community have embraced the proposal of a bypass as a positive step in the future of Great Western as a town. *The bypass will happen; Great Western must make the best of the bypass. This can be achieved by making the town more appealing for visitors, and sustaining businesses with limited resources such as the shops, restaurants, wineries. The community has identified advantages of traffic issues which will allow for the community to develop as a village that can grow as a result of the proposed bypass.* *Liaison with VicRoads must continue through the Project development to maximise the efforts to ensure the town can prosper from a bypass, including things such as making sure the turn-off from the highway into Great Western encourages visitation and signage promotes the town's assets and activities.* The Priority Issue 1 of the Plan demonstrates that the community understands that the bypass would significantly affect the future of the

	town. Several of the other priority issues are also related to transport and township presentation.

16.4 Evidence and submissions

The Social Impact Assessment, Chapter 18 and Technical Appendix O in the EES examined the existing social and community conditions in the study area and the potential impact that the Project could have on individuals and communities. It found that the community within the study area has strong social linkages and a high degree of resilience. Community attitudes towards the Project were mixed with concerns relating to amenity impacts (noise and visual), impacts of property acquisition and the impact of severance of agricultural land. Proposed changes to access arrangements to local properties and destinations including Seppelts Winery, Best's Winery, Stawell Park Caravan Park, Sisters Rocks and Grange Golf Course were also of concern.

The EES indicated that the Project would not significantly affect access to any tourism attractors and might even encourage people to visit local towns and community services and facilities due to improved travel times. It considered that most local people would accept slightly longer travel distances as a trade off in view of better road conditions, safer driving conditions and safer access to and from side roads and properties.

In relation to Great Western township, the Assessment found that the town's community was concerned with the potential loss of passing trade due to the bypass, but the community also acknowledged that the bypass could increase amenity and safety within the town which may encourage increased development. The Assessment noted that signage could be developed to promote the town and support businesses in the town. The impacts on local businesses are discussed further in Chapter 17.

Overall, the Assessment indicated the social impacts of the Project were considered to be low, however for some people the Project could impact on their access arrangements, including during construction.

VicRoads at the Hearing indicated that only one dwelling (located near Armstrong at chainage 9400) would need to acquired, and that the owner had been consulted and not lodged a submission opposing acquisition. The Panel met with the owner during the Hearing site inspection and confirmed that he did not oppose acquisition.

Eight submissions raised issues in relation to social matters. These are summarised below followed by VicRoads' response:

- Mr Thomson – Best's Wines (Submission 1, with additional material provided at the Hearing) – Concerned that the limited access proposed from the Great Western bypass will affect business, requested that adequate and clear signage to the wineries in the area be provided on the new Highway, raised issues relating to stock movement across the Great Western bypass, stock access to water in a cut off paddock and the difficulty of moving farm machinery. Raised issues relating to signage proposed on the new Highway.
- VicRoads' response: Any losses of land and/or impact on business (including water supply assets) will be assessed and compensated and that the movement of farm machinery, and access will be provided to all properties where required. In relation to

the proposed access to Best's Wines, VicRoads indicated at the Hearing that it would be prepared to consider another off ramp at Best's Road (see below).

- Mr & Ms Jamieson (Submission 5) – Concerned that noise and construction (50m from house) would be disruptive and that noise and vibration matters have been underestimated. Also that the existing attenuation provided by the cutting and dense native vegetation will be reduced.
- VicRoads' response: Noise and vibration issues covered in Chapter 14. EPA Guidelines and VicRoads' Noise Policy for noise will apply. If necessary VicRoads will conduct an existing conditions assessment of the dwelling prior to construction to assess any potential for any vibration induced damage.
- Mr & Ms Kilpatrick (Submission 6) - Raised concerns regarding possible increased noise and possible structural damage to historic building.
- VicRoads' response: If required, noise mitigation measures will be provided. An existing conditions assessment will be offered prior to construction to document the condition in the event of any damage occurring. Also at the Hearing VicRoads indicated that construction techniques could be managed to reduce vibrations if necessary.
- Mr Cadby (Submission 9 with additional material presented at the Hearing) – Concerned that the close proximity of Great Western bypass will adversely impact on the visual and noise amenity of Western View Road residents and the bypass should be built in as deep a cutting as possible.
- VicRoads' response: Considering all factors, the proposed alignment is the best option and that the road is planned to be built through the quarry area as deeply as possible.
- Ms Gellert (Submission 10) – Proposed alignment is best option for property.
- VicRoads' response: Noted.
- Mr Linley – Northern Grampians Shire (Submission 12) – Project will result in improved safely, freight efficiency and provide communities in the region with a safe effective connection to Melbourne. Need to ensure that the detailed design of the Great Western bypass is effective in mitigating the social impacts on the community and a Signage Strategy has been prepared in accordance with VicRoads and Tourism Victoria standards.
- Mr & Ms McKenzie (Submission 14) – Request adequate compensation for any loss of land, infrastructure on grapevines removed.
- VicRoads' response: Compensation will be provided in line with legislation.
- Mr Guthrie – Grampians Estate (Submission 16) – Concerned that access to business will be more indirect leading to less visitation, requests an additional off ramp at Best's Road, requests that the nearest carriageway to the cellar be no closer than the existing Highway and opposes the removal of any shiraz wines which were planted in 1878.
- VicRoads' response: Agreed that the new alignment will be closer to the cellar door, however any loss of land and/or trade will be compensated in line with legislation. The proposed alignment has been designed to avoid the 100+ year old shiraz vines and to minimize the impact on the Riesling vines. During discussions at the Hearing, VicRoads indicated that it was prepared to consider the provision of a new service road to the front of the submitter's property. See below for discussion in regards to an additional off ramp at Best's Road.

16.5 Discussion

The Panel noted the concerns outlined in the EES regarding the possible impacts of the Great Western bypass on businesses located within Great Western and appreciated the concerns expressed by submitters. However the Panel accepted VicRoads submission that the Project as proposed would not significantly affect access to any tourism attractors (with the exception of Best's Wines and Grampians Estate). The Panel considers that any potential loss of passing trade due to the bypass would be offset by significantly increased amenity (especially following the major reduction in truck traffic) and safety within the town. Together with appropriate signage on the new Highway, the improved amenity in the township area may encourage increased development.

In relation to the concerns raised by Best's Wines, the Panel is concerned that the proposed access arrangements might significantly impact on its business and the Panel considered that an additional off ramp to allow traffic travelling from the direction of Ararat to leave the Highway should be considered. In relation to Grampians Estate, the Panel considered that the access proposed could be improved by the provision of an additional service road giving access to the front of the property as discussed at the Hearing (see Chapter 17 for details).

The Panel considers that these measures should be complemented with new comprehensive signage alerting the users of the new Highway to the location of Best's Winery and Grampians Estate (and other) businesses in Great Western. For discussion of signage see Chapter 17.

The Panel noted the concern of Grampians Estate with the proximity of the new carriageway to the cellar door and the possible impact that the Project might have on Shiraz and Riesling vines. The Panel was satisfied that the proposed alignment at this site was the best option taking all factors into account, and had been designed to avoid the 100+ year old Shiraz vines and minimise the impact on the Riesling vines.

The Panel considers that most local people would accept slightly longer travel distances to access their homes as a trade off in view of better road conditions, safer driving conditions and safer access to and from side roads and properties.

In response to issues relating to the acquisition of land and the loss of infrastructure and/or loss of trade, the Panel is satisfied that the process provided by *the Land Acquisition and Compensation Act 1986* was appropriate to address these matters.

The Panel appreciates the concerns raised by the Jamiesons and Kilpatricks in relation to noise, but accepts VicRoads submission that application of the EPA Guidelines and VicRoads' Noise Policy would address this issue. In relation to vibrations the Panel notes that if necessary VicRoads would conduct an existing conditions' assessment of the Kilpatricks' dwelling prior to construction to assess any potential for vibration induced damage and that construction techniques could be managed to reduce vibrations if necessary (see Chapter 14).

In relation to Mr Cadby's concern with the proximity of the Great Western bypass to Western View Road and the impact on the amenity of the residents in this area, the Panel was satisfied that design of the bypass will mitigate potential adverse impact on his residence as much as possible.

16.6 Conclusions

The Panel considers that although overall the social impacts of the Project are low, they could be higher on some residents especially during construction. These impacts would, however, be outweighed by the long term benefits arising from the Project.

The Panel concludes that in order to reduce the potential impact of the Project on Best's Winery and Grampians Estate, an additional off ramp at the Best's Road intersection and an additional service road giving access to Grampians Estate should be considered (see Chapter 17 for details). In addition appropriate signage should be provided on the new Highway (see Chapter 17 for details).

The Panel concludes that the process under the *Land Acquisition and Compensation Act 1986* is adequate to deal with the compensation matters, including compensation for any affected businesses by loss of trade.

17 Economic

17.1 EES objectives

The EES objective relevant to the economic assessment is:

> *To provide net economic benefit for the State having regard to road user benefits, direct costs, and indirect costs including with respect to other land uses and economic activities.*

17.2 The Issues

The EES assessment broadly divides the economic impacts for the Project into agricultural impacts and non-agricultural business impacts.

The key issues for agricultural are economic impacts arising from:

- Potential loss of trade to wineries near Great Western due to limited access from the proposed bypass;
- Direct land loss;
- Severance of landholdings;
- Impacts on infrastructure;
- Vehicle and stock movement; and
- Impact on access into and out of properties.

The key issues for non-agricultural businesses are economics impacts arising from disruptions to access during construction and the prospect of loss of passing trade, most significantly in Great Western.

