



Inquiry Report

Advisory Committee Report

Environment Effects Statement and
Draft Planning Scheme Amendments:

- Pyrenees Planning Scheme C37
- Ararat Planning Scheme C27

Western Highway Section 2
Beaufort to Ararat

11 February 2013

Environment Effects Act 1978

Inquiry Panel Report pursuant to Section 9 of the Act

Duplication of the Western Highway between Beaufort and Ararat

Planning and Environment Act 1987

Advisory Committee Report pursuant to Section 151 of the Act

Draft Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat Planning Scheme

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Trevor McCullough, Chair

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Darrel Brewin, Member

A handwritten signature in dark ink, appearing to read 'Gordon Anderson', followed by a long, sweeping horizontal flourish.

Gordon Anderson, Member



Contents

	Page
Executive Summary	i
1 Background.....	1
1.1 Project description	1
1.2 Project objectives	2
1.3 Terms of Reference	3
1.4 Relevant legislation	4
1.5 Consultation process	5
1.6 Inquiry assessment process.....	5
2 Broad policy context and Project benefits.....	8
3 Identification of Issues	10
3.1 Summary of issues raised in submissions	10
3.2 Issues dealt with in this Report	11
PART A – ENVIRONMENTAL EFFECTS	12
4 Inquiry approach to assessment of effects	13
5 Approval requirements	14
5.1 Commonwealth approval requirements	14
5.2 Victorian approval requirements	14
5.3 Other approvals.....	15
6 Planning and land use	16
6.1 EES objectives.....	16
6.2 The issues	16
6.3 Policy context	16
6.4 Evidence and submissions.....	19
6.5 Discussion	22
6.6 Conclusions.....	23
6.7 Recommendations	24
7 Traffic and transport.....	25
7.1 EES objectives.....	25
7.2 The issues	25
7.3 Policy context	25
7.4 Evidence and submissions.....	26
7.5 Discussion	27
7.6 Conclusions.....	28
8 Soils and geology	29
8.1 EES objectives.....	29
8.2 The issues	29



8.3	Policy context	29
8.4	Evidence and submissions	30
8.5	Discussion	31
8.6	Conclusions.....	31
9	Groundwater	32
9.1	EES objectives	32
9.2	The issues	32
9.3	Policy context	32
9.4	Evidence and submissions	33
9.5	Discussion	33
9.6	Conclusions.....	34
10	Surface water.....	35
10.1	EES objectives	35
10.2	The issues	35
10.3	Policy context	35
10.4	Evidence and submissions	36
10.5	Discussion	37
10.6	Conclusions.....	37
11	Biodiversity and habitat.....	38
11.1	EES objectives	38
11.2	The issues	38
11.3	Policy context	38
11.4	Evidence and submissions	40
11.5	Discussion	43
11.6	Conclusions.....	44
12	Cultural heritage	45
12.1	EES objectives	45
12.2	The issues	45
12.3	Policy context	45
12.4	Evidence and submissions	46
12.5	Discussion	47
12.6	Conclusions.....	47
13	Air quality	48
13.1	EES objectives	48
13.2	The issues	48
13.3	Policy context	48
13.4	Evidence and submissions	50
13.5	Discussion	51
13.6	Conclusions.....	52
14	Noise and vibration.....	53
14.1	EES objectives	53
14.2	The issues	53



14.3	Policy context	53
14.4	Evidence and submissions	54
14.5	Discussion	56
14.6	Conclusions.....	56
15	Visual and landscape	57
15.1	EES objectives	57
15.2	The issues	57
15.3	Policy context	57
15.4	Evidence and submissions	60
15.5	Discussion	62
15.6	Conclusions.....	63
16	Social	64
16.1	EES objectives	64
16.2	The issues	64
16.3	Policy context	64
16.4	Evidence and submissions	68
16.5	Discussion	68
16.6	Conclusions.....	69
17	Economic	70
17.1	EES objectives	70
17.2	The issues	70
17.3	Policy context	70
17.4	Evidence and submissions	74
17.5	Discussion	76
17.6	Conclusions.....	76
18	Matters of National Environmental Significance	77
18.1	EES objectives	77
18.2	The issues	77
18.3	Policy context	78
18.4	Evidence and submissions	78
18.5	Discussion	79
18.6	Conclusions.....	79
19	Summary of EES Assessment.....	81
19.1	The issues	81
19.2	Finding	81
	PART B – ALIGNMENT, DESIGN AND PLANNING CONTROLS	82
20	Introduction.....	83
20.1	Alignment options	83
20.2	Public Acquisition Overlay	86
21	Beaufort to Eurambeen-Streatham Road	87
21.1	Site description	87
21.2	The issues	88



21.3	Evidence and submissions	88
21.4	Discussion	90
21.5	Conclusions.....	91
21.6	Recommendation	91
22	Eurambeen-Streatham Road to Waldrons Road.....	92
22.1	Site description.....	92
22.2	The issues	93
22.3	Evidence and submissions.....	93
22.4	Discussion	93
22.5	Conclusions.....	94
22.6	Recommendation	94
23	Waldrons Road to Andersons Road.....	95
23.1	Site description.....	95
23.2	The issues	96
23.3	Evidence and submissions.....	96
23.4	Discussion	98
23.5	Conclusions.....	98
23.6	Recommendation	99
24	Andersons Road to Pope Road (including Buangor bypass).....	100
24.1	Site description.....	100
24.2	The issues	102
24.3	Evidence and submissions.....	102
24.4	Discussion	108
24.5	Conclusions.....	111
24.6	Recommendation	112
25	Pope Road to Langi Ghiran Picnic Ground Road	113
25.1	Site description.....	113
25.2	The Issues	114
25.3	Evidence and submissions.....	114
25.4	Discussion	117
25.5	Conclusions.....	119
25.6	Recommendation	119
26	Langi Ghiran Picnic Ground Road to Heath Street, Ararat	120
26.1	Site description.....	120
26.2	The issues	121
26.3	Evidence and submissions.....	121
26.4	Discussion	122
26.5	Conclusions.....	122
26.6	Recommendation	122
27	The preferred alignment	123
27.1	The issues	123
27.2	Evidence and submissions.....	123



27.3 Discussion	127
27.4 Conclusions.....	128
27.5 Recommendation	128

Appendix A	List of submitters
Appendix B	Document list
Appendix C	Terms of Reference

List of Tables

	Page
Table 1 Parties appearing at the Hearing	6

List of Figures

	Page
Figure 1 Western Highway Ballarat to Stawell showing sections	1
Figure 2 Section 2 showing Options 1 and 2	2
Figure 3 Beaufort to Ararat – Options 1 and 2.....	83
Figure 4 Cross section 1 – typical median	83
Figure 5 Cross section 1 – wide median	84
Figure 6 Cross section 1 – narrow median	84
Figure 7 Wide median treatment.....	85
Figure 8 Illustration of grade separation interchange	85
Figure 9 Beaufort to Eurambeen-Streatham Road	87
Figure 10 Eurambeen-Streatham Road to Waldrons Road.....	92
Figure 11 Waldrons Road to Andersons Road	95
Figure 12 Andersons Road to Pope Road	100
Figure 13 Pope Road to Langi Ghiran Picnic Ground Road	113
Figure 14 Langi Ghiran Picnic Ground Road to Heath Street, Ararat.....	120



List of Abbreviations

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
DPCD	Department of Planning and Community Development
DSE	Department of Sustainability and Environment
EES	Environment Effects Statement
EPA	Environment Protection Authority
EPBC	Environment Protection and Biodiversity Conservation
EVC	Ecological Vegetation Class
ha	Hectares
Habha	Habitat Hectares
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
SPPF	State Planning Policy Framework
VPP	Victoria Planning Provisions

Executive Summary

Summary

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

Section 2 of the Highway is approximately 38 kilometres long. 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 Buangor 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 in September and October 2012 along with Draft Planning Scheme Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat 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 2 – Beaufort to Ararat Incorporated Document*' in each Planning Scheme to provide exemption of the Project from requiring planning permits.

A total of 23 written submissions were received in relation to the exhibition.

An Inquiry Panel comprising Trevor McCullough (Chair), Gordon Anderson and Darrel Brewin was appointed to hear and consider submissions and report in accordance with Terms of Reference approved by the Minister for Planning on 2 November 2012.

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:

- Severance of land;

-
- Loss of agricultural land;
 - Impact on farming operations;
 - Access issues;
 - Ecology and environmental issues including:
 - Loss of High and Very High conservation significance vegetation;
 - Impact on habitat values; and
 - Loss of Large Old Trees;
 - Visual impact;
 - Road upgrade not economically justified;
 - Upgrade to freeway standard not justified;
 - Noise;
 - Air quality;
 - Disruption during construction; and
 - Historical connection to the land.

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 2: Beaufort to Ararat can be managed and the adverse long-term effects on surrounding properties and landscape should be minimal.

In relation to the preferred alignment for the Project, the Panel has examined each section of the proposed alignments 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 section. The Panel concluded that, on balance, VicRoads' Option 1 alignment is the preferred alignment, primarily on the basis of less overall impact on the environment.

Summary of findings and recommendations

Part A findings:

Based on the reasons set out in this Report, and subject to the following further recommendations, the Panel finds that the environmental effects of the Western Highway Project Section 2: Beaufort to Ararat can be managed and the long-term adverse effects on surrounding properties and landscape should be minimal.

Further recommendations:

- 1. VicRoads, in consultation with Councils, should consider the consolidation of any Farming Zone lots less than 40ha created as a result of the preferred Project alignment.**
- 2. Ararat Rural City Council should prepare, in collaboration with VicRoads and the local community, a structure plan for the Buangor Township.**

-
3. The Minister for Planning should approve Planning Scheme Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat 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 Pyrenees and Ararat Planning Schemes consistent with the preferred alignment as recommended in Part B of this report;
 - Amendments to Clause 52.03 '*Specific Sites and Exclusions*' of the Pyrenees and Ararat Planning Schemes to exempt the Western Highway Project (Section 2 Beaufort – Ararat) and associated works from requiring planning permits; and
 - The proposed amendment to Clause 81.01 of the Pyrenees and Ararat Planning Schemes to introduce the '*Western Highway Project: Section 2 – Beaufort to Ararat Incorporated Document*'.

Part B recommendation:

The Panel recommends, subject to the implementation of mitigation measures proposed by VicRoads, and subject to the minor design changes presented to the Panel Hearing, that VicRoads' alignment Option 1 be adopted as a basis for detailed design and the implementation of Public Acquisition Overlays as proposed in Draft Planning Scheme Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat 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 currently carries more than 5500 vehicles each day, including 1500 trucks, making it one of the busiest rural highways in Australia. VicRoads predict that this traffic volume will increase significantly by 2040.

VicRoads proposes to duplicate the Western Highway between Beaufort and Ararat, 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).

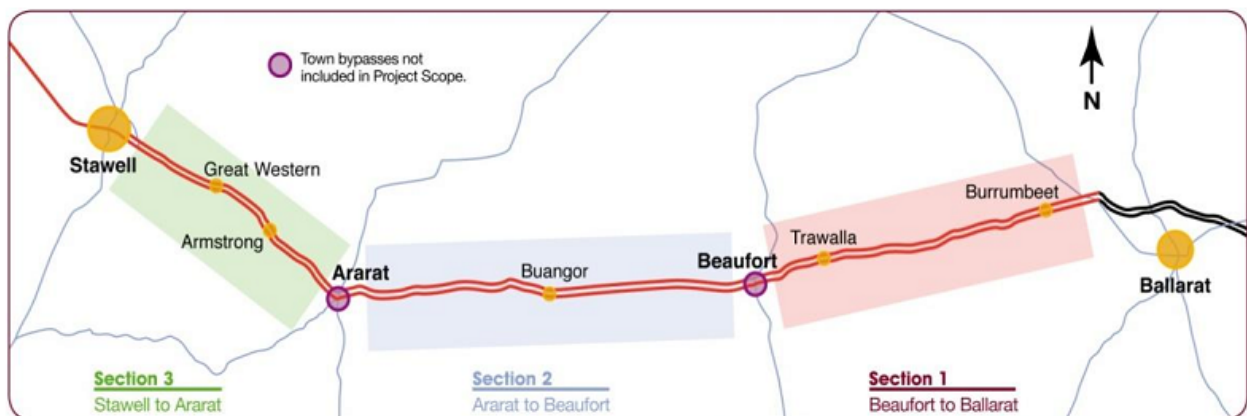


Figure 1 Western Highway Ballarat to Stawell showing sections

Specifically, Section 2 (which relates to the current Environment Effects Statement) (**the Project**) will run from just east of Martins Lane, west of Beaufort, to Warrayatkin Road, Ararat.

Section 2 of the Highway is approximately 38 kilometres long, and is currently undivided with a single lane in each direction and with overtaking lanes at some locations. 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 Buangor 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).

VicRoads undertook a three phase assessment process in selecting the preferred alignment options. Through a process of feedback and community information sessions, VicRoads presented Option 1 and Option 2 for consideration as part of the EES.

Both Option 1 and Option 2 bypass Buangor to the north and cross Peacocks Road. They then differ from Peacocks Road to Langi Ghiran Picnic Ground Road, before following the same alignment for the remaining length to Ararat (See Figure 2).

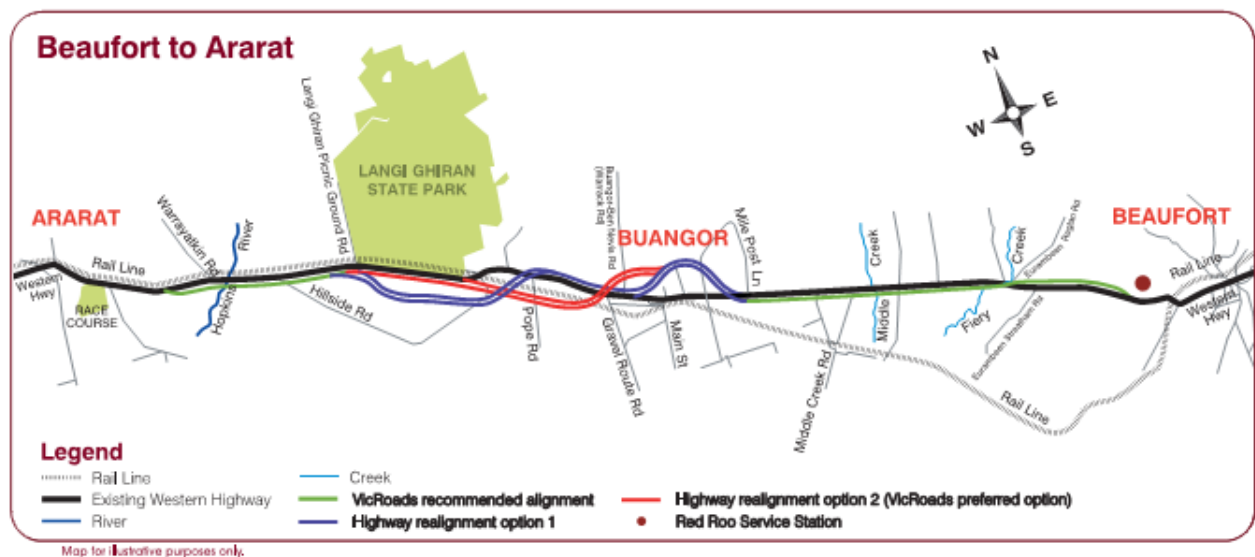


Figure 2 Section 2 showing Options 1 and 2

As described in the EES, the options differ as follows:

- *Option 1 – from Peacocks Road Option 1 travels south to rejoin the existing highway alignment at Buangor-Ben Nevis Road. After a short section following the existing highway, Option 1 travels southwest, crossing the railway in the vicinity of Hillside Road. Option 1 then travels west for approximately 650m to the south of the existing highway and re-joins the existing highway again just before Langi Ghiran Picnic Ground Road; and*
- *Option 2 – from Peacocks Road Option 2 travels west to cross Buangor-Ben Nevis Road approximately 600m north of the existing highway. After crossing Buangor-Ben Nevis Road, Option 2 travels south-west, crossing the existing highway and then the railway line. Option 2 then curves to the north and follows the railway line, crosses Hillside Road and joins with the existing highway alignment just west of Hillside Road extension.*

VicRoads considers that both options would meet the Project objectives, and both options could be recommended for approval, although, on balance, VicRoads prefers Option 2.

The relative merits of each alignment option are discussed in Chapters 20 to 27 of this report.

1.2 Project objectives

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

- *To provide safer conditions for all road users by:*
 - *Reducing the incidence of head-on and run-off road crashes;*
 - *Improving safety at intersections; and*
 - *Improving safety of access to adjoining properties.*

-
- *To improve the efficiency of freight by designing for High Productivity Freight Vehicles;*
 - *To provide adequate and improved rest areas; and*
 - *To locate the alignment to allow for possible future bypasses of Beaufort and Ararat.*

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

- *To provide for the duplication of the Western Highway between Beaufort and Ararat 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 or the Environment Protection and Biodiversity Conservation Act 1999, as well as 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 extent practicable;*
- *To protect residents' well-being and minimise any dislocation of residents or severance of communities, to the extent practicable;*
- *To protect Aboriginal and non-Aboriginal cultural heritage;*
- *To provide a transparent framework with clear accountabilities for managing environmental for managing environmental effects and hazards associated with the Project in order to achieve acceptable environmental outcomes; and*
- *Overall, to identify an alignment and conceptual design for the Western Highway Project from Beaufort to Ararat that would achieve a balance of economic, environmental and social outcomes.*

1.3 Terms of Reference

The Inquiry Panel's Terms of Reference are included as Appendix C of this report. In summary, the Panel was 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 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 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;*
- *Advice on the most suitable alignment for the project on balance, taking into account the VicRoads' preferred alignment (Option 2) and alternate alignment (Option 1) as documented in the EES;*
- *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 conclusions 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:

- An Assessment under the *Environment Effects Act 1978*;
- Approval under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. The EES process is to be applied as an accredited process under the *EPBC Act*;
- Draft Amendment C37 to the Pyrenees Planning Scheme and Draft Amendment C27 to the Ararat Planning Scheme are to be considered under the *Planning and Environment Act 1987*. Exemption of the Project from requiring planning permits and inclusion of the 'Western Highway Section 2 – Beaufort to Ararat Incorporated Document' as an incorporated document in the Pyrenees and Ararat Planning Schemes are also to be considered under the *Planning and Environment Act 1987*; and
- An approved Cultural Heritage Management Plan (CHMP) is required under the *Aboriginal Heritage Act 2006*.

In addition, the Project will require the following approvals:

- Consent to remove listed flora and fauna under the *Flora and Fauna Guarantee Act 1988*;
- Consents for works on waterway under the *Water Act 1989*; and
- Consent to disturb heritage sites under the *Heritage Act 1995*.

1.5 Consultation process

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

Initially, a project area boundary was established which excluded areas of environmental or social sensitivities. This area was located 1.5 kilometres either side of the existing Highway.

VicRoads outlined that in its initial considerations the alignment needed to include the following:

- Connection with the existing Highway;
- Future bypasses of Beaufort and Ararat to be allowed for;
- Existing infrastructure to be used to its optimum; and
- Ecological and social impacts to be minimised.

A 'rapid assessment workshop' was held in May 2011 to refine the long list of options that had previously been developed to a shorter list of potential and feasible options. The options were rated against the objectives outlined in Table 5-5 of the EES. Through this process a number of options were eliminated.

Community consultation on shortlisted options with corresponding alignments took place in Buangor in 13 July 2011, Beaufort on 16 July 2011 and Ararat on 14 July 2011.

The phase 2 options assessment presented and rated a number of alignment options, resulting in the selection of the two preferred options considered in the EES.

Further consultation continued with affected landowners through 2011 and 2012, up to the date of the Hearing.

1.6 Inquiry assessment process

(i) The Panel

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);
- Gordon Anderson (Member); and
- Darrel Brewin (Member).

(ii) Hearings and inspections

A Directions Hearing was held on 13 November 2012 at Pyrenees Shire Council Hall, Lawrence Street, Beaufort. Public Hearings were held on 4 to 6 December 2012 at Pyrenees Shire Council Chambers in Beaufort.

The Panel inspected the Project alignment and surrounding areas, making unaccompanied visits on 13 November 2012 and accompanied site visits on 4 December 2012.

(iii) Exhibition

The EES and draft planning scheme amendments were exhibited between 14 September and 25 October 2012. Notices were placed in the National edition of the Weekend Australian, The Age, Ballarat Courier, Ararat Advertiser, Stawell Times and Pyrenees Advocate, and letters were sent to 200 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, libraries, shire offices and VicRoads offices.

(iv) Submissions

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

A total of 23 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 Ms Sophie McGuinness of DLA Piper and supported by Mr Grant Deeble of VicRoads, who called the following expert witnesses: <ul style="list-style-type: none">- Mr Aaron Organ of Ecology and Heritage Partners on ecology; and- Mr Ray Phillips of Phillips Agribusiness on agricultural impact
Ararat City Council	Mr Joel Hastings
DPCD	Ms Elissa Bell
Ms Mary Brennan	
Mr John and Mr Xavier Brennan	
Mrs I A Mackenzie	
Ms Iona Mackenzie	Who provided a written expert report from Mr Matt Mushalik of Crude Oil Peak
Mrs Margaret MacInnes	
Ms Mairi Anne Mackenzie	Who called the following expert witness: <ul style="list-style-type: none">- Mr Mark Shepherd of Practical Ecology on vegetation assessment and mapping

Table 1 Parties appearing at the Hearing

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

(v) Further directions

At the close of hearings on 6 December 2012 the Panel directed that VicRoads be given the opportunity to provide a written response to Mr Mushalik's expert statement and that Mr Mushalik in turn be given an opportunity to rebut VicRoads' response. This was completed by 17 December 2012.

2 Broad policy context and Project benefits

VicRoads submitted that the Western Highway is to become the busiest un-duplicated national highway link in Australia in terms of interstate freight movements, once the Hume Highway duplication between Melbourne and Sydney is finished in mid 2013 and when the Holbrook Bypass is completed.¹

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;
- *National Building Program – Roads to Recovery* – The Western Highway Project is funded under Roads to Recovery Program as part of the National Building Program. The Victorian and Australian Government has 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* – The Western Highway Action Committee (WHAC) 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; and
- *Arrive Alive! 2008-2017 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 travelled. It is envisaged that the duplication of the Western Highway will result in improved safety.

¹ Western Highway Action Committee Report, SKM 2007

The EES stated that the Project benefits will include the following:

- Improved road safety;
- Increased overtaking opportunities;
- Improved property access safety;
- Improved road geometry;
- 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 (Option 2);
- 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

The Pyrenees Shire Councils and the Northern Grampian Shire Council provided letters of support for the Project.

The Rural City of Ararat generally supported the Project and raised the following issues:

- The need to consider local traffic impacts of the Project;
- Costs of on-going maintenance of roads that ultimately become Council responsibility;
- The impact on local roads during the construction phase; and
- Social and other impacts on the Buangor township.

Other Public Authorities

The Department of Sustainability and Environment (DSE) provided comment on the impact of the Project on native vegetation and expressed a preference for Option 1 on the basis that it has less overall environmental impact than Option 2.

The Western Highway Action Committee provided a letter of support for the Project.

Individual Submitters

The key issues by submitters were:

- Severance of land;
- Loss of agricultural land;
- Impact on farming operations;
- Access issues;
- Ecology and environmental issues including:
 - Loss of High and Very High conservation significance vegetation;
 - Impact on habitat values;
 - Loss of Large Old Trees;

-
- Visual impact;
 - Road upgrade not economically justified;
 - Upgrade to freeway standard not justified;
 - Noise;
 - Air quality;
 - Disruption during construction; and
 - Historical connection to the land.

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 – Environmental effects (Chapters 4 to 19); and
- Part B – Alignment, design and planning controls (Chapters 20 to 27).

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 ENVIRONMENTAL EFFECTS

4 Inquiry approach to assessment of effects

The EES, at 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 environmental 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 C37 to the Pyrenees Planning Scheme, which would amend the planning scheme to:

- *Include land required for the Western Highway Project Section 2 in a Public Acquisition Overlay;*
- *Exempt the Western Highway Project Section 2 and associated works from requiring planning permits; and*

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- *Include the 'Western Highway Project Section 2 – Beaufort to Ararat Incorporated Document' as an incorporated document in the Pyrenees Planning Scheme.*

Draft Amendment C27 to the Ararat Planning Scheme, which would amend the planning scheme to:

- *Include land required for the Western Highway project Section 2 in a Public Acquisition Overlay;*
- *Exempt the Western Highway Project Section 2 and associated works from requiring planning permits; and*
- *Include the 'Western Highway Project Section 2 – Beaufort to Ararat Incorporated Document' as an incorporated document in the Pyrenees Planning Scheme.*

5.3 Other approvals

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;*
- *Consents for works on waterway under the Water Act 1989; and*
- *Consent to disturb heritage sites under the Heritage Act 1995.*

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 residential) and households, as well as road users resulting from the 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:

- Compliance with planning policies and other legislation;
- 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 most appropriate mechanism for implementing Planning Scheme Amendments to implement the Project.

6.3 Policy context

The legislation and policies relevant to planning and land use are summarised in the EES as follows:

Legislation/Policy	Description
Victoria	
<i>Planning and Environment Act 1987</i>	<p>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.</p> <p>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.</p> <p>The relevant planning schemes for the study area are:</p> <ul style="list-style-type: none">- Ararat Planning Scheme; and- Pyrenees Planning Scheme.

<i>Land Acquisition and Compensation Act 1986</i>	<p>The process under which private land can be compulsorily acquired is set out in the <i>Land Acquisition and Compensation Act 1986</i> (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.</p> <p>The LACA provides:</p> <ul style="list-style-type: none"> - The procedures for the compulsory or negotiated acquisition of land; and - The procedures for the determination of compensation, including disturbance and severance costs.
<i>Transport Integration Act 2010</i>	<p>The <i>Transport Integration Act 2010</i> (TIA) provides a policy framework for transport and land use agencies. The TIA:</p> <ul style="list-style-type: none"> - 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	
Glenelg Hopkins Regional Catchment Strategy	<p>The Regional Catchment Strategy is a high-level plan that sets a strategic overview for natural resource management within the Glenelg and Hopkins River Catchments. It aims to integrate action plans constructed by the Glenelg Hopkins Catchment Management Authority and those of other bodies with responsibility for natural resource management.</p>
Central Highlands Regional Strategic Plan, June 2010	<p>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:</p> <p><i>' 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.'</i></p>

Local	
Ararat Planning Scheme and Pyrenees Planning Scheme	<p>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 <i>Planning and Environment Act 1987</i> and regulates the use and development of land through planning provisions designed to achieve those objectives and policies.</p> <p>In this instance, the Ararat Planning Scheme and the Pyrenees Planning Scheme are relevant to the Project area.</p>
Pyrenees Shire Council, Council Plan 2009-2013	<p>The Council Plan is a strategic document that outlines a series of strategic objectives and the goals and aspirations of the Pyrenees Shire Council over the specified four years. It describes what the Council believes is important to the residents of the Pyrenees Shire, and what it hopes to achieve in the near future. The Council will focus on seven areas:</p> <ul style="list-style-type: none"> - Road infrastructure; - Community infrastructure; - Community wellbeing; - Growth and employment development; - Governance and community leadership; - Organisational development; and - The environment. <p>Other strategic directions outlined in the planning document and supported through the Project include:</p> <ul style="list-style-type: none"> - To maintain a safe and effective road system that caters for all road users within the Shire; - To provide safe, well-maintained, functional and well utilised assets to support Communities; and - To enhance the quality of life of residents by building connected, active and resilient communities.
Pyrenees Shire Growth and Development Strategy 2010-2014	<p>The focus of the Economic Development Strategy is to support the sustainability and growth of existing industries and businesses, and to provide opportunities for people to live, work and invest in Pyrenees Shire, and to continue to build on the foundations already established, and help achieve Council's Growth and Development objective of 'developing the local economy and increasing the population' of the Shire.</p> <p>It is acknowledged in the Strategy that for the Shire to grow employment and accommodate projected increases in population, the development of suitable infrastructure is required to support major industries. The importance of well-maintained road networks is also acknowledged as they provide critical arterial networks for transport of agricultural products to local livestock markets, processing works and ports, manufacture of products and general freight.</p> <p>Maintaining and upgrading road networks to accommodate large vehicles carrying produce would remain an area of attention,</p>

	particularly with large export driven businesses located within, and being developed in the Shire.
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 40ha 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 and rural living development and to provide a framework for the development of dwellings on 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 40ha. Recommendations from the Review associated with rural residential development and township frameworks were incorporated into the Planning Scheme, however, the guidelines for 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 (LESPPS) which outlines and commits Council to key Accord Principles and forms the basis of future programs. The LESPPS forms the action component of this body of work. 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.

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 – Both options would require vegetation removal, however the alignment of both options has been managed to minimise impacts. Option 1 has less impact on environmental impacts in the vicinity of Mount Langi Ghiran State Park than Option 2. Other issues relating to environmental issues and landscape values are discussed in more detail under specific chapter headings in this report.

Clause 14 – Natural resource management – Both options create some degree of severance of agricultural land that may require mitigation through the use of stock crossings, replacement or duplication of farm infrastructure, or possibly purchase and consolidation of land parcels.

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.

Clause 19 – Infrastructure – provides for renewable energy and community infrastructure, and includes an objective that growth and redevelopment of settlements should be planned in a manner that allows for the logical and efficient provision and maintenance of infrastructure, including the setting aside of land for the construction of future transport routes. VicRoads submitted that the implementation of Public Acquisition Overlays for the preferred alignment is good planning consistent with this objective.

Local Planning Policy Framework

The Pyrenees Planning Scheme contains a number of relevant local policies relating to preservation of heritage, protection of natural resources and protection of waterways and natural vegetation.

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

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 some service disruptions during construction as existing water, power and communications services require relocation and both alignment options require a new crossing of the Ballarat to Ararat rail line. VicRoads submitted that the impact of the temporary loss of services should be able to be mitigated by requiring contractors to maintain service connections where possible.

The EES identifies the other main disruption during construction as the potential for amenity impacts from dust and noise of construction activities and the inconvenience of temporary traffic disruptions and road closures during construction. VicRoads submitted that the temporary construction management issues would be managed through the careful implementation of a Traffic Management Plan and a Construction Environmental Management Plan in accordance with the proposed Incorporated Document.

(iii) Longer term impacts

The EES acknowledges that a number of properties (13 under Option 1 and 14 under Option 2) suffer severance of parcels from the balance of the title or require full acquisition. In these cases the land may no longer be viable for grazing without mitigation measures in place.

The agricultural impacts of the Project were assessed in the expert witness statement provided by Mr Phillips of Phillips Agribusiness. Mr Phillips concluded that *'the value of direct loss of productive agricultural land and severance of properties across the two alignment options has been assessed within the range of \$2.3-\$2.5 million, depending on the option considered. The value of agricultural facilities lost was estimated at \$1.3-\$1.5 million.'*

Mr Phillips gave evidence that *'most impacts are receptive to amelioration and best directed at the individual property level. These include facility replacement, facility duplication or extension, improved access arrangements and compensation for permanent affects that lowers farming performance.'* Mr Phillips' evidence was not challenged by other submitters.

Mr Phillips concluded that *'from an agricultural perspective, Option 2 is considered to be the best performing option due to its lesser severance impact.'* He acknowledged that the difference in economic loss is marginal assessing the difference between Option 1 and Option 2 at \$0.38 million over 30 years, due mainly to the larger area of severed land west of Hillside Road under Option 1. The Panel questioned Mr Phillips on whether this severed land area (owned by Ms Mairi Anne Mackenzie) should be considered as viable agricultural land given that it has been substantially revegetated in recent times. Mr Phillips responded that he thought it should still be regarded as having agricultural potential.

Mr Phillips also noted the access issues that will be experienced by some landowners. He gave evidence that it is common for landowners in the district to own several non-contiguous parcels, requiring frequent stock and machinery movement between properties. He noted that while direct access would generally still be possible for stock and machinery movement under the duplicated highway (AMP3) configuration, the longer term (AMP1) freeway configuration would create some difficulties. While property access will still be possible via service roads, direct access to the freeway will not be possible under VicRoads AMP1 requirements, necessitating the use of underpasses, overpasses or livestock transport to move stock.

The EES, at page 8-9, identifies several properties that will be severed by the Project leaving allotments that will be below the minimum lot size for that zoning (40ha in the Farming Zone). VicRoads and Ararat Rural City Council suggest that some consolidation of lots may be required to ensure that all land remains part of viable farming land. Closer to the Buangor township Ararat Rural City council are concerned that fragmented lots may create pressure for changed land use from farming to rural living. They request funding assistance from VicRoads to prepare a structure plan for the town.

A number of submitters, including Mr and Mrs Kennedy (Submission 2), Mrs Brennan (Submission 6) and Mrs MacInnes (Submission 11) raised concerns about the severance impact of the Project on the viability of their farming operations. The main concerns related to access difficulties for stock and machinery movements and the direct loss of grazing land.

Most submitters acknowledged the need to upgrade the road but argued that the impacts on individual properties should be minimised. VicRoads submitted that their design options endeavoured to minimise impacts on existing land use but where impacts could not be avoided mitigation measures would be employed and/or compensation would be available in accordance with the *Land Acquisition and Compensation Act 1986*.

(iv) Other issues

Transport Integration Act 2010

Mr Mushalik, in his written evidence presented by Ms Iona Mackenzie, submitted that the Project was not consistent with objectives of the *Transport Integration Act 2010*, particularly in that the Project does not reduce the need for private motor vehicle transport or encourage other modes of transport. In response VicRoads submitted that Mr Mushalik's references to the *Transport Integration Act* were selective and need to be considered in the proper context. VicRoads submitted that there is a need to balance the respective objectives across all modes of transport rather than adopt rail to the exclusion of other modes (as suggested by Ms Mackenzie).

6.5 Discussion

The Panel agrees with VicRoads' position that the Project is generally consistent with State and local planning policies, but only 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 Mr Mushalik's evidence that there are aspects of some of the objectives of the *Transport Integration Act 2010* that could be argued to be inconsistent with the objectives of the Project, but the Panel also accepts VicRoads' suggestion that this evidence is perhaps ignoring other objectives of the *Act* that need to be balanced. The Panel notes that the Project does not exclude the development of other modes of transport and that the upgrade of the road is consistent with the majority of the objectives of the *Act*.

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 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.

Where land is severed by the Project and the remaining lots are below the minimum size, the viability of the continuing use of these lots as farming land comes into question, and lots may need to be consolidated to make them part of a usable allotment and reduce the likelihood of inappropriate development. Whilst land owners will have claims for compensation for the impacts of severance, there remains the question of the most appropriate future use of some of these parcels of land, particularly those in close proximity

to the Buangor township. Landowners may wish to mount an argument for rezoning of remnant parcels to Rural Living or Low Density Residential Zone where land is close to the town and no longer viable as farming land. The merits of any future rezoning should be considered in the context of a structure plan for the Buangor township. The Panel would support the preparation of a structure plan and believes there is some merit in the request from the Rural City of Ararat for VicRoads funding towards such a study on the basis that the Project creates significant changes to the town in terms of land use, access and severance of properties. Any such strategic work should also consider the best approach to service road access to the town under both the AMP3 and AMP1 conditions.

The application of Public Acquisition Overlays is an appropriate and frequently used method of reserving land for future public infrastructure. The Inquiry 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 Pyrenees and Ararat Planning Schemes as required to reserve land 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 Pyrenees and Ararat 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 C37 to the Pyrenees Planning Scheme and C27 to the Ararat 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 Project is not inconsistent with the *Transport Integration Act 2010*;
- Where severed parcels of farmland are less than 40ha, consolidation of lots should be considered;

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- A structure plan for the Buangor township should be developed in collaboration between the Rural City of Ararat, VicRoads and the local community, to set a future plan to guide land use and access requirements;
 - The future zoning of severed land in close proximity to the Buangor township should be considered in the context of a structure plan for Buangor;
 - Subject to the findings of Part B of this report in relation to the preferred alignment, the following changes to the Pyrenees and Ararat Planning Schemes are recommended:
 - The introduction of Public Acquisition Overlays as required to reserve land for the Project;
 - The proposed amendment to Clause 52.03 'Specific Sites and Exclusions' to exempt the Western Highway Project (Section 2 Beaufort – Ararat) and associated works from requiring planning permits; and
 - The proposed amendment to Clause 81.01 to introduce the 'Western Highway Project: Section 2 – Beaufort to Ararat 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:

1. **VicRoads, in consultation with Councils, should consider the consolidation of any Farming Zone lots less than 40ha created as a result of the preferred Project alignment.**
2. **Ararat Rural City Council should prepare, in collaboration with VicRoads and the local community, a structure plan for the Buangor Township.**
3. **The Minister for Planning should approve Planning Scheme Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat 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 Pyrenees and Ararat Planning Schemes consistent with the preferred alignment as recommended in Part B of this report;**
 - **Amendments to Clause 52.03 'Specific Sites and Exclusions' of the Pyrenees and Ararat Planning Schemes to exempt the Western Highway Project (Section 2 Beaufort – Ararat) and associated works from requiring planning permits; and**
 - **The proposed amendment to Clause 81.01 of the Pyrenees and Ararat Planning Schemes to introduce the 'Western Highway Project: Section 2 – Beaufort to Ararat Incorporated Document'.**

7 Traffic and transport

7.1 EES objectives

The EES objectives for traffic and transport are:

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

7.2 The issues

The EES assessed several potential traffic and transport issues 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 to 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 exacerbate frequency of accidents.

7.3 Policy context

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

Legislation/Policy	Description
Victoria	
<i>Transport Integration Act 2010</i>	<i>The Transport Integration Act 2010 sets out the charter for Victoria's transport agencies, including VicRoads, to:</i> <ul style="list-style-type: none">- 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. <i>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.</i>
<i>Road Management Act 2004</i>	<i>The Victorian 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</i>

	road networks and a coordinated approach for the management of public roads. The <i>Road Management Act (General) Regulations 2005</i> and the <i>Road Management Act (Works and Infrastructure) Regulations 2005</i> have been established under the <i>Road Management Act</i> and are to be complied with for all public roads.
<i>VicRoads Access Management Policies (2006)</i>	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).
<i>Arrive Alive 2008-2017, Victoria's Road Safety Strategy</i>	<p>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.</p> <p>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.</p>

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 Buangor, 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 reduce the number of crashes on the Highway, which would assist in reaching the target of reducing the incidence and severity of road crashes by 30%, by 2017 (an objective of *Arrive Alive! 2008-2017* Victoria's Roads Safety Strategy). Road safety outcomes are expected to be significant for the Project, with the ultimate AMP1 upgrade having a slight improvement on the interim AMP3 upgrade;
- Would increase the capacity of the Highway so it can accommodate the traffic volumes predicted for 2040. This would be the same for interim and ultimate upgrade;
- To provide travel time savings of around two 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. Travel times are expected to be slightly improved further for the ultimate AMP1 upgrade as compared with the interim upgrade. 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 slightly 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

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

Ararat Rural City Council, represented by Mr Joel Hastings at the Hearing, raised some concerns about north-south connectivity, particularly at Buangor, and suggested an alternative approach for the proposed interchange on the Buangor bypass and local service roads. The Panel deals with this matter and other matters Council raised in later chapters.

Some submitters expressed concern about the impacts of construction vehicles entering and leaving their properties and on their own 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.

Ms Iona Mackenzie questioned VicRoads' forecast traffic volumes for the Western Highway/Freeway, submitting that population growth would be lower than projected and a potential shrinking population for Adelaide due to limitations on water supply. The Panel recognises VicRoads' forecasts of future traffic on any major road are estimates based on factors such as historic growth and 'best guesses' of likely future travel demand.

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 VicRoads expects most of the adverse impacts on road users to occur during the construction phase, when the proposed works could impact on the 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.

The Panel notes the EES examined the characteristics and needs of each of the intersecting roads, many providing important local and sub-regional north-south connectivity.

The EES explored the impacts of the Project on the key public transport modes of train and bus, including school bus services. On the matter of bicycle provisions, the EES states:

There are no designated bicycle lanes on the Western Highway within the study area. There are 2.5m sealed shoulders on the existing Highway, which may be used by cyclists, however no cyclists were observed during the project investigations.

7.6 Conclusions

The Panel recognises the relevant traffic and transport outcomes from the EES process:

- Land Use and Traffic Effects:

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.

- Sustainable Transport Outcomes:

Overall, to identify an alignment and conceptual design for the Western Highway Duplication from Beaufort to Ararat that would achieve a sustainable balance of economic, environmental and social outcomes.

The Panel is satisfied the EES adequately addresses the key issues and notes the key conclusions from the Traffic and Transport Assessment, namely:

- The Project would improve road capacity and safety, reduce travel times and traffic on local roads, and increase in the efficiency of freight movements, resulting in a net transport benefit to the community; and
- Some identified adverse impacts mainly during the construction period are manageable through the implementation of detailed Traffic Management Plans and through community consultation on expectations for road users during the construction stages.

The Panel agrees with the EES's findings that there is no discernible difference between the benefits and potential negative impacts of either Option 1 or Option 2 from a traffic and transport perspective.

The Panel notes the key difference between the interim and ultimate upgrade is access to the freeway. 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 further increase the distance required to access the freeway for some local landowners/occupiers.

8 Soils and geology

8.1 EES objectives

The EES objective relevant to geology and soils 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.

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; and
- Identifies residual effects of road construction and operation activities on soils in the project area, including any limitations to future land use activities.

Other issues identified in evidence and submissions include revegetation of sedimentary rock batters and the re-alignment of the Charliecombe Creek.

8.3 Policy context

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

Legislation/Policy	Description
Victoria	
<i>Planning and Environment Act 1987</i>	Section 12 of the Act includes provisions to ensure that potentially contaminated land is suitable for the use allowed within the relevant planning scheme.
<i>Environment Protection Act 1970</i>	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.
<i>Catchment and Land Protection Act 1994</i>	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 Environment Protection Policy (SEPP), Prevention and Management of Contamination of Land 2002 (Land SEPP)	The Land SEPP establishes a range of general uses of land in Victoria, 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.
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.
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.

8.4 Evidence and submissions

The EES Chapter 10 and Technical Appendix E examined the potential for the Project to encounter adverse geological conditions, affect soil stability, cause soil erosion and expose contaminated and acid sulphate soils (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.

Several features were identified that indicate potential for land contamination, including farm shearing sheds (often associated with sheep dips), an existing service station (potential hydrocarbon contamination), railway lines (historic land management practices), areas of disturbed soils (potential sites of buried waste) and historic mining works (mine tailings). ASS have not been identified within the study area, though no analysis for potential ASS has been undertaken. Therefore, targeted sampling would be required prior to construction.

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, historical mine workings and in the vicinity of Box's Cutting and the Langi Ghiran railway cutting.

VicRoads is proposing a realignment of the Charliecombe Creek south of the existing Highway at chainage 14800 to enable crossing of the Creek at right angles. Mr Pitcher (Submission 4) expressed concern that the re-aligned reach will be subject to erosion during floods.

Ms Mairi Anne Mackenzie's (Submission 20) offered alternative alignment options and, among other issues, expressed her concerns regarding the batter and cut footprints of Option 1 that she submitted will leave scars in the landscape near Hillside Road.

8.5 Discussion

The study area encompasses a corridor extending up to 1500m north and south of the edge of the existing Western Highway, encompassing the extent of new alignment possibilities.

The EES reported that soils demonstrating dispersive behaviour that exacerbates erosion impacts were observed along the study alignment.

The more sensitive locations were within the vicinity of waterways, including the Charliecombe Creek. The Panel considers that the short reach of Charliecombe Creek identified for realignment south of the existing Highway will require particular attention to minimise soil erosion risk during construction and erosion prevention structures should be incorporated for future protection of the Creek's bed and banks.

In response to Ms Mackenzie, Mr Bartley for VicRoads stated '*cuts will be revegetated and re-absorbed back into the landscape*'. Many of the cuttings along the alignment options will be through sedimentary geology (including the Mackenzie's property). VicRoads agreed that this rock is difficult to revegetate satisfactorily, but it could be screened by revegetation established on the opposite side of the cutting.

The EES proposed that geotechnical site investigations with appropriate design of temporary and final batter slopes would largely eliminate issues of gross ground instability and minimise the potential for soil erosion. It recommended standard construction management approaches, which included site-specific soil erosion management plans. These will be developed as part of the Project CEMP.

The EES concludes that Option 1 is the preferred alignment in terms of soils and geology impacts when taking into consideration the potential for exposure of sensitive receivers (human health and ecological), as it has less intersection with, or sections in close proximity to, the railway line (and potential associated contaminants).

However, the environmental impact of both options is considered by the Panel to be low with implementation of the nominated management measures. Option 1 was also preferred with regard to geological and geotechnical considerations on the basis of unfavourable geotechnical conditions in Option 2 in the vicinity of Langi Ghiran railway cutting. The Langi Ghiran railway cutting is the zone of transition between granite and sandstone geology. The Panel agrees that, with the implementation of the nominated management measures, the environmental impact for both options is considered low.

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 potential effects of road construction on groundwater and any potential effects of groundwater on road construction were assessed and management measures identified to avoid, minimise and manage the impacts.

There is limited groundwater information due to the low number of bores in the locality of the alignment options. The key risk is the intersection of groundwater during construction.

The identified aquifers are all unconfined, which means they are susceptible to contamination from activities on the surface.

9.3 Policy context

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

Legislation/Policy	Description
Victoria	
<i>Water Act 1989</i>	Approval for the extraction, use or disposal of groundwater for the Project may be required under the <i>Water Act</i> . It is not yet known if this would be required for the Project. This would be confirmed during the detailed design phase.
<i>Environment Protection Act 1970</i>	The <i>Environment Protection Act 1970 (EP Act)</i> 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 <i>EP Act</i> 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: <ul style="list-style-type: none">- There is insufficient yield.

	<ul style="list-style-type: none"> - 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.
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9.4 Evidence and submissions

There were no submissions relating to groundwater.

The EES Chapter 11 and Technical Appendix E indicate that potential impacts to the groundwater environment could occur during either the construction of the Project, or during its operation.

The EES further states:

- Cuts below the water table along the proposed alignment could potentially cause groundwater inflows into the excavation. Not only would this impact subsurface construction, but it may present issues regarding reduction in available water in neighbouring wells, dewatering of perched aquifers, loss of supply to dependent ecosystems, ground settlement, activation of ASS and mobilisation of contaminated groundwater plumes;
- Given that there is no evidence of salinisation and water logging, it is likely that the watertable will be at a depth of greater than 3m; and
- Less than 1.6km of the alignment, or about 4%, involves a cut that would exceed this depth, and is considered at greater risk of dewatering. Most of the deep cuts are located on or near the crest of hills, further reducing the likelihood of encountering groundwater. The two locations of where these cuts are most likely to occur along the alignment are the areas immediately west of both Beaufort and Buangor.

9.5 Discussion

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.

An environmental risk assessment looked at the impact to groundwater. The majority of risks were determined to be negligible or low, as much of the Project would be constructed above the existing grade. The Panel agrees that it is reasonable to conclude that there would be limited opportunity for direct interaction with the groundwater environment.

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.

Based on the current understanding of groundwater conditions in the study area, there is no means of conclusively differentiating the impacts on groundwater between Option 1 and Option 2.

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 negligible to 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 EES raises and discusses the issues of the surface water environment including flooding, the wider catchment and waterways to be crossed by the Highway. The potential impacts on surface water have been assessed as well as proposed management measures to minimise these impacts.

The Project crosses six named watercourses: Fiery Creek; Middle Creek; Charliecombe Creek; Billy Billy Creek; Hopkins River; and Green Hill Creek and will consequently require water crossing structures to be constructed at these locations. All crossing structures will be designed to retain or enhance the ability to convey flood waters and avoid river health impacts.

The issues raised Mr Pitcher and Ms Hillman (Submissions 4 and 12) relate to impacts from the proposed deviation of Charliecombe Creek. Concern was expressed in relation to flooding, erosion, stock water supply, stock and machinery movements and property access.

10.3 Policy context

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

Legislation/Policy	Description
Victoria	
<i>Water Act 1989</i>	Any works, which intercept waterways and their floodplains must be undertaken in accordance with the requirements of the <i>Water Act 1989</i> . The Glenelg Hopkins Catchment Management Authority (GHCMA) is the responsible authority for issuing licences for works on waterways and permission would be required from GHCMA for the crossing of waterways for the Project.
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).
Ararat and Pyrenees Planning Schemes	The Ararat and Pyrenees Planning Schemes include a Land Subject to Inundation Overlay (LSIO), Environment Significance Overlay (ESO) and Vegetation Protection Overlay (VPO). The purpose of these overlays

	<p>are as follows:</p> <ul style="list-style-type: none"> - 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.
Glenelg Hopkins River Health Strategy (2004 – 2009)	<p>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:</p> <ul style="list-style-type: none"> - 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.

10.4 Evidence and submissions

Charliecombe Creek is a significant waterway where the current angle of the Creek to the duplicated highway alignment is skewed over a 250 metres length. Duplication of the existing crossing (chainage 14800) is required and the proposal is to deviate the Creek to provide a perpendicular alignment with the road on the south side.

Mr Deeble (VicRoads) explained that when a waterway crossing is skewed it could lead to significant lengths of waterway being disturbed to a high degree, thus impacting adversely on stream health. Water quality impacts from the realignment of the Creek are deemed to be low and require standard environmental management controls.

VicRoads has been in verbal communications with the two submitters with concerns about the deviation of Charliecombe Creek to clear up some apparent misunderstandings in relation to the proposed deviation.

VicRoads has discussed potential property impacts with Mr Pitcher and will continue to liaise with him during the detailed design process. They have informed him that diversion of the Creek will occur within the proposed PAO.

VicRoads reports that Ms Hillman, whose property is on the north side of the Highway, is now accepting of the proposal as the deviation will not affect the Creek flow through her property.

The EES concludes that Option 2 has the least potential impact on flooding and disturbance to significant waterways. It is the marginally preferred option in relation to surface water impacts.

10.5 Discussion

The EES Chapter 12 and Technical Appendix G discusses the surface water environment, including flooding, the wider catchment and the waterways to be crossed by the Project. It has assessed the potential impacts on surface water and the proposed management measures to be implemented to minimise impacts.

With regard to flooding, VicRoads submitted that Charliecombe Creek has a complex interaction with the existing Highway as several tributaries converge with Charliecombe Creek. There is backwater flooding resulting in the existing Highway overtopping, but the nearby properties upstream remain unaffected by flooding.

The Charliecombe Creek crossing (chainage 14200 to 15300) would involve the carriageway overlying 250m of the present creek channel, unless the channel was realigned on the south side. In order to mitigate flooding effects, soil erosion and impacts on environmental values, construction of the new realigned section would incorporate recreations of natural features such as pool and riffle sequences, bed control structures, bank stabilisation and revegetation.

VicRoads has a standard set of environmental management measures, which are incorporated into their construction contracts for road and bridge works. These measures are used as the basis for assessing construction related risks.

Potential impacts from the construction of waterway crossings include potential impacts on waterway health through disturbance to the bed, banks, vegetation, and aquatic fauna movement. With the proposed mitigation measures, it is expected that the impacts on these waterways would be low. The Panel agrees that the overall residual risk to surface water is low to negligible and that Option 2 performs marginally better in relation to flooding.

10.6 Conclusions

The Panel concludes that the surface water impact of the Project is low or negligible.

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

11 Biodiversity and habitat

11.1 EES objectives

EES objectives relevant to biodiversity and habitat are:

To avoid or minimise effects on flora and fauna species and ecological communities listed under the Flora and Fauna Guarantee Act 1988 (FFG Act) or the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and as well as comply with requirements under Victoria's Native Vegetation Management - A Framework for Action.

11.2 The issues

A Biodiversity and Habitat Assessment identified species and communities listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and also listed under the State *Flora and Fauna Guarantee Act 1988* (FFG Act) in both alignment options.

Impacts on ecological values will arise from the removal of remnant native vegetation, including the threatened flora populations that have been recorded in the study area. Potential impacts to significant fauna would arise from the removal of remnant native vegetation resulting in the direct loss of significant fauna, of habitat supporting significant fauna and of corridors and 'stepping stones' that facilitate the movement of significant fauna.

The Victoria's native vegetation management policy *Native Vegetation Management - A Framework For Action (NRE 2002)* applies and Net Gain offsets for losses of native vegetation communities and scattered native trees are required for each alignment option.

Six submissions identified the following issues:

- Protection of the Woodnaggerak Reserve and protection of the Button Wrinklewort in the Reserve;
- Service road will damage the existing wetland adjacent to the north side of the Highway between Milepost Lane and Anderson Road;
- Removal of Large Old Trees; and
- Proposal of an alternative route following the existing Highway alignment over the railway line near Mt Langi Ghiran.

11.3 Policy context

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

Legislation/Policy	Description
Commonwealth	
<i>Environment Protection and Biodiversity</i>	The <i>Environment Protection and Biodiversity Conservation Act, 1999</i> (EPBC Act) provides that certain actions – in particular, actions that are

<i>Conservation Act 1999 (EPBC Act)</i>	<p>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:</p> <ul style="list-style-type: none"> - World Heritage Properties - National Heritage places - Ramsar Wetlands - Threatened species and ecological communities - Migratory species - Commonwealth marine areas and Nuclear actions (including uranium mining). <p>The Project has been designated as a controlled action under <i>EPBC Act</i> 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.</p>
Victoria	
<i>Flora and Fauna Guarantee Act 1988 (FFG Act)</i>	<p>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 <i>FFG Act</i>, which require:</p> <ul style="list-style-type: none"> - Demonstrating that measures have been taken to avoid impacting on <i>FFG Act</i> listed species and communities. - Potentially threatening processes, which may impact on <i>FFG Act</i> listed species and communities, have been avoided or minimised. - Under the <i>FFG Act</i>, a permit would be required from the Department of Sustainability and Environment (DSE) for the removal or disturbance of <i>FFG Act</i> listed flora species and flora that form part of a listed community.
<i>Planning and Environment Act 1987</i>	A permit would be required for the removal or disturbance of native vegetation within the study area. This is discussed in Chapter 8 of the EES (Planning and Land Use).
<i>Wildlife Act 1975</i>	The inspection, removal or relocation of fauna species for the Project would require a permit under the <i>Wildlife Act 1975</i> .
<i>Fisheries Act 1995</i>	A permit would be required under the <i>Fisheries Act 1995</i> , if the Project is going to injure or destroy species protected under the Fisheries Act, including the Dwarf Galaxias.
<i>Catchment and Land Protection Act 1984 (CALP Act)</i>	It is very likely that noxious weeds (declared under the <i>CALP Act</i>) would be present in the study area. Therefore, the construction and maintenance of the Highway would need to comply with the provisions of the <i>CALP Act</i> , which protect against spreading of these weeds.
<i>Victoria's Native Vegetation Management – A Framework for Action</i>	In accordance with this policy, the alignment for the Highway was selected to avoid impacting on native vegetation and where this wasn't possible, the aim was to minimise the impacts on native vegetation. A preliminary net gain assessment has been completed

	<p>for the Project, to calculate the offsets potentially required for the areas of native vegetation and habitat that could not be avoided, where the removal of native vegetation and habitat would be required.</p> <p>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.</p>
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11.4 Evidence and submissions

The Biodiversity and Habitat Assessment, Chapter 13 and Technical Appendix H in the EES, identified three species which are listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* (which are also listed under the State *Flora and Fauna Guarantee Act 1988*):

- Dwarf Galaxias (vulnerable);
- Golden Sun Moth (critically endangered); and
- Spiny Rice-flower (critically endangered),

and two *EPBC Act* listed communities that could be impacted by the Project:

- The Natural Temperate Grassland of the Victorian Volcanic Plain (critically endangered); and
- The Grassy Eucalypt Woodland of the Victorian Volcanic Plain (critically endangered).

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

- 1 Golden Cowslip individual (vulnerable, DSE Advisory List) (Option 1);
- 12 Emerald-lip Greenhood individuals (rare, DSE Advisory List) (Option 1);
- Brown Toadlet (endangered, DSE Advisory List) (Option 1 and Option 2);
- Brown Treecreeper (near threatened, DSE Advisory List) (Option 1 and Option 2); and
- 8 Yarra Gum individuals (rare, DSE Advisory List) (Option 2).

The assessment considered that the impacts on State listed species would be insignificant to minor.

During the options assessment process, matters of National Environmental Significance (NES) and vegetation of Very High and High conservation significance received priority for avoiding and minimising impacts where possible. However, it is not possible to entirely avoid impacts on matters of NES.

The assessment concluded that the Project would remove one Spiny Rice-flower plant; 31.56 hectares (ha) of Golden Sun Moth habitat in Option 1 and 23.8ha of Golden Sun Moth habitat in Option 2; and potentially impact on Dwarf Galaxias habitat, approximately 5.25ha of Natural Temperate Grassland of the Victorian Volcanic Plain (in both Option 1 and Option 2) and approximately 11.14ha of Grassy Eucalypt Woodland of the Victorian Volcanic Plain for Option 1 and 8.65ha for Option 2.

It is not expected that the Project would have significant impacts on Spiny Rice-flower or the Dwarf Galaxias. It is however expected that the Project would have a significant impact on the Golden Sun Moth habitat, the Natural Temperate Grassland of the Victorian Volcanic Plain and the Grassy Eucalypt Woodland of the Victorian Volcanic Plain.

The impacts on listed flora species and communities would be offset in accordance with the requirements of Draft Policy Statement 4.1: *Use of Environmental Offsets Under the EPBC Act*. VicRoads submitted that it would be able to source appropriate offsets for removal of native vegetation required for this Project.

The Project would impact approximately 110ha of EVCs (equating to 39.38 Habitat hectares (Habha)), of which 34.19ha are of Very High conservation significance, for Option 1 and approximately 131ha (equating to 52.98Habha), of which 38.93ha are of Very High conservation significance, for Option 2.

VicRoads submitted that this is considered to be a moderate impact because the loss would be less than 0.1% of the total area of EVCs in the bioregion. Consent from the Minister for Environment and Climate Change is required for the removal of vegetation of Very High conservation significance.

The EES states that the Project could also result in the losses of:

- up to 221 Large Old Trees (LOTs), 140 of which are of Very High conservation significance in Option 1; and
- up to 214 LOTs, of which 109 are of Very High conservation significance, in Option 2.

Mitigation measures, including avoidance of LOTs in the detailed design, should reduce the number of LOTs impacted by the Project. It is expected that the actual number of LOTs impacted would be less than these totals because management measures including micro alignment and construction planning would be implemented to minimise the number of LOTs impacted. The EES assesses that the impact on LOTs would be minor.