17.3 Policy context

Legislation/Policy	**Description**
National	
Nation Building Program (2010)	The Australian Government's Nation Building Program (2010) commits the Commonwealth Government to $505 million towards the Project.
National Land Freight Strategy – Discussion Paper 2011	The Western Highway is part of the indicative national land freight network. The relevant goals include: - High productivity/performance based standard network for 'national' highways - (identification of operating impediments to high productivity vehicle access, including local housing/traffic and traffic lights etc). - Town bypasses and grade easing on national highways. - Improved safety outcomes embedded in each of the initiatives.
State	
Transport Integration Act 2010	Part 2, Division 2 of the *Transport Integration Act 2010* outlines the objectives of the Act, many of which are relevant to the economic assessment:

	• **Social and economic inclusion (Section 8)** The transport system should provide a means by which persons can access social and economic opportunities to support individual and community wellbeing including by : (a) minimising barriers to access so that so far as is possible the transport system is available to as many persons as wish to use it; (b) providing tailored infrastructure, services and support for persons who find it difficult to use the transport system. • **Economic prosperity (Section 9)** The transport system should facilitate economic prosperity by - (a) enabling efficient and effective access for persons and goods to places of employment, markets and services; (b) increasing efficiency through reducing costs and improving timeliness; (c) fostering competition by providing access to markets; (d) facilitating investment in Victoria; and (e) supporting financial sustainability. • **Efficiency, coordination and reliability (Section 12)** (1) The transport system should facilitate network-wide efficient, coordinated and reliable movements of persons and goods at all times. (2) Without limiting the generality of subsection (1), the transport system should: (a) balance efficiency across the network so as to optimise the network capacity of all modes of transport and reduce journey times; (b) maximise the efficient use of resources including infrastructure, land, services and energy; (c) facilitate integrated and seamless travel within and between different modes of transport; (d) provide predictable and reliable services and journey times and minimise any inconvenience caused by disruptions to the transport system.
10 Year Tourism and Events Strategy (2006)	The guiding strategy for tourism and events development in Victoria is the 10 Year Tourism and Events Strategy which was released in 2006, followed by a progress report in 2010. Four key focus areas are set out in this Strategy. These focus areas are: 1. Build upon existing strengths 2. Develop new strengths - Assist with investment attraction and facilitation to leverage new major tourism investment in Victoria 3. Focus on long term growth opportunities - Focus on business events acquisition with the finalisation of a business case for developing business events in regional Victoria and the implementation of a new strategy to attract

	and leverage these - Focus on regional destination development and marketing programs, particularly the regions beyond Melbourne's surrounds that have the greatest growth potential in the next 5 – 10 years. Focus on attracting entrepreneurs to invest in iconic tourism product in regional Victoria. 4. Strengthen the partnership between government and industry Since then, a number of strategies have been developed that specify the implementation of the framework in the 10 Year Strategy. These are: - Three Year Business Plan 2008-2011; - Regional Tourism Action Plan 2009 – 2012; and - Specific Market Segment Plans, of which the following are relevant for the Western Highway Project due to the tourism product located in the wider region: - Backpacker Tourism Action Plan 2009-13; - Victoria's Aboriginal Tourism Development Plan 2006-2009; - Victoria's Food and Wine Tourism Action Plan (a new version is currently under development) Victoria's Nature-Based Tourism Strategy 2008-2012; - Victorian Trails Strategy 2005-2010; and - Regional Marketing and Development Plan 2011-2012 – Grampians, which covers the Grampians Tourism Region and implements the Strategy's State level initiatives at a regional level. The Western Highway Project is relevant for these tourism development efforts because access to tourism destinations is an important aspect of the experience and reduced travel time would ease access.
Planning and Environment Act 1987	The *Planning and Environment Act 1987* (P&E Act) establishes a framework for planning the use, development and protection of land in Victoria in the present and long-term interest of all Victorians. The Act sets out the legislative basis to ensure that planning provisions are prepared and approved throughout Victoria. The P&E Act provides for a single instrument of planning control, the planning scheme, which sets out the way land may be used or developed. A planning scheme is a statutory document which sets out objectives, policies and provisions relating to the use, development, protection and conservation of land in the area to which it applies, usually a municipality.
State Planning Policy Framework	Every Victorian planning scheme includes the State Planning Policy Framework (SPPF). The SPPF consists of general principles for land use and development in Victoria as well as specific objectives and strategies applying to the whole State or to areas of State significance. The following clauses of the SPPF are of particular relevance to the economic assessment of the Project:

	Clause 11.05 relates to regional development and sub-clause 11.05-1, which relates to regional settlements networks, contains the following relevant strategies:
	- *Direct urban growth into the major regional cities of Geelong, Ballarat, Bendigo and the Moe, Morwell and Traralgon cluster*
	- *Support sustainable development of the regional cities and centres of Ararat…Horsham…*
	- *…*
	- *Promote transport and communications and economic linkages between the various settlements through the identification of servicing priorities in regional land use patterns.*
	- *…*
	Sub-clause 11.05-4, which relates to regional planning strategies and principles, contains a strategy to support a network of integrated and prosperous regional settlements by, amongst other things: "strengthening networks of settlements by maintaining and improving transport links, spatial patterns of service delivery, and promoting commercial relationships and community activities".
	Clause 18 relates to transport and has the overall objective that: "Planning should ensure an integrated and sustainable transport system that provides access to social and economic opportunities, facilities economic prosperity, contributes to environmental sustainability, coordinates reliable movements of people and goods, and is safe".
	Sub-clause 18.02-4 relates to the management of the road system and contains the following relevant strategies:
	- *Selectively expand and upgrade the road network to provide for:*
	  - *High quality connections between Metropolitan Melbourne and regional cities, and between regional cities;*
	  - *Upgrading of key freight routes*
	  …
	- *Improve the management of key freight routes to make freight operations more efficient while reducing their external impacts.*

Local	
Central Highlands Regional Strategic Plan 2010	The Central Highlands Regional Strategic Plan provides a clearly articulated framework designed to best position the region to 2030 and beyond. The Plan aims to build on the region's competitive advantages and encourages more investment in transport infrastructure and services. The Western Highway Project is identified as a Project that would add to the competitive advantages of the region.
Ararat Rural City Economic Development Strategy 2009-2012	The key focus for economic development as set out in the Ararat Economic Development Strategy 2009-2012 is to grow the local economy through growing the city's population base. The strategy contains actions which focus on attracting new residents as well as on educating and retaining the existing labour force to be able to provide workers for new Projects and expansion of existing businesses.

	Employment in the city is mainly in retail, manufacturing, agriculture, trades and services and there are strategies to support and strengthen these sectors. In the Economic Development Strategy, the Ararat Prison is identified as a large and important employer and a case study demonstrates the employment impacts of the currently ongoing expansion of the prison. The strategy includes actions to increase industrial land usage and identifies 'proposed wind farm developments' and the Ararat Renewable Energy Park as current Projects that will increase the future demand for labour. The Economic Development Strategy makes no specific mention of the existing Highway. However, in terms of economic development, the role of the Highway is clearly important as it is a major transport route to the prison, the Ararat Renewable Energy Park and the retail precinct in the town centre.
Great Western Community Plan 2009-2013	The Great Western Community Plan 2009-2013, identifies the bypass of the township of Great Western as the highest priority regional issues impacting on the Great Western community. The Plan highlights the recognition by the community that this bypass will go ahead and notes their desire to be involved with ongoing liaison through the Project development in order to maximise the potential for the town to prosper as a result.

17.4 Evidence and submissions

The EES (Chapter 19) and Technical Appendix P contain details of the assessment. It is based on existing economic conditions and potential economic effects of the Project and relevant alternatives during construction and operation at the local and regional level in relation to employment, income distribution and existing land uses in the area, (especially key infrastructure or services, agriculture, business and tourism). The assessment analysed the costs and benefits of the proposed works and relevant alternatives, including the 'no Project' scenario.

The economic impact assessment explored the potential economic effects of the Project, including the effects on the local community and the wider region for both the ultimate upgrade of the existing Highway to a freeway and the construction impacts associated with the interim upgrade to a duplicated highway.

The EES summarises the findings of the assessment as follows:

> *During construction the Project is expected to create approximately 1,536 Full Time Equivalent (FTE) jobs. These are jobs directly and indirectly involved in construction of the Project. Flow on effects to the wider community are expected (sourcing of goods and services and expenditure by workers and their families) to create 2,856 FTE jobs.*
>
> *It is expected that the Project would enhance connections between the local agricultural industry and the Port of Melbourne. The Project would also have benefits for the tourism industry by allowing more efficient movement of people to and through the area.*

The construction of the Project would result in the loss of agricultural facilities and infrastructure valued at approximately $1 million over a 30 year timeframe. The Project would also result in the loss of agricultural land and severance of properties with an economic impact on agricultural businesses estimated to be approximately $1.3 million over a 30 year timeframe. VicRoads would compensate eligible landholders in accordance with the Land Acquisition and Compensation *Act* 1986, which *reduces the impact to insignificant.*

It is expected that the Project may disrupt access to non-agricultural businesses during construction resulting in a revenue loss estimated to be less than $100,000 over a three year period. VicRoads would work with businesses to optimise construction schedules, which would reduce the impact to insignificant. The loss of passing trade for businesses has also been estimated to be in the range of $100,000 to $1 million over a 30 year timeframe, most significantly in Great Western.

The cumulative impacts of the Project have been considered in relation to the town of Great Western. The potential impacts on businesses in the main street of Great Western are the most significant. There is a risk of a cumulative effect if several businesses in the town become unviable due to loss of passing trade.

The economic impact assessment found that the likely costs and benefits associated with the Project resulted in a Benefit Cost Ratio (BCR) of 0.6 for the proposed alignment. The Panel notes such relatively low BCRs are common for rural highway upgrades because of the high cost involved for long corridors and relatively low traffic volumes.

Several submitters raised matters of economic impact related to access, severance, and loss of land.

Ms Bacon (Submission 4, Ch 23200-2400) identified severance of one block from her property resulting in leasing difficulties and the isolation of the major stock water supply from the rest of the property. VicRoads agreed to purchase the portion of the property raised in the submission and responded that losses of potential income would be assessed under processes provided by the *Land Acquisition and Compensation Act 1986*.

Mr and Ms Jamieson (Submission 5, Ch800) expressed concern about the loss of land and production. VicRoads responded that losses of potential income would be assessed under processes provided by the *Land Acquisition and Compensation Act 1986*.

VicRoads has agreed to acquire the severed 4.6 hectares lot containing a dam and another 12 hectares of the 31.1 hectares property identified in the submission from Ms Laity (Submission 7, Ch23200-24000). VicRoads also stated that the matter of income lost due to changed leasing circumstances would be assessed under processes provided by the *Land Acquisition and Compensation Act 1986*.

Mr Thomson of Best's Wines (Submission 1, Ch14800-15800) expressed concern that tourist access to his winery would be compromised by loss of passing trade resulting in significant loss of business, and also loss of access. VicRoads response to Mr Thomson's submission was to agree during the Hearing to consider a west bound off ramp to Best's Road and Best's Road being retained at ground level, with the Highway to go over Best's Road. This outcome will also provide for less disruption to roadside vegetation along Best's Road (refer Chapter

11) and allow for continued unimpeded movement of livestock and machinery. VicRoads also responded to Mr Thompson's concern about loss of farm assets, including dams. VicRoads submitted that these losses would be assessed under processes provided by the *Land Acquisition and Compensation Act 1986*. VicRoads informed Mr Thomson that batters for a Highway overpass would take a larger area of land than the former proposal and Mr Thomson advised that he accepted this.

Mr Guthrie of Grampians Estate (vineyard and winery), (Submission 16, Ch 10800) is concerned that access to his winery will be more indirect resulting in fewer visitations from Highway traffic, thus making his business less viable. In particular, the access to the cellar door from the east will be impeded unless a similar turn off lane to the current one is provided. VicRoads undertook at the Hearing to consider a longer service road under AMP3 conditions, commencing south of the cellar door, running along the frontage of the Mr Guthrie's property and connecting with the proposed service road further to the north.

In her evidence Ms Marianne Stoettrup also identified the changed access conditions as a risk to winery businesses from passing trade. In particular, she concluded that providing more direct access to Grampians Estate Winery would significantly mitigate any potential loss in passing trade for that business. She also concluded, however, that a westbound exit ramp to Best's Road '*would be costly and although with some merit, it is unlikely to generate significant additional trade to warrant construction'*.