The assessment considered that further avoidance and minimisation of matters of NES and State significance would be achieved through micro realignment in the detailed design phase. VicRoads would source appropriate offsets for matters of NES impacted by the Project in consultation with the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC).

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 EES reports that preliminary investigations indicate that offsets are available and that VicRoads could source appropriate offsets.

VicRoads submitted that vegetation of 'Very High' and 'High' conservation significance and matters of NES were considered of greatest importance for conservation during alignment selection, and as such were given priority in avoiding and minimising impacts. However, VicRoads noted that not all impacts on native vegetation and habitat can be avoided.

Based on the level of impact to 'Very High' and 'High' conservation significance vegetation, the EES concludes that Option 1 is considered to be the preferred alignment option (with an area of impact 15.4ha less than in Option 2). Option 1 however, has a greater level of impact

on matters of NES (1 Spiny Rice- Flower Plant, 7.76ha more of Golden Sun Moth habitat and 2.49ha more of Natural Temperate Grassland of the Victorian Volcanic Plain) than Option 2.

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

- Submission 3 (Dr Parsons, Dr Morgan and Mr Scarlett) – Requests protection of Button Wrinklewort in the Woodnaggerak Reserve adjacent to the Highway near Beaufort.
 - VicRoads' response: The contractor would be required to identify a 'No Go Zone' beyond the necessary Construction Footprint, to ensure that the road avoids further Button Wrinklewort specimens.
- Margaret and Paula Brennan (Submissions 6 and 19) – Both submitters were concerned that construction of a service road will damage the existing wetland adjacent to the north side of the Highway between Milepost Lane and Anderson Road and that the wetland was not included in any survey to determine the presence of Matters of NES. Removal of one Large Old Tree in the vicinity of the wetland.
 - VicRoads' response: The wetland areas are located outside of the proposed construction footprint, and hence were not assessed for their ecological values. The CEMP will include mitigation measures to prevent environmental impact outside of the construction zone.
- Margaret Brennan (Submission 11) – Concerned about removal of Large Old Trees in the Buangor school area.
 - VicRoads' response: Detailed design for the Highway duplication will include a Landscape Plan, ensuring that the most appropriate landscape and visual outcomes are achieved.
- Mairi Anne Mackenzie (Submission 20) – Disputed the finding of Ecology and Heritage Partners that vegetation and habitat losses would be too great if construction followed the existing Highway alignment over the railway line (chainage 25000) near Hillside Road. She proposed alternative alignments along the existing Highway alignment from Buangor to over the railway line near Hillside Road. In the Hillside Road area both proposed alternative options would be largely confined to the existing Western Highway route and follow a power line easement and minor roads for sections of their alignment. Ms Mackenzie engaged Mr Mark Sheppard of Practical Ecology to review Ecology and Heritage Partners findings and investigate alternative alignment options in the Hillside Road area. Mr Sheppard offered alternative alignments (Northern Options 1 and 2), which he considered would perform better in terms of 'overall area of native vegetation destroyed', avoid much Golden Sun Moth habitat, revegetation areas and have a smaller impact on large old trees. He considered that the proposed Northern Options would minimise vegetation loss by utilising the existing Highway alignment and minor roads, impact lower quality vegetation within the power line easement and proposing a single four lane carriageway to reduce the construction footprint.
 - VicRoads' response: VicRoads did consider these alternative alignment options during Phase 1 of the Options Assessment process but they were eliminated from further consideration because they significantly impacted vegetation of High and Very High conservation significance, including 20 Yarra Gums and the EVC's Hills Herb-rich Woodland and Grassy Dry Forest. Mr Organ added that this option would also reduce the permeability of the Mackenzie's bushland to the south with bushland to the north and the option did not account for the ecological impact of

service roads, which in Mr Organ's opinion would be significant. VicRoads submitted that the analysis of the alternative options put forward by Ms Mackenzie did not allow for the requirement of a service road to the north of the proposed alternative alignment and thus significantly underestimated the impact on native vegetation.

- Department of Sustainability and Environment (Submission 22) - DSE was satisfied that the EES was conducted and prepared in a balanced manner. It points out that the impacts on native vegetation will be substantial for both alignment options but the EES does not factor in further avoidance and minimisation measures proposed during the detailed design and construction phase.

DSE's preference is for the road alignment to deviate west of the Woodnaggerak Reserve to better address the 'avoid' and 'minimise' principle of the *Framework*. It states that offset targets, meeting 'like for like' rules will be required for the proposed removal of native vegetation.

- VicRoads' response: The deviation/fork at Woodnaggerak Reserve is proposed to commence at chainage 12800. It is proposed to fork at this location to avoid the valuable vegetation in the median further west (Plains Grassy Woodland EVC, which is an EPBC listed community of Grassy Eucalypt Woodland of the Victorian Volcanic Plain).

Despite alignment Option 2 having a lower impact on native vegetation of Very High conservation value than Option 1, DSE prefers alignment Option 1. DSE considers Option 1 to have less overall impact with respect to 'overall native vegetation removal' and 'impacts on the Langi Ghiran State Park'.

- VicRoads' response: Option 1 has less overall impact including on High/Very high conservation significance vegetation, matters of NES and State/Regionally significant biodiversity than Option 2 (as a result of substantial cut and fill). However, Option 2 has less impact on EPBC species (Option 2, 8 ha and Option 1, 23 ha). VicRoads prefers Option 2.

11.5 Discussion

The differences in level of impact on matters of NES between the two alignment options are considered relatively small when compared with the difference in the amounts of Very High and High conservation significance vegetation impacted by the two alignment options.

As such, Option 1 is considered in the Biodiversity and Habitat Assessment to be the preferred alignment from the Biodiversity and Habitat perspective due to least impact on Very High and High conservation significance vegetation.

The Panel notes the apparent conflict in preferred alignment options between VicRoads and DSE.

VicRoads' preference is Option 2 as it has a lower impact on matters of NES than Option 1. DSE preferred Option 1 as it had less impact with respect to 'overall native vegetation removal' and 'less impacts on the Langi Ghiran State Park'. Mr Organ also considered Option 1 as the preferred alignment from a biodiversity and habitat perspective, 'due to least impact on Very High and High conservation significance vegetation'.

Mr Organ considered that the differences in level of impact on Matters of NES between the alignment options are relatively small when compared with differences in the amounts of Very High and High conservation significance vegetation impacted by the two alignment options.

Mr Organ in his evidence stated that vegetation of High and Very High conservation status can only be offset with 'like for like' vegetation (with a maximum of 10% revegetation) and that it is most desirable to utilise offsets purchased locally.

With regard to the alternative 'Northern Options' proposed by Ms Mairi Anne Mackenzie, the Panel notes that Mr Sheppard stated his survey for these options recorded vegetation of very high conservation value. Mr Organ gave evidence that the Habitat Hectare offset requirement would be higher for Ms Mackenzie and Mr Sheppard's Northern Options 1 than for VicRoads Option 1. Mr Organ also considered that the vegetation loss calculations for the Northern Options by Mr Sheppard did not consider the impact of potential service roads, which in Mr Organ's opinion would be significant. Mr Organ agreed that the VicRoads Option 1 would impact more heavily on large old trees than the proposed alternative Northern Options. Mr Organ considered the revegetation area within the footprint of the VicRoads Options *'to be small and therefore insignificant in the scale of the overall Project'*. He added that the Golden Sun Moth was able to persist in modified habitat similar to that under the powerlines identified as part of the alignment for the alternative Northern Options. With regard to the evidence of Mr Sheppard and Mr Organ on the matter of the alternative Northern Options, the Panel does not consider that there is sufficient advantage from these options to recommend them over the VicRoads Options 1 and 2. Button Wrinklewort in the Woodnaggerak Reserve was a focus of concern in Submission 4. This EPBC listed species was found within the study area, but was not found in either of the proposed carriageway alignments.

11.6 Conclusions

The Panel remains unclear as to why VicRoads prefers alignment Option 2 from a biodiversity and habitat perspective and considers that Mr Organ's conclusions and DSE's preference for Option 1 have greater merit.

The Panel is satisfied that the both VicRoads Options have been well designed to avoid and minimise impacts on high conservation value native vegetation, but on balance agrees that Option 1 is preferred from a biodiversity and habitat perspective.

The Panel considers it appropriate that VicRoads gives preference to local landowners prepared to offer 'like for like' offsets in the vicinity of the Highway. This approach would also be of significant benefit to the local economy.

12 Cultural heritage

12.1 EES objectives

The EES (Chapter 14) and Technical Appendices I, J and K deal with both Aboriginal and non-Aboriginal cultural heritage.

The relevant EES objective is:

To protect Aboriginal and non-Aboriginal cultural heritage.

12.2 The issues

The key cultural heritage issue focuses on appropriately avoiding or managing historical cultural heritage sites and features already identified and on any unexpected sites and features discovered during the project's detailed design and construction phases.

12.3 Policy context

Legislation/Policy	Description
State	
<i>Aboriginal Heritage Act 2006</i>	<p>The <i>Aboriginal Heritage Act 2006</i> forms the framework within which Aboriginal heritage assessment is undertaken in Victoria.</p> <p>The <i>Act</i> 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.</p> <p>The <i>Act</i> recognises Aboriginal people as the primary guardians, keepers and knowledge holders of Aboriginal cultural heritage. RAPs 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 <i>Act</i>.</p>
<i>Heritage Act 1995</i>	<p>The purpose of the <i>Heritage Act 1995</i> 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:</p> <ul style="list-style-type: none">- 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. <p>Under the <i>Act</i>, it is an offence to damage or disturb unregistered archaeological places or objects (s.127) of registered places or objects</p>

	<p>without consent (s. 129) and the discovery of archaeological places or objects must be reported (s.132).</p> <p>An archaeological object (see relic in the <i>Act</i>) is any archaeological deposit or artefacts which are 50 or more years old (s.3). An archaeological site (or place) under the <i>Act</i> is any area in which archaeological objects are situated (s.3).</p>
<i>Planning and Environment Act 1987</i>	<p>In the <i>Planning and Environment Act 1987</i>, 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 2 study area, the Pyrenees Shire Council and Ararat Shire Council.</p>

12.4 Evidence and submissions

The only submissions on Cultural Heritage matters came from VicRoads, based on the assessments it had arranged as part of its project development obligations. The EES (Chapter 14) and Technical Appendices I, J and K contain details of the assessments. The Panel summarises some of the key findings from these assessments in the following paragraphs.

In January 2012 there were two Aboriginal Cultural Heritage Management (ACHM) Standard Assessments in the Wathaurung and Martang areas, which accorded with the *Aboriginal Heritage Regulations 2007*:

- Standard Assessment 11813: Beaufort to Fiery Creek.
- Standard Assessment 11812: Fiery Creek to Ararat.

The assessments found as follows:

- The area surrounding the Beaufort to Ararat section of the Western Highway consists of Aboriginal mortuary trees, which is described in the EES as '*a significant type of Aboriginal place where human remains and grave goods have been placed within a hollow tree trunk or branch*'. Archaeologists, with input from an arborist, inspected potential mortuary trees to confirm if there were 'human remains or grave goods'.
- The *Aboriginal Heritage Regulations 2007* identifies the study area as containing around 349ha of Aboriginal cultural heritage sensitivity. These areas are mainly from the intersection with waterways.
- The EES states that 30 identified Aboriginal cultural heritage places are located within the study area, either within or adjacent to the proposed alignment options. This includes 18 artefact scatters, eight scarred trees and four earth features. Nineteen of these sites recorded during a survey have not been included in the Victorian Aboriginal Heritage Register (VAHR).
- A total of eight mortuary trees have been recorded in Victoria. One of these is located in the study area at Gorinn, however not within or immediately adjacent to the construction area.

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- The Aboriginal Cultural Heritage Impact Assessment considered the following:
 - Impact on registered mortuary trees.
 - Impact on registered burnt mounds.
 - Impact on potential mortuary trees.
 - Impact on potential burnt mounds.
 - No significant detrimental impacts are expected following implementation of the proposed mitigation measures. The overall risk to Aboriginal cultural heritage is medium.
 - Generally, the two alignment options provide similar impacts on non-Aboriginal (historical) cultural heritage. Both options would require the relocation of the Major Mitchell Cairn, which is considered to be of local historic significance. Option 2 would encounter an additional two historic sites: Peacock's Road House Ruins and the former Colvinsby School site, both of local historic significance. These two sites have been registered on the Heritage Inventory as a result of the Project. Both options would result in an overall low impact to Non-Aboriginal (historical) cultural heritage.

12.5 Discussion

The Panel notes:

- The extent of VicRoads' investigations so far and its intentions to bear the costs of any necessary archaeological digs and to prepare a Cultural Heritage Management Plan.
- VicRoads' intention to prepare an Environmental Management Plan which would include contingency measures to manage any unexpected discovery of previously unregistered and unassessed historical cultural heritage sites and features.

12.6 Conclusions

The Aboriginal Cultural Heritage Impact Assessment found both Options 1 and 2, with the same eight Aboriginal cultural heritage places of minor significance and two Aboriginal cultural heritage places of moderate significance, had the same impacts. The Assessment found, overall, there is a low impact to Aboriginal Cultural Heritage resulting from both options.

The Panel is satisfied the assessment adequately deals with the protection of identified and possible unexpected historical cultural heritage sites and features.

13 Air quality

13.1 EES objectives

The EES objective for air quality 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 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. The Project is considered to have benefits of decreased vehicle emissions (including Greenhouse Gas emissions) per vehicle kilometre travelled due to:

- *Lower travel times*
- *Improved gradients*
- *Less need for changing speeds.*

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 criteria air pollutants 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: <ul style="list-style-type: none">- 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: <ul style="list-style-type: none">- Benzene- Formaldehyde

	<ul style="list-style-type: none"> - Benzo(a)pyrene as a marker for Polycyclic Aromatic Hydrocarbons (PAH) - Toluene - Xylenes
State	
<i>Transport Integration Act 2010</i>	<p>Part 2, Division 2, Section 10 of the <i>Act</i> outlines the transport objectives relating to environmental sustainability. These are:</p> <p>'The transport system should actively contribute to environmental sustainability by:</p> <ul style="list-style-type: none"> - 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.
<i>Environment Protection Act 1970</i>	<p>Air quality in Victoria is managed by the <i>Environment Protection Act 1970 (EP Act)</i>; and the relevant State environment protection policies created under Section 16 of the <i>Act</i>:</p> <ul style="list-style-type: none"> - 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)	<p>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).</p> <p>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'.</p> <p>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.</p> <p>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.</p>
State Environment Protection Policy (Ambient Air Quality) 1999 SEPP	<p>SEPP (AAQ) (developed under the EP Act) adopts the requirements of the Air Quality NEPM and operates in conjunction with SEPP (AQM).</p> <p>The SEPP (AAQ) is concerned with ambient air quality in Victoria and</p>

(AAQ)	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.
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13.4 Evidence and submissions

Some submitters, notably Ms Margaret Brennan (Submission 6), Mr and Mrs Sanderson (Submission 9) and Ms Paula Brennan (Submission 19), expressed general concern about the Project's impacts on air quality.

The Air Quality Assessment in the EES (Chapter 15) and Technical Appendix L:

- Examined the potential effects of the Project on air quality considering the requirements of and compliance with the State Environment Protection Policy (Air Quality Management)(SEPP (AQM)); and
- Identified strategies for management of effects of dust on sensitive receptors during construction.

The EES summarises 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.
- Consideration of potential impacts upon air quality during construction and operation of the Project.

The EES and Technical Appendix L contain details of the assessment which is based on existing background conditions and modelling of both construction and operation emissions to determine the impact of dust and vehicle emissions on the local environment within the study area.

The assessment found the Project would result in generation of dust from construction activities and gaseous pollutants from traffic movements during operation.

It expects air quality impacts from construction to extend beyond the construction corridor with slightly greater effects noted to the north of the road than to the south due to meteorological behaviour. The predicted construction dust impact zones (or 'footprints') extend no further than 375 metres from the southern edge of the construction zone and 395 metres from the northern edge of the construction zone. Management measures, including dust suppression techniques and keeping construction vehicles to well-defined haul routes, should result in low to negligible impacts from construction dust. Because vehicles already travel along the existing Western Highway, there are already vehicle emissions being emitted in the study area.

Residential and commercial premises are considered to be sensitive locations with regard to health and amenity impacts resulting from dust. The maximum construction footprint comes close to a number of potential sensitive receptors, namely 47 in Option 1 and 42 in Option 2.

The EES assessment used the fleet emissions inventory provided by EPA Victoria to model predicted operational emissions. These emissions comprise air contamination from the motor vehicle exhaust which could be expected to contribute to the local air shed in the near field, where isolated residential sensitive receptors are present.

The assessment showed that operational air quality impacts are expected to be no more than minor. Modelling compliance with SEPP (AQM) revealed that overall, assessed air pollutants from vehicles are predicted to be below the Intervention Level at the edge of the outer road lane.

In summary, the air quality assessment concluded:

- The increase in operational emissions from the Project would be negligible as would the risk of impacts on the study area.
- Operational emissions and construction dust should not affect domestic water supplies.
- Air pollutants from vehicles using the road would be below the Intervention Level for Air Quality Management used in Victoria.
- Option 1 and Option 2 are very similar from an air quality impact perspective however, Option 2 has the least potential number of sensitive receptors located within the construction dust impact zone that would require additional dust management control to minimise impact (42 potential sensitive receptors for Option 2 compared with 47 for Option 1).

13.5 Discussion

The air quality assessment study area was the same as the Project area, which encompasses a corridor extending up to 1500 metres north and south of the edge of the existing Western Highway.

The Panel notes the EES chapter on Air Quality and accompanying technical appendix discuss in detail the potential impacts from the Project on this aspect of the environment, and the management measures recommended for implementation to minimise these impacts. More specifically, the assessment:

- Characterises ambient air quality (in terms of dust) and identifies sensitive receptors in the study area;
- Identifies and assesses potential effects of road construction activities on sensitive receptors due to an increase in dust or other emissions;
- Identifies recommended measures to avoid, mitigate and manage any potential effects, including any relevant techniques or methods to be used during construction to manage dust and odour and any residual effects; and
- Addresses relevant requirements of the State Environment Protection Policy (Air Quality Management) and State Environment Protection Policy (Ambient Air Quality) and any implications for the Project.

13.6 Conclusions

The Panel notes Options 1 and 2 are very similar in their predicted air quality impacts, with Option 2 having fewer potential sensitive receptors.

The Panel is satisfied the assessment adequately deals with the predicted construction and operational air quality impacts resulting from the Project and has identified suitable measures to deal with likely impacts, mainly dust, during construction.

14 Noise and vibration

14.1 EES objectives

The EES objective for the noise and vibration 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.

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, are they manageable using management or other mitigation techniques and measures.

14.3 Policy context

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

Legislation/Policy	Description
State	
<i>Transport Integration Act 2010</i>	<p>The <i>Transport Integration Act 2010</i> 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.</p> <p>Part 2, Division 2, Section 10 of the Act outlines the transport objectives with regard to environmental sustainability, these are:</p> <p><i>'The transport system should actively contribute to environmental sustainability by—</i></p> <p><i>(a) protecting, conserving and improving the natural environment;</i></p> <p><i>(b) avoiding, minimising and offsetting harm to the local and global environment, including through transport-related emissions and pollutants and the loss of biodiversity;</i></p> <p><i>(c) promoting forms of transport and the use of forms of energy and transport technologies which have the least impact on the natural environment;</i></p> <p><i>(d) improving the environmental performance of all forms of transport and the forms of energy used in transport.'</i></p>
Traffic Noise Reduction Policy (VicRoads, February 2005)	<p>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.</p>

	<p>Existing Road Corridor Works (Retrofitting)</p> <p>This Project would be exempt from the retrofitting program as the existing road was built prior to 1979.</p> <p>New Alignment and Corridor Expansion Works</p> <p>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:</p> <ul style="list-style-type: none"> - 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.

14.4 Evidence and submissions

Some submitters, notably Ms Tacey (Submission 1), Ms Margaret Brennan (Submission 6), Mr and Mrs Sanderson (Submission 9) and Ms Paula Brennan (Submission 19), expressed general concern about the Project's potential noise impacts.

The noise and vibration assessment 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 Ahrens 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 2015), and in 2025.

The EES and Technical Appendix M contain details of the assessment, the main findings of which were:

- Construction of the Project has the potential to create adverse effects from noise and vibration at some sensitive receptors;
- The EES considers noise to be of negligible risk during the day 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 the EES considers construction to have a higher impact during the evenings, at night and at weekends, it expects construction at these times would only occur in exceptional circumstances. In such cases, there would be consultation with potentially impacted residents and implementing a noise mitigation strategy.

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

Accounting for likely property acquisition to accommodate the Project, within 50 metres of the alignments the EES states there may be potential impacts on around eight houses near Option 2 and seven houses near Option 1. However, while vibration levels during construction would be noticeable at these dwellings, the vibration levels would not be sufficient to cause damage to buildings.

The EES also summarises the likely outcomes from the assessment of noise from traffic volumes on the Highway during the operation of the Project:

- Some dwellings along the Project alignment may experience greater noise than they currently do from the existing alignment. This impact would usually occur where the Project alignment has been brought closer to their dwelling than the existing Western Highway alignment;
- Conversely, some dwellings would experience lower noise levels, usually where the alignment has been moved further away from their dwelling;
- Overall, the assessment predicts that during the operation of the Project more dwellings would experience a clearly noticeable reduction in traffic noise, than those that would experience a clear increase;
- Mitigation of traffic noise may be required for discrete sections of the alignment options considered to be 'new alignment' (where both carriageways are outside the existing road reserve) in accordance with the VicRoads Traffic Noise Reduction Policy. Potential mitigation measures include acoustic barriers or acoustic treatment of houses/buildings;
- Based on a comparison between the existing Highway and the proposed alignments under predicted 2025 traffic volumes; the Project is predicted to result in a 'clearly noticeable' increase in traffic noise levels at three dwellings in Option 2 and four dwellings in Option 1 and a 'clearly noticeable' reduction in traffic noise levels due to the alignment moving further away at nine dwellings in Option 1 and 17 dwellings in Option 2; and
- Overall, more dwellings would experience a noticeable reduction, rather than a noticeable increase in traffic noise as a result of the Project.

14.5 Discussion

The noise and vibration assessment study area was the same as the Project area, which encompasses a corridor extending up to 1500 metres north and south of the edge of the existing Western Highway.

The Panel notes the Noise and Vibration chapter (Chapter 16) of the EES discusses the noise environment of the study area, the potential impacts from the Project on the characteristics of the noise environment, and management measures recommended for implementation to minimise these impacts. More specifically, it:

- Characterises the ambient noise environment and identifies sensitive receptors in the study area;
- Identifies and assesses the potential for the Project to increase noise and vibration levels during construction and operation at sensitive receptors. The assessment includes an estimation of noise from all project-related sources and at different periods during the day to establish likely noise levels to be experienced at sensitive receptors; and
- Identifies possible design and management measures to avoid, mitigate and manage any potential noise or vibration effects on sensitive receptors during construction and subsequently, to ensure the project will comply with applicable policy.

The Panel notes the assessment found for the Project:

- There would be an overall improvement in road operation noise levels in Buangor and around Box's Cutting, as the alignment options are further away from sensitive receptors than the existing Highway;
- Some dwellings, for example, just west of Buangor township would experience increased noise levels; and
- Vibration would be barely perceptible at sensitive receiver locations within 50 metres for most construction activities involving rolling and compacting. Allowing for likely acquisition, within 50 metres there would be around eight houses for Option 2 and seven for Option 1. While vibration levels would be noticeable at the seven or eight dwellings, they would not be sufficient to cause damage to buildings.

14.6 Conclusions

The Panel notes Option 1 and Option 2 are similar in terms of impacts from noise and vibration; however noise modelling for Option 2 indicates that there would be one fewer sensitive receptor with a clearly noticeable noise impact during operation than in Option 1.

The Panel is satisfied the assessment adequately deals with the predicted construction and operational noise and vibration impacts resulting from the Project and VicRoads would provide operational noise mitigation measures where needed under its Noise Policy.

15 Visual and landscape

15.1 EES objectives

The EES objectives relevant to this section of the EES are:

To minimise air emissions, noise², 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

Key issues identified from the visual and landscape assessment associated with the two alignment options are:

- Visual change from the outlook of the Buangor Primary School and Buangor approaches;
- The proposed Eurambeen-Raglan Road/Eurambeen-Streatham Road overpass in Eurambeen; and
- Diversion alignments of the options adjacent to the Langi Ghiran State Park, with extensive cut and fill and overpasses impacting upon the existing landscape character.

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

- Concern about visual impact from erosion of diversion in Charliecombe Creek after flooding;
- View from dwelling compromised by proposed interchange at Buangor;
- Visual amenity and landscape impacts;
- Impact on views of farmland; and
- Concern about power lines moved closer to house, impact on landscape character as a result of project

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 are outlined in the following table:

Legislation/Policy	Description
Commonwealth	
<i>Environment Protection and Biodiversity Act 1999</i>	Under the <i>EPBC Act</i> , any work that could significantly impact threatened flora and fauna species and vegetation communities listed under the <i>EPBC Act</i> requires referral to and potentially, approval of the Minister for Sustainability, Environment, Water, Population and Communities

² Air emissions and noise are considered in Chapters 13 and 14.

Victoria	
<i>Flora and Fauna Guarantee Act 1988</i>	Under the <i>Flora and Fauna Guarantee Act 1988</i> rare, threatened and significant flora and fauna are protected, and require approval from the Department of Sustainability and Environment for removal.
<i>National Parks Act 1975</i>	<p>The <i>National Parks Act 1975</i> provides for the preservation and protection of the natural environment and the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, geological, historic or other scientific interest within specified areas permanently reserved under the Act.</p> <p>The Langi Ghiran State Park is protected by this Act, and in particular relevance to this assessment, its features of scenic interest.</p>
<i>Heritage Act 1995</i>	<p>The Victorian <i>Heritage Act 1995</i> provides for the protection and conservation of places and objects of cultural heritage significance and the registration of such places and objects.</p> <p>Heritage Victoria maintains a list of State-significant heritage places and objects, which are protected under the <i>Heritage Act 1995</i>. The Victorian Heritage Register is the highest level of protection and lists the non-Aboriginal heritage places/objects.</p> <p>The Victorian Heritage Inventory lists the archaeological sites in Victoria that are older than 50 years.</p> <p>The value of heritage places and objects can be related to the landscape and visual setting.</p>
<i>Aboriginal Heritage Act 2006</i>	<p>The <i>Act</i> forms the framework within which Aboriginal heritage assessment is undertaken in Victoria.</p> <p>The <i>Act</i> 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.</p>
<i>Planning and Environment Act 1987</i>	<p>The <i>Act</i> 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.</p> <p>The Victorian Planning Policy Framework is developed under the <i>Planning and Environment Act 1987</i>.</p> <p>Items relevant to the landscape and visual assessment include:</p> <p>Clause 15: Environment</p> <ul style="list-style-type: none"> - 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.
<i>Native Vegetation Management Framework 2002</i>	<i>The Native Vegetation Management Framework 2002</i> is implemented under the <i>Planning and Environment Act 1987</i> . 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.
<i>Landscape and Visual Assessment Guidelines 2009</i>	<p>There are no relevant Government guidelines relating to landscape and visual assessment relevant to the scope of this project. The <i>Landscape Assessment Guidelines, 2009</i> 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:</p> <ul style="list-style-type: none"> - 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	
Pyrenees Shire Planning Scheme	<p>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:</p> <ul style="list-style-type: none"> - The protection and management of the Shire's natural resources and environment; - The retention of the established character and ethos of existing townships; and - The protection of the cultural and heritage assets of the Shire. <p>There are a number of overlays that are relevant to the landscape and visual assessment. A summary of each overlay is provided below</p> <p>Vegetation Protection Overlay VPO1 Roadside Grassland Protection and Conservation:</p> <ul style="list-style-type: none"> - The Vegetation Protection Overlay VPO1 seeks to protect significant vegetation for its natural beauty, special significance, interest and importance. - The VPO identifies areas of vegetation that contributes to the scenic and visual quality of the study area. <p>Heritage Overlay (HO):</p> <ul style="list-style-type: none"> - There is a Heritage Overlay within or in proximity to the study area - HO46 - Eurambeen East Old Homestead, Eurambeen. <p><i>It is noted the value of this heritage element is not related to its landscape setting.</i></p>

Ararat Rural City Planning Scheme	<p>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:</p> <ul style="list-style-type: none"> - Mount Buangor State Park, Langi Ghiran State Park, Green Hill Lake, Hopkins River and Fiery Creek are important assets and features of natural beauty; and - The rural and natural landscapes surrounding the Langi Ghiran State Park and the Mount Buangor State Park are important assets. <p>There are a number of overlays that are relevant to the landscape and visual assessment. A summary of each overlay is provided below:</p> <p>Environmental Significance Overlay (ESO2) Watercourses, Waterbody and Wetland Protection Areas:</p> <p>The ESO2 seeks to maintain and enhance the environment, including scenic values and to maintain the integrity of ecosystems.</p> <p>Within the study area this overlay includes both Green Hill Lake and Gorrin Creek.</p> <p>Heritage Overlay (HO):</p> <p>There are a number of HO's within or in proximity to the study area. These include;</p> <ul style="list-style-type: none"> HO 71 – The Hill, 122 Green Hill Drive, Ararat HO 72 – Langi Logan Mine, Green Hill, Ararat HO 115 – Former Cobb and Co Staging Stables, Buangor <p>Vegetation Protection Overlay (VPO) Roadside Protection Vegetation Areas:</p> <p>The 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.</p> <p>A number of roads, including the Western Highway within the study area are covered by this overlay.</p>
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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.

The majority of both of the alignment options utilise the existing Western Highway carriageway. The dwellings located along the Highway have an existing view upon the Highway or potential for such a view. Therefore, the anticipated visual impact upon these inhabitants is considered to be low, as the duplication extends the existing visual outlook to the road. Where the duplication utilises a new alignment, the impact upon these dwellings is considered higher. However, with mitigation measures, such as sensitive design and screening vegetation, these impacts would be reduced.

Whilst the alignment does not generally impact upon areas of natural and cultural values, particularly the town centre of Buangor and Langi Ghiran State Park, there would be potential visual impacts upon Buangor Primary School. Option 1 and Option 2 result in a similar moderate visual impact upon the Primary School, which can be reduced through appropriate mitigation.

The majority of both alignments are adjacent to the existing Highway and within the 'Vegetated Highway' or 'Highway' landscape character areas. These landscape character areas have a high capacity to accommodate change and the project would not significantly diminish the landscape character of these areas. Those impacts occurring upon the Vegetated Highway landscape character can be mitigated through the retention of existing roadside vegetation wherever possible.

The key area where landscape character is impacted is around the Langi Ghiran State Park. In this area, Option 1 results in a greater (moderate) impact upon the Vegetated Rural landscape character type as it traverses through it, whilst Option 2 would utilise the existing Western Highway alignment through an area already visually affected by the Highway, resulting in an insignificant additional visual impact.

Due to this difference, the assessment prefers Option 2 to Option 1 from a visual and landscape perspective.

The following submissions raised concerns in relation to visual and landscape issues:

- Mr Neal Pitcher (Submission 4) - Concern about visual impact from erosion of diversion in Charliecombe Creek after flooding.
 - VicRoads response: Diversion of creek to be undertaken within the proposed Public Acquisition Overlay. VicRoads has spoken to Mr Pitcher to discuss the potential impact on his property, and will continue to liaise with him during the detailed design process.
- Mr Dean and Mrs Alison Tonkin (Submission 5) - View from dwelling compromised by proposed interchange at Buangor. Request an alternative interchange arrangement.
 - VicRoads response: An alternative interchange arrangement is not contemplated. The single interchange for Buangor reduces the impact to flora and fauna values, while also reducing the construction cost. The location of this interchange at Peacocks Road fairly distributes the additional travel distance imposed on landowners.
 - Panel note – the VicRoads revised proposal that removes the westbound entry and exit ramps at Peacocks Road considerably reduces the impact on the Tonkin property.
- Ms Margaret Brennan (Submission 6) - Power lines may be moved closer to house, concern about maintenance of landscape character.
 - VicRoads response: Although power lines will need to be relocated on the submitter's property, they will at no point be closer than the existing minimum distance to the dwelling.
- Mr Ian and Mrs Annice Sanderson (Submission 9) - Visual and landscape impact.
 - VicRoads response: Detailed design for the Highway duplication will include a Landscape plan, ensuring that the most appropriate landscape and visual outcomes are achieved.

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- Mrs Margaret MacInnes (Submission 11) - Impact on views of farmland.
 - VicRoads response: Detailed design for the Highway duplication will include a Landscape plan, ensuring that the most appropriate landscape and visual outcomes are achieved.
 - Ms Paula Brennan (Submission 19) Concern about power lines moved closer to house, impact on landscape character as a result of project.
 - VicRoads response: Although power lines will need to be relocated on the submitter's property, they will at no point be closer than the existing minimum distance to the dwelling.
 - Ms Mairi Anne Mackenzie (Submission 20) - Visual amenity impacts.
 - VicRoads response: VicRoads did not respond to amenity impacts mentioned in Submission 20. The Panel inspected the visual amenity issue raised by Ms Mackenzie and it was pointed out that the proposed road cutting in Option 1 at chainage 25,000-25,800 would adversely impact on Ms Mackenzie's visual amenity. During the hearing Mr Bartley and Mr Deeble explained that the cutting itself would be revegetated and also screened by tree planting on the south side of the carriageway.

15.5 Discussion

The three key impact issues from the two alignment options are associated with:

- The Buangor Primary School and Buangor approaches;
- The proposed Eurambeen-Streatham Road overpass in Eurambeen; and
- The diversion alignments of the options adjacent to the Langi Ghiran State Park, with extensive cut and fill and overpasses.

(i) Buangor

The Buangor town centre is a place of cultural value, characterised by its surrounding vegetation, community facilities, heritage listed former Cobb and Co Staging stable building and distant views to Mount Buangor and Mount Cole. The value of Buangor is related to these attributes and visual change may result in a dramatic impact upon them.

The Buangor Sports Oval provides a clear view out to the location of the new road alignment and intersection at Peacocks Road, and is within the town centre. Views from closer to the intersection of Western Highway and Main Street do not have an outlook to either alignment option. Although both Options 1 and 2 have moderate impacts on the school and vegetated rural character there was no difference in degree of impact apparent between Options.

(ii) Eurambeen

This area is characterised by a large, flat area of rural land with views of the surrounding mountain ranges, including Mount Buangor and Mount Langi Ghiran. Both Options share the same alignment through this area, which includes the Eurambeen- Raglan Road/Eurambeen-Streatham Road overpass.

The horizontal scale, batters and height of the overpass would result in a road infrastructure element in stark contrast to the flat rural landscape character. In addition, the duplication would require removal of some roadside vegetation. One existing dwelling has partial views

of the overpass. The existing eastern view from the front of the dwelling is of open rural landscape.

However, the Project would result in a minor level of visual change because the overpass and associated road infrastructure is recessive within the view and does not interrupt the dominant horizontal backdrop of the hills behind. The impact was found to be moderate to minor on rural landscape and Highway character.

(iii) Langi Ghiran

This area includes both Mount Gorrin and Langi Ghiran State Park, which is a dominant natural visual element. The area comprises the proposed Hillside Road and Langi Ghiran Picnic Road overpasses. The Langi Ghiran State Park includes scenic lookouts. Both alignment options are difficult to discern from the surrounding visual context, and would be more difficult to identify with the inclusion of screening vegetation. Option 1 and Option 2 share slightly different alignments in this area. However, the landscape impacts are generally insignificant.

15.6 Conclusions

The Visual and Landscape Assessment in the EES examined the potential effects of the Project on landscape character and the visual amenity of residents. The detailed design for the Highway duplication will include a landscape plan, ensuring that the most appropriate landscape and visual outcomes are achieved.

The Panel is satisfied that the detailed design for the duplication will address submitters issues of concern and will ensure the visual and landscape objectives of the EES will be achieved.

16 Social

16.1 EES objectives

The objective of the Social Impact Assessment (SIA) as outlined in EES Chapter 18 and Technical Appendix O 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 potential effects of amenity and aesthetics, such as visual and noise amenity, historical connection to the land, loss of amenity during construction, severance of accessibility to properties and land acquisition.

16.3 Policy context

Legislation/Policy	Description
National	
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	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.
<i>Native Title Act 1993</i>	Amongst other objectives, this Act exists for the recognition and protection of native title. In formalising the <i>Native Title Act 1993</i> 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', <i>Native Title Act 1993</i>).
State	
<i>Transport Integration Act 2010</i>	This Act highlights the need for: <ul style="list-style-type: none">- Social and economic inclusion (Section 8);- Economic prosperity (Section 9);- Integration of transport and land use (Section 11); and- Safety and health and wellbeing (Section 13).

<p><i>Public Health and Wellbeing Act 2008</i></p>	<p>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.</p> <p>The following objectives in the <i>Public Health and Wellbeing Act 2008</i> (Part 2, Section 4) need to be considered in the social impact assessment of the Project:</p> <p>Part 2, Section 4 Objective</p> <p>(1) The Parliament recognises that:</p> <ul style="list-style-type: none"> - 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; and - where appropriate, the State has a role in assisting in responses to public health concerns of national and international significance. <p>(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:</p> <ul style="list-style-type: none"> - protecting public health and preventing disease, illness, injury, disability or premature death; - promoting conditions in which persons can be healthy; and - reducing inequalities in the state of public health and wellbeing. <p>The Act also defines the following principle:</p> <p>Part 2, Section 7 Principle of primacy of prevention</p> <p>(1) The prevention of disease, illness, injury, disability or premature death is preferable to remedial measures.</p> <p>Part 2, Section 10 Principle of collaboration</p> <p>(1) 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.</p>
<p><i>Planning and Environment Act 1987</i></p>	<p>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.</p>
<p><i>Traditional Owner Settlement Act 2010</i></p>	<p>The purposes of the <i>Traditional Owner Settlement Act 2010</i> 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</p>

	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	<p>The Central Highlands Regional Strategic Plan is the key overarching regional policy for the two municipalities covering the study area.</p> <p>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.</p> <p>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.</p>
State Planning Policy Framework (SPPF) Ararat & Pyrenees Planning Schemes	<p>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.</p> <p>The relevant planning schemes for the Project are those for the Rural City of Ararat and the Shire of Pyrenees. The following clauses from the framework are relevant in determining the appropriate social objectives for the Project:</p> <ul style="list-style-type: none"> - Clause 10 Operation of the State Planning Policy Framework - Clause 11 Settlement - Clause 16 Housing - Clause 18 Transport - Clause 19 Infrastructure.
Local	
Rural City of Ararat Council Plan 2009-2013	<p>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:</p> <ul style="list-style-type: none"> - Our People - Our Culture - Our Economy - Our Environment.
Rural City of Ararat, Municipal Public Health and Well-being Plan 2009-2013	<p>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.</p> <p>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.</p> <p>The transport-related objectives in the MPHWP are focussed on public</p>

	<p>transport. They are to achieve:</p> <ul style="list-style-type: none"> - Increased usage and utilisation of public transport - Improved public transport services for the municipality. <p>As the Western Highway is a major public transport route, this objective is directly relevant to the current Project.</p>
Pyrenees Council Plan 2009-2013	<p>The 2009-2013 Council Plan describes the goals and aspirations of the Council, specifically what the Council believes is important to the residents of the Pyrenees Shire, and what it hopes to achieve in the near future.</p> <p>The plan states that the Council proposes to focus on the following areas:</p> <ul style="list-style-type: none"> - Road infrastructure; - Community infrastructure; - Community wellbeing; - Growth and employment development; - Governance and community leadership; - Organisational development; and - The environment.
Pyrenees Shire, Municipal Health and Wellbeing Plan 2009	<p>The Municipal Health and Wellbeing Plan (2009) includes several key points about the characteristics of the Pyrenees Shire community, such as:</p> <ul style="list-style-type: none"> - The Pyrenees has a SEIFA (Socio Economic Index for Areas) of 944, which ranks it as number 5 in level of disadvantage among the 79 municipalities in Victoria. - There is a relatively low level of workforce participation amongst adults. This may be due to a higher proportion of persons aged 55 years and over. - The level of post-secondary education is relatively low compared with the State average. - A quarter of all residents in the Shire have reported experiencing transport limitations, compared with the Victorian average of a fifth. - There is a relatively low level of crimes against the person in the Pyrenees Shire. - Mobile telephone and broadband internet connections are below the standard of metropolitan equivalents. <p>The transport related objective is Road Infrastructure:</p> <ul style="list-style-type: none"> - To maintain a safe and effective road system that caters for all road users within the shire.

16.4 Evidence and submissions

The Western Highway Action Committee (Submission 8) supported the Project, stating it would have benefits for safety and amenity of Buangor township, with traffic and heavy vehicles being diverted around the town.

Some other submitters raised concerns about land acquisition, including Ms Tacey (Submission 1), whose farming land would be acquired. She said the remainder of her farm, which is rented out for grazing sheep, is unsuitable for grazing, and hence the family business would be impacted. Mr and Mrs Kennedy (Submission 2) shared this sentiment, submitting that the Project directly impacts part of their wool merino sheep farming land.

Ms MacInnes (Submission 11), who advised the Panel that her property has been in her family for five generations, commented that the Project *‘will not only have an enormous financial, environmental and emotional impact, but also great bearing on the farm day to day running and the use of its amenities’*.

Ms Margaret Brennan (Submission 6) said she would have greater difficulty in accessing the Western Highway, and was concerned about visual amenity, stating that *‘The natural beauty and character of the landscape must not be significantly altered by a ‘monster’ freeway that ‘groans’ across the landscape’*. She submitted that the economic benefits of the proposal are overstated. A similar sentiment was shared by Ms Paula Brennan (Submission 19).

Impacts on property access were raised by a number of other submitters. For instance, Ms Tacey commented that the proposed entry road to the farm along Martins Road would be unsuitable for two cars safely passing and would be a hazard for trucks and trailers, while Ms Mary Brennan (Submission 7) was concerned that her access to the proposed road would change. Mr Pitcher (Submission 4) stated that diverting Charliecombe Creek would impact his property by making access more difficult and could affect sheep and machinery movements. He felt the diversion might also cause erosion and flooding problems.

Mr and Mrs Sanderson (Submission 9) commented on: accessibility to the Highway; noise and emission pollution; and loss of visual beauty.

16.5 Discussion

The Panel notes the findings in the EES (Chapter 18) and the Social Impact Assessment (SIA) (Technical Appendix O), which identified the community within the study area as *‘a highly connected community with strong social linkages’* and having several potential key social impacts:

- Dislocation for those individuals whose land was acquired, as the Project would involve the acquisition of two dwellings in Option 1 and three dwellings in Option 2;
- Increased travel time for those individuals due to restrictions on some road and property access, although this would also come with increased safety; and
- Amenity impacts such as noise and visual amenity.

However, the assessment identified key social benefits arising from the Project:

- Higher levels of safety for residents in Buangor accessing their properties; and
- Potential increased tourism for local towns with improved safety and travel times.

The Panel notes the assessment considered both Options 1 and 2 would have a low overall social impact when compared with other similar transport infrastructure upgrade projects. The Panel also notes that the assessment recommends a number of actions to respond to potential impacts at both the individual landowner and wider community level, including further community engagement through the detailed design and construction phases.

16.6 Conclusions

The Panel notes that although overall the social impacts of the Project are considered to be low, for some residents impacts including amenity during construction and operation and the acquisition of dwellings still represent a residual risk rating of medium. The assessment, however, identified that most community members are prepared to accept the short-term amenity impacts from construction because they would ultimately benefit from the Project.

VicRoads has processes to deal with the matters, including compensating affected property owners under the *Land Acquisition and Compensation Act 1986*.

The Panel agrees that the overall social impact is low and is satisfied the EES adequately deals with the Projects' potential social impacts.

17 Economic

17.1 EES objectives

The EES evaluation objectives relevant to the economic assessment are:

- *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 from the highway duplication; and*
- *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 is:*

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 agriculture are economic impacts arising from:

- Direct land loss;
- Severance of landholdings;
- Impacts on infrastructure;
- Vehicle and stock movement; and
- Impact on access.

The key issue for non-agricultural businesses is economics impacts arising from disruptions to access during construction.

17.3 Policy context

The legislation and policies relevant to economic issues are summarised in the EES as follows:

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: <ul style="list-style-type: none">- 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	
<i>Transport Integration Act 2010</i>	<p>Part 2, Division 2 of the <i>Transport Integration Act 2010</i> outlines the objectives of the <i>Act</i>, many of which are relevant to the economic assessment:</p> <ul style="list-style-type: none"> • 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— <ul style="list-style-type: none"> (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— <ul style="list-style-type: none"> (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) <ul style="list-style-type: none"> (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— <ul style="list-style-type: none"> (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.
<i>10 Year Tourism and Events Strategy (2006)</i>	<p>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:</p> <ol style="list-style-type: none"> 1. Build upon existing strengths 2. Develop new strengths

	<ul style="list-style-type: none"> - Assist with investment attraction and facilitation to leverage new major tourism investment in Victoria. <p>3. Focus on long term growth opportunities:</p> <ul style="list-style-type: none"> - 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. <p>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:</p> <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - 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, and - Victorian Trails Strategy 2005-2010. - 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. <p>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.</p>
<i>Planning and Environment Act 1987</i>	<p>The <i>Planning and Environment Act 1987 (P&E Act)</i> 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.</p> <p>The <i>P&E Act</i> 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.</p>

State Planning Policy Framework)	<p>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.</p> <p>The following clauses of the SPPF are of particular relevance to the economic assessment of the Project:</p> <p>Clause 11.05 relates to regional development and sub-clause 11.05-1, which relates to regional settlements networks, contains the following relevant strategies:</p> <ul style="list-style-type: none"> - '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'. <p>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'.</p> <p>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'.</p> <p>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:</p> <ul style="list-style-type: none"> - 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	
Pyrenees Shire Growth and Development Strategy 2010-2014	<p>The strategies for Pyrenees Shire specifically identify the Western Highway and duplication of the Highway as being important to the Shire's growth and development.</p> <p>In the Pyrenees Shire Growth and Development Strategy 2010-2014, transport links are identified as important to the support and development of large export driven businesses in particular. The duplication of the Western Highway is specifically identified as transport infrastructure that would improve safety and efficiency of road freight on the Melbourne to Adelaide route and is supported by Council as a positive contribution to growth and development (refer Strategy p8).</p>

<p>Ararat Economic Development Strategy 2009-2012</p>	<p>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.</p> <p>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.</p>
<p>Beaufort and Avoca Industrial Land Strategy, 2002 and Supplementary Review, 2005</p>	<p>In the Beaufort and Avoca Industrial Land Strategy, 2002 and Supplementary Review, 2005, Beaufort is identified as one of two important strategic locations for industrial land in the Pyrenees Shire. It notes that one of Beaufort's key strength is its strategic location on Western Highway between Melbourne and Adelaide (Strategy p25) with tourism potential as a highway service town and serviced industrial land available at a reasonable price. Duplication of the Western Highway would augment these attributes and therefore be a contributing factor to growth and development of Pyrenees Shire.</p>

17.4 Evidence and submissions

Ararat Rural City Council, in its submission (number 15), identified the potential for the duplication to provide some economic stimulus to the local townships during construction.

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 (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 EES summarises the findings of the assessment as follows:

During construction, the Project is expected to create approximately 2,220 Full Time Equivalent (FTE) jobs for Option 1 and 2,200 FTE jobs for Option 2. These totals 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 4,130 FTE jobs for Option 1 and 4,090 FTE jobs for Option 2. 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 \$1.3M - \$1.5M 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 businesses estimated to be in the range of \$2.2M - \$2.5M over a 30 year timeframe. VicRoads would compensate eligible landholders in accordance with the Land Acquisition and Compensation Act 1986 which reduces the residual risk rating for this impact to low.

It is expected that the Project may disrupt access to 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 their construction schedules which would reduce the residual risk rating for this impact to low. Construction may also result in a reduction in passing trade to one business. The economic impact to this business is estimated to be less than \$100,000. The installation of signage for this business is expected to result in a residual risk rating of low.

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 Option 2, which is slightly higher than that estimated for Option 1 (0.5). The Panel notes such BCRs are common for rural highway upgrades because of the high cost involved for long corridors.

From an economic viewpoint, the assessment determined Option 2 to be the preferred option because:

- Option 1 has the greater negative impact on agricultural land, property and severance;
- Option 1 involves substantial property severance between Hillside Road and Langi Ghiran Picnic Ground Road, including the severing of several rural allotments; and
- Option 2 has a higher Benefit Cost Ratio.

The assessment found:

- There is no significant difference between the options in terms of direct land loss and facilities loss; and
- In terms of impacts to non-agricultural businesses, both options have low-magnitude impacts.

17.5 Discussion

The economic assessment considered two study areas:

- Local Study Area - the same as the Project area used in other assessments; and
- Regional Study Area as all of the area and road infrastructure in local government areas of Ballarat City, Pyrenees Shire, Ararat Rural City and Northern Grampians Shire.

The Panel notes the regional economy is based primarily on agriculture and tourism.

The assessment of the existing local and regional economic conditions covered:

- Characteristics of the farming environment including climate, soils, landform, vegetation patterns and land capability;
- Type of farming activity and its significance to the regional economy; and
- Pattern of land ownership and expected land management through constructing the Buangor bypass.

17.6 Conclusions

The Panel notes the assessment expects the negative economic impacts of the Project to be low and the economic benefits to be moderate. The Panel notes that Option 2 performs slightly better in relation to economic benefits, mainly because of its lesser agricultural severance impacts and marginally higher Benefit Cost Ratio.

The Panel is satisfied the assessment adequately deals 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, Plains Wanderer, Striped Legless Lizard, Growling Grass Frog, Murray Cod, Australian Grayling and Eastern Dwarf Galaxias;*
- *Button Wrinklewort, Spiny Rice-flower, Langi Ghiran Grevillea, Tawny Spider-orchid and Large-fruit Fireweed; and*
- *Natural Temperate Grasslands of the Victorian Volcanic Plains; and Buloke Woodlands of the Riverine and Murray- Darling Depression Bioregions.*

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 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 from 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*).

During the Options Assessment process, matters of NES and vegetation of Very High and High conservation significance were deemed to be of highest importance, and priority was given to design and operations that avoided and minimised impacts on matters of NES where possible.

18.3 Policy context

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

Legislation	Description
Commonwealth	
<i>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</i>	<p>The <i>Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act)</i> provides that certain actions – in particular, actions that are likely to have a significant impact on a Matter of National Environmental Significance (MNES) – are subject to a rigorous assessment and approval process. The MNES identified in the <i>Act</i> as triggers for the Commonwealth assessment and approval regime are:</p> <ul style="list-style-type: none">- World Heritage Properties- National Heritage places- Ramsar Wetlands- Threatened species and ecological communities- Migratory species- Commonwealth marine areas and Nuclear actions (including uranium mining). <p>The Project has been designated as a controlled action under <i>EPBC Act</i> as there is a potential to impact on listed threatened species and communities.</p>

18.4 Evidence and submissions

The assessment area supports 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 and vegetation communities. The Project is therefore defined as an action that requires approval from the Commonwealth Environment Minister due to its potential impact on Matters of NES. The species in question include:

Flora:

Two *EPBC Act* listed flora species (Spiny Rice-flower and Button Wrinklewort) were recorded within the assessment area, with only Spiny Rice-flower recorded within the proposed alignment options.

Fauna:

Two *EPBC Act* listed fauna species, Dwarf Galaxias (listed as Vulnerable) and Golden Sun Moth (listed as Critically Endangered), were recorded within the assessment area, and habitat for both is intersected by both alignment options.

Communities:

Two *EPBC Act* listed vegetation communities were recorded during the assessment. Remnant native vegetation in the Plains Grassland EVC is considered to be part of the *EPBC Act*-listed Natural Temperate Grassland of the Victorian Volcanic Plain community (NTGVVP). Remnant native vegetation in the Plains Grassy Woodland EVC is considered to be part of the *EPBC Act*-listed Grassy Eucalypt Woodland of the Victorian Volcanic Plain community (GEWVVP).

Dr Parsons, Dr Morgan and Mr Scarlett (Submission 4) raised the issue of protection of Button Wrinklewort situated in the Woodnaggerak Reserve near Beaufort.

Reference should also be made to evidence and submissions discussed Chapter 11 of this report. There is significant overlap between the species identified in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and also listed under the State *Flora and Fauna Guarantee Act 1988* (FFG Act). The impacts on all species are discussed in Chapter 11.

18.5 Discussion

Through alignment design changes, the impact on matters of NES has been minimised for both Options. It is not possible, however, to entirely avoid impacts on matters of NES.

It is expected that the Project would require the removal of one Spiny Riceflower plant; the removal of 31.56ha of Golden Sun Moth habitat in Option 1 and 23.8ha of Golden Sun Moth habitat in Option 2; and potentially impact on Dwarf Galaxias habitat.

According to SEWPaC guidelines, both Project Options will have a significant impact on the Golden Sun Moth.

The Project would also require the removal of approximately 5.25ha of Natural Temperate Grassland of the Victorian Volcanic Plain (in both Option 1 and Option 2) and approximately 11.14ha of Grassy Eucalypt Woodland of the Victorian Volcanic Plain for Option 1 and 8.65ha for Option 2.

It is not expected that the Project would have significant impacts on Spiny Rice-flower or the Dwarf Galaxias as only one Spiny Rice-flower plant is expected to be impacted by the Project and management measures including placing bridge structures outside the low flow channel of Billy Billy Creek are expected to result in negligible to low impacts to the Dwarf Galaxias.

The impacts on matters of NES listed flora species and communities will be offset in accordance with the *Environmental Offsets Policy – Consultation Draft 2011* and *Victoria's Native Vegetation Management - A Framework for Action*.

18.6 Conclusions

The EES has provided an assessment addressing effects on, and avoidance, mitigation and management measures for, matters of NES.

This assessment includes information on all relevant species and ecological communities listed as threatened under the *EPBC Act*.

The EES identifies Option 1 as having a marginally greater impact on matters of NES than Option 2. This includes a greater level of impact on the following species: one Spiny Rice-Flower Plant, 7.76ha more of Golden Sun Moth habitat and 2.49ha more of Natural Temperate Grassland of the Victorian Volcanic Plain.

This is due mainly to the Option 1 alignment and its associated cuttings intersecting large tracts of Golden Sun Moth habitat in the vicinity of Hillside Road and the railway line.

The Panel recognises that through careful design, avoidance of significant amounts of matters of NES has been achieved for both alignment Options.

The Panel understands that it was not possible to entirely avoid impacts on matters of NES and is satisfied that impacts on listed flora species and communities will be offset in accordance with the *Environmental Offsets Policy – Consultation Draft 2011* and *Victoria's Native Vegetation Management - A Framework for Action*.

The Panel is satisfied that the both VicRoads alignment Options 1 and 2 have been well designed to avoid and minimise impacts on matters of NES.

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 2: Beaufort to Ararat can be managed and the adverse long-term effects on surrounding properties and landscape should be minimal.

PART B ALIGNMENT, DESIGN AND PLANNING CONTROLS

20 Introduction

20.1 Alignment options

The Terms of Reference require the Panel to present advice on the most suitable alignment for the Project on balance, taking into account the VicRoads' preferred alignment (Option 2) and alternative alignment (Option 1) as documented in the EES. The alignment options are Option 1 (blue) and Option 2 (red) in Figure 3.

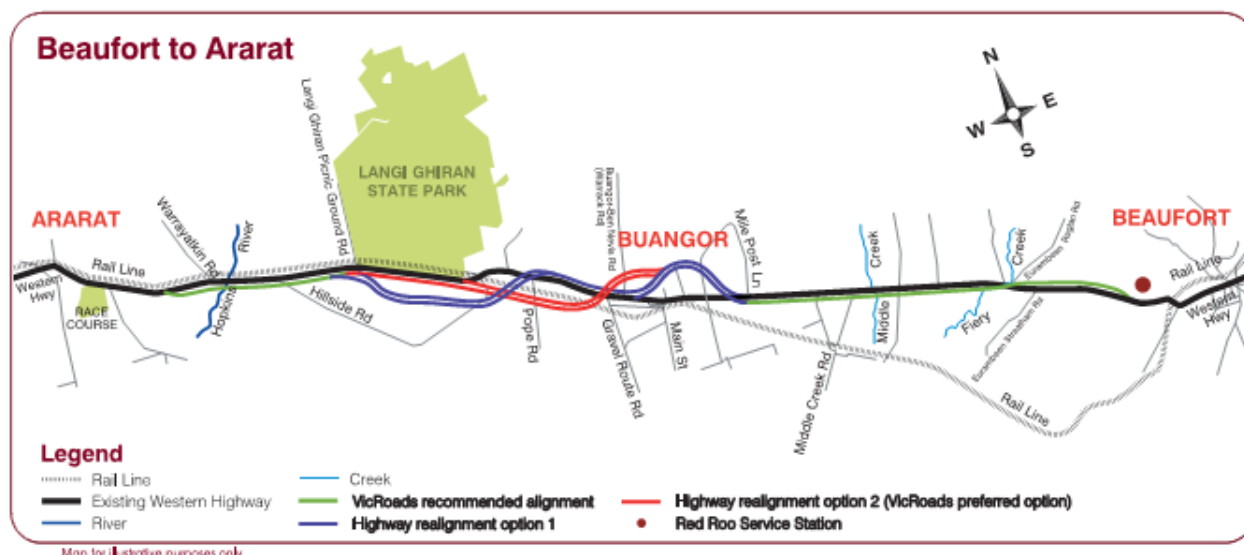


Figure 3 Beaufort to Ararat – Options 1 and 2

The Options have already been described in Section 1.1 of this report. The Project will initially be constructed as a duplicated highway with restricted access (AMP3) and, subject to future demand and funding is intended to be upgraded in the future to freeway standard (AMP1).

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 4 to 6 show the typical cross-sections for the Project.