Mr Thomson and Ms Stoettrup also identified the economic importance of road signage to the wine industry of Great Western, especially with the proposed access changes. They were concerned that the current design of signage did not provide sufficient detail about the tourist attractions of Great Western, particularly the wineries. VicRoads stated that their signage was prepared subsequent to the exhibition of the EES including consultation with Tourism Victoria. During the hearing VicRoads agreed to discuss signage design further with the submitters.

17.5 Discussion

The Panel notes the regional economy is based primarily on agriculture and tourism. The economic impact assessment was conducted to determine potential impacts of the Project on both agricultural and non-agricultural businesses. Impacts were considered by examining the amount of land severance, the BCR outcome, consequences to employment, and effects on tourism and other non-agricultural industry in the area.

In the interests of business viability, the Panel supports a westbound off ramp to Best's Road and the proposed more direct access to Grampians Estate winery. Both of these issues were discussed at the Hearing and on the site visit and the Panel understands VicRoads to now be in favour of both changes (subject to considering detailed design). Based on information provided to the Hearing on projected costs and likely compensation due to loss of cellar door sales, the Panel expects that the cost to VicRoads of the off ramp and service road extension will be recovered within five to ten years.

The Panel supports a review of the road signage in consultation with business operators.

The Panel considers that VicRoads has given fair consideration to all submitters concerned about economic impacts on their businesses.

The Panel agrees that overall, the negative economic impacts of the Project are expected to be minor in the context of the region and the economic benefits of the Project are expected to be moderate.

17.6 Conclusions

The Panel notes that the EES expects the negative economic impacts of the Project to be low and the economic benefits to be moderate. The Panel is satisfied the assessment and outcomes of the Hearing adequately deal with the Project's potential economic effects and its benefits and costs.

18 Matters of national environmental significance

18.1 EES objectives

The Victorian Minister for Planning's Final Scoping Requirements for the EES state:

> *The EES should also include a separate summary assessment addressing effects on, and avoidance, mitigation and management measures for, matters of national environmental significance.*
>
> *This summary must include, but not be limited to, information on the following species and ecological communities listed as threatened under the EPBC Act:*
> - *Southern Brown Bandicoot, Golden Sun Moth, Striped Legless Lizard, Murray Cod, Australian Grayling and Eastern Dwarf Galaxias; and*
> - *Button Wrinklewort, Spiny Rice-flower, Pomonal Leek-orchid, Tawny Spider-orchid and Large-fruit Fireweed and Trailing Hop-bush.*

18.2 The issues

The *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act*) establishes a Commonwealth process for assessment of proposed actions that are likely to have a significant impact on matters of National Environmental Significance (NES). An action (i.e. Project, development, undertaking, activity, or series of activities), unless otherwise exempt, requires approval from the Commonwealth Environment Minister if it is likely to have a significant impact on any matters of NES.

A referral under the *EPBC Act* is required if a proposed action is likely to have a '*significant impact*' on matters of NES. The EES provides a summary of the predicted risks and impacts of the Project on Matters of NES as defined in the *Act.* An *EPBC Act* Referral was submitted for the Project and it was determined by the Commonwealth Environment Minister that the Project would be a controlled action on 17 December 2010, due to the presence of listed threatened species and ecological communities (under Sections 18 and 18A of the *Act*).

The Project is being assessed in accordance with the bilateral agreement between the Commonwealth and the State of Victoria. This means that the EES process is being used for assessment of the Project under the EPBC Act.

Biodiversity and habitat issues (in addition to matters of NES) are discussed in Section 11 of this report.

18.3 Policy context

The relevant legislation for Matters of National Environmental Significance is summarised in the Table below.

Legislation	Description
Commonwealth	
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	The Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act) provides that certain actions – in particular, actions that are likely to have a significant impact on a matter of National Environmental Significance (NES) – are subject to a rigorous assessment and approval process. The NES identified in the Act as triggers for the Commonwealth assessment and approval regime are: - World Heritage Properties - National Heritage places - Ramsar Wetlands - Threatened species and ecological communities - Migratory species - Commonwealth marine areas and Nuclear actions (including uranium mining). The Project has been designated as a controlled action under EPBC Act as there is a potential to impact on listed threatened species and communities.

18.4 Evidence and submissions

The EES indicated that the assessment area supported areas of high and very high quality remnant vegetation, some considered to be of State and National conservation significance due to the presence of, or habitat for national and state significant flora and fauna species. The Project is therefore defined as an action that required approval from the Commonwealth Environment Minister due to its potential impact on matters of NES.

During the assessment of the options developed for the proposed alignment, matters of NES and vegetation of Very High and High conservation significance were deemed to be of highest importance, and priority was given a final alignment that avoided or minimised impacts on matters of NES where possible. However it was not possible to entirely avoid impacts on matters of NES.

(i) Flora

As required by the scoping requirements of the EES, the study area was assessed for the presence of Button Wrinklewort, Spiny Rice-flower, Pomonal Leek-orchid, Tawny Spider-orchid and Large-fruit Fireweed and Trailing Hop-bush. As a result of this assessment it was determined that only one EPBC Act listed flora species - Trailing Hop-bush, (Vulnerable) was likely to be impacted by the Project.

The EES indicated that 67 Trailing Hop-bush plants were recorded in the study area on the east and west sides of existing Highway between Gilchrist Road and Hurst Road. The Project, as initially planned, had the potential to impact on 21 plants located on the western side of the existing Highway reserve between London Road and Robson Road. In order to avoid the Trailing Hop-bush plants in this area, and on the Crown land managed by DSE west of the

existing Highway, the entire new Highway and intersection 1.1km northwest of the current London Road intersection was then planned to be located on cleared land and the existing Highway be used as a service road. Through detailed design of this service road, it is likely that all 21 Trailing Hop-bush plants in this area could be fenced and avoided. VicRoads indicated to the Panel that it was possible that one Trailing Hop-bush plant located on the existing Highway reserve near Hurst Road may have to be removed (and relocated). This was considered to be of minor impact overall on the species in the study area.

(ii) Fauna

As required by the scoping requirements of the EES, the study area was assessed for the presence of Southern Brown Bandicoot, Golden Sun Moth, Striped Legless Lizard, Murray Cod, Australian Grayling and Eastern Dwarf Galaxias. As a result of this assessment it was determined that only one EPBC Act listed fauna species – Golden Sun Moth (Critically Endangered) was likely to be impacted by the Project.

The EES indicated that Golden Sun Moth habitat was identified at numerous sites within the study area with high numbers recorded between St Ethels Road and The Majors Road. Due to the size and linear nature of the Project it was not possible to avoid all the impacts on Golden Sun Moth habitat.

The EES indicated that the proposed alignment would impact on up to 29.92ha of confirmed Golden Sun Moth habitat and 99.94ha of potential habitat.

(iii) Ecological Communities

The EES indicated that no EPBC Act listed ecological communities were recorded in the study area.

(iv) Offset Strategies

The EES indicated that the impacts on the Trailing Hop-bush and Golden Sun Moth habitat would be offset in accordance with the EPBC Act Offsets Policy implemented through negotiations with DSE. For Golden Sun Moth (listed as Critically Endangered), based on previous decisions this is likely to be 4:1, i.e. 4ha offset for every 1ha removed. For Trailing Hop-bush (listed as Vulnerable) there would not likely to be offsets required. However, individual plants would be required to be salvaged and translocated in accordance with an approved Salvage and Conservation Management Plan, with translocated plants managed and secured in perpetuity.

18.5 Discussion

The Panel is satisfied that only two EPBC species i.e. Trailing Hop-bush, Button and Golden Sun Moth, and no EPBC listed communities, were likely to be impacted by the Project.

The Panel is also satisfied that the alignment as proposed had been developed and modified to minimise the impact as far as possible on these two listed species. In particular, it notes the proposal to locate the entire new Highway and intersection 1.1km northwest of the current London Road intersection on cleared land and use the existing Highway as a service road in order to avoid the impact on the Trailing Hop-bush plants in this area. However the

Panel notes that appropriate detailed design to convert the existing Highway into a service road at this location will be required to avoid impact on the 21 Trailing Hop-bush plants on the west side of the existing Highway reserve. These plants would also need to be fenced and appropriately signed. The Panel also notes that one Trailing Hop-bush plant located on the existing Highway reserve near Hurst Road may need to be removed. It considers that this plant could be translocated in accordance with an approved Salvage and Conservation Management Plan and be managed and secured in perpetuity. The Panel considers that providing these measures are undertaken, then the impact of the Project on Trailing Hop-bush the in the study area would be minor.

The Panel noted that the proposed alignment would impact on up to 29.92ha of confirmed Golden Sun Moth habitat and 99.94ha of potential habitat, and that this habitat loss would be offset in accordance with the EPBC Act Offsets Policy implemented through negotiations with DSE.

18.6 Conclusions

The Panel considers that the EES provided an appropriate assessment addressing the impacts on, and avoidance, mitigation and management measures for, matters of NES. This assessment includes information on all relevant species and ecological communities listed under the EPBC Act.

The Panel also considers that the alignment as proposed has been developed and modified to minimise the impact as far as possible on the two EPBC Act listed species that have been recorded in the Project area.

The Panel considers that it is not possible to entirely avoid impacts on matters of NES and is satisfied that the impact on Golden Sun Moth habitat would be offset in accordance with the EPBC Act Offsets Policy implemented through negotiations with DSE. The Panel also considers that the design of the Project in the vicinity of the proposed London Road interchange and associated service road should be undertaken in such a way as to avoid impact on all the Trailing Hop-bush plants located on the existing Highway reserve in this area. These plants should also be fenced and appropriately signed.

18.7 Recommendations

The Panel recommends:

That the design of the Project in the vicinity of the proposed London Road interchange and associated service road should be undertaken in such a way as to avoid impact on all the Trailing Hop-bush plants located on the existing Highway reserve in this area.

19 Summary of EES Assessment

19.1 The issues

In accordance with the Terms of Reference the Panel has assessed the EES under the requirements of the State *Environment Effects Act 1978,* taking into account the procedures and requirements of the Minister under Section 8B(5) of the *Act* and the controlling provisions of the Commonwealth *EPBC Act* in relation to matters of National Environmental Significance.

The Panel's conclusions in relation to each aspect of the EES are set out in Chapters 4 to 17 of this report and conclusions on matters of NES are set out in Chapter 18.

The Panel believes the list of evaluation objectives VicRoads adopted in the EES is complete and does not require any additional items.

In exercising elements of interpretation and judgement in concluding whether the EES meets the objectives, the Panel has considered all the material and submissions before it and discussed the key issues.

19.2 Finding

The Panel finds that, subject to the recommendations in Part B of this report on the preferred alignment for the Project, and the implementation of mitigation measures proposed by VicRoads during and after construction, the environmental effects of the Western Highway Project Section 3: Ararat to Stawell can be managed and the adverse long-term effects on surrounding properties and landscape should be minimal.

It is worth repeating the recommendation at the end of earlier chapter on biodiversity and habitat at this point, as it recognises that the nature of the environment can be expected to change over time:

> *It is recommended that any works approvals granted now should be subject to a review of the Project's impact on flora and fauna should the Project not have commenced within 15 years.*

PART B ALIGNMENT, DESIGN AND PLANNING CONTROLS

20 Introduction

20.1 Alignment and design

VicRoads presented the alignment option in Chapter 5 of the EES. It selected a proposed alignment that would mainly follow the existing Highway on both sides of Great Western, and provide a bypass to the town to the north-east.