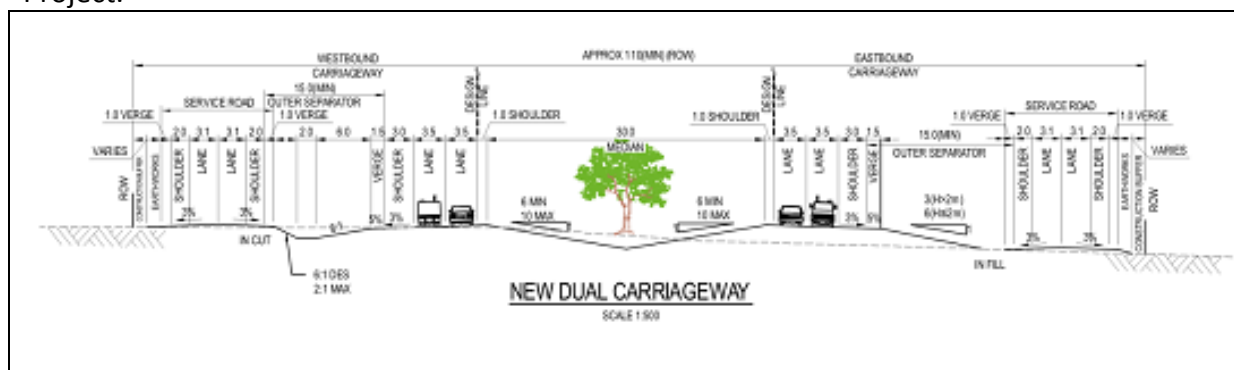


Figure 4 Cross section 1 – typical median

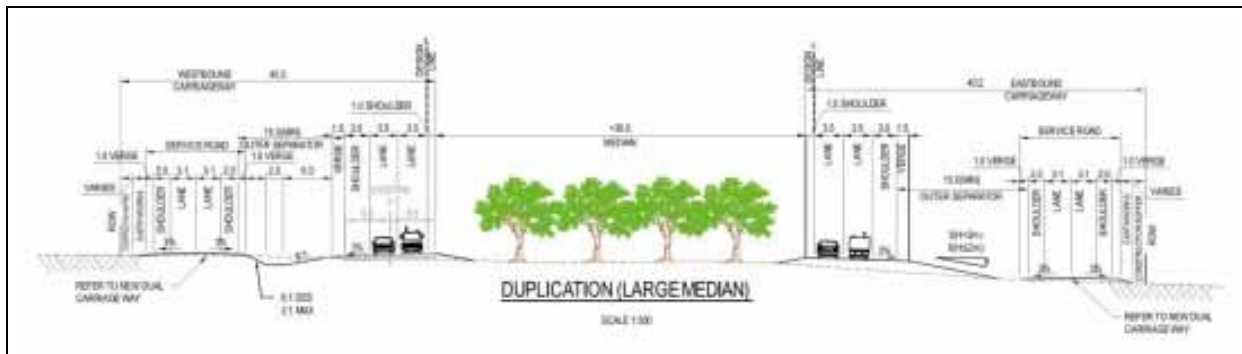


Figure 5 Cross section 1 – wide median

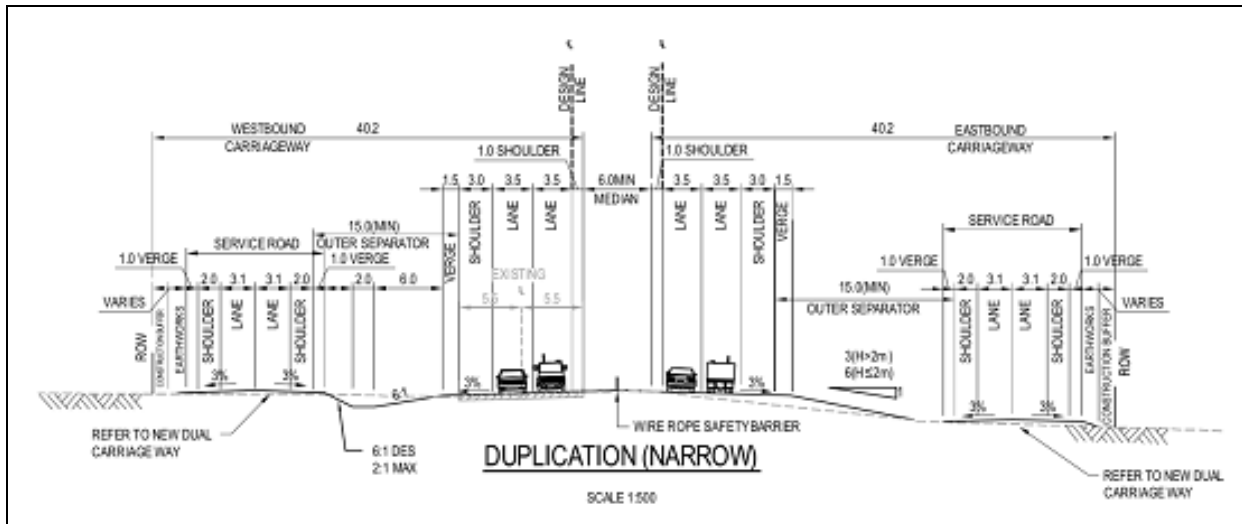


Figure 6 Cross section 1 – narrow median

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 (see Figure 7) 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 (see Figure 8) at specific sites.

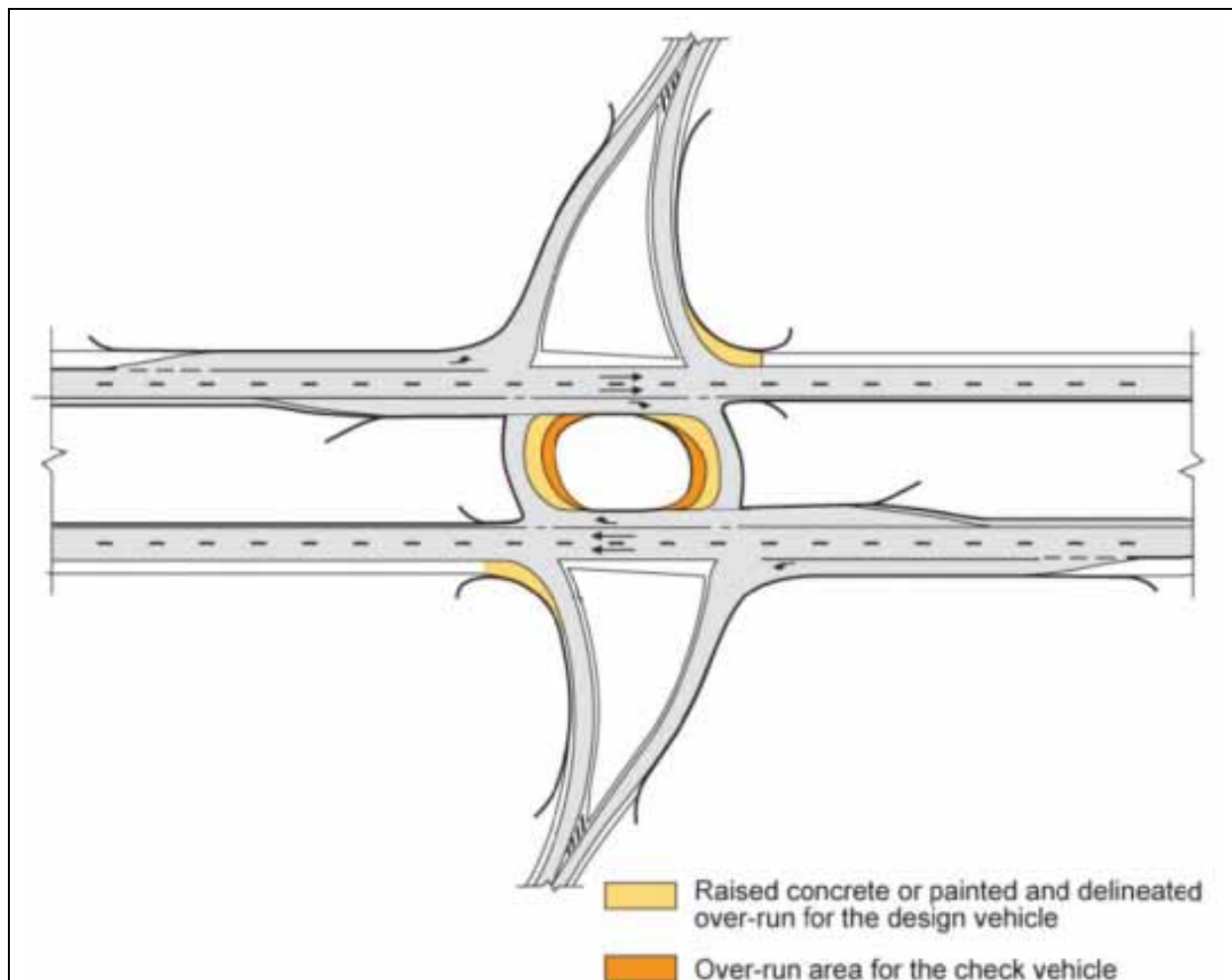


Figure 7 Wide median treatment

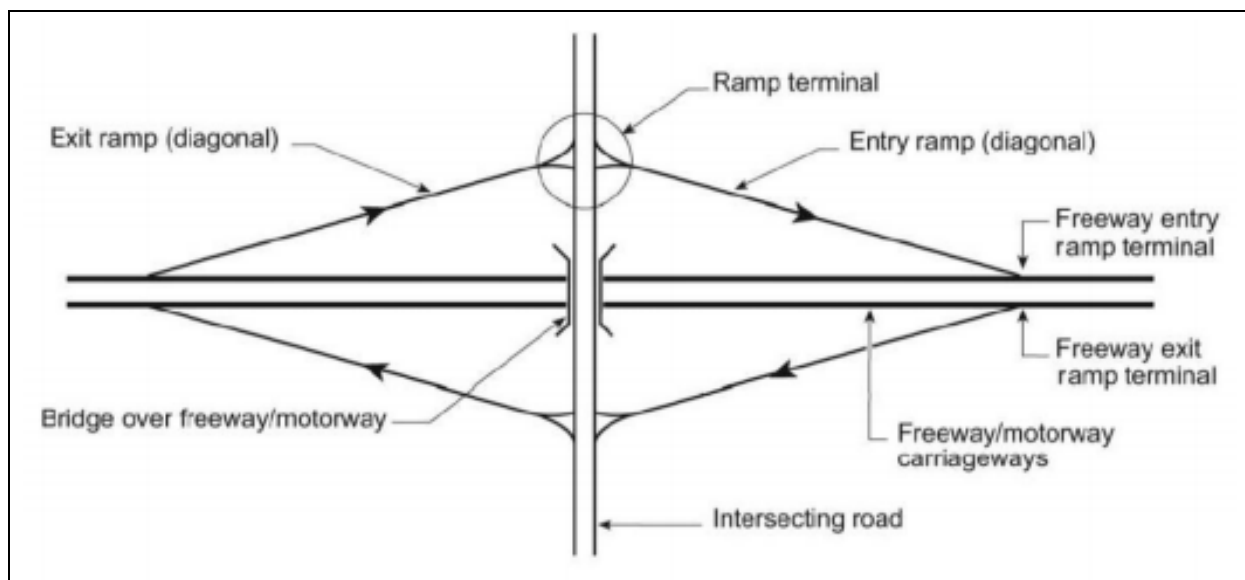


Figure 8 Illustration of grade separation interchange

The Panel discusses these proposals in relation to specific locations in Chapters 21 to 27.

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 Pyrenees and Ararat Planning Schemes as required to reserve land for the preferred alignment.

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

21 Beaufort to Eurambeen-Streatham Road

21.1 Site description

This section, covering Zone 1 and part of Zone 2 in VicRoads' Options Long List, is at the start (eastern end) of the Project and extends from Martins Lane (VicRoads chainage 847) just west of the Beaufort Service Centre ('Red Roo') to Eurambeen-Streatham Road (chainage 4800). Options 1 and 2 are the same in this section (see Figure 9).

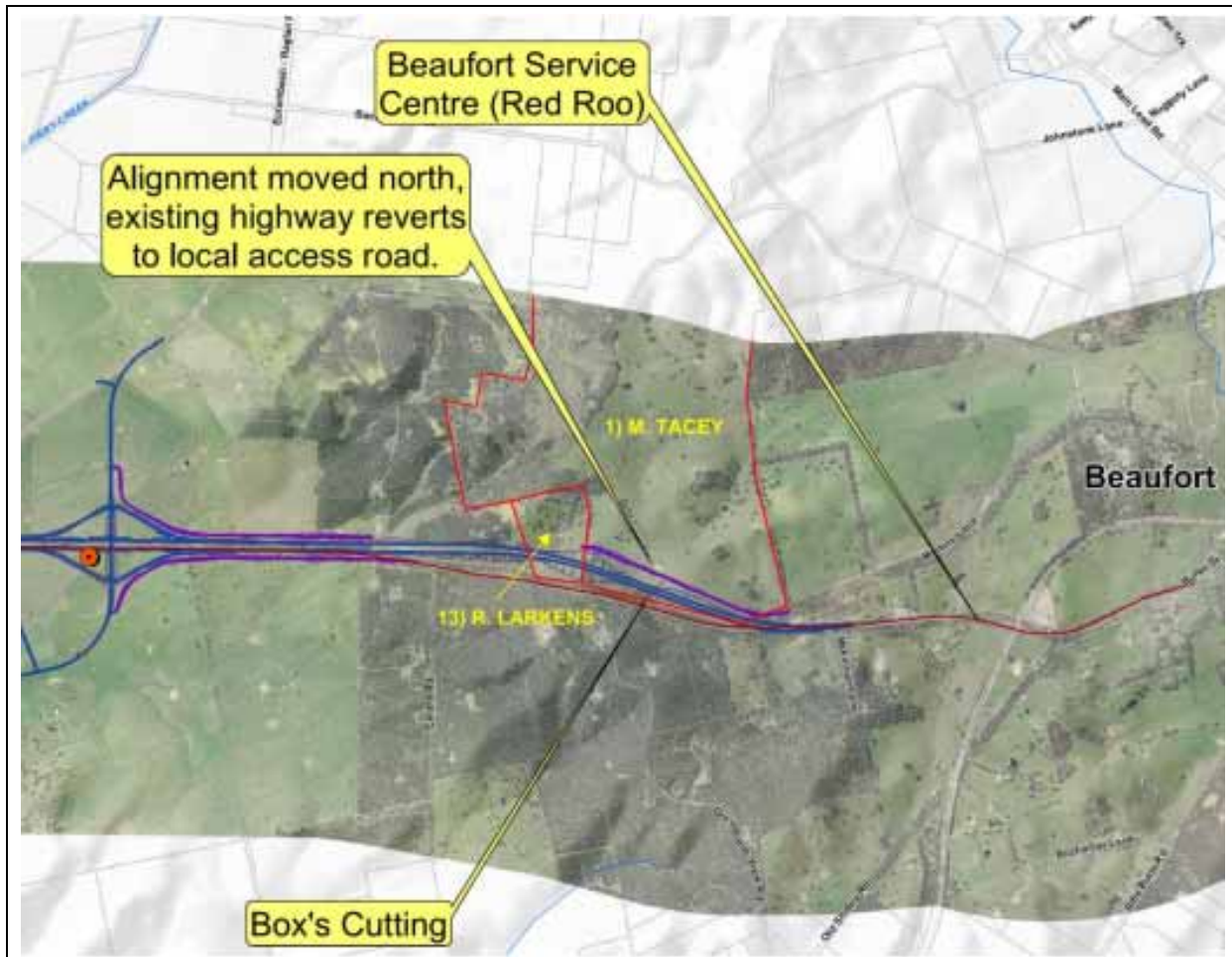


Figure 9 Beaufort to Eurambeen-Streatham Road³

There are several key features of the proposals in this section⁴:

- At initial duplicated highway status, construction of a new divided roadway in a new cutting deviating to the north of the existing Highway around Box's Cutting, with the existing Highway reverting to a two-way service road to provide access to properties to the south. VicRoads abandoned the option of using the existing Highway through Box's Cutting as part of the main roadway because the deep (up to around 15 metres)

³ Source: VicRoads Community Consultation Long Plot

⁴ Descriptions in each section have drawn on proceedings at the Hearing, including Mr Deeble's 'walk-through' notes and presentation about the Project.

excavation that would be required to achieve the safe sight distance for operating speeds of 110 km/h. This would involve extending the batters and require building a new south-side service road, thereby affecting native vegetation to the south to a much greater degree than that required for a northern deviation.

- Initial construction of an at-grade wide median treatment (see typical layout at Figure 7) around 500 metres from the start (chainage 1350) to provide access to the south-side service road (existing Highway) and a new north-side service road⁵ to provide improved access to properties to the north, including those of two submitters: Ms Tacey (Submission 1) and Mr Larkens (Submission 13). At the freeway stage, VicRoads intends removing the wide median treatment. Details of the necessary easterly extensions and connections of the service roads to the freeway will depend on the final design of the Beaufort Bypass.
- The new dual Highway re-joins the existing Highway around 1,400 metres east of Eurambeen-Streatham Road (at chainage 3400).
- Initial realignment and grade separation of the Eurambeen-Streatham Road (to the south of the Highway) and Eurambeen-Raglan Road (to the north) with an overpass of the Highway, because of their high traffic volumes. The initial works would include a full diamond interchange with both east-bound and west-bound on and off ramps (see typical layout at Figure 8) and new service roads extending eastwards to complete the local road network to provide access for all properties between Beaufort and Eurambeen-Streatham Road.
- The proposals do not preclude possible options for the bypass of Beaufort.
- VicRoads does not need to acquire any homes in this section.

21.2 The issues

Key issues raised by submitters were in relation to the impacts of the preferred option on their properties including: loss of land; reduced farm viability; noise; loss of vegetation; and impact of proposed property access arrangements.

21.3 Evidence and submissions

Ms Tacey submitted that VicRoads' proposals would make access inconvenient and take 10% of the most productive part of the 420-acre farm, which has been in family ownership for 55 years. She submitted this would affect the farm's viability, future revenue and have impacts on future sale of farm.

Ms Tacey expressed concern that the proposed service road would be a major inconvenience involving a long detour along unsealed road and a safety concern and hazard for trucks and trailers carrying sheep exiting and entering the property. Because her house would be closer to the new roadway she feels there would be an excessive increase in traffic noise.

⁵ VicRoads drawings show service roads proposed as part of initial highway duplication (AMP 3 Highway Standard) in purple, and extra service roads proposed at the freeway stage (AMP 1 Freeway Standard) in blue.

In his submission, Mr Larkens expressed concern that the proposal would take about half of his property at Box's Cutting and would impact on a shed his late wife set up to take advantage of the views from the property. He does not consider trees along the existing Highway to be of importance and would like the new road built as close as possible to the existing Highway.

Mr Bartley called evidence from Mr Organ in relation to environment and ecology. In his evidence Mr Organ responded to Mr Larkens' submission:

Given the modified nature of the landscape within the area, roadside vegetation has been identified as important to avoid habitat loss and fragmentation within the landscape. Where it can be achieved, the avoidance of roadside vegetation will reduce the extent of impacts to important fauna habitat.

Mr Bartley also called evidence from Mr Phillips who said, for the whole Project between Beaufort and Ararat:

The major agricultural impacts are direct land loss, infrastructure loss and changes to access arrangements. Direct land loss is generally limited to property frontages but more severe at interchanges where severance can also occur.

Mr Phillips summarised and commented on the five major agricultural impacts on land holdings expected from the Project: direct land loss; severance; loss or damage to infrastructure; changes in access; and vehicle and livestock movement. His view was that the issues are not unique to this Project and their resolution can often result in better outcomes, such as safer access arrangements.

Mr Phillips was confident the preliminary designs for the proposed service roads and property access layouts would satisfactorily and safely accommodate B-double truck, agricultural machinery movements and any other vehicles now accessing the property.

Mr Phillips gave evidence that affected land owners are, in his view, largely reconciled to the impacts and believed VicRoads can successfully resolve these issues under its normal compensation processes for all sections and either of the alignment options. He said compensation assessments would use current capital values for loss of agricultural land and include losses of farm viability and other disturbances.

In his evidence about Ms Tacey's submission, Mr Phillips estimated the land loss through road widening at 14.8ha on a farm management area (two allotments) of 202ha, adding that the land area lost is cleared and of easier contour compared with the rest of the property, thus accentuating the loss of income imposed.

VicRoads' response to submitter concerns and other issues in this section in summary was:

- The *Land Acquisition and Compensation Act 1986* provides for assessments of loss of land and compensation for other legitimate impacts;
- The preference for a new divided roadway north of the existing Highway through Box's Cutting reduces impacts on significant vegetation and provides suitable access to south-side properties under freeway conditions;
- Flora and fauna experts have assessed the significance of local vegetation;
- The proposed service roads would be two-way and able to accommodate any vehicles now accessing the properties;

-
- The proposals provide for good access from Ms Tacey's and Mr Larkens' properties to the first-stage duplicated Highway at a wide median intersection treatment west of the Beaufort ('Red Roo') Service Centre; and
 - Although not expected to be necessary because of the distances involved, VicRoads would provide noise mitigation measures if needed.

VicRoads confirmed it is comfortable with the extent of land it needs to acquire for the freeway as prescribed in the Public Acquisition Overlay (PAO) maps in the draft Planning Scheme Amendment. It proposes a two-stage acquisition approach for the Highway duplication and then eventual freeway upgrading unless site-specific circumstances mean it would acquire the land in one step.

VicRoads said all proposed service roads will provide for two-way traffic movements.

21.4 Discussion

The Panel clarified and agrees with VicRoads on its reasons for favouring the new alignment to the north of Box's Cutting and the plans for access restoration at both the highway duplication and freeway stages as follows:

- Lowering of the existing Highway gradeline through Box's Cutting to create a new higher standard and safer divided roadway would have significant impacts on vegetation and local access;
- A new divided roadway with necessary new local access roads to the south of the existing Highway would have far greater impacts on vegetation and properties than the preferred alignment to the north;
- The proposed new divided roadway around Box's Cutting to the north of the existing Highway largely is along cleared land, thereby avoiding the strip of roadside vegetation and minimising native vegetation and minimises habitat impacts; and
- Although travel distances and times might increase, the standard of local access at both the highway and freeway stages would be acceptable.

The Panel recognises that, while the preferred preliminary alignment closely parallels the existing roadside vegetation, more detailed design work could produce minor refinements in the proposals resulting in fewer impacts for this section.

There is inherent flexibility in the preliminary design for the preferred alignment to accommodate necessary future connections to a bypass of Beaufort.

The Panel, while not considering details of any compensation resulting from property impacts, agrees with VicRoads' intentions to deal with these matters under the *Land Acquisition and Compensation Act 1986* and, in some cases hasten these processes, such as where landowners experience hardship.

Based on the EES noise assessments, the Panel does not believe there would be significant changes in noise levels experienced at the existing houses on the north side of the Highway, but accepts VicRoads' assurances about applying mitigation measures under its Noise Policy where appropriate.

21.5 Conclusions

The Panel:

- Accepts VicRoads' decision in rejecting the option of modifying the existing Highway through Box's Cutting because it would create significant impacts on vegetation and property access stemming from a need to lower the gradeline by as much as 15 metres to meet necessary sight distance standards;
- Recognises VicRoads has developed an alignment option for the Beaufort to Eurambeen-Streatham Road section 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, and eventual links to a bypass of Beaufort;
- 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 Recommendation

The Panel recommends the adoption of VicRoads' preferred alignment between Beaufort and Eurambeen-Streatham Road and its proposed access arrangements at both the Highway duplication and freeway stages as a basis for:

- Detailed design and implementation; and
- The implementation of a Public Acquisition Overlay as proposed in Draft Planning Scheme Amendment C37 to the Pyrenees Planning Scheme.

22 Eurambeen-Streatham Road to Waldrons Road

22.1 Site description

This section, covering much of Zone 2 in VicRoads' Options Long List, extends from Eurambeen-Streatham Road (chainage 4800) to Waldrons Road (chainage 12000). Options 1 and 2 are the same (see Figure 10).

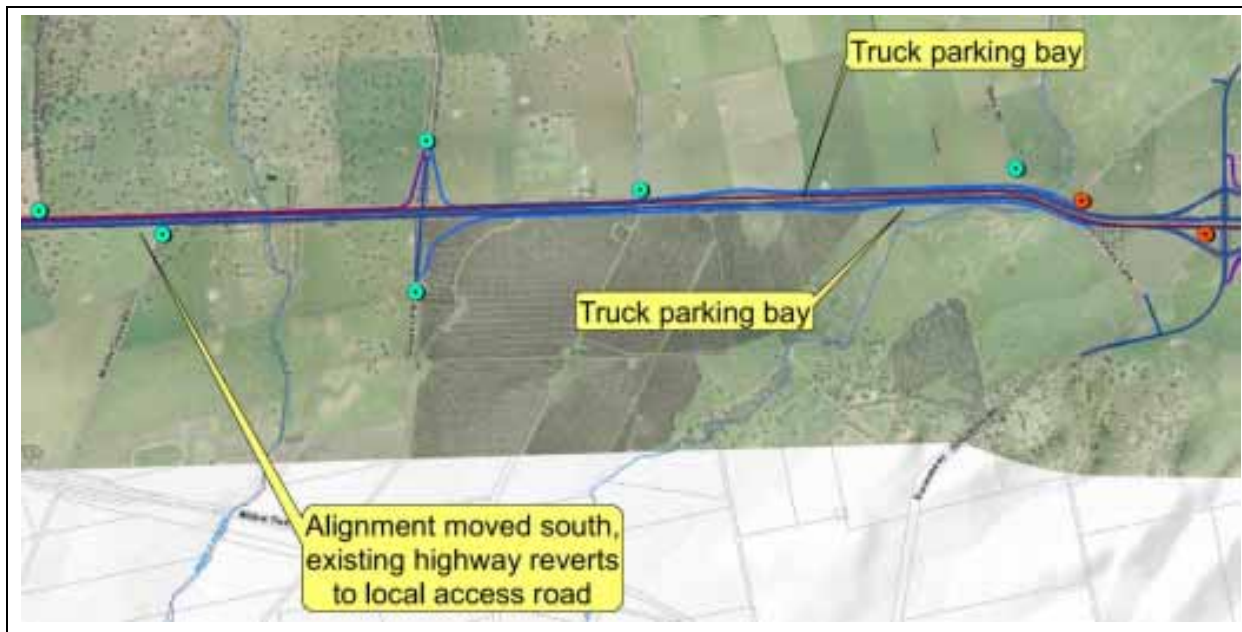


Figure 10 Eurambeen-Streatham Road to Waldrons Road⁶

There are several key features of the proposals in this section⁷:

- Initial construction of a new Adelaide-bound carriageway on the south side of the existing Highway between Eurambeen-Streatham Road (chainage 4800) and Ferntree Gully Road (chainage 9,800);
- The existing Highway between just west of Stars Road (chainage 6200) and Ferntree Gully Road (chainage 9800) would become the Melbourne-bound carriageway;
- Initial construction of two new carriageways on the south side of the existing Highway between Ferntree Gully Road (chainage 9,800) and Andersons Road (chainage 16500);
- The existing Highway from Ferntree Gully Road/Goulds Lane (chainage 9800) to just west of Woodnaggerak Road (chainage 13000) would revert to a two-way service road to help provide access to the cluster of properties along the north side of the Highway;
- Under freeway conditions there would be extra lengths of service roads and the at-grade wide median treatment at Ferntree Gully Road/Goulds Lane initially proposed under duplicated highway conditions would be grade separated with Ferntree Gully

⁶ Source: VicRoads Community Consultation Long Plot

⁷ Descriptions in each section have drawn on proceedings at the Hearing, including Mr Deeble's 'walk-through' notes and presentation about the Project.

Road/Goulds Lane overpassing the through carriageways under freeway conditions. There would be no on or off ramps under freeway conditions;

- Vehicle movements at Waldrons Road and other property accesses not truncated at the divided highway stage would be restricted to 'left-in, left-out' treatments. Service roads would provide access to any truncated roads and accesses. At the freeway stage local access service roads would replace any 'left-in, left-out' access arrangements;
- The Project includes crossings of Fiery Creek (chainage 5900) and Middle Creek (chainage 10600) in this section; and
- VicRoads does not need to acquire any homes in this section.

22.2 The issues

There were no submissions from property owners in this section, however the Panel considered key matters such as vegetation impacts and proposed property access arrangements. The EES lists and maps several threatened ecological communities within the alignment corridor in this section, including Plains Grassland, Grassy Dry Forest, Creekline Grassy Woodland (Fiery Creek/Middle Creek) and Plains Grassy Woodland.

22.3 Evidence and submissions

In his evidence, Mr Organ indicated that EVC's were determined by reference to DSE '*pre-1750 and extant EVC mapping and their published descriptions*'. He considered that this level of assessment is sufficient to identify key opportunities and constraints regarding highway construction and to inform decisions about alignment options with least ecological impact on the above threatened ecological communities.

The views of VicRoads on matters such as access restoration and the adequacy of the proposed PAOs and Mr Phillips' evidence on agricultural impacts were similar to those for the Beaufort to Eurambeen-Streatham Road section (see Chapter 21).

Mr Deeble confirmed that under AMP3 conditions a wide median intersection is proposed for Eurambeen-Raglan Road/Eurambeen-Streatham Road and Ferntree Gully Road/Goulds Lane. For the freeway upgrade (AMP1) a grade separated interchange would be located at Eurambeen-Raglan Road/Eurambeen-Streatham Road. The existing Highway will become a service road under both conditions from Ferntree Gully Road through to Andersons Road. There are no stock underpasses or other major access arrangements proposed to assist the farming community in this section.

22.4 Discussion

No matters were raised in submissions with regard to the Project alignment or impacts for this section. The Panel has no issue with VicRoads' proposals for this section but recognises more detailed design work could produce minor refinements in the proposals.

22.5 Conclusions

The Panel:

- Recognises VicRoads has developed an alignment option for the Eurambeen-Streatham Road to Waldrons Road section 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 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 *Noise Policy*.

22.6 Recommendation

The Panel recommends the adoption of VicRoads' preferred alignment between Eurambeen-Streatham Road and Waldrons Road and its proposed access arrangements at both the Highway duplication and freeway stages as a basis for:

- Detailed design and implementation; and
- The implementation of a Public Acquisition Overlay as proposed in Draft Planning Scheme Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat Planning Scheme.

23 Waldrons Road to Andersons Road

23.1 Site description

This section extends from Waldron's Road (chainage 12000) to Andersons Road (chainage 16400). Options 1 and 2 are the same (see Figure 11).

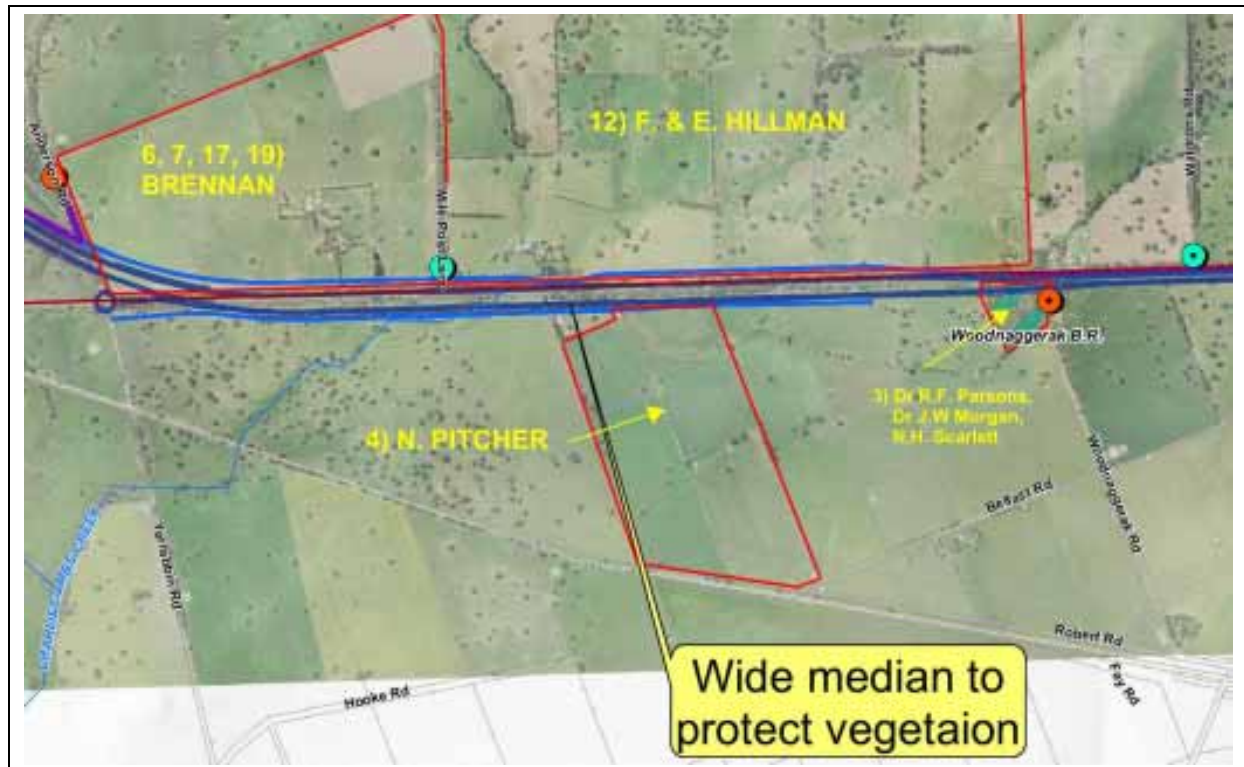


Figure 11 Waldrons Road to Andersons Road⁸

There are several key features of the proposals in this section:

- A new carriageway will be constructed on the south side of the existing Highway that will become the Adelaide-bound carriageway. The exiting Highway will become the service road from east of Waldrons Road to chainage 13000. This will provide access to the properties to the north of the existing Highway;
- From Woodnaggerak Road the Highway is at a pinch point to minimise impact on the Woodnaggerak Reserve (chainage 12600) and farm structures to the north;
- From chainage 13000 to Andersons Road, the existing Highway reverts back to being the east-bound carriageway;
- Between chainage 13000 and Andersons Road, the Highway design has been set out to avoid much of the very sensitive native vegetation on the existing roadside;
- At chainage 15000 the dual carriageway deviates north from its current alignment to bypass Buangor. This is common for both Options 1 and 2; and
- A minor deviation of the Charliecombe Creek is proposed south of the existing Highway at chainage 14800 to enable a crossing of the Creek at right angles.

⁸ Source: VicRoads Community Consultation Long Plot

23.2 The issues

Issues raised by submitters include:

- The security of Button Wrinklewort (*Rutidosia leptorrhynchoidea*) in the Woodnaggerak Reserve;
- The impact on the Pitcher and Hillman properties of the proposed diversion of Charliecombe Creek between chainage 14200 and 15300;
- Lack of personal consultation by VicRoads;
- The matter of compensation;
- Impact of the proposed alignment on wetland, heritage, landscape amenity, traffic noise, air quality, relocation of high tension power lines, water supply, future access to the National Broad Band Network, rubbish collection;
- Property access and future limitations on the ability to drive sheep along the Highway; and
- Loss of stock shelter, farm productivity and viability due to loss of land.

23.3 Evidence and submissions

The following evidence and submissions were presented to the Panel:

- Dr Parsons, Dr Morgan and Mr Scarlett (Submission 3) raised concern over security of Button Wrinklewort. The nationally significant flora species, Button Wrinklewort was a flora species included in the targeted flora survey conducted in 2010 by Ecology and Heritage Partners. In their submission, concern was expressed regarding the risk to the species from the proposed Highway duplication at Woodnaggerak Reserve, where they re-introduced the current population of the species. Mr Organ of Ecology and Heritage Partners gave evidence that no Button Wrinkleworts are proposed to be impacted. The presence of plants discussed in the submission will be confirmed to ensure avoidance and protection during construction and ongoing use of the road. The contractor will be required to identify a 'No Go Zone' beyond the necessary construction footprint to ensure avoidance.
- Mr Pitcher and Ms Hillman (Submissions 4 and 12) were concerned about impact of the realignment of the Charliecombe Creek on machinery and sheep movements, severance of property, visual impact, soil erosion and water resources for livestock. The Charliecombe Creek has a complex interaction with the existing Highway, as several tributaries of the Creek converge in the vicinity of the Highway. It is proposed that the Creek be realigned to provide a crossing at a right angle to the new carriageway. VicRoads responded that the Creek will be re-aligned for a short distance (about 200 metres), on the south side at chainage 14800 in accordance with the Public Acquisition Overlay and the Creek will flow in the same way as currently. VicRoads has subsequently consulted with both submitters to clear up any misunderstandings regarding the realignment, and will continue to liaise with them.
- The issues of Ms Margaret Brennan, Ms Mary Brennan, Mr and Mrs John and Jillian Brennan, and Paula Brennan (Submissions 6, 7, 17 and 19) relate to the Brennan family property at 6396 Western Highway Buangor. The issues were lack of personal consultation by VicRoads, compensation and also impact of the proposed alignment on wetland, heritage, landscape amenity, traffic noise, air quality, relocation of high tension

power lines, water supply, future access to the National Broadband Network (NBN), rubbish collection, property access, future limitations on the ability to drive sheep along the Highway, loss of stock shelter and farm productivity and viability due to loss of land.

- Mr and Mrs John and Jillian Brennan considered that the reduction in the area of their farm could be significantly minimised by continuing the alignment of both Options further west, before curving to the north in the vicinity of Andersons Road.
- VicRoads responded that:
 - Loss of land and compensation will be assessed by the process provided by the *Land Acquisition and Compensation Act 1986*. With regard to loss of land, Mr Phillips identified the major agricultural impacts of the duplicated carriageway to be direct land loss, infrastructure loss and changes to access arrangements. He stated that direct land loss is generally limited to property frontages but more severe at interchanges where severance can also occur. In the case on the subject property the issue is direct land loss and assessment for compensation would be a likely course of action;
 - Access to land adjacent to Andersons Road will be possible from Andersons Road, then via the designed service road to the interchange at Peacocks Road. Access to the remainder of the property under AMP 3 (highway configuration) will be via an intersection at Mile Post Lane and the service road to the existing driveway at approximate chainage 15400. All access under AMP 1 (freeway configuration) will be via service roads that connect to the Peacocks Road interchange to the west, and the Eurambeen-Streatham Road interchange to the east. Additional travel distances are no more than about 2.5 kilometres in either direction;
 - The proposed design serves to protect large amounts of existing roadside vegetation, along the front of the property, placing it between the eastbound Highway carriageway and the service road. Vegetation between chainage 15800 and 16200 will be removed to allow for the Highway to deviate to the north of Buangor;
 - The wetland areas are located outside of the proposed construction footprint, and hence were not assessed for their ecological values. The Construction Environment Management Plan (CEMP) will include mitigation measures to prevent environmental impacts outside the construction zone;
 - If required under VicRoads Noise Policy, then VicRoads will provide noise mitigation measures, however VicRoads does not consider this will be necessary in relation to the dwelling in question, given the distance from the proposed Highway alignment;
 - The duplication of the Western Highway is not directly expected to result in any increased traffic volumes on the Highway, and hence no direct increase in air pollution. In the vicinity of the dwelling the Highway would be duplicated to the south, moving traffic emissions further away. Air quality has been assessed in the EES and found to be at safe levels;
 - VicRoads expects that rubbish collections will be unaffected, apart from a possible collection point off the service road, rather than on the side of the Highway;
 - Although powerlines will be needed to be relocated on the property, they will at no point be closer than the existing minimum distance to the dwelling;

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- VicRoads does not consider that the Highway duplication will in any way adversely impact on the possible future extension of the existing town water supply;
 - Detailed design for the Highway duplication will include a landscape plan, ensuring that the most appropriate landscape visual outcomes are achieved;
 - The NBN website indicates that the Buangor district is not included in the roll out plan through to 30 June 2015. By then land will be acquired for the duplicated Highway and construction underway. Future NBN design would have to take account of the duplicated Highway; and
 - VicRoads indicates that stock movement on the Highway will become limited when traffic volumes exceed 2500 vehicles per day. The alternatives would be to transport stock or engage a VicRoads authorised traffic controller in accordance with the *Roadside Traffic Act 2004*. There will be no direct access to the carriageway once the road is upgraded to freeway status.

23.4 Discussion

The construction footprint of the Highway duplication will impact on the Woodnaggerak Reserve. Mr Organ reported that construction encounters would include permanent loss of habitat for the Button Wrinklewort in the Reserve, however VicRoads procedures requiring the contractor to identify a 'No Go Zone' beyond the necessary construction footprint will ensure avoidance of the species.

VicRoads is communicating personally with Mr Pitcher and Ms Hillman and has assured them that access conditions to the Creek will be unchanged and any issues of compensation will be subject to the PAO.

As with other affected landholders, the range of issues raised by submitters from the Brennan family are now being dealt with on a personal basis through direct consultation. VicRoads states that there will be no significant visual and landscape impacts from the Project, that the Project has been designed to minimise amenity impacts and they will comply with the noise level objective of the VicRoads noise policy.

On a matter Mr John Brennan raised about shelter for lambing ewes along part of his property boundary, the Panel notes the expected timeframe of more than 30 years until full freeway conversion would allow ample time to replace any vegetation affected by the proposed land acquisition.

23.5 Conclusions

With the exception of Mr and Mrs John and Jillian Brennan who raised an opinion about an alignment matter, the issues raised by submitters did not offer alternative proposals. They essentially required provision and receiving of factual information and reassurance from VicRoads. All issues raised by the submitters have been responded to by VicRoads and this should resolve much of the uncertainty about impacts. The Panel is satisfied that VicRoads personal communications with submitters is the appropriate way to resolve their uncertainty.

As in other Zones, the Panel recognises more detailed design work could produce refinements in the proposals, which give consideration to submitters' concerns.

23.6 Recommendation

The Panel recommends adoption of VicRoads' preferred alignment between Waldrons Road and Andersons Road and its proposed access arrangements at both the Highway duplication and freeway stages as a basis for:

- Detailed design and implementation; and
- The implementation of a Public Acquisition Overlay as proposed in Draft Planning Scheme Amendment C27 to the Ararat Planning Scheme.

24 Andersons Road to Pope Road (including Buangor bypass)

24.1 Site description

This section, largely Zone 4 in VicRoads' Options Long List, extends from Andersons Road (chainage 16500) to Pope Road (chainage 22500) and includes the Buangor bypass. Options 1 and 2 both bypass Buangor to the north but follow different alignments from around 300 metres west of Andersons Road (at chainage 16800) to around 800 metres east of Langi Ghiran Picnic Ground Road (at chainage 28500 – also see Chapter 25). Figure 12 shows Option 1 in blue and Option 2 in red.

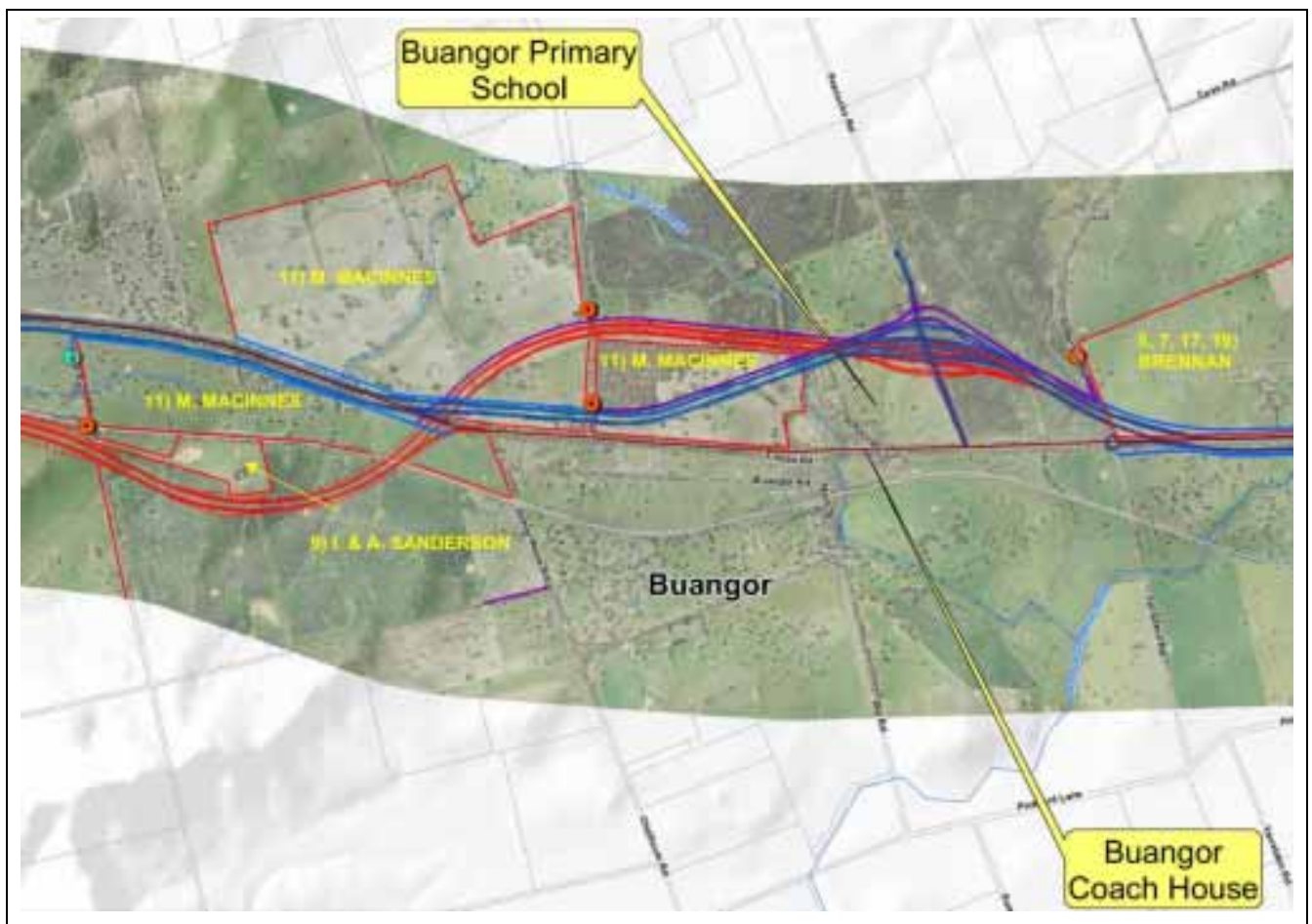


Figure 12 Andersons Road to Pope Road⁹

⁹ Source: VicRoads Community Consultation Long Plot.

There are several key features of the Option 1 proposals in this section¹⁰:

- Initial construction in the divided highway stage involves two new carriageways deviating around and bypassing Buangor to the north and re-joining the existing Highway around 600 metres west of Gravel Route Road (at chainage 20700);
- The Option 1 alignment includes crossings of Billy Billy Creek – around 800 metres west of Peacocks Road (at chainage 18300) and around 800 metres west of Gravel Route Road (at chainage 20800) in this section;
- Option 1 affects vegetation for a length of around 200 metres on the east side of Billy Billy Creek but does not affect any significant vegetation on the west side of Billy Billy Creek;
- Under Option 1, the bypass of Buangor severs several properties along its four-kilometre length;
- Initial construction of a new Adelaide-bound carriageway along the south side of the existing Highway from chainage 20700 to around 200 metres west of Pope Road (at chainage 22700). Over this one-kilometre length, the existing Highway would become the Melbourne-bound carriageway with existing roadside vegetation preserved in the central median;
- From just west of Pope Road (at chainage 22700) two new carriageways would deviate southwards (see also Chapter 25);
- The divided highway stage includes a proposed half-diamond interchange at Peacocks Road (chainage 17500) with only east-bound exit and entry ramps (on the north side of the new carriageways). The existing Highway on both sides of Buangor would act as the town's west-bound exit ramp (at chainage 16000, near Andersons Road/Yerrabin Road) and west-bound entry ramp just west of Gravel Route Road (at chainage 20500);
- VicRoads submitted that it selected Peacocks Road as the main access point to Buangor because it would provide good connectivity for people to the east as well as the west. The alternative previously considered was Buangor-Ben Nevis Road. VicRoads rejected it as the sole access point on the bypass because of the unacceptable length of service road needed to link with Andersons Road. VicRoads said Buangor-Ben Nevis Road would not be acceptable as an extra access point because of the need to limit the number of access points so the new roadway could operate safely and efficiently at 110km/h;
- Initial construction of a service road along the north side of the new divided Highway between Buangor–Ben Nevis Road and Andersons Road. This service road would extend westward to around chainage 21500 at the freeway stage;
- At the freeway stage VicRoads proposes a new service road along the south side of the new carriageways from the existing Highway (at chainage 20200) to Pope Road (chainage 22500); and
- For Option 1 in this section, VicRoads would need to acquire one house - on the western side of Buangor-Ben Nevis Road (chainage 19500).

¹⁰ Descriptions in each section have drawn on proceedings at the Hearing, including Mr Deeble's 'walk-through' notes and presentation about the Project.

Key features of the Option 2 proposals in this section are:

- Initial construction in the divided highway stage involves construction of two new carriageways deviating around and bypassing Buangor to the north and crossing the existing Highway around 200 metres west of Gravel Route Road (at chainage 20400);
- The Option 2 alignment includes a shorter crossing of Billy Billy Creek than Option 1 – around 800 metres west of Peacocks Road (at chainage 18300) in this section;
- Option 2 affects vegetation for a length of around 200 metres on the east side of Billy Billy Creek and for around 400 metres on the west side of Billy Billy Creek;
- Under Option 2, the bypass of Buangor also severs several properties along its four-kilometre length and has a larger land loss than Option 1;
- From the bypass crossing of the existing Highway just west of Gravel Route Road (at chainage 20400) two new carriageways in the initial duplication stage would deviate southwards over the Ballarat–Ararat railway line around 700 metres west of Gravel Route Road and curve to meet and run closely parallel to the railway around Pope Road (chainage 22600). Option 2 does not re-join the existing Highway until around 800 metres east of Langi Ghiran Picnic Ground Road (at chainage 28500 – also see Chapter 25);
- The proposed Buangor access arrangements are the same as for Option 1, namely a half-diamond interchange at Peacocks Road with only east-bound exit and entry ramps (on the north side of the new carriageways) and the existing Highway on both sides of Buangor acting as the town’s west-bound exit ramp (at chainage 16000, near Andersons Road/Yerrabin Road) and west-bound entry ramp just west of Gravel Route Road (at chainage 20400);
- VicRoads selected Peacocks Road as the main access point to Buangor for the same reasons in Option 1;
- Initial construction of a service road along the north side of the new divided Highway between the existing Highway around 500 metres west of Gravel Route Road (chainage 20400) and Andersons Road. There would be no extra new or extended service roads at the freeway stage; and
- The existing Highway west of the new roadway’s crossing point (chainage 20400) would provide access to nearby properties.

24.2 The issues

Key issues raised by submitters were on the impacts of Options 1 and 2 on individual properties including: loss of land/severance; reduced farm viability; noise and other emissions; loss of vegetation and proposed property access arrangements.

24.3 Evidence and submissions

Mr Hastings, representing Ararat Rural City Council (Submission 15), raised concerns about the proposed access arrangements for the Buangor bypass. He stressed the importance of Buangor-Ben Nevis Road and Andersons Road as north-south routes and suggested the proposals provide for an intersection and ultimate interchange at Buangor-Ben Nevis Road, and desirably at Andersons Road, rather than at Peacocks Road.

He submitted that Buangor-Ben Nevis Road, with daily traffic volumes of more than 130 vehicles (the third highest along this section of the Highway), is a key B-Double and tourist route to the Pyrenees Highway which also provides important community connections in and around Buangor.

Ararat Rural City Council supports development of a revised Community Action Plan for Buangor in partnership with VicRoads and the community.

Mr Bartley said VicRoads did investigate providing an interchange at both Buangor-Ben Nevis Road and Andersons Road and determined it:

was more economical to provide a single interchange to access Buangor, given only one bridge/overpass and associated ramps being required, instead of two. Recognising that this provides a minor reduction in access, and associated extra travel distance for some landowners and motorists, this design also allows for a posted speed limit of 110km/h, required to make Western Highway travel more efficient – one of the key Project objectives.

He added:

A single interchange for Buangor reduces the impact to flora and fauna values, while also reducing the construction cost. The location of this interchange at Peacocks Road fairly distributes the additional travel distance imposed on landowners.

Mr Bartley said VicRoads would be happy to participate with Council in developing its revised Community Action Plan for Buangor.

The Panel deals with other site specific issues and concerns Mr Hastings raised in other chapters and with his more general concerns and submissions in Chapter 27 *The Preferred Alignment*.

In their submission, Mr and Mrs Tonkin (Submission 5), set out their main concerns:

- The Project will split their School Road, Buangor land on the western side of Peacocks Road in two, while preserving most of the holding around their house on the south side of the new roadway;
- They currently have the ability to construct a dwelling on their property as of right but, after VicRoads builds the new road, would no longer have this right and may not be able to build a home on the remnant smaller holdings;
- Their remnant land would have little value in the Farming Zone because of its size, being bounded by three roads, with unfavourable access to and between the split holdings and no potential to consolidate with adjoining larger farm holdings. They sought a change in the zone to Rural Living Zone to retain some value in the land; and
- The proposed Peacocks Road interchange would compromise the views from existing house. They suggested a different arrangement involving interchanges at the eastern and western ends of Buangor rather than Peacocks Road.

Mr and Mrs Sanderson's submission (number 9) focused on concerns about Option 2 which passes through their property south of the railway line between Gravel Routes Road and Pope Road, mainly:

-
- Impact of the proposals on their dream of retiring to the property, especially the option to generate supplementary income from the property;
 - Access between the property and the Western Highway;
 - Impacts on the ability to rotate stock and access to leased properties;
 - Responsibility for demolishing and replacing affected buildings;
 - The closeness of the road affects the viability of the proposed house site;
 - Visual and landscape impacts; and
 - Emissions from the new roadway.

Mrs MacInnes has three significant land holdings at Buangor which are all affected by Options 1 and 2. She made several points and raised some general concerns in her submission (number 11) and at the Hearing, including:

- The property is much loved and sustainably managed;
- The loss of rental income stemming from uncertainty and the likely impact on the land;
- Potential environmental losses on property;
- Compromised day-to-day operation of the property following the Project; and
- Impacts of road construction on farm operations, such as dust in fine wool.

Mrs MacInnes' main specific concerns about Option 1 were:

- Removal of large old trees;
- Loss of rental income from the house VicRoads would acquire (chainage 19500);
- Movement of stock and access between properties on the southern and northern sides of the Highway; and
- Loss of land and impact on paddocks during road construction works, such as not being able to use nine out of fifteen paddocks.

Mrs MacInnes' main specific concerns about Option 2 were:

- Drainage of surface water;
- Loss of large old trees;
- Impacts on views of farm land;
- Severance of paddocks;
- Movement of stock; and
- Loss of land value.

In his evidence, Mr Organ said:

Detailed design work is still to be undertaken, which may provide opportunity to avoid additional scattered trees within the proposed alignments. In addition, dead trees may be relocated outside of the chosen alignment to retained fauna habitat (i.e. hollow-nesting or reliant species) within the landscape.

Prior to construction VicRoads will also develop a detailed Landscape Plan along with an approved Revegetation Plan that contains the use of site indigenous species that are applicable to the former EVCs in the area.

In his evidence, Mr Phillips said:

The Buangor Bypass imposes significant severance effects on three land holdings. One is a forestry asset and under a diverse ownership and management structure, another recently sold and redistributed according to lot size

(submission 5 [Mr & Mrs Tonkin]) and the third, a family property totalling 255ha in numerous allotments (submission 11 [ID & MI MacInnes]).

Mr Phillips estimated there would be a loss of 8.7ha from the Mr and Mrs Tonkin's property leaving two residual blocks of around 13ha north of the new roadway and 27.3ha to the south. In his evidence, he said:

The property's agricultural capability is severely affected by the proposed bypass through severance into two holdings making combined management extremely difficult. This is an issue which can be addressed in the compensation process. Commenting on the advisability of land use changes such as rezoning to Rural Living is beyond the Terms of Reference of this report.

In response to Panel and other questioning, Mr Phillips agreed that, although the likely northern remnant would be less workable or developable, it might be suitable for grazing horses.

Mr Bartley added:

- *Loss of land and compensation will be assessed by the process provided by the Land Acquisition and Compensation Act 1986; and*
- *Total landholding (two adjoining titles) exceeds the minimum lot size of 40 hectares, required by Council for the construction of a dwelling in the Farming Zone. Landowners may apply to the Council for an exemption because of the PAO, or to have the land rezoned. Alternatively, consolidation of titles could occur.*

Resulting from a design change, namely removing the westbound exit and entry ramps at the Peacocks Road interchange, Mr Bartley said VicRoads reduced the width of the proposed PAO at this location. Mr Bartley tabled revised PAO Maps and summarised the impact on Mr and Mrs Tonkin's land:

- Option 1: PAO area 8.093ha, residual area 41.29ha; and
- Option 2: PAO area 10.299ha, residual area 39.084ha.

Mr Bartley suggested that keeping the two parcels in one title would satisfy the 40-hectare as-of-right condition for a dwelling in the Farming Zone.

Mr Hastings, representing Ararat Rural City Council, said Council does not have a Structure Plan for Buangor so would be unlikely to change the zoning from Farming to say Rural Living. However, he agreed the new roadway would provide scope for some extension of the town.

Mr Bartley said VicRoads' preference is to acquire only the land for the road alignment, but there would be remnant parcels on this Project. Options for their use or disposal include vegetation offset planting, sale to a municipal council or Government agency, and sale to an adjoining property owner. He added that, in many instances, the value of the remnant may be considerably less than, say, the cost to restore access.

In his evidence about impacts on Mrs MacInnes' property, Mr Phillips said:

Both options impose significant impacts. Severance is severe in both cases due to the isolation of allotments from the main land holdings, albeit in different ways. The land holder canvases an underpass as a necessary prerequisite to both

options. However, the duplication of facilities on the affected blocks may be a more practical alternative for the following reasons:

- In Option 1, new facilities are likely to be constructed on the property north of the alignment. The residual southern severance areas (2) are relatively small which limits stocking capacity to small mobs making an underpass difficult to justify; and*
- Option 2 retains the existing facilities but isolates a large section of the farm from their use. An underpass could provide the link but a more cost effective and convenient solution might be to construct a new set of stock handling facilities on the northern block.*

Mr Phillips reiterated the land loss for Mrs MacInnes would be significantly greater for Option 1 than Option 2.

He said Option 1 is associated with land take by road widening along the boundaries, so the impact on farm performance would be limited to loss of productivity. Mr Phillips calculations indicate a loss of productivity amounting to a gross margin loss of between \$375/ha and \$265/ha depending on the chosen agricultural enterprise.

The Panel agrees with Mr Phillips that land loss from Option 1 will have a greater impact than from Option 2, particularly as the dwelling and sheds will also be lost to the Option 1 alignment.

The Panel also agrees that Option 1 imposes a similar but lesser degree of severance than Option 2.