The EES describes the proposed route as follows:

> *For the southern end, the proposed alignment is located east of the existing highway and then transitions to the west to minimise impacts on native vegetation within Ararat Regional Park. Prior to the Armstrong Deviation, the alignment transitions to the north east and follows the existing highway to avoid vegetation of high conservation significance and Golden Sun Moth habitat along the railway line. The recommended option would also utilise the existing infrastructure and corridor at the Armstrong Deviation.*
>
> *The proposed alignment bypasses the town of Great Western to the north-east. This was assessed as having lower potential social and economic impacts of the shortlisted options in this locality through less land severance; provides better connectivity to Great Western with interchanges on either side of the town, and would not restrict the future growth of Great Western. It would also have less impact on confirmed and potential Golden Sun Moth habitat and scattered large and very old trees.*
>
> *A bypass to the north-east of Great Western does however have more impact on native vegetation than a bypass to the north-west. The proposed alignment has been located through areas already disturbed (within the old and existing quarries) and the footprint has been narrowed to the extent practicable at this stage of the Project. The amount of vegetation removal is expected to be further reduced during detailed design.*
>
> *A key consideration for selection of the proposed alignment from Great Western to Stawell was the potential impacts to areas of significant cultural heritage sensitivity. There is a visual connection between Sisters Rocks and the Black Range located to the south-west and outside the Project area, and this view has high Aboriginal cultural significance. The proposed alignment follows the existing highway which reduces potential impacts on this view. Another consideration for selection of an alignment between Great Western and Stawell was avoiding severance of large rural properties south of the existing highway and avoiding impacts on the views from properties in Robson Road.*
>
> *North of Great Western, a key consideration has also been native vegetation within and adjacent to the road reserve. A wide median has been adopted with carriageways located in cleared paddocks to minimise impact on vegetation adjacent to the existing highway near Churchill Crossing Road. Initially the alignment was proposed to be on the eastern side of the existing highway,*

however in response to landowner concerns and in consultation with all affected landowners, the alignment was moved to the west.

The carriageways and intersection at London Road are also proposed to be located to the east of the existing highway in cleared farm land. The construction footprint has been restricted to reduce impact on national (Trailing Hop-bush and state listed (Emerald Lip Greenhood) flora species located in a DSE managed reserve on the western side of the existing highway.

To reduce the impact on significant vegetation in the road reserve and within the bypass of Great Western, the footprint of the proposed alignment was refined throughout the risk and impact assessment. The footprint would be further refined through detailed design and the amount of vegetation removal is expected to be reduced.

VicRoads has based its proposals on a design speed of 110 kilometres an hour (for both the AMP1 and AMP3 conditions) and cross-sections generally tailored to suit vegetation and other controls at specific locations. Figures 2 to 4 show the typical cross-sections for the Project.

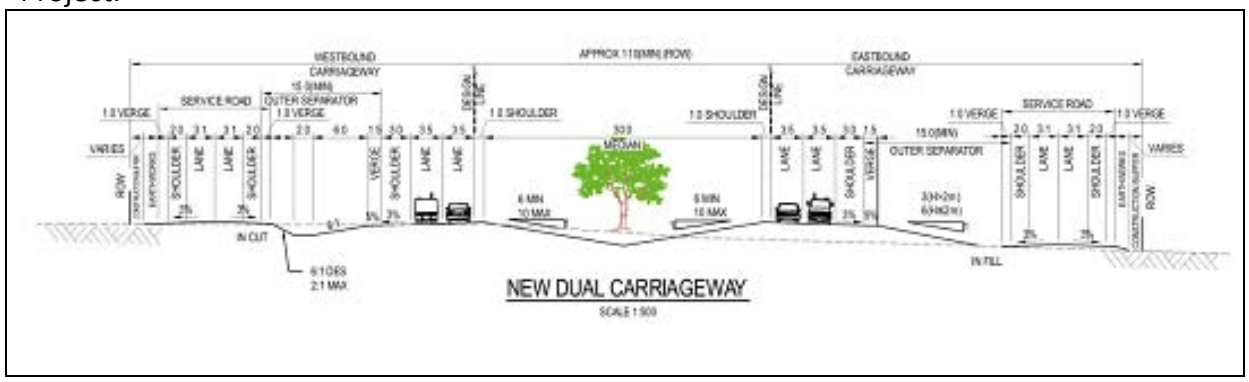

Figure 2 Cross section 1 – typical median

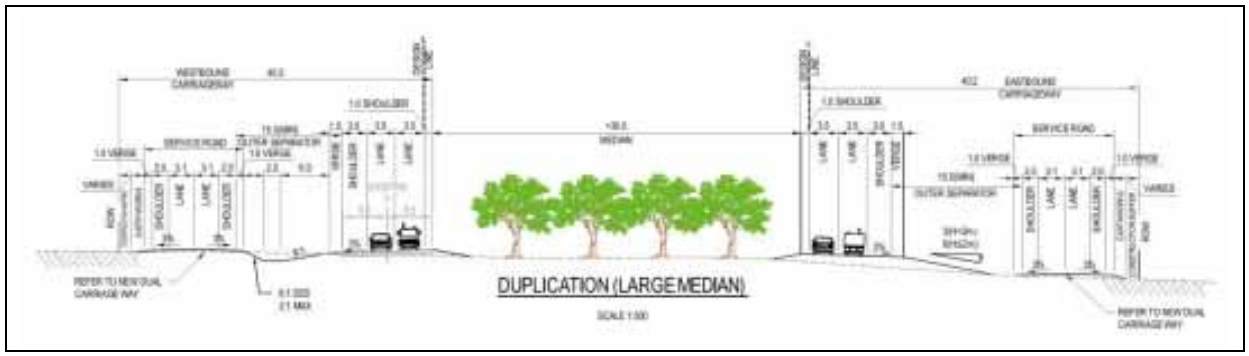

Figure 3 Cross section 1 – wide median

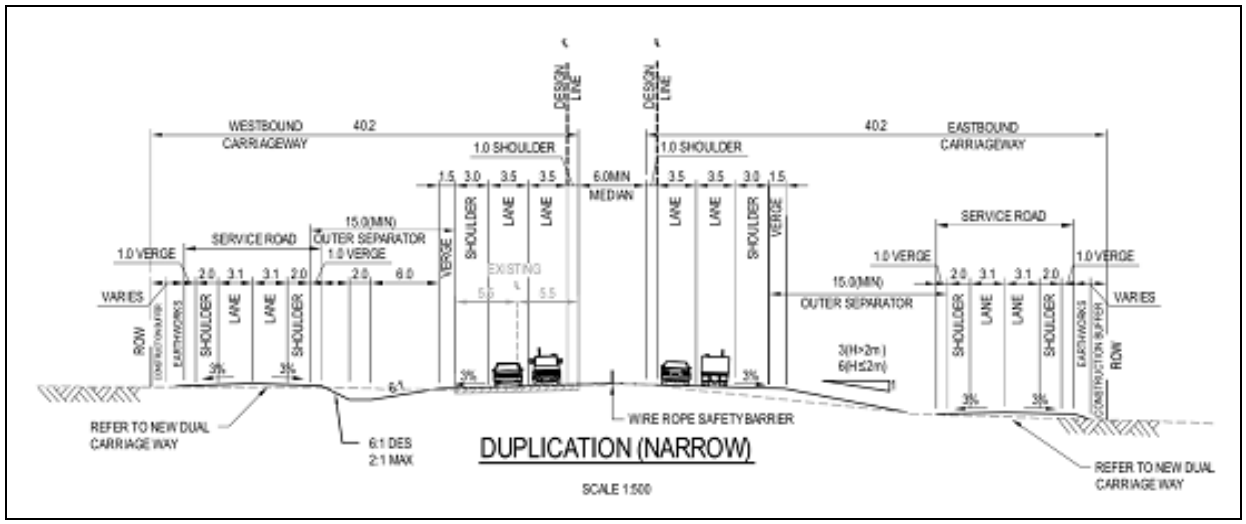

Figure 4 Cross section 1 – narrow median

As part of the proposed initial Highway duplication (AMP3) VicRoads advised that there will be a range of intersection treatments, mostly at-grade, comprising some wide-median treatments and left-in left-out layouts. Some intersections will be grade separated, that is, the local road will overpass the new divided roadway, at the duplication stage and at the fully access-controlled freeway stage, with partial or full diamond layouts at specific sites.

The Panel discusses these proposals in relation to specific zones along the route in Chapters 21 to 23.

20.2 Public Acquisition Overlay

The Panel concluded in Chapter 6 that, subject to its detailed comments in Part B, the Panel supports the introduction of the necessary Public Acquisition Overlays into the Ararat and Northern Grampians Planning Schemes as required to protect land for the preferred alignment.

The following Chapters examine each section of the Project in more detail and provide recommendations on the proposed alignment, access arrangements, the Public Acquisition Overlays and mitigation measures considered appropriate.

21 Zone 1: Pollard Lane to Allanvale Road

21.1 Site description

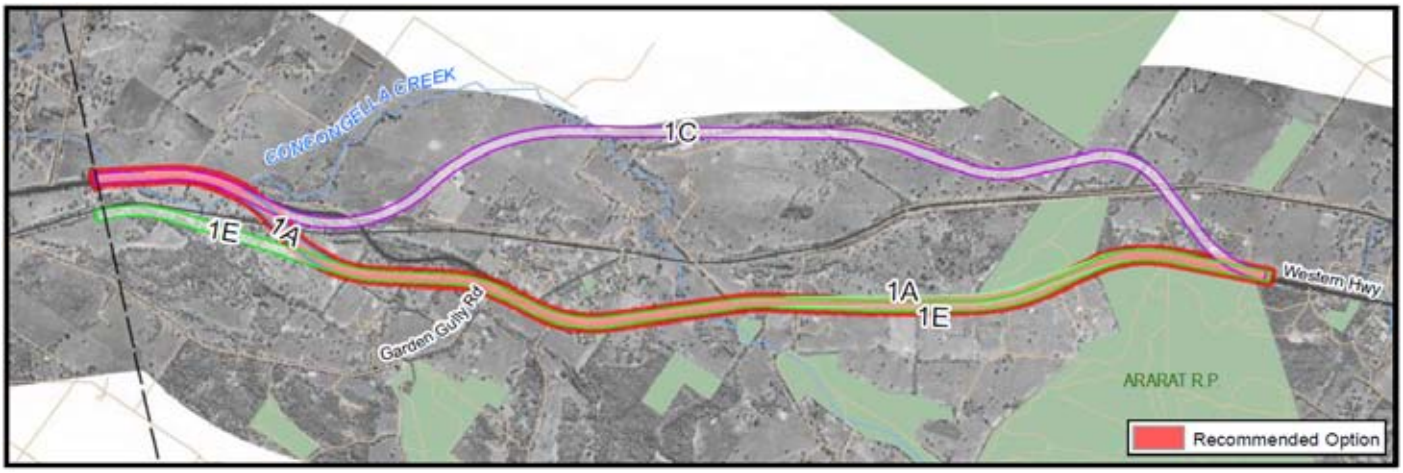

Figure 5 Zone 1 alignment options

Zone 1 contains three options for assessment, Option 1A, 1C and 1E. It extends from Pollard Lane, north-west of Ararat to Allanvale Road, south-west of Great Western.

The characteristics and key constraints in Zone 1 include:

- *At the start of the zone Ararat Regional Park constrains the Western Highway to the east and west for approximately 3.5km of the highway;*
- *The Australian Rail Track Corporation's (ARTC) interstate rail line is located to the east of the existing highway and is crossed by the existing highway at the Armstrong Deviation;*
- *The locality of Armstrong is located within this zone, largely between the existing highway and railway line;*
- *The area is predominantly privately owned land used for agricultural or rural living purposes with a number of established dwellings in Armstrong;*
- *Historical ruins are located near the existing highway in the Armstrong area; and*
- *Crossing of a number of waterway tributaries.*

The EES explains:

> *Options 1A and 1E both follow the existing highway using either side of the existing alignment. These options differ at the northern end with 1A following the existing highway and 1E deviating to follow the railway. Option 1C deviates from the existing highway at the start of the zone and travels north-west through predominantly cleared farmland. Option 1C rejoins the existing highway just after the Armstrong Deviation.*

VicRoads has proposed a combination of Options 1A and 1E as their preferred alignment Option. A combination of Options 1A and 1E has been recommended as it would have lower potential impacts on land use, social, economic and amenity values.

The EES states that:

> *A combination of 1A and 1E reduces the potential impacts on flora and fauna values compared to either option on their own. The recommended option adopts the start of Option 1E (to minimise impacts on native vegetation within Ararat Regional Park) and transitions to Option 1A just before the Armstrong Deviation (to avoid vegetation of high conservation significance and Golden Sun Moth habitat along the railway line).*
>
> *The recommended option would also utilise the existing infrastructure and corridor at the Armstrong Deviation.*
>
> *On balance, a combination of Option 1A and 1E has been assessed as having the lowest overall negative impacts of the three shortlisted options which were assessed for Zone 1.*

21.2 The Issues

Issues raised by submitters included:

- Access
- Safety of current and future access to property
- Access points to Ararat State Park
- Requests for turning lanes
- Concern about residential access points between Major's Road and Petticoat Gully Road
- Turning space for heavy and long vehicles accessing property
- Detail requested regarding construction of the intersection at Garden Gully Road and Military Bypass Road
- Request that service roads be two way
- Maintenance of headroom distance at the end of vineyard rows
- Traffic flow
- Lack of consideration of Ararat traffic flows and questioning the logic of the Project going ahead prior to the Ararat bypass
- Potential bottleneck at the western entrance to Ararat
- Identification of parking bay locations
- Air quality
- Concern regarding dust and waste from parking bay
- Decreased air quality
- Noise and vibration
- Noise and vibration during construction
- Increased noise levels with new alignment closer to dwelling
- Biodiversity and habitat
- Impact on flora and fauna between Ararat and Armstrong
- Reinstatement of natural surroundings
- Land acquisition and compensation
- Compensation for loss of land and other assets.

21.3 Evidence and submissions

The following evidence and submissions were presented to the Panel:

- Mr Hamilton, Mr Hastings (Ararat Rural City Council) and Mr and Ms McKenzie had issues with access. Mr Hamilton expressed concerns with the safety of current and future access to the property at 384 Western Highway and requested a turning lane. Mr Hastings requested that access to Ararat Hills State Park be rationalised, requested details of residential access points between Major's Road and Petticoat Gully Road and details about the intersection at Garden Gully Road and Military Bypass Road. Mr and Ms McKenzie requested provision for turning heavy and long vehicles into their property, that all service roads be made two-way and sufficient headroom distance is maintained at the end of vineyard rows.
- Mr Lenghaus and Mr Hastings raised issues of traffic flow in Ararat. Mr Lenghaus questioning the logic of the Project going ahead prior to the Ararat bypass and Mr Hastings had concerns about a potential bottleneck at the western entrance to Ararat.
- Mr Hamilton and Mr and Ms Jamieson were concerned about deterioration in air quality. Mr Hamilton's particular concern was dust from vehicle parking bays.
- Mr Hamilton and Mr Hastings both had concerns about the location of parking bays. Mr Hamilton's particular concerns were excessive speed of entry and safety, waste management and as previously stated, generation of dust from the parking bay near his property. Mr Hastings requested that the location of parking bays be nominated and developed to meet the projected traffic volumes.
- Mr Jamieson was concerned about noise and vibration during construction and increased noise levels with new alignment closer to his dwelling.
- Mr Lenghaus and Mr Jamieson both raised the issue of impact on flora and fauna and the "natural surrounding". My Lenghaus considered that between Ararat and Armstrong the Project would have an extreme impact on the roadside ecosystem. Mr Jamieson requested that VicRoads attend to reinstating the "natural surrounds".
- The issue of compensation for loss of land and other assets was raised by Mr and Ms McKenzie.

VicRoads responded that:

- Mr Hamilton's concerns regarding safe property access conditions should be directed to VicRoads regional office. VicRoads stated that the alignment will not include a turning lane for his property, but there will be safety improvements at this location, with inclusion of a 3 metre wide shoulder. Left in, left out access will be from the Majors Road intersection 600 metres away from the driveway access.
- In responding to Mr Hastings request regarding access to the Ararat Hill State Park, VicRoads indicated that access will remain open under AMP 3 and as yet there is no planning for AMP1 access.
- On the matter of 10 residential access points between Major's Road and Petticoat Gully Road Vic Roads stated that access for the 10 residential access points would be left in, left out access with U-turn provisions at both Majors Road and Petticoat Gully Road.
- Regarding Mr Hastings request for details about the intersection at Garden Gully Road and Military Bypass Road, VicRoads indicated that the intersection would be constructed as a grade separation diamond interchange for AMP 3 and AMP 1 conditions. With

regard to Mr and Ms McKenzie request for provision for turning heavy and long vehicles into their property, VicRoads explained that left in, left out access would be provided under AMP3 conditions suitable for heavy and long vehicles. Eastbound access would be via a u-turn at Majors Road at Ch 800, and eastbound vehicles exiting the property will have to make a u-turn at Petticoat Gully Road. VicRoads indicated that all service roads would be two-way traffic. VicRoads stated that headroom distance at the end of vineyard rows would be the responsibility of the landowner, subsequent to VicRoads acquiring the land required for the Project.

- On Mr Lenghaus and Mr Hastings' issue of traffic flow in Ararat, VicRoads responded that there is no Federal or State government support for a bypass of Ararat at this time. The Panel was provided with an extract of a report prepared by BECA for VicRoads in 2011. The maps showed alternative alignments for an Ararat bypass, including mapping of environmental and planning constraints.
- Mr and Ms Jamieson and Mr Hamilton concerns about deterioration in air quality were addressed by Vic Roads. Regarding Mr and Ms Jamieson's concerns VicRoads stated that air quality impacts have been assessed in the EES and after the proposed management measures are implemented the impact is predicted to be "insignificant to minor". With regard to Mr Hamilton's concern about dust hazard, VicRoads have notified that the rest area is to be relocated on the northern side of Kimbarra Road.
- The location of parking bays was of concern to Mr Hamilton and Mr Hastings. VicRoads suggested that Mr Hamilton should contact the Western Region office of VicRoads prior to commencement of the Project regarding matters of access and safety. In regard to Mr Hastings request that parking bay locations be nominated, VicRoads stated that parking and rest areas are shown in the proposed alignment. Eastbound traffic has a rest area commencing at Ch 9600.
- In responding to Mr and Ms Jamieson's concerns about noise and vibration, VicRoads stated that EPA Guidelines for Noise Control will apply for all construction working hours. If required under VicRoads Noise Policy, VicRoads will provide noise mitigation measures. In accordance with Table 16-8 of the EES, VicRoads would offer to conduct an 'Existing Conditions' assessment of the dwelling prior to construction commencing to assess potential vibration induced damage.
- On the issue of impact on flora and fauna impacts between Armstrong and Ararat raised by Mr Lenghaus, VicRoads commented that ecological impacts have been extensively investigated. However the route alignment is also influenced by the other constraints for example, land severance and the cost of building a completely new four lane alignment. In responding to Mr and Ms Jamieson's concern about loss of screening Highway vegetation, VicRoads will develop an appropriate landscaping design for roadside vegetation which will be sympathetic to the natural surroundings.
- On the issue of compensation for loss of land and other assets raised by Mr and Ms McKenzie, VicRoads responded that land acquisition and compensation would be assessed under the process provided by the *Land Acquisition and Compensation Act 1986*.

The Panel also raised concerns about the access to the rural lifestyle properties on the south west side of the Highway between Chainage 1400 and 3700. The Panel observed on the site inspection that there are existing driveways that are in cut and sight distance is poor. The Panel is concerned that the AMP3 alignment continues to provide direct access to these

properties and that most of these driveways would need to be in cut. A service road is proposed under AMP1 which eliminates the problem. VicRoads responded that construction of the service road in the AMP3 (first stage) would have merit and could be included if the Panel so recommended.

21.4 Discussion

VicRoads has recommended an alignment comprising a combination of Options 1A and 1E as it would have the lowest potential impact on land use, social, economic and amenity values. The Panel notes that the chosen alignment minimises land acquisition.

With regard to Mr Lenghaus' concern about ecological impacts between Armstrong and Ararat, VicRoads' recommended the alignment option minimises impacts on native vegetation within the Ararat Regional Park, and just before the Armstrong Deviation the chosen alignment avoids vegetation of high conservation significance and Golden Sun Moth habitat along the railway line. The alignment also minimises the loss of Very Large Old Trees and Large Old Trees.

The Panel highlighted its concerns about access to the rural living properties on the south west side of the Highway between Chainage 1400 and 3700 at the Hearing. The Panel is of the view that there would be significant safety and access improvements in constructing the service road in this section as part of the AMP3 works.

The Panel has no other issues with VicRoads' proposals for this section but recognises more detailed design work could produce minor refinements in the proposals. The Panel is satisfied that the range of issues raised by submitters is now being dealt with on a personal basis through direct consultation.

With regard to the Ararat bypass, the Panel notes the issues raised by Ararat Rural City Council and Mr Lenghaus that significant benefits are likely if and when this project proceeds. Whilst it is outside the scope of the Panel's Terms of Reference, the Panel does wish to record its agreement that there are likely to be considerable benefits in terms of amenity improvements for the Ararat township and travel time savings for through traffic. Its seems anomalous to the Panel that significant resources have been allocated to planning for the duplication of the Beaufort to Ararat and Ararat to Stawell sections without any commitment to planning for the bypasses of Beaufort and Ararat townships.

21.5 Conclusions

The Panel:

- Recognises VicRoads has developed an alignment for Zone 1 (Pollard Lane to Allanvale Road), which seeks to minimise impacts on local vegetation and affected properties, while adequately providing for local access at both the Highway duplication and freeway stages;
- Notes VicRoads advice that, on the issue of traffic flow in Ararat, there is no Federal or State government support for a bypass of Ararat at this time.
- Notes VicRoads will use the processes of the *Land Acquisition and Compensation Act 1986* to assess any loss of land and other relevant impacts; and
- Notes VicRoads will provide any noise mitigation measures under its *Traffic Noise Reduction Policy (VicRoads, February 2005)* – 'Noise Policy'.

21.6 Recommendations

The Panel recommends:

The adoption of VicRoads recommended alignment for Zone 1, extending from Pollard Lane to Allanvale Road, and its proposed access arrangements at both the Highway duplication and Freeway stages with the following change:

- **The south west side service road proposed between chainage 1400 and 3700 in the Freeway stage should be implemented at the Highway (AMP3) stage.**

and that this modified alignment be used as a basis for:

- **Detailed design and implementation; and**
- **The implementation of a Public Acquisition Overlay as proposed in the Draft Amendments C30 to the Ararat Planning Scheme and C45 to the Northern Grampians Planning Scheme.**

22 Zone 2: Allanvale Road to Briggs Lane

22.1 Site description

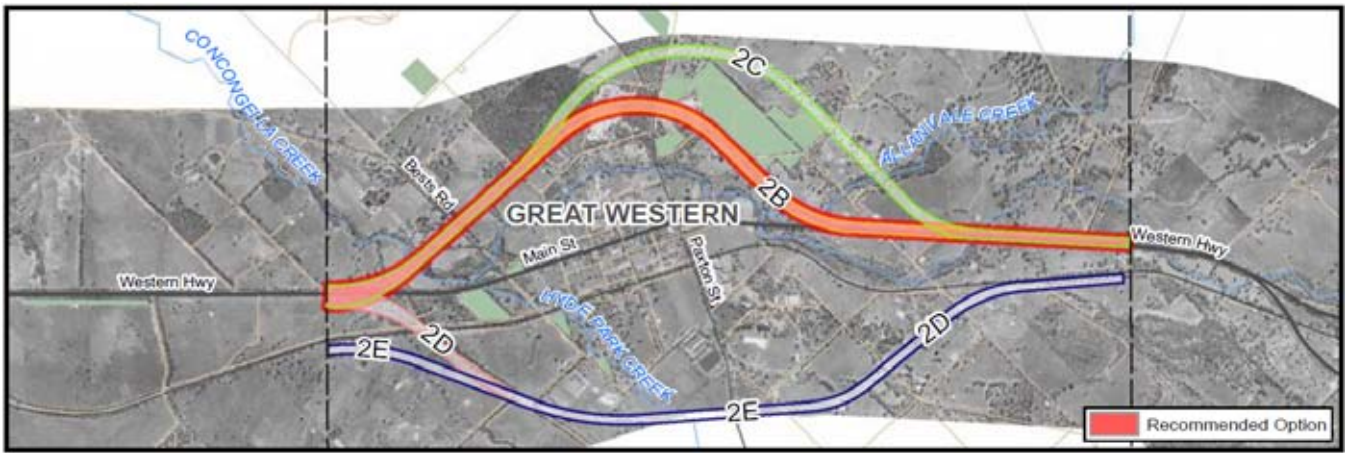

Figure 6 Zone 2 alignment options

Zone 2 contains four options for assessment (2B, 2C, 2D and 2E) that bypass Great Western. The zone extends between Allanvale Road on the southern side of Great Western and Briggs Lane on the northern side of Great Western.

The characteristics and key constraints in Zone 2 include:

- *A former vineyard and historic homestead on the south eastern side of Great Western adjacent to the existing highway (near Concogella Creek);*
- *An existing quarry and former landfill to the north east of Great Western off Sandy Creek Road;*
- *A bushland reserve north east of Great Western;*
- *Best's Winery, located north of Great Western off Best's Road, which is listed on the Heritage Register;*
- *The Australian Rail Track Corporation (ARTC) interstate railway line is located to the south west of the existing highway;*
- *The confluence of Concongella Creek and Allanvale Creek to the south of Great Western;*
- *Rural Living Zone in areas to the south west of Great Western;*
- *Primarily Farming Zone in the area to the east of Great Western; and*
- *Historical heritage relating to former mining activities around Great Western.*

The EES states:

> *The four shortlisted alignment options all bypass the Great Western township. Options 2B and 2C bypass Great Western to the east and Options 2D and 2E to the west. The topography to the east is elevated and the alignment options would require areas of cut through the hill to achieve the required grade line. In contrast, the topography to the west of Great Western is relatively flat and the alignment options would have to be raised to achieve the required gradeline and clearance above flood levels.*

VicRoads have adopted Option 2B as the preferred alignment. A north-east Great Western bypass option was preferred as it is judged to result in significantly less land severance of productive agricultural land, less impact on areas of Aboriginal cultural sensitivity, it does not restrict future growth of Great Western, and has less impact on Golden Sun Moth habitat and large and very large old trees. The preferred alignment utilises the existing cut created by the quarry.

The VicRoads recommended alignment proposes grade separated interchanges on the east and west of Great Western in the initial AMP3. The interchange on the south eastern (Melbourne) end of the town is proposed to be a full diamond interchange in close proximity to the confluence of the Concongella Creek, which will present some design issues in relation to flood mitigation. The north western interchange at Best's Road is proposed to be a half diamond interchange with access ramps for eastbound traffic only.

The alignment intersects a former landfill site on the south east side of Metcalfe Road, traverses (in cut) across the operational quarry site on the north west side of Sandy Creek Road and then turns more westerly to pass Great Western to the north of and parallel to Western View Road. The alignment then bisects agricultural and vine growing land owned by Best's Winery.

22.2 The Issues

The main issues raised by submitters in Zone 2 were:

- Loss of cellar door sales due to no longer having direct access to the Western Highway;
- Inadequate proposed signage to direct traffic to wineries;
- Impact on existing vines;
- Impacts on stock and machinery access;
- Isolation of water supply dam;
- Visual and noise amenity concerns for residents of Western View Road;
- Emergency access in the event of fire or flood; and
- Potential impact on the surface water and flooding.

22.3 Evidence and submissions

Mr Thomson, representing Best's Wines (Submission 1) and Mr Guthrie (Submission 16) raised concerns about the lack of direct access to their respective wineries. The economic impact of this is discussed in Chapter 17. The Panel is supportive of a west bound off ramp to access Best's Road and extended service road access to Grampians Estate Winery for west bound traffic.

The desirability of preserving the roadside vegetation in Best's Road is discussed in Chapter 11, and the Panel supports the option of retaining Best's Road at grade and having the Highway bridge over Best's Road, if this is feasible.

Mr Thomson raised concerns about machinery and stock access across the Highway. At the Hearing Mr Thomson agreed that, provided that adequate height was provided under the Highway, access would be much better with Best's Road retained at grade. Mr Thomson also seemed to accept that whilst future machinery access would not be as direct as it is at

present, reasonable access via back roads would be possible. VicRoads submitted that an additional stock underpass was not warranted.

Mr Thomson requests that a replacement dam be built on the northern side of the Highway to provide water supply to the severed land. VicRoads responded that such losses would be assessed under the *Land Acquisition and Compensation Act 1986* and Mr Thomson may be reimbursed for a replacement dam.

Mr Cadby (Submission 9) submitted that he preferred that the alignment be moved further north, away from existing residences in Western View Road, or alternatively the road should be in maximum cut through this area to minimise noise and visual impact. VicRoads responded that the proposed alignment utilised the cut through this section to effectively screen the road from the majority of existing residences.

Mr Cadby raised concerns about emergency access from Western View Road in the event of a fire. He pointed out that the creek ford on Hurleys Lane was not well maintained and not always trafficable and this meant that if the eastern end of Western View Road was blocked for any reason there may be no means of escape. VicRoads responded that it would be prepared to arrange an emergency services access gate to the Highway at the northern end of Hurley Lane and provide keys to allow local emergency access.

Mr Cadby raised concerns about flooding in Great Western and informed the Panel about his personal experiences with parts of the town becoming isolated in recent flood events. He is concerned that the new Highway, if not constructed properly, could exacerbate these problems. VicRoads responded that extensive flood modelling had been done and the detailed design would carefully consider culvert size and location so as to not worsen the situation.

22.4 Discussion

The Panel believes that VicRoads has sought out practical solutions to the access problems raised by Best's Wines and Grampians Estate Winery.

The Panel concluded, in Chapter 11, that a relatively small area of vegetation clearance could be avoided by modifying the design to construct the new Highway over Best's Road and leaving Best's Road at grade with most of its verge vegetation intact. Whilst this, in the view of the Panel, is desirable, it is acknowledged that at this stage no detailed work has been done on either the significance of the vegetation that could be saved or the complexities and cost of altering the Highway to go over Best's Road. The Panel therefore recommends that VicRoads investigate this option and weigh up the benefits and costs before making a final decision on the most appropriate action.

The Panel is satisfied that VicRoads has provided a satisfactory response to the issues of stock and machinery access and notes that no specific provisions are likely to be required if Best's Road is kept at grade.

The Panel notes Mr Cadby's comments regarding the potential visual and noise amenity impacts on residents in Western View Road and accepts VicRoads advice that the design of the road in cut in this location will minimise any impacts to a level that is acceptable.

At the Hearing, there was discussion about how flood mitigation may be approached to ensure that flooding problems were not pushed upstream or downstream. VicRoads explained that the system may be able to be designed to improve the current situation by redirecting and regulating flows to a certain degree. The Panel accepts this advice and encourages VicRoads to continue to work with Council, the Catchment Management Authority and local landowners towards achieving the best outcome.

22.5 Conclusions

The Panel:

- Is supportive of a west bound off ramp to access Best's Road and extended service road access to Grampians Estate Winery for west bound traffic;
- Supports an investigation of the feasibility of retaining Best's Road at grade and having the Highway bridge over Best's Road;
- Notes VicRoads commitment to provide an emergency access gate onto the Highway at the northern end of Hurleys Lane;
- Notes VicRoads commitment to minimising visual and noise impacts in the detailed design;
- Notes VicRoads commitment to minimising, and where possible improving, flood mitigation measures in the detailed design;
- Notes that VicRoads will use the processes of the *Land Acquisition and Compensation Act 1986* to assess any loss of land and other relevant impacts; and
- Notes that VicRoads will provide any noise mitigation measures under its Traffic Noise Reduction Policy (VicRoads, February 2005) – 'Noise Policy'.

22.6 Recommendations

The Panel recommends:

The adoption of VicRoads recommended alignment for Zone 2, extending from Allanvale Road to Briggs Lane, and its proposed access arrangements at both the Highway duplication and Freeway stages subject to:

- **More direct access being provided to Grampians Estate Winery via an access lane to an extended service road past the Winery and joining to St Ethels Road.**
- **An off ramp being provided for westbound traffic to Best's Road.**
- **Investigation of the feasibility of retaining Best's Road at grade and altering the grade line of the Highway to go over Best's Road.**
- **Provision of an emergency access gate to enable emergency access from Hurleys Road on to the Highway reserve.**

and that this modified alignment be used as a basis for:

- **Detailed design and implementation; and**
- **The implementation of a Public Acquisition Overlay as proposed in the Draft Amendment C45 to the Northern Grampians Planning Scheme.**

23 Zone 3: Briggs Lane to Gilchrist Road

23.1 Site description

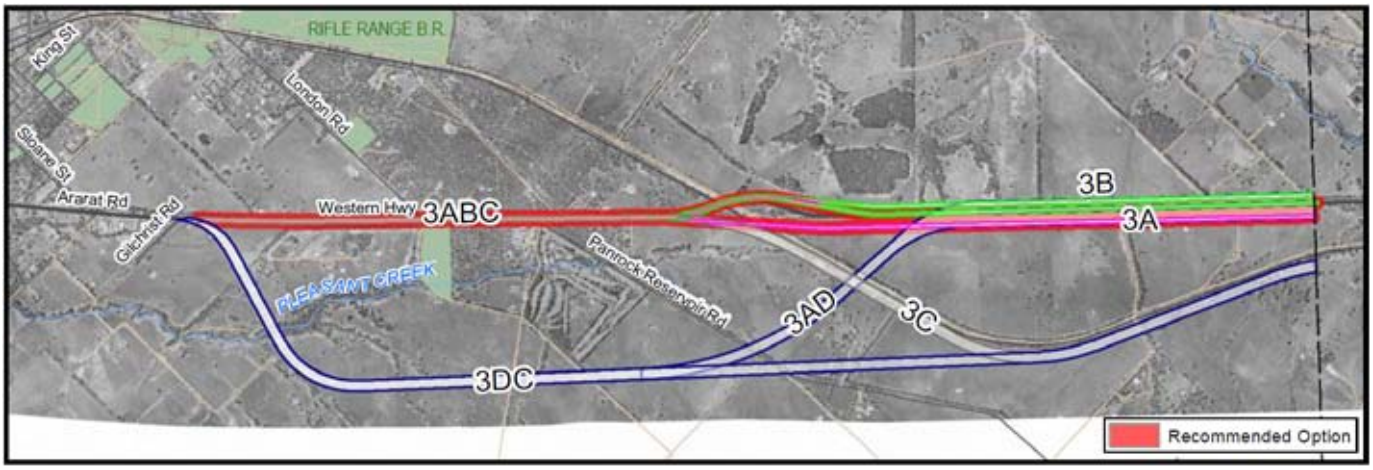

Figure 7 Zone 3 alignment options

This section (Zone 3 in VicRoads' Long Options List) is located at the north western end of the Project area and extends from Briggs Lane (VicRoads' chainage 16600) just northwest of Great Western to Gilchrist Road (chainage approximately 2400) close to the outskirts of Stawell. The selection of the preferred alignment in Zone 3 followed the consideration of five alignment options (Options 3A, 3B, 3C, 3AD and 3DC) (see figure 7).

The characteristics and key constraints in Zone 3 included:

- *Substantial roadside vegetation including a significant habitat patch near the intersection of Churchill Crossing Road, a flora and fauna reserve alongside the existing highway near Robson Road and the Sisters Rocks Bushland Reserve;*
- *Sisters Rocks heritage site (listed on the DSE heritage list) located within the bushland reserve less than 100 metre from the existing highway, and includes a council open space reserve;*
- *Stawell Park Caravan Park located south west of the Western Highway alongside Monaghan Road on the outskirts of Stawell, which has a high proportion of permanent residents;*
- *The 18-hole Grange Golf Club located next to the caravan park;*
- *Crossing of the ARTC railway line at Harvey Lane;*
- *Crossing of a number of waterway tributaries; and*
- *The area which is predominantly agricultural land with a number of established dwellings located on both sides of the existing highway.*

As all the options were proposed to be located partly or totally along or close to the rail reserve or existing Highway reserve, they would all impact on the native vegetation and habitat areas located on these reserves. All options also involved the construction of new waterway crossings. The options that would be located along the existing Highway (3A, 3B and 3C) were considered to have less impact on existing faming land use, land access and property severance. While the options that followed the existing Highway (3A & 3B) would

be located close to Sisters Rocks they were considered to have less negative impacts on Aboriginal cultural heritage than the other options.

The proposed final alignment (3A) extending from north of Great Western almost to the crossing of the railway has been designed with a wide median with one carriageway located in adjacent cleared farmland on the western side to minimise the impact on the existing vegetation near Churchill Crossing Road. This would result in the existing Churchill Crossing Bushland Reserve being retained within the wide median. The new carriageway was not located on the eastern side of the existing Highway (option 3B) because of concerns expressed by landowners during consultation on the options. In this section access at Briggs Lane and Humphrey Lane would be restricted to left in and left out.

When upgraded to AMP1 standards, Briggs Lane and Humphrey Lane would be closed at the Highway and a new road constructed east of the Highway to connect both lanes to Best's Road. Churchill Crossing Road would be closed at the Highway and access would be available along Panrock Reservoir Road which is located west of the existing Highway.

The Project proposes a new dual carriageway located west of the existing Highway extending to Hurst Road and includes two new bridges across the railway. The existing Highway would become a service road between the railway crossing, linking Harvey Lane and Hurst Road. Under AMP3 conditions a wide median intersection is proposed between the railway crossing and Hurst Road. A narrow median is proposed between Hurst Road and London Road to avoid impact on the Sisters Rocks and the caravan park on the western side of the existing Highway. A service road is proposed to be constructed between Panrock Reservoir Road and the proposed London Road interchange (see also discussion below).

When upgraded to AMP1 conditions, the wide median interchange would be closed and a new access road constructed to link the land west of the Highway to Panrock Reservoir Road.

A grade separated interchange is proposed at London Road to be located on cleared farmland east of the Highway to avoid impact on the vegetation along the existing Highway reserve in this area. The existing Highway would become a service road linking to the new service road describe above. London Road would be closed at the Highway and extended to provide access to the Sisters Rocks.

23.2 The Issues

Key issues relating to the preferred alignment within this zone relate to the impact on EPBC Act and FFG Act listed species, the impact on vegetation adjacent to the existing Highway and the potential impact on areas of cultural significance including the Sisters Rocks and the visual connection between the Sisters Rocks and the Black Range located southwest of the Project area, which has high Aboriginal cultural significance. Ms Bacon and Ms Laity also raised issues relating to the property that they part own on which the London Road interchange is proposed to be located.

23.3 Evidence and submissions

VicRoads presented substantial evidence relating to the measures that were considered in assessing the options and developing the final alignment in Zone 3, to minimise the impact of the Project on EPBC and FFG Act listed species and to minimise the extent of native vegetation that would need to be removed (see also Chapters 11 & 18). VicRoads also presented evidence on the consultation it undertook with the Aboriginal community and the measures proposed to avoid or minimise the impact on sites culturally significant to the indigenous community in Zone 3 (see also Chapter 12).

Only two submissions were received that related specifically to Zone 3 i.e. from Ms Bacon (Submission 4) and Ms Laity (Submission 7). Although neither submission objected to the acquisition of their land that is required for the construction of the London Road interchange, both were concerned that the partial acquisition proposed would affect the subdivisional potential of their land and would landlock a remaining section of their land. VicRoads in response did not agree to purchase the full area involved and considered that road access to the area of concern from the re-aligned London Road would be permitted (see Chapter 17 for details). VicRoads did, however, agree to acquire the remaining 2 ha part of the property owned by Ms Bacon that is substantially affected by the interchange and a 4.6 ha portion of the property owned by Ms Laity that is isolated by the interchange. Revised PAO maps were tabled at the Hearing that reflected these changes.

On the site inspection and in the Hearings the Panel raised concerns about the impact of the proposed service road on the west side of the Highway between London Road and Panrock Reservoir Road on the high and very high significance native vegetation in this area. VicRoads explained that the service road had been added at the request of the caravan park owner and residents to provide more direct access to the caravan park.

23.4 Discussion

Although the final option adopted (3A) which follows the alignment of the existing Highway would have more impact on flora and fauna than the option located further to the west (3DC), the Panel accepted that option 3A would have less impact on existing farming land use, land access, property severance and the views from Sisters Rocks to the Black Range which have high Aboriginal cultural heritage significance.

The Panel noted that the final alignment of option 3A incorporated design measures aiming to minimise the impact of the Project on ecological and cultural values. These included:

- A wide median with one carriageway located on adjacent cleared farmland on the western side extending from the Great Western bypass almost to the crossing of the railway the Highway is proposed in order to minimise the impact on the existing roadside vegetation;
- A narrow median between Hurst Road and London Road is proposed in order to avoid the impact on the Sisters Rocks cultural site (and also the caravan park on the western side of the existing Highway); and
- The grade separated interchange at London Road is proposed to be located on cleared farmland east of the Highway to minimise the impact on the vegetation along the existing Highway reserve in this area.

Given the ecological and cultural values of the area on the western side of the Highway between London Road interchange and Panrock Reservoir Road, the Panel is concerned about the service road proposed under AMP3 conditions. Deleting the section of this service road between the Sisters Rocks Bushland Reserve and Panrock Reservoir Road would reduce the area of natural vegetation requiring clearing in this area for the AMP3 Project. Access to Panrock Reservoir Road, Monaghan Road, the golf course and the caravan park would still be available by left in, left out turns on the Highway. Traffic coming from the Stawell direction could U-turn at the wide median interchange proposed at chainage 21400 under AMP3 conditions then left turn in at Panrock Reservoir Road. The Panel considers that this level of access is appropriate and the proposed service road is unnecessary. The Panel believes that the merits of any future service road under the AMP1 alignment should be reassessed at the time of planning for that work and if other access options are available they should be seriously considered.

In relation to the submissions from Ms Bacon and Ms Laity relating to the proposed London Road interchange, the Panel noted that neither party objected to the acquisition of their land and the Panel considered that VicRoads had adequately responded to their concerns.

23.5 Conclusions

The Panel:

- Considers that VicRoads has developed an alignment option for the Briggs Lane to Gilchrist Road section which seeks to minimise impacts on flora, fauna and cultural values and affected properties, while adequately providing for local access both for the AMP3 and AMP1 stages of the Highway Project;
- Considers that the design for the AMP3 stage should be modified to delete the section of the service road proposed between the Sisters Rocks Bushland Reserve and Panrock Reservoir Road to reduce the area of natural vegetation required to be clearing for the AMP3 stage Project; and
- Notes that VicRoads will use the processes of the *Land Acquisition and Compensation Act 1986* to assess any loss of land and other relevant impacts.

The Panel notes the key difference between the AMP3 (interim) and AMP1 (ultimate freeway) conditions is the reduced level of access to the freeway from side roads and abutting properties. For the ultimate freeway upgrade, access would be limited to grade-separated interchanges and service roads would be provided to provide access to the local road network and individual properties. This would further improve road safety and transport efficiency but will further increase the distance required to access the freeway for some local landowners/occupiers. The Panel believes that, in some cases, these access disadvantages, along with the impact of constructing service roads on native vegetation, may outweigh the advantages of providing freeway conditions. The Panel urges VicRoads to carefully consider these issues in the future when the upgrade to freeway conditions is contemplated.

23.6 Recommendations

The Panel recommends:

The adoption of VicRoads recommended alignment for Zone 3, extending from Briggs Lane to Gilchrist Road, and its proposed access arrangements at both the Highway duplication (AMP3) and Freeway (AMP1) stages, subject to:

- **Modification of Public Acquisition Overlay maps to reflect the changes to land to be acquired in the vicinity of the London Road interchange (as tabled at the Hearing);**
- **The deletion of the proposed service road on the west side between Sisters Rocks Bushland Reserve and Panrock Reservoir Road in the Highway (AMP3) stage; and**
- **Reassessment of options for access to properties on the west side between Sisters Rocks Bushland Reserve and Panrock Reservoir Road prior to the construction of the Freeway (AMP1) stage.**

and that this modified alignment be used as a basis for:

- **Detailed design and implementation; and**
- **The implementation of a Public Acquisition Overlay as proposed in the Draft Amendment C45 to the Northern Grampians Planning Scheme.**

Appendix A List of submitters

No.	Submitter	Represented by
1	Best's Wines Pty Ltd	Viv Thomson
2	Darren Hamilton	
3	Cor Lenghaus	
4	Janice Bacon	
5	Peter and Jenny Jamieson	
6	William and Noeline Kilpatrick	
7	Judith Laity	
8	Department of Sustainability and Environment	Craig Whiteford
9	David Cadby	
10	Carolyn Gellert	
11	Ararat Rural City Council	Joel Hastings
12	Northern Grampians Shire Council	Justine Linley
13	Western Highway Action Committee	Kevin Erwin
14	Rod and Lyn McKenzie	
15	Wimmera Catchment Management Authority	Tony Baker
16	Tom Guthrie	Grampians Estate

Appendix B Document list

The following documents were tabled at the Hearings:

Document No.	Date	Description	Presented by
1	8/4/13	Submission to the Inquiry and Advisory Committee on behalf of the Proponents VicRoads	Mr Bartley of HWL Ebsworth for VicRoads
2	8/4/13	Planning Panel walk through overview of whole Project	Mr Deeble, VicRoads
3	8/4/13	Alignment Options Development	Mr Deeble, VicRoads
4	8/4/13	Hydrology PowerPoint (surface water) presentation	Mr Roberts, GHD
5	8/4/13	Western Highway Signage Strategy	Mr Bartley of HWL Ebsworth for VicRoads
6 a, b, c, d	9/4/13	Planning provision maps for Northern Grampians and Ararat (4 maps)	Mr Bartley of HWL Ebsworth for VicRoads
7	9/4/13	Map Public Acquisition Overlay (Draft)	Mr Bartley of HWL Ebsworth for VicRoads
8	9/4/13	Folder newspaper clippings	Mr Bartley of HWL Ebsworth for VicRoads
9	9/4/13	VicRoads response to submissions	Mr Bartley of HWL Ebsworth for VicRoads
10	9/4/13	VicRoads record of consultation with submitters post-exhibition	Mr M Bartley of HWL Ebsworth for VicRoads
11	9/4/13	PowerPoint presentation	Mr Hastings for Ararat City Council
12	9/4/13	Maps – Alignments with Environmental and Planning Overlay constraints for Ararat Bypass options prepared by BECA and VicRoads	Mr Hastings for Ararat City Council
13	9/4/13	Submission	Mr Thompson, Best's Wines
14	9/4/13	Submission	Mr Lenghaus

Appendix C Terms of Reference

TERMS OF REFERENCE

Inquiry appointed under Section 9 of the *Environment Effects Act 1978* and Advisory Committee appointed under Section 151 of the *Planning and Environment Act 1987* to report on the Western Highway Project between Ararat and Stawell

Name

1. The combined Inquiry and Advisory Committee is to be known as the 'Western Highway Project Section 3 Inquiry and Advisory Committee' ("the Inquiry").

Purpose

2. The purpose of the Inquiry is to provide an integrated assessment of the potential effects of the proposed duplication, as well as long-term upgrade to freeway standard, of the Western Highway, between Pollard Lane Ararat and Gilchrist Lane Stawell ("the project"). The report of the Inquiry will inform the Minister for Planning's Assessment of the project under the *Environment Effects Act 1978* (the EE Act) and will also assist the Minister to make decisions about the proposed amendments to the Ararat and Northern Grampians planning schemes to facilitate the project.

3. In overview, the Inquiry is to:

   i. Consider and report on the potentially significant effects of the project taking into account the procedures and requirements the Minister required for the preparation of the Environment Effects Statement (EES) under section 8B(5) of the EE Act (see Attachment 1) and the controlling provisions under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (Commonwealth) as outlined in paragraph 9 below; and

   ii. Address matters relevant to the alignment and design of the project and the draft planning scheme amendments prepared by VicRoads.

Background

Project

4. VicRoads proposes to duplicate the Western Highway between Ararat (Pollards Lane) and Stawell (Gilchrist Lane) as part of a larger project to duplicate this highway between Ballarat and Stawell. It is proposed to upgrade Section 3 Ararat to Stawell to freeway standard in the long term. The project does not involve bypasses of Ararat or Stawell.

5. The project would mainly involve construction of a second carriageway adjacent and parallel to the existing highway on adjacent land. A new dual carriageway is proposed to provide a north-eastern bypass of the township of Great Western. When traffic conditions warrant and funding becomes

available, it is proposed to upgrade Section 3 to a rural freeway standard with full access control along the highway. This would require construction of service roads for local access and grade separated interchanges. The EES addresses the effects of both the interim upgrade to a divided rural highway and the ultimate upgrade to a freeway standard.

EES decision

6. On 21 October 2010, the former Minister for Planning determined that an EES was required for the project under the EE Act. The EES has been prepared by the proponent in response to Scoping Requirements issued for the proposal in September 2011.

7. The EES was placed on public exhibition, together with draft amendments to the Ararat and Northern Grampians planning schemes, from 20 December 2012 until 14 February 2013.

Commonwealth decision

8. In addition, the project was referred to the Australian Government Minister for Sustainability, Environment, Water, Population and Communities, and was determined to be a controlled action under the EPBC Act. It therefore requires assessment and approval under the EPBC Act. The controlling provisions under that Act relate to listed threatened species and communities (sections 18 and 18A).

9. The accredited EES process under the Commonwealth-Victorian Bilateral Agreement for Environmental Impact Assessment[1] applies to this project. Consequently, the Minister for Planning's Assessment report to the Australian Government Minister will also need to assess the impacts of the project on matters of national environmental significance (NES) in accordance with Schedule 1 Part C of the Agreement.

Planning approval process

10. VicRoads has prepared draft planning scheme amendments to facilitate the project:

    i. The draft amendment to the Ararat Planning Scheme, which would amend the planning scheme to:

        a. include land required for the Western Highway Project Section 3 in a Public Acquisition Overlay;

        b. exempt the Western Highway Project Section 3 and associated works from requiring planning permits; and,

        c. include the 'Western Highway Project Section 3 - Ararat to Stawell Incorporated Document' as an incorporated document in the Ararat Planning Scheme.

    ii. The draft amendment to the Northern Grampians Planning Scheme, which would amend the planning scheme to:

        a. include land required for the Western Highway Project Section 3 in a Public Acquisition Overlay;

[1] The agreement came into operation on 25 June 2009 and provides for the accreditation of specified Victorian statutory processes to ensure an integrated and coordinated assessment of actions requiring Commonwealth approval.

b. exempt the Western Highway Project Section 3 and associated works from requiring planning permits; and

c. include the 'Western Highway Project Section 3 - Ararat to Stawell Incorporated Document' as an incorporated document in the Northern Grampians Scheme.

Other approvals

11. Under Victorian law, the project requires the following additional approvals:

i. an approved Cultural Heritage Management Plan under the *Aboriginal Heritage Act 2006* to manage works in areas of cultural heritage sensitivity;

ii. consent to remove listed flora and fauna under the *Flora and Fauna Guarantee Act 1988*;

iii. consents for works on waterway under the *Water Act 1989*; and

iv. consent to disturb heritage sites under the *Heritage Act 1995*.

Method

12. The Inquiry may inform itself in any way it sees fit, but must consider the exhibited EES and draft planning scheme amendments, any comments provided by the public, and information provided by the proponent which addresses, to the extent practicable, the comments provided by the public. The Inquiry must also consider other relevant information provided to, or obtained by, the Inquiry, having regard to relevant statutory provisions, policies and associated plans.

13. The Inquiry must conduct a public hearing and may make other such enquiries as are relevant to its consideration of the potential environmental effects of the project.

14. The Inquiry must conduct its hearings in accordance with the following principles:

i. the hearings will be conducted in an open, orderly and equitable manner, in accordance with the rules of natural justice, with a minimum of formality and without the necessity for legal representation;

ii. the Inquiry process will aim to be exploratory and constructive, where adversarial behaviour is minimised; and

iii. parties without legal representation will not be disadvantaged – cross-examination will be strictly controlled and prohibited where deemed not to be relevant by the Inquiry Chair.

15. The Inquiry will meet and conduct hearings when there is a quorum of at least two of its members present including the Inquiry Chair.

Submissions are public documents

16. The Inquiry must retain a library of any written submissions or other supporting documentation provided to it directly until five years has passed from the time of its appointment.

17. Any written submissions or other supporting documentation provided to the Inquiry must be available for public inspection until the submission of its report, unless the Inquiry specifically directs that the material is to remain 'in camera'.

Outcomes

18. The Inquiry must produce a written report for the Minister for Planning presenting:

    i. the Inquiry's findings regarding the potential environmental effects (impacts) of the project and alignment alternatives documented in the EES, including impacts on relevant matters of NES under the EPBC Act;

    ii. advice regarding the availability and effectiveness of feasible mitigation measures or procedures to prevent, minimise or compensate for environmental impacts, including on relevant matters of NES, either proposed by the proponent or suggestions made in public submissions or by relevant agencies;

    iii. any recommended modifications or feasible alternatives to the project, including in relation to alignment and design, and their likely impacts, including on matters of NES;

    iv. a statement of appropriate conditions for approval of the project under Victorian and Commonwealth law, which should be applied to achieve acceptable environmental outcomes in the context of applicable legislation and policy;

    v. any matters relevant to the draft planning scheme amendments prepared by VicRoads;

    vi. relevant information and analysis in support of the Inquiry's conclusions and recommendations; and

    vii. a description of the proceedings conducted by the Inquiry and a list of those consulted and heard by the Inquiry.

Timing

19. The Inquiry is required to report in writing to the Minister for Planning within eight weeks from its last hearing date.

Fee

20. The members of the Inquiry will receive the same fees and allowances as a panel appointed under Division 1 of Part 8 of the Planning and Environment Act 1987.

21. The costs of the Inquiry will be met by VicRoads.

APPROVED:

MATTHEW GUY MLC
Minister for Planning

Date: 21-1-13