In conclusion, Mr Phillips said:

The effect on the family property is severe under both options without the submission expressing a clear preference for either option but probably favouring Option 1.

Mr Bartley summarised VicRoads' response to Mrs MacInnes' concerns:

- VicRoads will assess loss of land and compensation for such matters as disturbance under the process provided by the Land Acquisition and Compensation Act 1986;*
- The Proponent will work with landowner / occupier to maximise the use of their property during construction works;*
- Option 1:*
 - Detailed design for the highway duplication will include a Landscape plan, ensuring that the most appropriate landscape and visual outcomes are achieved;*
 - The Proponent can provide a stock crossing between property numbers 1442 and 1445 (perhaps near chainage 21,200). Location to be discussed between submitter and VicRoads;*
- Option 2:*
 - Cross drainage will be installed under the new road to ensure that water flows are consistent with existing conditions;*
 - The Proponent can provide a stock crossing between property numbers 1442 and 1438. Location to be discussed between submitter and*

VicRoads - underpass on north side of highway as part of fill/embankment for overpass of railway at chainage 20,800.

Mrs MacInnes expressed concern about sheep, which do not like dark places, being in a 160 metre or longer underpass, probably built using three-metre by three-metre concrete box culvert sections. She hinted that duplicate farm facilities might be a better solution. Mr Bartley agreed that duplicate facilities might be preferable based on a case-by-case economics assessment.

Mrs MacInnes said, philosophically, the Project is a fact of life and they will have to work through it.

In his evidence, Mr Phillips responded to Mr and Mrs Sanderson's concerns about loss of access, facility loss and reduction in landscape quality:

The agricultural impact appears relatively minor for both options and capable of being addressed through alignment design and the compensation process.

Mr Bartley summarised VicRoads' response to Mr and Mrs Sanderson's concerns:

- *Access to Lot 1, Pope Road, would remain via Pope Road in the future for either of Option 1 or Option 2;*
- *Requirements for underpasses and associated infrastructure will be subject to further discussions during the Land Acquisition and Compensation Act 1986 process;*
- *The Proponent does not believe that any of the submitter's buildings are to be impacted on with Option 2, based on aerial photography and a meeting with the submitter prior to exhibition of the EES, however this may be an incorrect assumption;*
- *Option 2 would impact on one shed on the neighbouring leased property. The landowner would be compensated for the loss of the shed;*
- *For Option 2, the duplicated highway alignment will be cut below existing surface level near the proposed house site (previously identified to VicRoads);*
- *Detailed design for the highway duplication will include a Landscape plan, ensuring that the most appropriate landscape and visual outcomes are achieved; and*
- *Loss of land and compensation will be assessed by the process provided by the Land Acquisition and Compensation Act 1986.*

Mr John Brennan, in his submission (number 17 - see also Chapter 23), said he appreciates the need for an upgrade of the Highway, but challenged the proposed standard. He was opposed to the scale of the Project, contending the proposed freeway is an over-development with serious consequences for their area. Mr Brennan drew comparisons with some more highly-trafficked roads operating as divided highways (rather than freeways). He questioned the economics of spending so much money here when the Western Highway will revert to a lower standard not much further west.

He suggested an alternative configuration for the Project from Middle Creek to Ararat. He tabled a plan of his idea which would:

- Use the existing Highway as the Melbourne-bound carriageway; and

-
- Involve building a new Adelaide-bound carriageway largely alongside the existing Highway except for a deviation from a new crossing of the railway near Main Street, Buangor which runs alongside the southern side of the railway to again closely parallel the existing Highway at Hillside Road.

He considered it would be significantly cheaper and could use the existing Highway operating at a lower speed than the proposed 110 kilometres an hour. He added that one of the Terms of Reference outcomes provides for the Panel to recommend changes or practical alternatives.

Mr Xavier Brennan made a submission about lack of consideration of the wildfire risk in the bypass of Buangor. He said there are greater fuel loads north of the Highway than to the south and was concerned there has been no wildfire risk assessment. He suggested there are better ways to spend the funds rather than on a project which would sever land on three of the oldest properties in the area potentially resulting in losing historic farms we may never see again.

Mr Bartley said because wildfire risk was not part of the EES scoping requirements VicRoads has not examined it.

24.4 Discussion

The Panel recognises Options 1 and 2, although similar in length and access arrangements, have varying impacts, particularly on severance of properties and existing vegetation.

Between Andersons Road and Peacocks Road the alignments for Options 1 and 2 are almost identical. West of Peacocks Road to Pope Road Option 1 has lesser overall severance effects but it involves the acquisition of one tenanted house on Mrs MacInnes' property – on the western side of Buangor-Ben Nevis Road close to the existing Highway.

The greater severance effects of Option 2 from Peacocks Road to Pope Road are on Mrs MacInnes' properties north and south of the existing Highway and on the Sanderson's property.

While severance is an issue for the MacInnes property under both Options, the major effect is the direct land loss and the loss of the dwelling and sheds from Option 1. Mr Sanderson's property and business will be severely impacted by severance as his dwelling and a small amount of land is separated from the land he leases on a long-term basis and this will create serious inconvenience due to access problems.

Option 1 minimises impacts around Buangor because it follows a 'tighter' alignment which closely parallels the existing Highway alignment from just east of Buangor-Ben Nevis Road. Option 1 significantly (diagonally) severs Mrs MacInnes' property on the east side of Buangor-Ben Nevis Road. By comparison, Option 2 avoids Mrs MacInnes' property on the east side of Buangor-Ben Nevis Road, but affects the property to the north and has significant severance impacts on properties both north and south of the existing Highway to the west of Buangor-Ben Nevis Road.

The Option 2 alignment is very close to the house in Buangor-Ben Nevis Road which VicRoads indicated it would consider purchasing based on potential amenity impacts.

Both Options affect threatened ecological communities within the construction footprint along both sides of the Billy Billy Creek. Option 1 impacts about 200 metres of indigenous vegetation, including Creekline Grassy Woodland, Plains Grassy Woodland and Grassy Dry Forest. Option 2 impacts about 200 metres of Creekline Grassy Woodland and Plains Grassy Woodland. The Panel notes that both Options impact about the same area of High conservation value Creekline Grassy Woodland.

The Panel notes Mrs MacInnes is resigned to the Project proceeding but indicated her willingness to work with VicRoads on the impacts of the final alignment, for example, in considering stock underpasses and duplicate farm facilities and infrastructure.

The Panel agrees with VicRoads' reasons for preferring the location of access at Buangor, notably providing the proposed half-diamond interchange (east-bound off and on ramps) at Peacocks Road at the initial divided highway stage, supported by west-bound access ramps using the existing Highway near Andersons Road and Gravel Route Road.

The Panel accepts the reasons for a single grade separated interchange at Peacocks Road rather than alternative ones at Buangor-Ben Nevis Road and possibly Andersons Road, mainly because of the importance of having adequate spacing between access points for safe and efficient freeway operation.

The Panel notes VicRoads reviewed its design and has reduced the width of the proposed PAO at the Peacocks Road interchange and accepts its reasons for the area of PAO needed, namely for satisfactory vertical geometry and safe ramp and intersection separations.

On Mr John Brennan's suggested lower-cost idea for the section from Middle Creek to Ararat, the Panel considers there would be some design and operational issues with the idea, including:

- The flat angle of crossing the railway which does not fall within the desirable range of 45 to 90 degrees (but not less than the recommended 35 degrees¹¹) largely to minimise crossing spans and hence costs;
- Providing a connecting link for access between the Adelaide-bound carriageway and Buangor-Ben Nevis Road; and
- Potential confusion for wrong-way travel when motorists re-enter the Highway because of the wide separation between the Melbourne-bound and Adelaide-bound carriageways.

The Panel notes there were other reasons why VicRoads rejected earlier alignment options to the south of Buangor, including impacts on vegetation and many smaller land holdings.

The Panel notes that VicRoads did not investigate wildfire risk as part of the EES. The Panel is of the view that such issues are best managed during and after construction and are not fundamental to determining the most appropriate alignment.

On the matter of ongoing use of Mr and Mrs Tonkin's property, the Panel notes that keeping the severed parcels in a single title would preserve the as-of-right dwelling opportunity in the Farming Zone – at least for Option 1. Given that the size of the remnant lot under Option 2 would be very close to 40ha (with the revised proposal to delete the westbound

¹¹ AustRoads (Part 3 Bridges, Section 10.3 Horizontal Geometry)

entry and exit ramps and subsequent reduced acquisition requirement), it is likely that Council may favourably consider a permit application for a dwelling.

The Panel recognises VicRoads has flexibility in its processes under the *Land Acquisition and Compensation Act 1986* to agree appropriate solutions and remedial treatments with property owners where the Project impacts on their land and use of the land. The choice of the most appropriate option is often determined by the most economical outcome. Options include:

- Buying whole properties or severed parcels of land which may be cheaper than restoring access or providing stock underpasses (generally around \$70,000 to \$100,000 and potentially up to around \$500,000) or more expensive stock overpasses; and
- Providing duplicate farm facilities and infrastructure on severed parcels rather than build stock underpasses.

The Panel notes some key points in VicRoads' response on its land acquisition and compensation process:

- The Project will result in the partial acquisition of mainly agricultural land from 125 landowners (Option 1) or 132 landowners (Option 2) and involves acquisition of two dwellings (Option 1) or four dwellings (Option 2);
- The Project design aimed to minimise land acquisition, however some acquisition is unavoidable for a project of this nature, and VicRoads will compensate affected land owners under the *Land Acquisition and Compensation Act 1986*. A claim for compensation arises when VicRoads proceeds to formally acquire (take ownership of) the land, not when the PAO is applied;
- VicRoads expects to acquire the land for the construction of the Project to highway duplication levels in the next one to two years;
- Generally, VicRoads will only acquire the extra land required for the construction to freeway standard when traffic warrants it, funding has been committed and construction is due to start. Construction to freeway standard is not expected to occur for potentially 20 to 30 years' time;
- Generally VicRoads only acquires the land covered by the PAO however, based on economics, may purchase remnant parcels of land;
- VicRoads has an internal policy which sets out a number of principles/criteria to take into consideration when purchasing a property on the grounds of 'hardship'. Application of the policy is purely discretionary. Where it applies, VicRoads can acquire land earlier than it would under the normal process of acquisition for the Project;
- In the majority of cases (where the hardship policy does not apply), VicRoads will contact affected landowners when the land is required for the Project, and will follow the process provided for under the *Land Acquisition and Compensation Act 1986* which includes notice of intention to acquire, offers of compensation, negotiation, notice of acquisition and gazettal - at which time the land is formally transferred to VicRoads;
- The scope of compensation provided for under the *Land Acquisition and Compensation Act 1986* is broader than just the market value of the land being acquired. It also includes provision in certain circumstances for solatium, relocation of assets, disturbance and legal and valuation fees incurred by the landowner; and
- VicRoads suggests landowners should consider seeking independent legal and/or valuation advice about the process of acquisition and compensation under the *Land*

Acquisition and Compensation Act 1986, and the amount of compensation to which they will be entitled.

At the Hearing the Panel asked about the hybrid option linking Option 2 between Buangor-Ben Nevis Road (around chainage 19,300) and Option 1 alongside the southern edge of the existing Highway between Gravel Route Road and Pope Road (around chainage 21,000).

VicRoads said it considered the link as Option 4C in the shortlisted options. Option 4C was a combination of Options 4B (became Option 1) and 4D (became Option 2).

While feasible geometrically, VicRoads said Option 4C would have a greater severance impact on Mrs MacInnes' property involving more substantial changes in farming operations including more extensive stock underpass provisions or duplicate farming infrastructure. Mrs MacInnes indicated at the Hearing that she was not keen on the idea. It would also have far greater impacts on the significant vegetation east of Buangor-Ben Nevis Road.

The Panel notes that some houses in this section will experience higher, but not necessarily unacceptable, noise levels. For example the house in Buangor-Ben Nevis Road which is alongside the Option 2 alignment. The Panel accepts VicRoads' assurances about applying mitigation measures under its Noise Policy where appropriate and, in the case of the house in Buangor-Ben Nevis Road, VicRoads said it would consider purchasing the property due to its close proximity to the roadway.

The Panel's discussions for this section must be read in conjunction with those for Options 1 and 2 in the Pope Road to Langi Ghiran Picnic Ground Road section (see Chapter 25).

The Panel recognises more detailed design work could produce minor refinements in both Options 1 and 2, particularly to minimise impacts on vegetation and severed properties.

The Panel, while not considering details of any compensation resulting from property impacts, agrees with VicRoads' intentions to deal with these matters under the *Land Acquisition and Compensation Act 1986* and, in some cases hasten these processes, such as where landowners experience hardship.

24.5 Conclusions

In framing its conclusions for this section the Panel also considered the various elements and factors in the section to the west (see Chapter 25).

The Panel recognises VicRoads shortlisted two alignment options for this section, both of which bypass Buangor to the north and seek to minimise impacts on local vegetation and affected properties, while adequately providing for local access at both the highway duplication and freeway stages.

Although there were different views expressed in evidence and submissions about the relative severance impacts of Options 1 and 2 (also see Section 6.5), the Panel believes the tighter Buangor bypass Option 1 has a lesser severance impact.

The Panel recognises Option 1 directly affects one house (Mrs MacInnes' tenanted house) and diagonally severs Mrs MacInnes' property on the east side of Buangor-Ben Nevis Road. The Panel notes that this property is approximately 50ha in area and according to Mr Phillips' figures could return a weighted average gross margin figure of \$350/ha, giving an

expected annual gross margin of \$17,500 for the property. Mr Phillips estimates the loss proportion due to severance at 30%, giving an annual loss of \$5,250 for the property.

It is also noted that Option 1:

- Has a much smaller effect on Mrs MacInnes' property to the west of Buangor-Ben Nevis Road;
- Does not affect the house in Buangor-Ben Nevis Road alongside the Option 2 alignment; and
- Does not affect Mr Sanderson's property on Pope Road, which is severely affected by severance from Option 2.

For the Andersons Road to Pope Road section, the Panel:

- Favours Option 1, mainly because of its lesser severance impact on properties, while noting it directly affects one (tenanted) house;
- Notes VicRoads has adequate compensation mechanisms available and 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 *Noise Policy*.

The Panel notes that while VicRoads' preference is for Option 2 for the Project, it also accepted that Option 1 is suitable.

In balancing the various impacts and considering potential remedies and compensation for access restoration and other property uses along the section between Andersons Road and Pope Road, the Panel concludes that Option 1 is the preferred option because of its lesser property severance and vegetation impacts.

24.6 Recommendation

The Panel recommends adoption of VicRoads' Option 1 alignment between Andersons Road and Pope Road and its proposed access arrangements at both the Highway duplication and freeway stages as a basis for:

- Detailed design and implementation; and
- The implementation of a Public Acquisition Overlay as proposed in Draft Planning Scheme Amendment C27 to the Ararat Planning Scheme and as amended in the vicinity of Peacocks Road to remove the western entry and exit ramps.

25 Pope Road to Langi Ghiran Picnic Ground Road

25.1 Site description

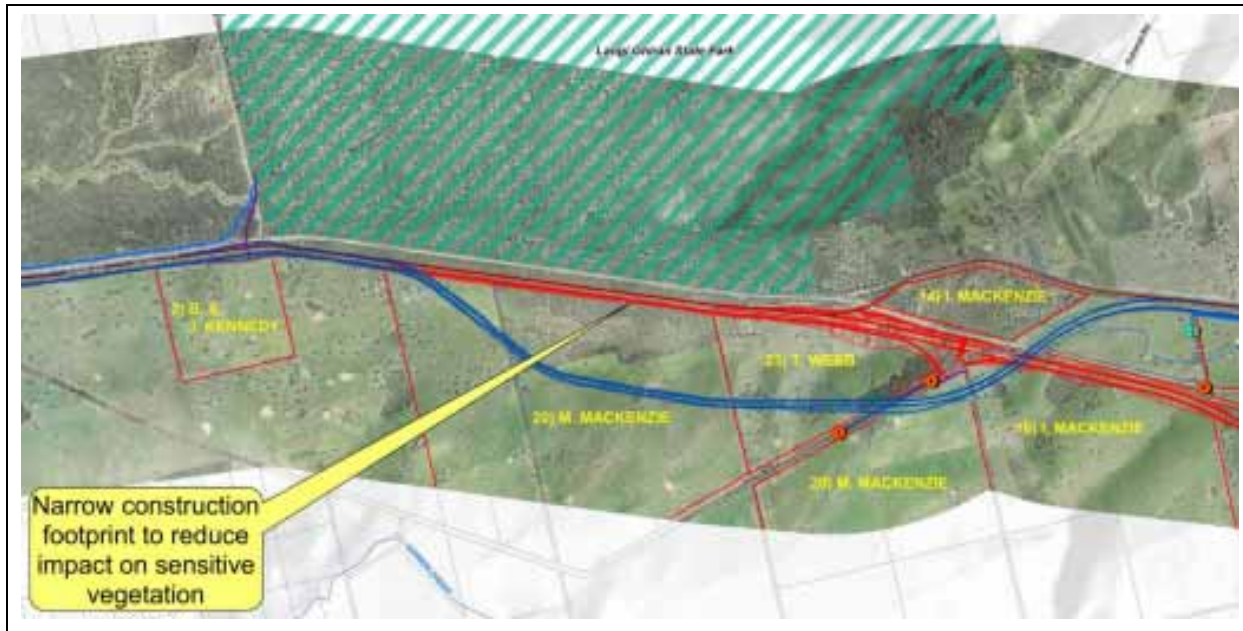


Figure 13 Pope Road to Langi Ghiran Picnic Ground Road¹²

There are several key features of the proposals in this section:

(i) Option 1 (blue on map in Figure 13)

- The dual Highway deviates from the existing Western Highway just west of Pope Road and crosses the Melbourne to Ararat railway line. The dual Highway continues in a south west direction past the railway line then overpasses Hillside Road. From Hillside Road the Highway continues to run approximately 600 metres south of the existing Highway to avoid the sensitive EVCs that the existing Highway intersects; and
- From chainage 27000 the dual Highway heads north to rejoin the existing alignment of the Western Highway at chainage 28400. From chainage 28400 through to Langi Ghiran Picnic Ground Road the Melbourne-bound carriageway uses the existing Highway and a new carriageway is constructed to the south, which becomes the Adelaide-bound carriageway.

(ii) Option 2 (red on map in Figure 13)

- The dual Highway runs along the south side of the existing railway line from Pope Road to the point where it rejoins the existing Highway alignment at Hillside Road;
- From Hillside Road the existing Highway is retained as the Melbourne-bound carriageway and a new carriageway is proposed to be constructed on the south side which will become the Adelaide bound-carriageway; and

¹² Source: VicRoads Community Consultation Long Plot

-
- All properties to the south of the Highway will have access via Hillside Road under the freeway scenario.

(iii) Key differences between Options 1 and 2

- The most significant difference between the two Options is their impact on the Very High and High conservation significant Ecological Vegetation Classes. Option 1 has less impact in regard to this matter than Option 2, but Option 1 has greater impact on matters of National Environmental Significance particularly Golden Sun Moth habitat;
- Option 2 has fewer land severance issues as compared to option 1; and
- Both Options avoid the Very High and High conservation significant native vegetation between Pope Road and Hillside Road along the existing Highway as well as the post settlement cultural heritage site of Colvinsby.

25.2 The Issues

The following issues were raised by submitters:

- Increased pressure for rezoning from Farm Zone to bushland Rural Living Zone due to separation of native vegetation from agricultural use;
- Property severance and consequent loss of production west of Hillside Road under Option 1. Impact of severance at 689 Hillside Road on viability of commercial operations;
- Economics of the Project, the appropriateness of expanded roads over other transport options for the future;
- Amenity of the 'Hillside' property; and
- Disturbance of environmental restoration sites and impact on rare and endangered native species and destruction of remnant vegetation, particularly mature native trees led to a proposal for an alternative alignment to Options 1 and 2 along the existing Highway between Buangor and Mt Langi Ghiran.

25.3 Evidence and submissions

(i) Severance

Mr Phillips identified severance as the key matter impacting on agriculture from the Project. In this Zone the impact of severance of land falls most heavily on the properties of Mr Tim Webb, Ms I A Mackenzie, Ms Iona Mackenzie and Ms Mairi Anne Mackenzie. Both Options impact each of these properties. Option 1 bisects the properties of Mr Webb and Ms Mairi Anne Mackenzie, and impacts land on the boundary of the properties of Ms I A Mackenzie and Ms Iona Mackenzie. Option 2 bisects the northwest of Ms Iona Mackenzie's property and the northern boundaries of Ms Mairi Anne Mackenzie's property and that of Mr Webb.

Mr Webb submitted that both Options will have a great impact on his property and will cause commercial operations to become unviable. He is seeking compensation to purchase a similar property.

Mr Phillips' agricultural analysis for this section identifies a clear preference for Option 2 as it avoids severance, which in his evidence is a substantial consequence of Option 1, particularly

to the west of Hillside Road. Direct land loss is similar for both Options, but in different locations, and there are limited infrastructure effects.

He stated that most impacts of severance are receptive to amelioration and best directed at the property level. These included facilities replacement, duplication or extension, improved access arrangements and compensation for any permanent affects that lower farming performance.

From the perspective of changed pressure for development, Mr Joel Hastings of the Ararat City Council (Submission 15) raised the issue of increased pressure for rezoning from Farm Zone to Rural Living Zone due to severance of native vegetation from agricultural use. Council would like this avoided particularly around Mt Langi Ghiran. Council's issue is the inability to aggregate severed land due to close proximity to Mt Langi Ghiran State Park. This is relevant to the two bushland areas belonging to Ms Mairi Anne Mackenzie and Ms I A Mackenzie. These two significant areas will be severed from their agricultural land, making them more difficult to access.

(ii) Economics of the Project and alternative transport modes

Ms Iona Mackenzie, in Submission 18, questions the economics of the Project and the appropriateness of expanded roads over other transport options for the future. VicRoads stated that the economics and justification for the Project have been addressed in the EES. They stated that a low Benefit/Cost Ratio is not unusual for projects of this nature in regional areas, as traffic volumes are low and have long project construction lengths compared to urban projects.

(iii) Disturbance of native vegetation and consideration of further alternative alignments to VicRoads alignments

Ms Iona Mackenzie (Submission 18) and Ms Mairi Anne Mackenzie (Submission 20) submitted that VicRoads' alignment Options will impact in an unacceptable way on the native bushland, both revegetated sites and remnant vegetation, in the vicinity of Hillside Road, and that both Options will impact on rare and endangered native species.

Ms I A Mackenzie (Submission 14) and Ms Mairi Anne Mackenzie request an alternative alignment to VicRoads Options 1 and 2 along the existing Highway between Buangor and Mt Langi Ghiran. Ms Mairi Anne Mackenzie called expert evidence from Mr Mark Sheppard of Practical Ecology who was asked to review Ecology and Heritage Partners findings and investigate alternative alignment options in the Hillside Road area. Mr Sheppard offered alternative alignments (Northern Options 1 and 2), which he considered would perform better in terms of '*overall area of native vegetation destroyed*' and that these alignments also perform better in terms of social impact, severance, habitat fragmentation, noise at dwellings, business disruption, visual amenity and benefit/cost ratio.

Ms Mairi Anne Mackenzie also proposed wire rope barriers to enable median widths to be minimised.

VicRoads responded that it did consider the options proposed by Ms Mackenzie and Mr Sheppard but eliminated them because:

- They did not meet AMP 1 design standards;

-
- There was significant impact on vegetation of High and Very High conservation significance; and
 - The geometry was poor for the crossing of the railway line.

Mr Organ, in his evidence to the Panel, indicated that both Ecology and Heritage Partners study and that of Practical Ecology recorded very high conservation values in the proposed Northern Alignment. He found that the Northern Options had a higher Habha offset requirement than VicRoads' Option 1. He also stated that the Northern Options have not accounted for the impacts on native vegetation of likely service roads which he considered would be significant. His opinion was that it is important to avoid any additional impacts to the State Park created by potential service roads. Mr Sheppard gave evidence that Ecology and Heritage Partners did not report at a fine enough scale of mapping to provide accurate enough conclusions. Mr Organ responded that finer scale surveys would be required for the final alignment and may affect decisions regarding vegetation protection. Mr Organ considered there could be subtle variations in extent and quality of vegetation in the final alignment, but is likely to be in extent/area rather than quality of vegetation. He also gave evidence that, as the areas of revegetation are small, impacts on these areas are small and insignificant in the overall Project scale.

Mr Organ and Mr Sheppard agree that the proposed alternative Northern Option requires the offset for only one scattered mature tree compared to up to 50 mature trees in VicRoads' Option 1.

The impacts on biodiversity and habitat of each of the route options through this section are discussed in more detail in Chapter 11 of this report and are not repeated at length here. In summary, through this section the main differences are:

- Option 1 impacts on less 'Very High' and 'High' conservation significance vegetation than Option 2;
- Option 1 has a higher level of impact on matters of NES (1 Spiny Rice- Flower Plant, 7.76ha more of Golden Sun Moth habitat and 2.49ha more of Natural Temperate Grassland of the Victorian Volcanic Plain) than Option 2; and
- Option 2 (and the 'Northern options') creates a greater barrier for native fauna between the Langi Ghiran State Park and the native vegetation areas on the Mackenzie property to the south of the existing Highway.

(iv) Amenity

Ms Iona Mackenzie and Ms Mairi Anne Mackenzie identified adverse amenity impacts on the 'Hillside' homestead and on an area earmarked for construction of a future dwelling. At the request of Ms Mairi Anne Mackenzie the Panel visited a high point on the Hillside property south of Option 1 to view the site of the future construction footprint for Option 1. The Mackenzies have a primary concern that the cutting will result in a 'scar' on the landscape that will impair the amenity of their current vista.

25.4 Discussion

(i) Severance

The Panel notes the submissions and evidence presented to it that, for this section, Option 2 has less severance impact than Option 1.

The Panel notes Mr Phillips' evidence that the severance impact of Option 1 is greater, due mainly to the severance of potential grazing land to the west of Hillside Road.

The Panel understands the issues of inconvenience and economic costs being imposed by severance on a few landholders for the benefit of the wider community. For both Options 1 and 2 VicRoads has had to balance factors which impact on farms, environmental protection and construction costs with the principles of safety and transportation efficiency. Consequently the Panel views severance to some degree as a 'necessary evil' in balanced planning for any highway duplication or upgrade. VicRoads will assess loss of land and compensation for severance under the process provided by the *Land Acquisition and Compensation Act 1986*. The Panel has noted some key points in VicRoads' response on its land acquisition and compensation process regarding the impacts of severance in Section 23.4.

Mr Hastings (Ararat Rural City Council) submitted that bushland severed from contiguous agricultural land could create pressure for rezoning to Rural Living due to inability to aggregate severed land, particularly in the vicinity of Langi Ghiran State Park. He submitted that Ararat City Council opposed such a rezoning. The Panel considers that this is a matter for Council to consider as part of its strategic land use planning. Any change would require strategic justification and the approval of Council for isolated rezoning. The Panel concludes that this is not a high risk.

(ii) Economics of the Project and alternative transport modes

VicRoads explained the reasons why the Benefit Cost Ratio for this Project and other rural highway projects is low. They stated whilst this is the case, it will result in an efficient and safe transport link between Melbourne and Adelaide. The Panel accepts that consideration of alternative transport modes, specifically the upgrading of the rail network is beyond the Terms of Reference for this EES. The Panel also notes that the Benefit Cost Ratio of the Project will ultimately impact on when funding will be made available.

(iii) Disturbance of native vegetation and consideration of further alternative alignments to VicRoads' alignments

The policy regarding indigenous vegetation protection is derived from the *Environment Protection and Biodiversity Conservation Act 1999* and the *Flora and Fauna Guarantee Act 1988*. This requires compliance with the State policy specified in *Victoria's Native Vegetation Management – A Framework for Action*. The *Framework* prescribes avoidance or minimisation of effects or, if this is not reasonably possible, then losses must be offset.

Alignment Options 1 and 2 have had intensive ecological study and their choice is strongly related to the avoidance and minimisation principles. Both alignments have been selected to provide maximum avoidance, balanced with sound highway design.

In this section the Option 1 alignment avoids impacts on extensive areas of Grassy Dry Forest, Hills Herb Rich Woodland, Heathy Woodland, all of which are of High or Very High Conservation Significance. It also avoids the rare species Emerald-Lip Greenhood and Yarra Gum, individuals of which are adjacent to the existing Western Highway and the Langi Ghiran State Park. The median has also been narrowed in this Zone to minimise impacts on the Golden Sun Moth. The Option 2 alignment has been designed with a wide median in some sections to minimise impacts on Yarra Gums, Emerald-lip Greenhood, Heathy Woodland, Grassy Dry Forest, Plains Grassy Woodland and large old trees adjacent to the existing Highway. These EVC's and species are of High and Very High conservation value.

Mr Organ found that the northern alignments of Mr Sheppard had a higher Habha offset requirement than VicRoads Option 1.

In this section, the alignment of Option 1 avoids much indigenous vegetation by passing to the south of the existing Highway until chainage 28200 to 29400 and south of Ms Mairi Anne Mackenzie's remnant vegetation (chainage 26000 to 27600). The new carriageway alignment proposed in Option 2 will intersect indigenous vegetation between chainage 23400 to 23600, the Hillside Road interchange and chainage 25200 to 29200. For this section the Panel notes that Option 1 provides for greater avoidance of indigenous vegetation than does Option 2.

Whilst noting that Option 1 has a greater impact on Golden Sun Moth habitat, the Panel believes that the other advantages of Option 1 outweigh this disadvantage. The Panel agrees with the conclusion of DSE that Option 1 has less overall impact on native vegetation and, importantly, Option 1 enables the establishment of wildlife corridors between the Langi Ghiran State Park and the native vegetation areas to the south of the existing Highway alignment. The Panel notes that much of the higher conservation significance vegetation is in the roadside of the existing Highway. Option 2 (and the Northern options proposed by Ms Mairi Anne Mackenzie) significantly impacts on this existing roadside vegetation.

The Panel believes that the area between the existing Highway and the proposed Option 1 alignment (from Hillside Road to where Option 1 rejoins the existing Highway alignment) provides an opportunity as a possible site for native vegetation offsets. Use of this area in this way would enhance the habitat value of the area and effectively extend the native vegetation and habitat footprint of the Langi Ghiran State Park southwards to the Option 1 alignment.

(iv) Amenity

The long cutting in Option 1 (chainage 23200 to 25800) is of concern to Messrs Iona and Mairi Anne Mackenzie. The Panel understands that the part of the cutting closest to their property will be the deepest and widest part and will be visible from significant parts of their property. Mr Deeble assured the Panel that landscaping works within the vista of the Mackenzie property will be addressed by rehabilitation of the cutting and vegetative screening.

25.5 Conclusions

For the Pope Road to Langi Ghiran Picnic Ground section, the impact of severance of land falls most heavily on the properties of Mr Tim Webb, Ms I A Mackenzie, Ms Iona Mackenzie and Ms Mairi Anne Mackenzie. From the evidence of Mr Phillips, it is clear that both Options impact each of these properties, however the Panel agrees that Option 2 has less severance impact on the agricultural potential of these properties. The Panel notes, however, that much of this land (on the Mairi Anne Mackenzie property) is not currently being used for grazing and has been allowed to revegetate to a natural bushland. The Panel is of the view, therefore, that Mr Phillips has perhaps overstated the impact of severance on farmland in this section.

The Panel notes that VicRoads has adequate compensation mechanisms available and will use the processes of the *Land Acquisition and Compensation Act 1986* to assess any loss of land and other relevant impacts.

The Panel considers that potential rezoning of severed bushland on the basis that it was separated from agricultural land to an isolated rural living zone in the vicinity of Langi Ghiran State Park would be inappropriate and is not, in this case, a major consideration in developing a preferred alignment option.

From the evidence of Mr Organ and Mr Sheppard, the Panel concludes that there is no advantage in VicRoads considering the proposed Northern Alignment put forward by Ms Mairi Anne Mackenzie. The Panel agrees that consideration of the impact of this option failed to properly consider the impact of service roads required and the subsequent impact on native vegetation. The Panel concludes that the Northern options would be a less than ideal design solution and would have greater impact on native vegetation than the Panel's preferred Option 1.

The Panel accepts VicRoads' evidence that the impact of cuttings on the vista of nearby properties will be minimal. The vista will nevertheless be changed and it is likely that in some of the deepest and widest cuttings it will require considerable works to achieve complete vegetative cover and screening. This will be particularly the case where the vista is from an elevated situation such as parts of the Mackenzies' properties.

25.6 Recommendation

The Panel recommends adoption of VicRoads' Option 1 alignment between Pope Road and Langi Ghiran Picnic Ground Road and its proposed access arrangements at both the Highway duplication and freeway stages as a basis for:

- Detailed design and implementation; and
- The implementation of a Public Acquisition Overlay as proposed in Draft Planning Scheme Amendment C27 to the Ararat Planning Scheme.

26 Langi Ghiran Picnic Ground Road to Heath Street, Ararat

26.1 Site description

This section, covering much of Zone 6 in VicRoads' Options Long List, extends from Langi Ghiran Picnic Ground Road (Option 1 chainage 29300; Option 2 chainage 29200) to Heath Street (Option 1 chainage 39900; Option 2 chainage 39800). Options 1 and 2 are the same for this section (see Figure 14).

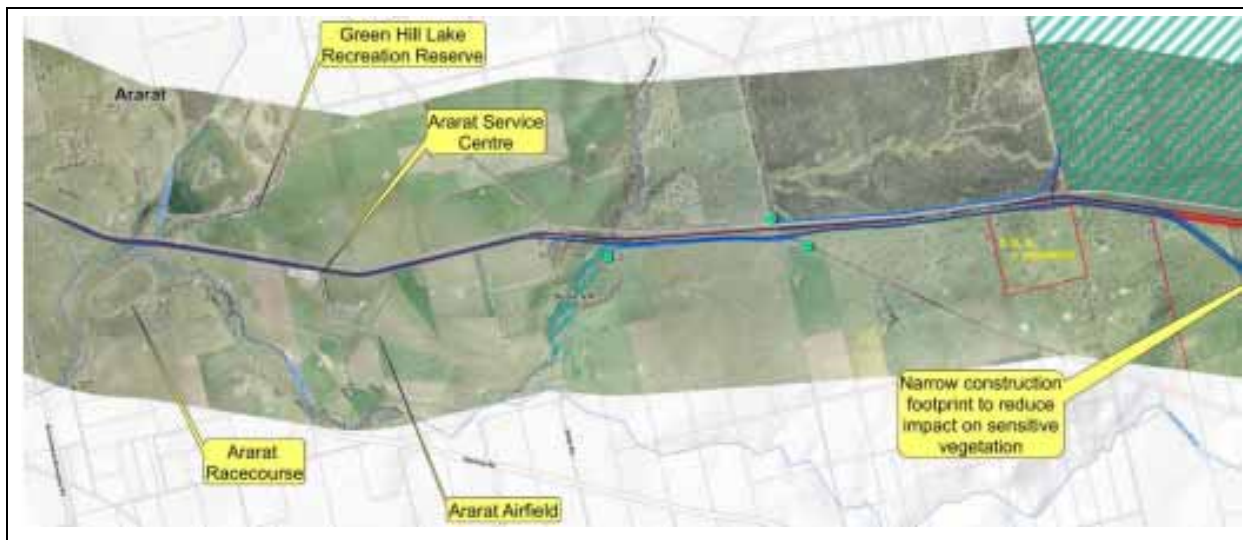


Figure 14 Langi Ghiran Picnic Ground Road to Heath Street, Ararat¹³

There are several key features of the proposals in this section¹⁴:

Langi Ghiran Picnic Ground Road to Warrayatkin Road

- The existing Highway becomes the Melbourne-bound carriageway and a new Adelaide-bound carriageway would be built on the south side;
- Under the initial Highway configuration, the intersections of Langi Ghiran Picnic Ground Road, Hillside Road and Warrayatkin Road will be wide-median treatments. Dobie Road intersection will have a left-in left-out layout;
- Under the freeway configuration Langi Ghiran Picnic Ground Road would be grade separated as a full-diamond interchange with a service road along the north side of the railway line connecting Brady Road to Langi Ghiran Picnic Ground Road; and
- Under the freeway configuration, freeway access to Hillside Road would be closed and a service road would be constructed between Hillside Road and Dobie Road.

¹³ Source: VicRoads Community Consultation Long Plot.

¹⁴ Descriptions in each section have drawn on proceedings at the Hearing, including Mr Deeble's 'walk-through' notes and presentation about the Project.

Warrayatkin Road to Ararat

- Any duplication works west of Warrayatkin Road (chainage 34600) would be confined to the existing road reserve to avoid impact to the Ararat aerodrome and the petrol station. Any such works would avoid a large remnant patch of Spiny Rice Flower (EPBC listed) between the existing Highway and the railway line; and
- As Warrayatkin Road is one of the likely points where a bypass of Ararat might start, VicRoads envisages it would undertake road safety improvement works rather than duplication along this section to Heath Street.

26.2 The issues

Key issues raised by submitters were on the impacts of the Project on property and side road access, loss of land and farm viability.

26.3 Evidence and submissions

Ararat Rural City Council, represented by Mr Hastings, expressed concern at VicRoads' proposed staggered T intersection at Geelong Road (chainage 37900) and suggested a wide-median treatment would be more suitable and safer because of the intersection's role in tourism (access to the racecourse and Greenhill Lake Recreation Reserve) and Geelong Road being a B-Double route.

Mr Bartley said Geelong Road intersection will be subject to detailed design however, because no land acquisition is planned here (partly due to the uncertainties about the future alignment of the Ararat bypass), a wide median intersection will not be possible.

Mr and Mrs Kennedy (Submission 2) made several points, including:

- Preference for VicRoads to initially purchase the total amount of land required for the full freeway scenario;
- They may also request VicRoads to purchase the whole property;
- Seeking extra compensation for:
 - Risk of spreading diseases on property by consultants entering the property for the EES;
 - Workers and machinery entering and exiting property during construction and queries about how access will be maintained during construction;
 - Time given to write submissions and attend community sessions; and
 - Time and stress caused.
- Seeking new entrance to property and new permanent boundary fencing;
- Wanting use of existing access until the freeway upgrade stage; and
- Seeking assurance that making right and left hand turns will be safe and visible and that moving stock to market either by transport or trailer is possible.

In response Mr Bartley said:

- VicRoads will assess the loss of land and compensation under the *Land Acquisition and Compensation Act 1986* processes;
- All planning investigations have been completed in accordance with the process provided by the *Planning and Environment Act 1987*;

-
- Construction and all impacts of construction (including prevention of disease spread) will be managed in accordance with VicRoads requirements and Construction Environmental Management Plan (CEMP);
 - During construction, existing property access will be maintained, or alternative access provided after consultation with the landowner;
 - VicRoads appreciates the time given to visit community information sessions; and
 - Duplication of the Western Highway will improve road safety, including access to private property.

26.4 Discussion

The Panel agrees with VicRoads' approach to upgrading this section, which takes into account potential impacts on the Critically Endangered species Spiny Rice Flower, the aerodrome and the petrol station while retaining flexibility for linking with a future bypass of Ararat. The EES identifies that both alignment Options avoid impacts on the Spiny Rice Flower and only one Spiny Rice Flower is destroyed in the whole Project. Approximately 900 metres east of the Hopkins River the carriageway way was moved further south to avoid the Spiny Rice Flower.

The Panel notes there is flexibility under the land acquisition processes for VicRoads to consider Mr and Mrs Kennedy's requests about acquiring all land for the freeway configuration and potentially their whole property.

The Panel has no issue with VicRoads' proposals for this section but, as in other sections, recognises more detailed design work could produce minor refinements in the proposals.

26.5 Conclusions

The Panel:

- Recognises VicRoads has developed an alignment option for the Langi Ghiran Picnic Ground Road to Heath Street section 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; and
- Notes VicRoads will use the processes of the *Land Acquisition and Compensation Act 1986* to assess any loss of land and other relevant impacts.

26.6 Recommendation

The Panel recommends adoption of VicRoads' preferred alignment between Langi Ghiran Picnic Ground Road and Heath Street, Ararat and its proposed access arrangements at both the Highway duplication and freeway stages a basis for:

- **Detailed design and implementation; and**
- **The implementation of a Public Acquisition Overlay as proposed in Draft Planning Scheme Amendment C27 to the Ararat Planning Scheme.**

27 The preferred alignment

27.1 The issues

The Panel recognises VicRoads' overriding objective has been:

To identify an alignment and conceptual design for the Western Highway Duplication from Beaufort to Ararat that would achieve a sustainable balance of economic, environmental and social outcomes.

The Panel, in choosing one of VicRoads' final two options (Option 1 or Option 2) as its preferred alignment, with some recommended refinements, considered a range of key issues.

These key issues (summarised in Chapter 2) included:

- VicRoads' response to the environmental effects (see Chapters 6 to 19 in Part A); and
- Management of the impacts of the Project, including loss of land, reduced farm viability, noise, vibration, air quality, loss of vegetation and proposed property access arrangements in the various sections of the Project (see Chapters 21 to 26).

27.2 Evidence and submissions

The Panel read and heard many submissions and targeted evidence about Options 1 and 2 and the land needed for initially upgrading the existing Western Highway to duplicated highway status and eventually to freeway status.

In VicRoads' opening submissions, Mr Bartley stressed the EES evaluation makes it clear there is little difference between Option 1 and Option 2. He reiterated VicRoads prefers Option 2 on the basis that:

- *It has slightly higher benefits than Option 1 (\$177.4m v. \$174.3m).*
- *It has lower costs (\$320.4m v. \$322.8m).*
- *Accordingly, a higher benefit/cost ratio (0.6 v. 0.5).*
- *It has a lower impact on matters of National Environment Significance (in accordance with the EPBC assessment), although a higher impact on biodiversity generally.*
- *In other respects it has marginally less impact (less severance, less fill, fewer noise impacts, better landscape and visual impact) or around the same or only slightly worse impact on a couple of other measures.*

In summarising the Project objectives (see also Chapter 1), Mr Bartley stressed that *construction to freeway standard will likely only occur when traffic levels warrant it*. He added that:

.... in the interests of long-term strategic planning and to provide landowners with certainty, the Public Acquisition Overlay (PAO) is being applied now to all land required for the eventual freeway construction. The additional land required for the construction to freeway standard will likely only be acquired when freeway conditions are to be implemented.

In its submission, DSE said it considers Option 1 to have a less overall environmental impact than Option 2, particularly with respect to overall native vegetation removal and impacts on the Langi Ghiran State Park. It also said Option 2 has greater potential to increase road kill (for example, arboreal mammals, small ground dwelling mammals, monograms and reptiles) than Option 1.

In his expert evidence, Mr Organ summarised his preference for Option 1:

Based on the level of impact to Very High and High conservation significance vegetation, Option 1 is considered to be the preferred alignment option (with an area of impact 15.4 hectares less than in Option 2).

Option 1 has a greater level of impact on matters of NES (one Spiny Rice-Flower individual, 7.76 hectares more of Golden Sun Moth habitat and 2.49 hectares more of NTGVVP) than Option 2. However, the differences in level of impact on matters of NES between the two alignment options are considered relatively small when compared with the difference in the amounts of Very High and High conservation significance vegetation impacted by the two alignment options. As such, Option 1 is considered the preferred alignment from the Biodiversity and Habitat perspective due to least impact on Very High and High conservation significance vegetation.

He said Mr Organ's conclusions support Option 1 but recognise:

'... the differences in level of impact on matters of NES between the two alignment options are considered relatively small when compared with the difference in the amounts of Very High and High conservation significance vegetation impacted by the two alignment options' (page 7, Statement of Expert Evidence).

In his expert evidence, Mr Phillips identified severance as the key matter in his support for Option 2 over Option 1 in terms of agricultural impacts:

From an agricultural perspective, Option 2 is considered to be the best performing option due to its lesser severance impact. All other areas of impact were similar between the two options.

Mr Phillips calculated that severance impacts would amount to a total annual loss to landholders of \$22,260 for Option 1 and \$8,610 for Option 2. For total regional losses Mr Phillips calculated \$3.97 million for Option 1 and \$3.59 million for Option 2.

As discussed in Chapter 25, the Panel believes that the impact of severance for Option 1 may have been slightly overstated.

The Panel notes that the two options were very similar in economic performance, other than for severance. Option 2 has lower severance impact which is reflected in its slightly better economic performance.

Ararat Rural City Council, represented by Mr Hastings, supported the Project as an important piece of infrastructure essential to growth and prosperity of the region. Although Council expressed no clear preference for either Option 1 or Option 2, it did comment on the greater severance effects of Option 1. The Panel deals with Council's specific concerns as appropriate in other chapters, but there are some which are more general which could influence selection of a favoured route:

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- Traffic matters, including maintaining north-south connectivity on the local road network - VicRoads considers that north-south connectivity is typically retained for AMP3 (highway configuration), or with minor detours involving extra travel distance and time. VicRoads has designed the extensive service roads and interchanges to maintain connectivity under AMP1 (freeway configuration);
 - Intersections and traffic routes – The Panel deals with VicRoads’ response to the lack of a proposed intersection at Buangor-Ben Nevis Road in Chapter 24 and on the proposed T intersection at Geelong Road in Chapter 26. VicRoads recognises the importance of ensuring safe local access;
 - Service road standards and economic impacts of Council taking them over – VicRoads intends consulting with Council on the required standards and responsibilities for managing service roads, but gave assurances about meeting Council standards;
 - Impact of construction traffic on local roads – VicRoads and the construction contractor will develop a Traffic Management Plan for construction activities, including haul routes. Local roads will be inspected for condition prior to works commencing. VicRoads said it welcomes development of a Traffic Management Plan in consultation with and to the approval of Council;
 - Land Use – importance of facilitating existing land uses, often by consolidating remnant small lots. VicRoads said it will continue to liaise with Council and affected landowners to determine the most suitable strategy to address ongoing and future land use; and
 - Vegetation – importance of avoiding segregating areas of native vegetation, particularly around Mt Langi Ghiran, which would make their ongoing management difficult and increase pressure for rural living opportunities.

The Panel accepts VicRoads’ assurances about being able to resolve Ararat Rural City Council’s concerns.

The Panel notes VicRoads will ensure all service roads and access arrangements are able to accommodate all vehicles now using the access roads and property accesses, including farm vehicles and machinery, and B-Double trucks.

In his closing submission, Mr Bartley summarised VicRoads’ position on Options 1 and 2:

- Resulting from the extensive options assessment and EES process, VicRoads identified that Options 1 and 2 are the most appropriate options in terms of the relevant impacts required to be assessed under the EES Scoping Requirements having regard to the relevant legislation and policies;
- VicRoads presented Options 1 and 2 for consideration by the Panel on the basis that the impacts of both options are acceptable, and the differences between the two options are minor. On balance, VicRoads prefers Option 2 as set out in the Conclusion (Section 5.9) of the EES:

Both Options 1 and 2 would meet project objectives and deliver the desired benefits of improved road safety and transport efficiency.

Option 2 has less land severance and therefore less impact on farming productivity within the Project Area. From an environmental perspective, Option 2 also has slightly less impact on golden sun moth habitat and would result in the removal of less Grassy Eucalypt Woodland of the Victorian Volcanic Plains.

Option 1 has reduced risk of encountering unstable geological units given its alignment along the existing highway corridor at Langi Ghiran State Park compared to Option 2. Option 1 would also result in the removal of 21ha fewer EVC's compared to Option 2 and would result in one less dwelling being impacted by the alignment.

Based on an analysis of potential impacts of each option, VicRoads prefers Option 2, but acknowledges that Option 1 would also satisfy the overall project objectives.

- Table 5-11 on page 5-28 of the EES provides a high level comparison of Options 1 and 2;
- The key differences between Options 1 and 2 relate to the ecological impacts of the Project. The other differences between the impact of the options are fairly minor, and in many cases would result in a similar overall level of impact but with impacts on different properties or features (for example, in terms of social impacts two dwellings would be acquired under Option 1 and three dwellings under Option 2);
- VicRoads provided the following outline of the key conclusions from Table 5-11 and further comment in relation to the differences between Options 1 and 2:
 - Planning and Land Use: Option 2 has fewer impacts in terms of land severance.
 - Traffic and Transport: No discernible difference between the options.
 - Soils and geology: 1.2 million cubic metres less fill for Option 2. This represents 60,000 truckloads.
 - Groundwater: No discernible difference between the options.
 - Surface water: Option 2 performs better due to the shorter crossing of Billy Billy Creek.
 - Cultural heritage: Option 1 has less impact on Aboriginal cultural heritage. Option 2 has less impact on non-Aboriginal heritage.
 - Air quality: the difference in sensitive receptors during construction is minor, 51 for Option 1 and 47 for Option 2.
- Noise and vibration: Option 2 has better performance;
- Visual and landscape: Option 2 has less impact in terms of major cuts across the landscape;
- Social: The difference between the options is assessed in terms of the number of dwellings to be acquired which is two dwellings under Option 1 and three dwellings under Option 2 (Table 5-11). There are other social impacts linked to landscape and visual impacts which have been discussed;
- Economic: Option 2 has a marginally greater economic impact for the wider community; and
- In terms of matters of biodiversity and habitat and matters of NES, the key differences between Options 1 and 2 are as follows:
 - DSE and Ecology & Heritage Partners prefer Option 1 on the basis that it would have 30ha less impact on high and very high conservation significant EVCs, which are protected under Victoria's Native Vegetation Framework.
 - In comparison, Option 2 has less impact on matters of NES under the EPBC Act.

27.3 Discussion

The Panel notes that Options 1 and 2 are the same from Beaufort to Andersons Road and from Langi Ghiran Picnic Ground Road to Ararat.

The Panel accepts VicRoads has adequately considered and assessed the issues under each of the technical studies it undertook to inform the EES and Amendments (see EES Chapters 8 to 21). The Panel deals with these in Chapters 6 to 18.

The Panel notes VicRoads' submission that:

- There are no significant or discernible differences between Options 1 and 2 in terms of Traffic and transport, Groundwater, Cultural heritage, and Air quality;
- Option 2 is marginally better in terms of estimated costs (\$177.4m v. \$174.3m) and benefits (\$320.4m v. \$322.8m, for example, because its length is around 100 metres shorter) and its higher benefit/cost ratio (0.6 v. 0.5);
- Option 2 has less impact in terms of land severance;
- Option 2 has 1.2 million cubic metres less fill; and
- Option 2 performs better in impacts on surface water because of its shorter crossing of Billy Billy Creek.

The Panel notes DSE expressed a preference for Option 1 on ecological grounds and has sought further consultation during the detailed design and construction phases to further 'avoid' and 'minimise' native vegetation impacts.

The Panel accepts VicRoads' reasons for favouring Peacocks Road as the key access to Buangor from a half-diamond interchange on the bypass, supported by the proposed ramp and service road configurations.

At the Hearing the Panel asked whether a hybrid option linking Options 1 and 2 west of Buangor might have merit but, based on VicRoads' submissions and its earlier work, agrees the severance impacts would be much greater than for Option 2 and unacceptable.

On the matter of construction impacts, the Panel accepts VicRoads:

- Has prepared a Framework Environment Management Plan (EMP) – EES Chapter 21; and
- As it does with all of its major projects, will require the contractor engaged for construction of the Project to implement the EMP through the preparation of a Construction EMP (CEMP).

The Panel notes the expected timeframe of more than 30 years until full freeway conversion would allow ample time to replace some vegetation affected by the proposed land acquisition.

The Panel recognises VicRoads said it would be prepared to further investigate any 'real options' the Panel recommends, including:

- Narrow medians if required in some sections to minimize the impact on vegetation; and
- Measures to minimise the intrusiveness of cut batters, for example, just west of Hillside Road (chainage 25,000 to 26,000) under Option 1.

The Panel (see also Chapter 25):

- Does not favour a narrow (four or six metres wide) median design layout along the Option 2 alignment west of Hillside Road, largely for safety, maintenance and

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- operational reasons. The Panel notes that this Option, despite the intention to avoid native vegetation, has a greater overall impact on biodiversity and habitat than Option 1;
- Strongly supports the superior bio-links resulting from Option 1 for the length of the Langi Ghiran State Park, which maintains the existing permeability between the private bushland to the south with the Park itself.

On balance, the Panel believes the avoidance of significant vegetation, coupled with the lesser severance impact on agricultural land around and west of Buangor, and maintenance of the design objectives (such as 110 kilometres an hour for the whole project length) for Option 1 outweigh the marginal benefits of Option 2 (such as estimated costs and benefits, and less severance west of Hillside Road). In coming to this view, the Panel gives weight to the opportunity for compensation of the impacts on individual property owners provided by the *Land Acquisition and Compensation Act 1986*.

27.4 Conclusions

The Panel concludes that VicRoads' Option 1 is the preferred option and, subject to the minor design changes presented to the Panel Hearing, that VicRoads alignment Option 1 be adopted as a basis for detailed design and the implementation of Public Acquisition Overlays as proposed in Draft Planning Scheme Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat Planning Scheme.

As discussed in Chapter 6 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*.

27.5 Recommendation

The Panel recommends, subject to the implementation of mitigation measures proposed by VicRoads, and subject to the minor design changes presented to the Panel Hearing, that VicRoads alignment Option 1 be adopted as a basis for detailed design and the implementation of Public Acquisition Overlays as proposed in Draft Planning Scheme Amendments C37 to the Pyrenees Planning Scheme and C27 to the Ararat Planning Scheme.

Appendix A List of submitters

No.	Submitter	Represented by
1	Mildred Nance Tacey	
2	Jennifer and Bryan Kennedy	
3	La Trobe University Botany Department	
4	Neal Pitcher	
5	Dean and Alison Tonkin	
6	Margaret Brennan	
7	Mary Brennan	
8	Western Highway Action Committee	
9	Ian and Annice Sanderson	
10	Pyrenees Shire Council	
11	ID and MI MacInnes Pty Ltd	
12	Fleur Hillman	
13	Ray Larkens	
14	Mrs I A Mackenzie	
15	Ararat Rural City Council	
16	VicRoads	
17	John and Jillian Brennan	
18	Iona Mackenzie	
19	Paula Brennan	
20	Mairi Anne Mackenzie	
21	Northern Grampians Shire Council	
22	Department of Sustainability and Environment	
23	Tim Webb	

Appendix B Document list

Document No.	Date	Description	Presented by
1	4 Dec 12	Outline of Environment Effects Statement process	Ms Elissa Bell, Senior Environmental Assessment Officer, Department of Planning and Community Development
2	'	VicRoads Opening Submission	Mr Mark Bartley, Solicitor-Advocate, HWL, Ebsworth
3	"	<i>2007 Melbourne – Adelaide Corridor Strategy</i> , (Auslink June 2007)	"
4	"	<i>Western Highway M8/A8 Corridor Strategy</i> (VicRoads 1999)	"
5	"	Planning Panel Walkthrough	Mr Grant Deeble, Team Leader Planning VicRoads – Western Highway Project
6	5 Dec 12	VicRoads Further Submission	Mr Bartley
7	"	VicRoads Table of Response to Submissions	"
8	"	Road Network Map – Beaufort to Ararat Corridor	"
9	"	Emails and Drawings for Alignment Options along existing Highway at base of Mt Langi Ghiran (GHD, June 2012)	"
10	"	GHD Comments on possible alignment joining Options 1 and 2 west of Buangor	"
11	6 Dec 12	Ararat Rural City Submission (Copy of PowerPoint presentation)	Mr Joel Hastings, Manager Planning & Development
12	"	Plan of Suggested Alternative Alignment at and west of Buangor	Mr John Brennan
13	"	Submission	Ms I A Mackenzie
14	"	Expert Report by Matt Mushalik, Crude Oil Peak (December 2012)	Ms Iona Mackenzie
15	"	Article <i>It's the end of the world as we know it</i> from The Sydney Morning Herald, 3 December 2012	"
16	"	Appendices/Extracts in support of oral submission	Ms Mairi Anne Mackenzie
17	"	Copy of oral expert evidence (Copy of PowerPoint	Mr Mark Shepherd,

Document No.	Date	Description	Presented by
		presentation)	Practical Ecology
18	“	A3-sized copies of maps in written Expert Report	“
19	“	VicRoads Closing Submission	Mr Bartley
20	“	Plans of Revised Proposed Public Acquisition Overlays (PAOs) for Options 1 and 2 at Peacocks Road, Buangor	“
21	“	Drawings showing Selected Cross-sectional details (Levels and Offsets) for Options 1 and 2	“

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 Beaufort and Ararat

Name

1. The combined Inquiry and Advisory Committee is to be known as the 'Western Highway Project Section 2 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 Martins Lane Beaufort and Warratayin Road Ararat ("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 Pyrenees and Ararat 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 Beaufort (Martins Lane) and Ararat (Warrayatkin Road) as part of a larger project to duplicate this highway between Ballarat and Stawell. It is proposed to upgrade Section 2 Beaufort to Ararat to freeway standard in the long term. The project does not involve bypasses of Beaufort or Ararat.
5. The project would mainly involve construction of a second carriageway adjacent and parallel to the existing highway on adjacent land. At Box's Cutting and Buangor, new dual carriageways are proposed, and the existing

highway would revert to a local road. When traffic conditions warrant and funding becomes available, it is proposed to upgrade Section 2 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 27 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 Pyrenees and Ararat planning schemes, from 14 September 2012 until 25 October 2012.

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 Assessment¹ 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. Draft amendment C37 to the Pyrenees Planning Scheme, which would amend the planning scheme to:
 - a. include land required for the Western Highway Project Section 2 in a Public Acquisition Overlay;
 - b. exempt the Western Highway Project Section 2 and associated works from requiring planning permits; and,
 - c. include the 'Western Highway Project Section 2 - Beaufort to Ararat Incorporated Document' as an incorporated document in the Pyrenees Planning Scheme.
 - ii. Draft amendment C27 to the Ararat Planning Scheme, which would amend the planning scheme to:
 - a. include land required for the Western Highway Project Section 2 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.

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- b. exempt the Western Highway Project Section 2 and associated works from requiring planning permits; and
 - c. include the 'Western Highway Project Section 2 - Beaufort to Ararat Incorporated Document' as an incorporated document in the Pyrenees Planning 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. advice on the most suitable alignment for the project on balance, taking into account the VicRoads' preferred alignment (Option 2) and alternate alignment (Option 1) as documented in the EES;
 - iv. 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;
 - v. 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;
 - vi. any matters relevant to the draft planning scheme amendments prepared by VicRoads;
 - vii. relevant information and analysis in support of the Inquiry's conclusions and recommendations; and,
 - viii. 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: 2.11.12



MATTHEW GUY MLC
Minister for Planning

Date: