

Planning and Environment Act 1987

Panel Report

**Horsham Planning Scheme Amendment C72
Horsham Bypass Public Acquisition Overlay**



23 December 2015

Planning and Environment Act 1987

Panel Report pursuant to Section 25 of the Act

Horsham Planning Scheme Amendment C72

Horsham Bypass Public Acquisition Overlay

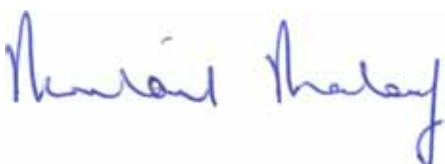
23 December 2015



Trevor McCullough, Chair



Ian Gibson, Member



Michael Malouf, Member

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List of Abbreviations

CASA	Civil Aviation Safety Authority
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
Council	Horsham Rural City Council
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
EVC	Ecological Vegetation Class
LPPF	Local Planning Policy Framework
MSS	Municipal Strategic Statement
OBEM	Objectives Based Evaluation Method
PAO	Public Acquisition Overlay
PB	Parsons Brinckerhoff
PTV	Public Transport Victoria
RAP	Registered Aboriginal Party
RDA	Riding for the Disabled Association
RLZ	Rural Living Zone
SPPF	State Planning Policy Framework
vpd	Vehicles per day
VPP	Victoria Planning Provisions
WCMA	Wimmera Catchment Management Authority

Executive Summary

(i) Summary

Horsham Planning Scheme Amendment C72 proposes to apply the Public Acquisition Overlay - Schedule 3 (PAO3) over the land required for the realignment of the Western Highway around Horsham to create a bypass.

The Amendment, as exhibited, applies the PAO3 over two alignments (Options B2 and D) which are each intended to provide a Western Highway Bypass to the east and north of Horsham. Only one of the two alignment options (and therefore one set of the PAO3 maps) was intended to be selected and submitted for approval following the exhibition of the Amendment and consideration of submissions lodged in relation to the Amendment.

VicRoads advised the Panel at the Directions Hearing that it no longer wished to pursue Option B2. Route Option D is therefore the only option considered by the Panel in relation to the Amendment, although some general comments are made in relation to the assessment of other options.

A total of 85 submissions were received in response to exhibition of the Amendment. The major issues raised by submitters included:

- Economic impact of a bypass on Horsham.
- Alignment Option D does not provide adequate connections to other state highways (Wimmera Highway and Henty Highway).
- Alignment Option D does not provide adequate connections to the Dooen Freight Hub.
- Alignment Option D impacts on the safety and future expansion options for the Horsham aerodrome.
- Alignment Option D impacts on the Wimmera River floodplain.
- Alignment Option D has adverse impacts on farming and agriculture.
- Alignment Option D has adverse social, amenity and access impacts.
- VicRoads route options assessment is flawed.
- Other route options are preferred to Option D and should not have been discounted.

The Panel has carefully considered the submissions and evidence presented to it in relation to the Option D alignment and the proposed Public Acquisition Overlay and has identified that the planning for route Option D has a number of deficiencies. The Panel recommends that further work be carried out on the Option D alignment in relation to the impact on the Horsham Aerodrome; the design of the Wimmera River floodplain crossing; the social impacts of the project; access arrangements and the extent of the proposed overlay. In particular, the extent of the floodplain crossing appears to have been understated, the design parameters for the floodplain crossing may need to be reviewed, and subsequently the cost of the floodplain crossing may have significantly increased.

Whilst none of the identified deficiencies are necessarily fatal to the ultimate choice of Option D as the preferred alignment, the Panel is of the view that further work is required to give confidence that a Public Acquisition Overlay on the Option D alignment is acceptable.

The common theme that runs through most of the identified issues is that they can probably be fixed, but at a price.

The Panel believes that the responsible course of action for VicRoads is to conduct a review of the issues identified by the Panel and consider the factors that have changed. The review should, as a minimum, involve the Wimmera Catchment Management Authority and Horsham Rural City Council; and preferably also involve a community consultation component in order to gain back some of the lost ownership of the outcome by the Horsham community.

A number of other factors have changed since the adoption of Option D as the preferred route, and the Panel believes these should be taken into account in any review:

- A revised Horsham Municipal Strategic Statement is now seriously entertained which appears to provide different guidance in terms of the benefits of aerodrome proximity, the location of future residential growth and other criteria. These changes raise some questions about the strategic basis for route choice.
- Option D, significantly, no longer has the support of Horsham Rural City Council.
- A need for an 'Integrated Transport Plan' and an updated 'Aerodrome Master Plan' has been identified by the Horsham Rural City Council.
- Option D does not have the support of a large portion of the Horsham community.

A review, and the cumulative cost impacts of resolving issues, may well lead VicRoads to reconsider whether Option D is still the best option, or whether other options should be considered.

The Panel did review the extensive submissions it received that advocated for other route Options, particularly Options 2 and 5A, and for the reasons set out in the report concluded that:

- The Panel is not convinced of the merits of route Option 2 and agrees with the decision to exclude it for further consideration.
- The Panel believes that route Option 5A, or a variation of it further south following Osborne Road-Kenny Road, may have merit and should not be discounted from further investigation.

The Panel therefore concludes that the Amendment should be deferred until the further work identified in this report is completed.

(ii) Recommendations

Based on the reasons set out in this Report, the Panel recommends:

- 1. Amendment C72 to the Horsham Planning Scheme should be deferred pending re-examination of the strategic assumptions that underpinned the route selection choice. The review should consider any changed strategic directions arising out of Amendment C75, and should be carried out in collaboration with Horsham Rural City Council and the community.**
- 2. VicRoads carry out more detailed examination of the following matters in relation to the Option D alignment, including:**
 - a) Review the impact of Option D on planning for the extension of the north-south runway at Horsham Aerodrome.**

- b) Review the design of the Option D Wimmera River floodplain crossing in conjunction with Wimmera Catchment Management Authority to confirm the appropriate design standard; the length of floodplain crossing; the required floodway structures; and a more accurate estimate of costs.
 - c) Develop a revised Social Impact Assessment for Route D, including analysis of impacts on the Wimmera River Riverside environs and the Riding for the Disabled Centre, assessing ways that impacts can be mitigated.
 - d) More accurately consider access arrangements for each stage of the Bypass to a higher level of detail, with a view to more accurately defining and reducing the Public Acquisition Overlay extent.
 - e) Review other aspects of the project as required (e.g. visual impact; flora and fauna impacts; cultural heritage) if the above work results in changes to the alignment or built form of the project.
- 3. Horsham Rural City Council support the review of the most appropriate Horsham Bypass alignment by immediately commencing the following work:
 - a) An Integrated Transport Plan for Horsham.
 - b) A Master Plan for Horsham Aerodrome.
- 4. In the event that the Option D alignment is implemented:
 - a) Adopt the revised alignment for the Henty Highway as shown in AECOM Plans SKE-0004 & SKE-0005.
 - b) Reduce the Henty Highway reservation to 40m width.
 - c) Reduce the Public Acquisition Overlay between Blue Ribbon Road and Geodetic from 120m wide to 100m wide (excluding the local road crossings at Blue Ribbon Road and Geodetic Road).
 - d) Realign the Public Acquisition Overlay north of Horsham-Lubeck Road and south of Wimmera River to the east in accordance with AECOM Plans SKE-0002 & SKE-0003.
- 5. VicRoads should consider including a reassessment of Option 5A (or a variation on that route) in parallel with further work on Option D.

1 Introduction

1.1 Project overview

The Western Highway is the principal road link between Melbourne and Adelaide and serves interstate trade between Victoria and South Australia. The Western Highway is in the process of being progressively upgraded to improve freight movements and safety along its length.

A Western Highway bypass of Horsham has been flagged in strategy and policy documents for many years. The overall project objectives are to:

- Improve freight movement effectiveness for east-west (Melbourne-Adelaide) traffic
- Improve road safety, and
- Remove freight traffic from the centre of Horsham.

1.2 Location

A large number of bypass alignment options have been considered, with the alignment now preferred by VicRoads (Option D) passing to the east and north of the Horsham township as shown in Figure 1.

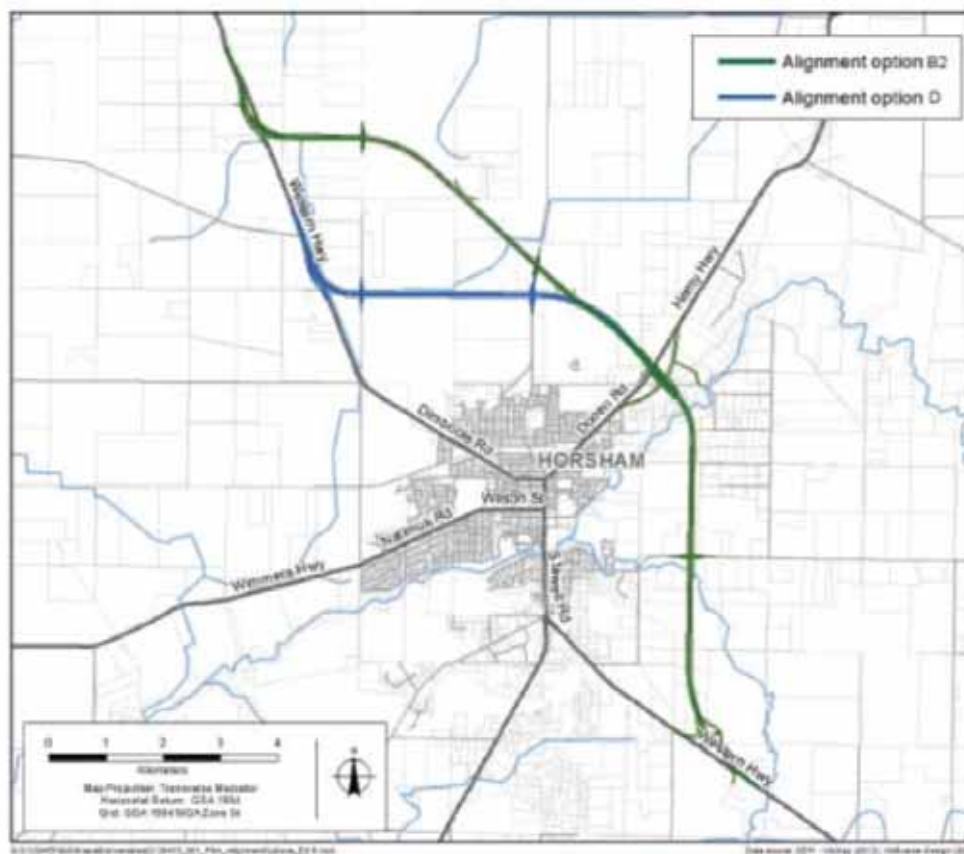


Figure 1 Preferred alignment options

A summary of the development and assessment of route options is discussed in Chapter 8 of this report.

2 The Amendment

2.1 Description

Horsham Planning Scheme Amendment C72 proposes to apply the Public Acquisition Overlay - Schedule 3 (PAO3) over the land required for the realignment of the Western Highway around Horsham to create a bypass.

VicRoads is the Planning Authority for the Amendment.

More specifically, the Amendment seeks to:

- Apply a Public Acquisition Overlay (PAO3) over land for the future acquisition by VicRoads associated with the realignment of the Western Highway around Horsham.
- Insert new Planning Scheme Maps 8PAO, 11PAO and 14PAO.
- Amend Planning Scheme Map 15PAO.
- Amend the Schedule to Clause 45.01 Public Acquisition Overlay to make VicRoads the acquiring authority for PAO3.
- Amend the Schedule to Clause 61.03 to include the new PAO maps.

The Amendment, as exhibited, applied the PAO3 over two alignments (Route Options B2 and D) which are each intended to provide a Western Highway bypass to the east and north of Horsham. Only one of the two alignment options (and therefore one set of the PAO3 maps) was intended to be selected and submitted for approval following the exhibition of the Amendment and consideration of submissions lodged in relation to the Amendment.

VicRoads advised the Panel at the Directions Hearing that it no longer wished to pursue Option B2. Alignment Option D is therefore the only option considered by the Panel.

2.2 The approach proposed to implementation of the PAO

(i) Permit requirements

The provisions of the PAO introduce additional permit requirements for use and development within the PAO affected land, including but not limited to, the use of the land for any Section 1 or Section 2 use in the underlying zone, the construction of a building or to construct or carry out works, and to demolish or remove a building. Any permit application within the PAO would be required to be referred to VicRoads.

The proposed PAO3 will generally comprise a 100m wide reservation, which is widened at specific road intersections to accommodate the construction of interchanges or overpasses.

VicRoads submitted that the PAO does not implement or trigger the construction of the Horsham Bypass, nor would it have any physical impact on properties affected by it. Rather, the role of the PAO is to provide clarity to affected landowners by identifying the proposed alignment and will assist Horsham Rural City Council in future planning and land use decisions.

The Amendment does not seek to obtain exemptions from the need to obtain a planning permit within the PAO. Accordingly, prior to the road being constructed, further permits will

need to be sought (or exemptions obtained) in relation to such matters as the removal of native vegetation and works in the land subject to flooding controls. It is at that stage that detailed assessment (such as for offsets and freeboard above the floodplain) will be required, and then regulated.

(ii) Access requirements

The PAO has been designed to ensure that access can be provided as required under all access management arrangements. This includes allowing for service roads and connector roads where needed under the highway and freeway configurations.

VicRoads has prepared a Restoration of Access report for the proposed PAO (Options B2 and D), which sets out the basis for maintaining and restoring access associated with the impact of the proposed alignments on individual properties and the movement of general traffic and equipment within the influence of the proposed alignments.

At the various stages of the project individual property owners or groups of property owners will still require access to/from or between properties, along with property owners whose access has been cut to the road network.

VicRoads submitted that the access that will ultimately be provided will be determined at time that the Bypass is constructed (in consultation with affected owners), as circumstances are likely to change.

VicRoads submitted that it is satisfied that there is a feasible access restoration strategy for Option D.

At the Directions Hearing, the Panel requested information on the different access arrangements that would apply under a highway, as compared with a freeway, scenario.

VicRoads responded that:

While the 100m wide reservation does enable a future freeway to be constructed at some future time, that does not mean that the Bypass will be constructed to freeway standard. The design of the road will depend upon traffic volumes, safety, efficiency, cost and, of course, funding availability at the time.

VicRoads explained that this means that, depending on traffic volumes at the time, the Bypass may be constructed as a single two-way carriageway, a dual carriageway or a combination of both.

The PAO assessments (including the access restoration assessments) are based on the most conservative basis, namely that the road will be constructed to freeway status. VicRoads emphasized, however, that there is no current plan to build to freeway standard.

A highway would fall under VicRoads Access Management Policy 3. Where a dual carriageway occurs, this allows for left in left out movements, but not right turn movements. U turn slots would be provided at intervals. Local road intersections are at grade and catered for by wide median treatments.

A freeway would fall under VicRoads Access Management Policy 1. Access is restricted to grade separated interchanges with and without ramps. Service roads are sometimes

provided where large groups of houses are adjacent to a freeway. VicRoads has published a bulletin for Oversized Agricultural Vehicles which states that, among other things, oversized vehicles must not travel on a freeway (without a permit).

VicRoads submitted that detailed access arrangements for each property would be determined at the more detailed design stage. Some submitters, including Mr Moore and Mr and Mrs Trigg raised concerns about the level of uncertainty that this creates, and sought assurances that access would be retained for farming operations.

(iii) Road design standard

VicRoads submitted that the PAO does not seek to prejudge the future standard of the road. The PAO assumes a freeway standard so as to allow for all future contingencies. This is consistent with the approach that VicRoads takes to planning all new roads along the national highway network.

VicRoads submitted that the rationale for the 100m width of the corridor is explained at p 21 of the AECOM (June 2011) report as follows:

The analysis undertaken considered a 100 metre wide corridor to represent each option. In practice, a full 100 metre wide corridor would not be required for the road carriageway but this width is used to ensure the evaluation would be conservative and appropriate buffer distances would be allowed for. As a consequence the data presented in the evaluation potentially overstates impacts of particular options although it does provide a sound basis for comparison of options as all are treated the same way.

A 100m corridor is proposed to accommodate:

- Dual carriageway
- Wide median for vehicle refuge and run off, water runoff and treatment
- Earthworks (cut or fill)
- Service lanes
- Services (power, gas, water).

VicRoads clarified, in response to questions from the Panel, that where one or more of the above is not required, the corridor width may be reduced and VicRoads would simply acquire only the land it needs from within the PAO. The VicRoads Panel submission stated:

In the first instance, VicRoads is likely to only acquire land that is required within the approved acquisition overlay. However, VicRoads is unlikely to prepare an amendment to remove the PAO from the balance of the land due to the potential to require that land for future upgrades.

If requested by the property owner, a full acquisition will be considered by VicRoads, even when the full extent of the landholding is not within the PAO and not required for the project.

The proposed PAO in effect allows for the worst case scenario by setting aside a 100m wide strip for all possible access scenarios. The Panel queried whether there is any potential for narrowing the PAO where no service roads are required?

VicRoads responded that it *'believes that a PAO of 100m is appropriate and suitable to accommodate future infrastructure requirements for a Horsham Bypass. Whilst service roads may not be required in all sections, other considerations including intersections, drainage (problematic in flat terrain), service relocation and construction access areas (i.e. hardstands to load and place bridge beams, water treatment ponds) require the reservation of additional land beyond the road carriageway.'*

In response to questions raised by the Panel and submitters on alignment issues, VicRoads proposed the following changes to the PAO:

- A reduction in the PAO between Blue Ribbon Road and Geodetic Road from 120m wide to 100m wide (excluding the local road crossings at Blue Ribbon Road and Geodetic Road).
- The realignment of the PAO north of Horsham-Lubeck Road and south of Wimmera River to the east in accordance with AECOM Plans SKE-0002 & SKE-0003.
- The PAO over the Henty Highway realignment and interchange to be revised and reduced from 60m to a 40m width, in accordance with AECOM Plans SKE-0004 & SKE-0005.

The Panel agrees that, if the PAO on the preferred alignment is proceeded with, these changes should be made.

(iv) Panel comments

The Panel shares the concerns expressed by submitters about the lack of certainty created by not more accurately defining access arrangements and the PAO boundaries. The Panel has observed on other projects that access arrangements, particularly the need or otherwise for service roads, are typically determined by VicRoads before a PAO is set out. VicRoads submitted that it *'can only undertake detailed design once it has government commitment and approved funding to construct the Bypass.'* The Panel does not accept this, and believes that it is better practice to define access arrangements at the planning stage to avoid applying a PAO to an unnecessarily large area.

Whilst VicRoads explained that they would only 'take what they need' the Panel is concerned that this does not reasonably consider the impact that a PAO has on landowners. Building and development is restricted on areas covered by a PAO, restricting the effective uses that can be applied to the land.

Under the *Land Acquisition and Compensation Act 2000*, landowners can make hardship claims or 'loss on sale claims'. In these cases the claims would relate to the whole area covered by the PAO, potentially incurring unnecessary costs for VicRoads if all of this area is ultimately required.

The Panel believes that it may have been appropriate to use a notional 100m wide corridor for early route comparison and assessment purposes, but that it is not appropriate to take that broad level of definition through to the implementation of a PAO. As VicRoads explained, the Panel is not being asked to choose between options, but rather to endorse the application of a specific PAO. The Panel believes VicRoads has a responsibility to more accurately define the proposed PAO based on what land it can demonstrate it actually needs, and no more.

(v) Conclusions

The Panel concludes that the approach taken by VicRoads to apply a standard 100m wide PAO to the entire corridor is not good practice and recommends VicRoads more precisely define access requirements, with a view to reducing the extent of the PAO before applying it.

The Panel agrees that, if the PAO on the preferred alignment is proceeded with, the following changes to the PAO are required as a minimum:

- A reduction in the PAO between Blue Ribbon Road and Geodetic Road from 120m wide to 100m wide (excluding the local road crossings at Blue Ribbon Road and Geodetic Road).
- The realignment of the PAO north of Horsham-Lubeck Road and south of Wimmera River to the east in accordance with AECOM Plans SKE-0002 & SKE-0003.
- The PAO over the Henty Highway realignment and interchange to be revised and reduced from 60m to a 40m width, in accordance with AECOM Plans SKE-0004 & SKE-0005.

Recommendations are made in relation to these matters in Chapter 7.

3 The Panel Process

3.1 Exhibition and panel appointment

The Amendment was exhibited from 20 July to 14 August 2015. A total of 85 written submissions were received, and VicRoads subsequently requested the appointment of an independent panel to make recommendations on matters raised in submissions that are not able to be resolved.

The Panel comprising Trevor McCullough (Chair), Ian Gibson and Michael Malouf was appointed by the Chief Panel Member under delegation from the Minister for Planning on 2 September 2015.

3.2 Panel Hearings

The Panel conducted a Directions Hearing on 21 September 2015 at Horsham.

Panel Hearings were conducted on 19, 20, 21, 22, 23 October and 4, 5, and 6 November 2015 at the Horsham Golf Club. The parties as shown in Table 1 were represented at the Hearings. The Parties provided documents to the Hearings as listed in Appendix B.

Submitter	Represented by
VicRoads	Ms Juliet Forsyth of Counsel, instructed by Norton Rose Fulbright, and calling expert evidence from: - Mr Mel Dunn, Aviation/Aerodrome - Mr Stuart McGurn, Planning - Mr Warwick Bishop, Hydrology/Flooding - Mr Cameron Miller, Flora and Fauna - Mr Ray Phillips, Agricultural Impact
Mr and Ms Wong Shee	Ms Kirsten Wong Shee
Horsham Rural City Council	Mr John Martin
Wimmera Southern Mallee Regional Transport Group	Cr Kevin Erwin
Ms Sally and Mr Richard Hood	
Kevin and Greer Dellar	
Mr Richard May	
Mr Alan and Ms Sue Williams	
Mr Mark and Ms Tanya Sudholz	
Mr Russell Peucker and Mr John Robinson	
Mr Jeffrey Schneider	
Mr Winton Scott	

Submitter	Represented by
One Horsham Bypass Consultative Group	Mr David O'Brien of Counsel, instructed by Mr Denis O'Brien, and calling submissions and expert evidence from: - Mr John Forrest on Engineering and Infrastructure - Mr Richard May on Community issues - Mr Ross Dunkley on Engineering - Mr Ross Treacy on Engineering - Capt Rick Brumby on Aviation
Mr Tony Brand	
Horsham Flying Club	Mr Peter Weissenfeld
Mr Russell McKenzie	
Mr Gill Hopkins	
Mr Selwyn Ellis	
L R and C M Trigg	
Mr Arnold and Mrs Linda Niewand	
Ms Wilma Bishop	
Mr Peter Ryan	
Mr John Adlington	
Victorian Farmers Federation	Mr David Jochinke

Table 1 Parties to the Panel Hearings

The Panel conducted unaccompanied site inspections on 21 September, 21 October and 4 November 2015 and an accompanied inspection (with VicRoads and One Horsham representatives) of Mr and Mrs Trigg's property at Riverside on 21 October 2015.

4 Issues dealt with in this report

4.1 Submissions

The Panel considered all written submissions, as well as submissions and evidence presented to it during the Hearings. 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 site inspections.

The major issues raised by the submitters include:

- Economic impact of a bypass on Horsham.
- Alignment Option D does not provide adequate connections to other state highways (Wimmera Highway and Henty Highway).
- Alignment Option D does not provide adequate connections to the Dooen Freight Hub.
- Alignment Option D impacts on the safety and future expansion options for the Horsham aerodrome.
- Alignment Option D impacts on the Wimmera River floodplain.
- Alignment Option D has adverse impacts on farming and agriculture.
- Alignment Option D has adverse social, amenity and access impacts.
- VicRoads route options assessment is flawed.
- Other route options are preferred to Option D and should not have been discounted.

4.2 Approach taken by the Panel

There was some discussion at the Panel Hearing about the role of the Panel in regard to considering other route options.

VicRoads submitted that the Panel should limit its inquiry to the merits of the proposed Amendment and not analyse the process undertaken or weigh the proposal against alternative options. VicRoads further submitted that the Panel should apply the test of net community benefit in determining whether the Amendment is an acceptable planning outcome.

The essence of the One Horsham submission is that the Amendment is fatally flawed and ought to be abandoned, and requested the Panel to recommend that Options 2 and 5A should be reinstated for further investigation. One Horsham conceded that it is not the task of the Panel to decide which option is the best option, and acknowledged that it would be a transformation for the Panel to recommend the adoption of an alternative alignment. They did, however, submit that it is open to the Panel to make ‘further recommendations’ regarding the need for further investigation or consultation on other options if it sees fit.

One Horsham also submitted that it is open to the Panel to conclude that the Amendment is not strategically justified if the development of the route options is flawed, deficient in detail, or fails to meet the requirements of the relevant legislation (specifically the *Planning and Environment Act 1987* and the *Transport Integration Act 2010*) and state and local planning policy.

In a sense the Panel agrees with both parties. It is common ground that the Panel must consider the Amendment before it, and the Panel has made an assessment of the merits of Amendment C72 as it was exhibited (excluding consideration of Option B2 which is now 'off the table'). The Panel has, however, also determined that it is appropriate for it to make comment on the process to select the preferred option in the context of assessing its suitability. To the extent that the Panel finds deficiencies with the work done to define and assess the preferred option, the Panel believes it is appropriate to make 'further recommendations' on what would be needed to rectify any deficiencies in the future.

Chapters 5, 6 and 7 of this report relate specifically to the assessment of the exhibited Option D alignment. Other alignment options have not been explicitly considered in this assessment, although much of the basis for the technical feasibility of Option D is drawn from technical reports that compare the five short-listed options, and so the Panel refers to the work done in these comparative analyses.

The Panel was presented with a large number of submissions that preferred other alignment options and cited flaws in the preferred option. Where these submissions have commented on Option D, the Panel has taken these comments into account in its assessment of Option D.

The Panel has provided some commentary in Chapter 8 on the submissions received that were critical of the process adopted by VicRoads to select a preferred route. Chapter 8 also includes some commentary on the consultation process and submissions received in relation to the merits of other route options.

The commentary provided by the Panel in Chapter 8 is not intended to revisit the selection process or to be critical of what VicRoads should or shouldn't have done, but rather to record the concerns that were raised in submissions. The Panel believes that to not provide these observations of the submitters' concerns would be to discount or ignore a large part of the information provided to it.

The Panel offers some conclusions in Chapter 8 that are intended to provide advice to VicRoads (and others) on how the project could be taken forward.

This report deals with the issues under the following headings:

- Chapter 5 - Planning context
- Chapter 6 - Alignment Option D - overview and background
- Chapter 7 - Alignment Option D - assessment of issues
- Chapter 8 - Submissions on route options.

5 Planning context

The Panel has reviewed the policy context of the project and the Amendment, and made an appraisal of the planning controls and other relevant planning strategies. The Panel also draws some conclusions on the strategic merits of the Amendment.

5.1 State, national and regional policies and strategies

VicRoads provided an overview in its submission to the Hearing of relevant state, national and regional policies relevant to the project.

The Western Highway is a vital freight and tourist route between Melbourne and Adelaide. The VicRoads website includes the following general information:

As the principal road link between Melbourne and Adelaide, the Western Highway (A8) serves interstate trade between Victoria and South Australia.

It is also the key transport corridor through Victoria's western district, supporting farming, grain production, regional tourism and a range of manufacturing and service activities.

The Western Highway is one of Victoria's busiest rural highways. Between 6500 (west of Ballarat) and 23,000 (between Melbourne and Ballarat) vehicles travel the road each day.

...

The highway between Ballarat and Stawell is being progressively duplicated and upgraded to provide a safer and more efficient four-lane divided route. In addition to separating the traffic lanes, highway safety will be improved with sealed road shoulders, safety barriers, protected turning lanes, intersection improvements, and service lanes for local access at some locations.

In the five years to December 2014, there were 79 crashes on the Western Highway between Ballarat and Stawell, including 11 fatalities and 49 serious injuries.

Infrastructure upgrades, such as those on the Western Highway, are important part of road safety improvements in Western Victoria.

Upgrades between Stawell and the South Australian Border include rest area improvements, bridge strengthening, new overtaking lanes and planning for a Horsham bypass.

VicRoads submitted that the identification of the Horsham Bypass as a strategic project is consistent with the following strategic reports produced for planning for the Western Highway corridor from Melbourne to Adelaide:

The Western Highway M8/A8 Corridor Strategy: Deer Park to the South Australian Border (VicRoads 2000) which states at page 3:

Key initiatives between Ballarat and the South Australian border include duplication between Ballarat and Stawell, construction of overtaking lanes, completion of shoulder sealing, widening of road and bridges to required standards, improvements to the railway underpass at Armstrong, traffic management through towns and planning studies including options for bypasses at Ararat and Horsham.

In 2000, the Western Highway Action Committee was formed, representing local Councils along the corridor. The Action Committee commissioned two reports from SKM, the 2005 and the 2007 reports, both of which advocated for funding for upgrade works in the corridor.

In 2006, the *Western Highway Corridor Strategy (Meyrick and Assoc) (Corridor Strategy)* was produced by AusLink, a major initiative of the Commonwealth government to improve planning, decision making and funding for Australia's national land transport infrastructure.

The report recognises the competing priorities for investment, and notes, in relation to Horsham, the crash record, which is higher than the State average with 'disturbing peaks at Beaufort, Ararat, Stawell, Horsham, Nhill and Kaniva' (at page 74).

One of the short term priorities is assess the need for town bypasses along the corridor to improve the efficiency and safety of the corridor (at pages vi and 77).

In 2007, the *Melbourne-Adelaide Corridor Strategy - Building our National Transport Future* (2007) was released. This strategy states at page ii:

The Melbourne-Adelaide Corridor provides a vital link in the freight flows between eastern and central Australia and serves various regions with a mix of urban and regional communities. The corridor links major agriculture (grain, timber, horticulture and livestock) production areas of western Victoria and the south-east of South Australia to Melbourne, Adelaide and the associated export market.

...

The short-term priorities centre around five strategic issues:

- *the safety of passenger and freight movements along the corridor;*
- *the condition of the ageing road and rail infrastructure, which affects safety and efficiency;*
- *the amenity of towns along the route and the urban growth areas of both Melbourne and Adelaide;*
- *planning for longer-term management of transport issues in growth areas between Ballarat and Melbourne and Murray Bridge and Adelaide; and*
- *improvement of the rail corridor to increase the capacity and competitiveness of rail.*

One of the key corridor challenges is identified, as follows, at page iii:

Planning for and providing land reservations for town bypasses, duplication and connection to new major links serving the growing metropolitan urban areas, where appropriate.

One of the short term priorities is identified, as follows, at page iii:

Manage road traffic issues (safety, amenity) at towns along the corridor including town bypasses where appropriate.

In 2007, the Victorian Government also released *National Transport Links - Growing Victoria's Economy* which set out the reasons why funding should be provided for a number of road projects in the corridor, including planning for the Bypass of Horsham.

VicRoads submitted that *'there is no basis in the strategic documents to suggest that the road will be duplicated between Stawell and Adelaide in the medium or even longer term, let alone constructed to freeway standard. VicRoads acknowledges that duplication and even upgrade to freeway standard may occur at some future time but that is certainly well beyond even the forward looking planning horizon adopted by the Victorian and Commonwealth governments to date.'*

The *Victorian Transport Plan* (2008) includes \$1.2 billion of funding for improved regional road links, including shoulder sealing, rest areas, overtaking lanes, road widening and duplication of selected routes and planning for town bypasses.

In 2009, VicRoads received funding from the state and federal governments to undertake a series of improvement projects between Stawell and the South Australian border including:

- Rest Areas (Lochiel, Pink Lake, Serviceton, Golton and Kaita)
- Overtaking Lanes (between Horsham and Kaniva)
- Bridge upgrade and structure improvements (Wail Rail Overpass, Kaniva bridges, Wimmera River bridge at Horsham, Lochiel Bridge barriers and culverts at Dadswell Bridge), and
- Horsham Bypass Study.

In 2013, the Victorian Government released *Victoria The Freight State - The Victorian Freight And Logistics Plan*. The plan identifies the Western Highway as part of the Principal Freight Network (page 93). Further, the document identifies the Horsham Bypass as one of the 'proposals under consideration that support the freight network', as follows, at page 95:

Horsham Bypass - long-term priority for the construction of a Western Highway bypass of Horsham based on planning work carried out under the Nation Building Program.

In May 2014, the Victorian Government released *Plan Melbourne* which includes the following directions:

Direction 3.5 'Improve the efficiency of freight networks while protecting urban amenity'.

Direction 6.4 'Improve connections between cities', specifically Initiative 6.4.2:

‘Strengthen transport links on national networks for the movement of goods between regional cities, Melbourne, interstate and internationally’. In the short term, this Initiative seeks to ‘Complete upgrades to the national network connecting key regional centres to export gateways, including Princes Highway West, Calder Freeway, Western Highway and Princes Highway East’.

In 2014, the *Wimmera Southern Mallee Regional Growth Plan* (Victorian Government, 2014) was produced which states:

at page 46:

The Western Highway runs through the middle of Horsham. VicRoads is investigating options for bypassing the city to the north-east. It is important that any future bypass integrates with the urban form of Horsham and does not segregate preferred growth areas from other parts of the city or prejudice opportunities for growth. Decisions about future growth should be cognisant of the bypass route once it is finalised.

...

Land use policies and strategies

...

- *Consider Horsham’s proposed long-term growth pattern in selecting the final route for the Western Highway Bypass.*

at page 78:

Ongoing improvements to the region’s infrastructure will be critical to implementation of the future directions in this plan. Councils, government and other agencies should use this plan as a basis to inform future planning for infrastructure projects, particularly those which deliver regional outcomes. The Victorian Government is also working with Infrastructure Australia and the Australian Government to develop key regional infrastructure.

The key opportunities to implement the plan through infrastructure development are set out below, including some examples of current planned projects:

- *Improved connectivity and access to the region and around the region.*

This includes the ongoing duplication of and improvements to the Western Highway and planning for a Horsham bypass.

...

5.2 Policy framework

(i) State Planning Policy Framework

Mr McGurn, in his planning evidence, provided a summary of the relevant clauses in the SPPF. The most relevant of those are shown below:

Clause 9 refers to '*Plan Melbourne*' which is the current metropolitan planning strategy for Melbourne. This Clause directs responsible authorities to consider and apply the Strategy. The following outcomes and objectives are of specific relevance:

- Direction 3.5 'Improve the efficiency of freight networks while protecting urban amenity'.
- Direction 6.4 'Improve connections between cities', specifically Initiative 6.4.2 'Strengthen transport links on national networks for the movement of goods between regional cities, Melbourne, interstate and internationally'. In the short term, this Initiative seeks to 'Complete upgrades to the national network connecting key regional centres to export gateways, including Princes Highway West, Calder Freeway, Western Highway and Princes Highway East'.

Clause 10.04 'Integrated Decision Making' identifies the need to integrate the range of policies relevant to the issues to be determined and to balance conflicting objectives in the favour of net community benefit and sustainable development.

Clause 11.13 'Wimmera Southern Mallee regional growth' directs planning to consider, as relevant, the Wimmera Southern Mallee Regional Growth Plan (Victorian Government, 2014). The Clause provides various objectives and strategies for the future growth of this regional area.

Clause 12.01-2 'Native vegetation management' seeks to 'to ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity'. Pursuant to this Clause, consideration must be given to the 'Permitted clearing of native vegetation - Biodiversity assessment guidelines' (DEPI, 2013) and the Native Vegetation Information Management System. Removal of native vegetation should be avoided and, where this cannot be achieved, removal should be minimised and appropriately offset.

Clause 12.04-2 'Landscapes' recognises the importance of significant landscapes and seeks to 'protect landscapes and significant open spaces that contribute to character, identity and sustainable environments'.

Clause 13.02-1 'Floodplain management' emphasises the importance of identifying land affected by flooding and seeks to assist in the protection of life, property and infrastructure from flood hazard and maintain river health and the flood carrying capacity and storage function of waterways.

Clause 13.04-1 'Noise abatement' seeks 'to assist the control of noise on sensitive land uses' and directs planning to consider the relevant State Environment Protection Policy.

Clause 14.01-1 'Protection of agricultural land' emphasises the importance of productive farmland and seeks to 'ensure that the State's agricultural base is protected from the unplanned loss of productive agricultural land due to permanent changes of land use'.

Clause 14.02-1 ‘Catchment planning and management’ seeks ‘to assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater, and the marine environment’.

Clause 15.03-1 ‘Aboriginal cultural heritage’ seeks ‘to ensure the protection and conservation of places of Aboriginal cultural heritage significance’ and amongst other things, states that planning must consider as relevant, the Aboriginal Heritage Act 2006.

Clause 18.01-2 ‘Land use and transport planning’ identifies the importance of land use and transport integration.

Clause 18.01-2 ‘Transport system’ seeks to ‘coordinate development of all transport modes to provide a comprehensive transport system’. To achieve this, relevant strategies include:

- *‘Reserve land for strategic transport infrastructure’.*
- *‘Locate transport routes 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.’*
- *‘Locate and design new transport routes and adjoining land uses to minimise disruption of residential communities and their amenity’.*
- *‘Plan or regulate new uses or development of land near an existing or proposed transport route to avoid detriment to, and where possible enhance the service, safety and amenity desirable for that transport route in the short and long terms’.*
- *‘Ensure transport practices, including design, construction and management, reduce environmental impacts’.*

VicRoads particularly highlighted Clause 18.01-2 as being important in the context of the need to reserve land for the project.

(ii) Local Planning Policy Framework

Mr McGurn provided a summary of the sections of the Local Planning Policy Framework relevant to the Amendment. The most relevant are reproduced below:

Clause 21.02 ‘Key Influences’ identifies significant issues that will have an impact on future land use and development in Horsham Rural City. This Clause recognises the proposed Horsham Bypass and acknowledges that ‘the Bypass could improve the amenity and function of the central commercial area, appropriately located it could also improve opportunities for industrial activity in Horsham’.

Clause 21.04-1 ‘Role of Horsham’ seeks to promote and enhance Horsham as the key population centre and provider of services. A strategy to achieve this is to ‘support the Horsham Bypass and ensure it is appropriately located so as not to undermine the role of Horsham’.

Clause 22.02 ‘Resource Protection Policy’ highlights the importance of the protection and management of land and water resources and seeks ‘to ensure the thorough assessment of applications for use and/or development of land which have the potential to impact upon

land and water resources'. It is policy that Council may seek the comments of the relevant Catchment Management Authority or Wimmera Mallee Water in regard to any application which has the potential to impact land and water resources within the municipality.

Clause 22.10 'Floodplain Management Policy' applies to all land within the Floodway Overlay, Land Subject to Inundation Overlay, and Schedule 9 to the Design and Development Overlay. This Policy acknowledges the flood risk to land included in these overlays and seeks to 'minimise flood risk and promote sustainable use and development of the floodplain'.

(iii) Other local strategies and policies

Horsham 2040 Plan, A Strategy for Growth Management

Horsham 2040 was commissioned by Council in 2007, but never formally adopted by Council. The Plan recognised the need for a 'Horsham Ring Road' and showed an alignment to the east and north of the town very similar to the Option D alignment. The Plan stated that *the general placement of the ring road is recommended along the eastern and northern sides of the CBD for several reasons including¹:*

- *The transport hub at Dooen will be most readily accessed from the State Highway with the proposed alignment,*
- *The proximity to the airport is likely to offer economic advantages that would not occur if the alignment was south and west of the CBD,*
- *There are relatively few dwellings affected by the eastern bypass alignment in comparison with the southern option,*
- *Connections of the Henty Highway and Wimmera Highway with the ring road and the existing Western Highway can allow truck traffic on both those highways to avoid central Horsham.*

Keeping the ring road as practically close to Horsham CBD as possible is recommended, to retain the opportunities to tap the economic benefits offered by the ring road. Examination of a service centre opportunity near the Dimboola Road junction is recommended.

Both Council and One Horsham submitted that the Panel should not give Horsham 2040 any weight as it was never formally adopted by Council.

Horsham Framework for Managing Growth, Meinhardt 2013

In October 2013, the *Horsham Framework for Managing Growth* was produced. VicRoads submitted that the Framework identifies a preferred alignment for the Horsham Bypass at that time, namely Option B2.

Horsham Amendment C75

At the time of the C72 Hearings, Amendment C75 was on exhibition. The Amendment proposes a modified Municipal Strategic Statement (MSS). The Amendment includes the *Horsham Framework for Managing Growth 2013* as a reference document.

¹ Horsham 2040 pages 4 and 5

The Panel regards the new MSS as a seriously entertained document and that gives it considerable weighting in the assessment of Amendment C72.

The new MSS continues to support the implementation of the Horsham Bypass (Clauses 21.04-5 and 21.11-2).

The new MSS includes a changed Horsham Framework Plan as shown in Figure 2.

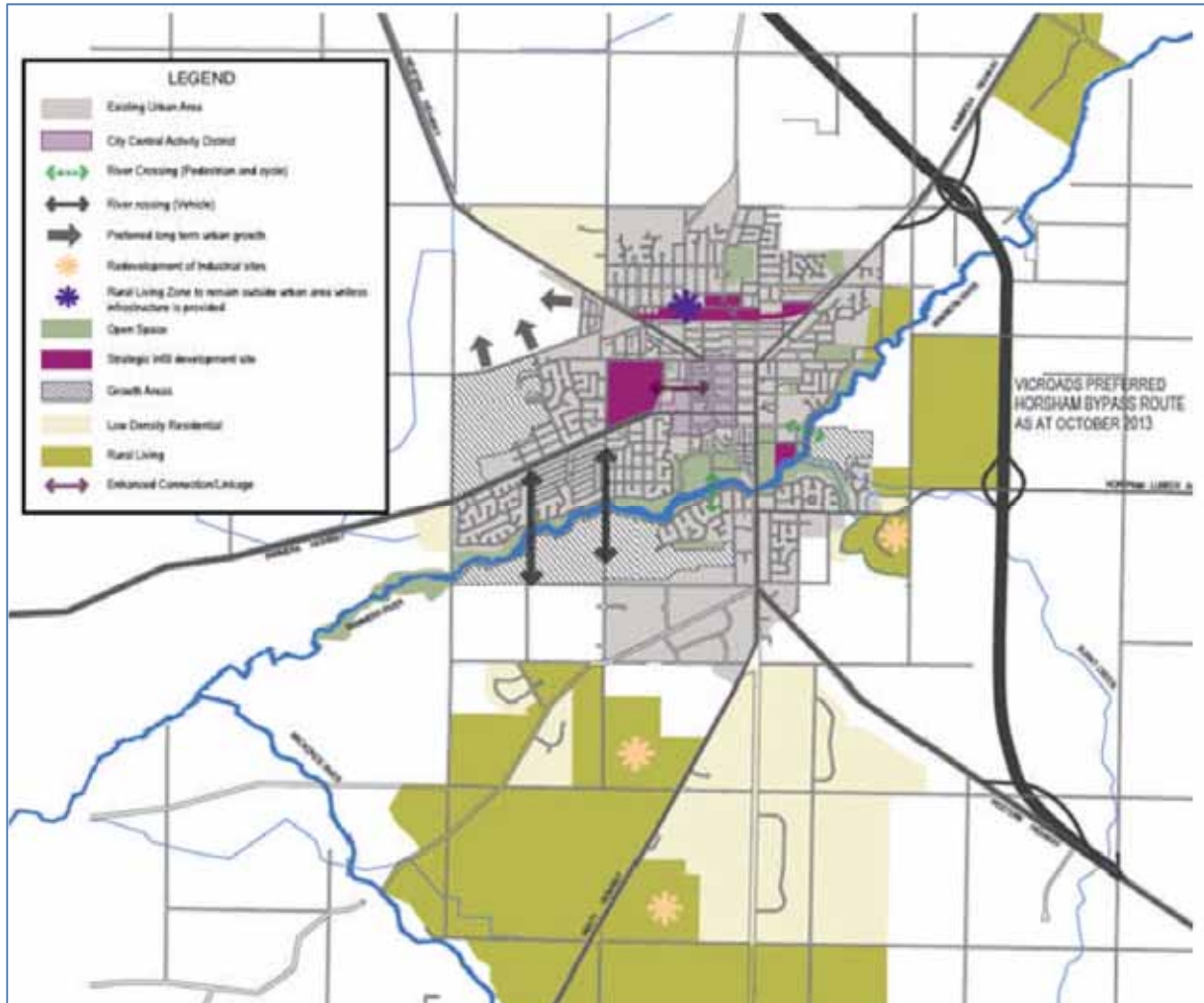


Figure 2 Proposed Horsham Framework Plan

Short to medium term growth is to be focussed on the following areas²:

- *Town Centre (Horsham Central Activity District (CAD))*
- *Existing Urban Area (Outside of CAD)*
- *Strategic Infill Sites*
- *Regeneration and growth areas to the north and west of Horsham.*

Long term growth is to be in the 'north and west of Horsham, as identified in Figure 2, subject to future housing needs'. The limits of the urban areas are shown as Kenny Road in the south and Curran Road in the west.

² New MSS Clause 21.05-2

It is noted that the preferred Horsham Bypass route is shown as Option B2 (as it was preferred by Council in October 2013), although that is now not the case. The Framework Plan also shows (in conceptual terms) support for additional river crossings to the west of the existing bridge.

The significance of the revised Framework Plan lies in the fact that it impacts on the main reasons given by VicRoads as to why Option 5A was eliminated³:

- *The alignment is not a true bypass of the Horsham township, but rather moved the highway from one part of Horsham to another, impacting on the amenity of a large number of residences.*
- *The alignment did not fit with the strategic framework plan for Horsham's current and future growth.*

The new Framework Plan shows less growth to the south of the River than what was shown in Horsham 2040. Impact on future residences is therefore lower and the alignment may now fit more comfortably with the strategic framework plan.

The new MSS also includes a new clause 21.11-3 *Horsham Western Highway Bypass*. This clause lists five objectives and 17 strategies for the project, reproduced as follows (Panel emphasis added):

Objective 1 To improve road safety for the residents of Horsham and users of the Western Highway.

Strategy 1.1 The preferred bypass alignment should have minimal impact on residences and farms.

Strategy 1.2 Protect the current and future development and operation of the Horsham Aerodrome from impacts of the Western Highway Bypass.

Objective 2 To provide amenity benefits to Horsham residents.

Strategy 2.1 The preferred bypass alignment should reduce the extent of disconnection of residences from the communities in which they belong and their access to Horsham, utilising culverts and bridge sections to provide for the passage vehicles.

Strategy 2.2 Minimise the dissection of farm paddocks and properties.

Strategy 2.3 Minimise the blocking of local roads.

Strategy 2.4 Minimise the impact of diversion of farm machinery onto more frequently travelled roads.

Strategy 2.5 Provide treatments which minimise the visual and noise impacts of the highway.

Objective 3 To provide connection to the Wimmera Highway and the Henty Highway.

³ VicRoads submission to the Hearing page 71

Strategy 3.1 Create a practical connection to the Wimmera Highway and the Henty Highway.

Strategy 3.2 Upgrade local roads to provide for interconnections.

Objective 4 To manage the impact of the floodplains of the area.

Strategy 4.1 Maintain the capacity of the floodplain to store and convey flood water.

Strategy 4.2 Plan for flood events greater than the 1% Annual Exceedance Probability flood event.

Strategy 4.3 Reduce existing flood problems, where possible.

Strategy 4.4 Ensure construction of the highway allow for the passage of flood water.

Objective 5 To ensure the highway bypass does not impact adversely on the Horsham Airport.

Strategy 5.1 Protect future extension of the East West and North South runways of the Horsham Airport.

Strategy 5.2 Ensure sufficient clearance for future runway extensions and air traffic.

Strategy 5.3 Maintain access to the Horsham Airport via local roads.

Strategy 5.4 Provide access routes from the Western Highway bypass to the Horsham Airport.

This new clause introduces a number of new objectives and strategies that were not in the planning scheme at the time the route assessment was undertaken. Had these objectives been used as the selection criteria, other options may well have fared better in the assessment. Of particular significance is the fact that Horsham 2040 seemed to encourage the Bypass in proximity to the airport, whereas the new MSS seems to do exactly the opposite. Whilst all of the objectives and strategies have some implications for route choice, as highlighted in the above extract two Strategies that stand out are 3.1 and 4.2. Strategy 3.1 elevates the importance of connections to the Henty and Wimmera Highways, and Strategy 4.2 suggests that planning should allow for greater than 1% annual exceedance (100 year ARI) flood events.

Whilst the Panel accepts that these issues have not yet been tested through the panel process, it does raise some questions for the Panel about whether the strategic bases for route choice are likely to be changed and therefore need to be reconsidered.

The submission from the Council suggests that the Amendment ought to be put on hold while an 'Integrated Transport Plan' and an 'Airport Master Plan' are developed. These issues are discussed later in this report.

5.3 Planning scheme provisions

(i) Zones

There are no changes to zones proposed as part of this Amendment.

(ii) Overlays

The purpose of the PAO is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To identify land which is proposed to be acquired by a Minister, public authority or municipal council.*
- *To reserve land for a public purpose and to ensure that changes to the use or development of the land do not prejudice the purpose for which the land is to be acquired.*
- *To designate a Minister, public authority or municipal council as an acquiring authority for land reserved for a public purpose.*

Any land included in a PAO is reserved for a public purpose within the meaning of the *Planning and Environment Act 1987*, the *Land Acquisition and Compensation Act 1986* or any other Act.

Schedule 3 designates the Roads Corporation (VicRoads) as the acquiring authority.

The Environmental Significance Overlay, Design and Development Overlay, Development Plan Overlay, Floodway Overlay and Land Subject to Inundation Overlay apply to various sections of the alignment. VicRoads has not sought any permit exemptions as part of the Amendment and the presence of these overlays may generate the need for permits at a later stage.

5.4 Planning and Environment Act 1987

VicRoads submitted that it is the Panel's task to consider the submissions about the amendment that is referred to it, provide an opportunity for submitters to be heard and report its findings in accordance with section 23 of the *Planning and Environment Act 1987*.

The social and economic effects have been addressed in the Explanatory Report and in a number of background reports commissioned by VicRoads for the project. The overall benefits of a bypass were not challenged. Where environmental, economic or social impacts have been raised in submissions, these are addressed in later chapters.

5.5 Ministerial Directions

Council submitted that the Amendment meets the relevant requirements of The following Ministerial Directions:

- The Amendment has been evaluated in accordance with the strategic considerations set out in the Ministerial Direction No 11 on the Strategic Assessment of Amendments issued under Section 12 of the *Planning and Environment Act 1987* and are consistent with those considerations.

- The Amendment is consistent with the Ministerial Direction on the Form and Content of Planning Schemes issued under Section 7(5) of the Act.
- The Amendment has been prepared and exhibited in accordance with Ministerial Direction No 15 relating to the Planning Scheme Amendment Process issued under Section 12 of the Act.

5.6 Transport Integration Act 2010

The *Transport Integration Act 2010* requires that VicRoads must have regard to the objectives and decision making principles set out in that Act.

The Panel highlights section 15 *Principle* of integrated decision making which states:

The principle of integrated decision making means seeking to achieve Government policy objectives through coordination between all levels of government and government agencies and with the private sector.

The Panel interprets that this includes a requirement for coordination between VicRoads and Council.

VicRoads provided a summary in the Explanatory Report of how the project supports the transport system objectives and decision making principles in the *Transport Integration Act 2010*.

Mr O'Brien, appearing for One Horsham, contested this, arguing that aspects of the decision making process to adopt Option D did not comply with the requirements of the Act.

Ms Forsyth, in her submission on behalf of VicRoads, highlighted section 87 of the Act which provides strong support for protecting future options for the improvement of the transport system including reserving land for future transport corridors.

5.7 Strategic Assessment

The Panel notes VicRoads' assessment as set out in the explanatory report and expanded on by Mr McGurn. The Panel is required to assess whether there is a sound strategic basis for the Amendment, whether it complies with the relevant legislation and whether it constitutes a net community benefit.

There is no doubt in the Panel's mind that a bypass of Horsham is strongly supported in all state and local planning policy and the various strategic documents examined by the Panel.

The question of whether the Option D alignment, and hence the proposed PAO, has a sound strategic basis is more complicated. At the time of the route assessment in 2013, and even in early 2015, it was reasonable for VicRoads to conclude that the preferred option (B2 at that time) had the support of Council. Amongst other things, Horsham 2040 (although never formally adopted) and local planning policy supported a bypass close to the aerodrome. The route selection process made reasonable assessments of the relative merits of each option based on the objectives selected, which were consistent with state and local planning policy.

Amendment C75, whilst not yet adopted, is seriously entertained and has the impact of changing the strategic assumptions about how Horsham may develop in the future and, importantly, seeks to set some changed objectives and strategies for the Bypass. Some of these are in apparent conflict with the now preferred Option D alignment. It is not clear to

the Panel why these parameters have changed or why it has taken so long for Council to turn its mind to these issues. The Panel is conscious of not overstating the importance of the changes proposed in Amendment C75, particularly given that the new MSS is not in the planning scheme. At the very least, however, it does raise some questions about whether the strategic foundations of the choice of Option D are still valid.

5.8 Conclusions

The Panel concludes that the choice of the Option D alignment should be reassessed by VicRoads in conjunction with Council to examine whether the route still meets the strategic outcomes sought by both parties. This review may well confirm that the Option D alignment is appropriate; or it might conclude that it can be made to work with modifications; or that other options need to be put back on the table. The alternative is that uncertainty will remain about whether the alignment fits the longer term plans for the town.

The Panel is satisfied that the process to arrive at the preferred route alignment did comply with the relevant legislation. In particular, the Panel accepts that VicRoads made every effort to comply with the integrated decision making requirements of the *Transport Integration Act 2010*. The re-assessment that the Panel has concluded is required should, however, re-engage with Council and the community in accordance with the *Transport Integration Act 2010* requirements.

The question of whether there is a net community benefit of the proposed alignment and PAO requires a more detailed assessment of the specific impacts of the project, and is addressed in chapter 7 of this report.

5.9 Recommendation

The Panel recommends that

- 1. Amendment C72 to the Horsham Planning Scheme should be deferred pending re-examination of the strategic assumptions that underpinned the route selection choice. The review should consider any changed strategic directions arising out of Amendment C75, and should be carried out in collaboration with Horsham Rural City Council and the community.**

6 Alignment Option D - overview and background

Chapter 6 provides a broad overview of how Option D was assessed by VicRoads. The majority of the assessment also applied to Option B2, which was also exhibited as an option but later discounted by VicRoads. The specific issues relating to the Option D alignment are discussed in more detail in Chapter 7.

6.1 Options assessment methodology

VicRoads provided the following overview of the Objective Based Evaluation Model (OBEM) used to assess route options⁴:

The OBEM approach derives project specific objectives and criteria and assesses options against the relevant objectives and criteria. This is not an EES comparing different options, and hence the assessments of the options not before the Panel are not relevant to the Panel's task. However, the OBEM does not compare options against other options, but rather provides a stand-alone assessment of different options. Accordingly, the OBEM is a useful tool for the Panel to use as follows:

- a) both the project objectives and criteria provide a framework for determining acceptable planning outcomes and net community benefit; and*
- b) the result of the assessment in so far as it relates to alignment D can be used by the Panel to assess the impacts of alignment D, notwithstanding that the Panels task is not to assess alternatives.*

Moreover, the option assessments clearly identify the full range of issues which arise as a result of the Option D PAO, and thereby clearly define the issues which require assessment.

As noted, the OBEM is an approach that has been endorsed in other Panels which have considered linear projects such as new roads: see e.g. section 4 of the Kilmore Wallan Bypass Inquiry (EES) [2014] PPV 147 (17 November 2014). In that case the Panel was critical of the 'execution' of the OBEM, including a criticism that the options were rated against each other rather than against criteria. The OBEM done for this project does not suffer from that criticism.

The Panel agrees that much can be drawn from the options assessment to assist in assessment of route Option D and the PAO.

⁴ From VicRoads Panel submission (Document 1) page 40.

6.2 Project objectives and Option D performance

VicRoads submitted that the principal project objectives are:

- a) Improve freight movement and efficiency. Assessment criteria included taking account of savings in vehicle time and vehicle kilometres and maintaining an efficient road network whilst minimising truck traffic through central Horsham.
- b) Improve road safety and maintain the functionality of the town's road network.

The following additional project objectives were also provided:

- a) Ensure consistency with current and proposed land uses and support the long term planning and development of Horsham as a thriving regional centre. Assessment criteria included considering:
 - i) land and building acquisition and changes in land use and intensity;
 - ii) the Dooen Freight Hub;
 - iii) the Horsham Aerodrome;
 - iv) commercial development in highway locations;
 - v) impacts on community facilities and attractions;
 - vi) impacts on amenity of residents; and
 - vii) impacts on open space and formal / informal recreation places.
- b) Minimise severance of communities and agricultural land and maintain convenient access to properties. Assessment criteria included considering:
 - i) the number of residences and properties/landholdings directly impacted by the route footprint;
 - ii) loss of productive land; and
 - iii) operational impacts due to division and altered configuration of land shape.
- c) Improve town amenity by removing through traffic, minimising noise and visual impacts of the new road and avoiding impacts on key community facilities.
- d) Avoid or minimise impacts on areas of ecological sensitivity, floodplain function and heritage significance to the extent practicable. Assessment criteria included native vegetation, flora and fauna, wildlife corridors, the extent of floodplain and extent of structures required, and the potential to impact Aboriginal cultural heritage with regard to both known and unknown places.
- e) Provide a balanced outcome giving consideration to environmental, economic and social factors providing best value benefits for the lowest project cost. Assessment criteria related to businesses impacts by the alignments.

VicRoads submitted that Option D was assessed against these criteria as set out in the specialist reports provided to the Panel.

VicRoads submitted that, in summary, Option D meets the main project objectives because it has good transport performance, would improve road safety and provide travel time savings along the Western Highway route while removing heavy vehicles from the centre of Horsham.⁵

VicRoads submitted that it also performs well on the other project objectives because⁶:

- a) the route to the north of Horsham is convenient to the Dooen Freight Hub;*
- b) the route enables expansion of the main E-W runway and does not prevent future northerly expansion of the N-S runway if that was desired in the future;*
- c) the route provides an integrated transport option for a future ring road around Horsham;*
- d) the route is compatible with the future relocation of the rail line;*
- e) flooding impacts can be designed out;*
- f) native vegetation along the route is largely confined to the Wimmera River crossing;*
- g) the route is compatible with future land use planning for the expansion of Horsham and provides an appropriate barrier to growth to the north of the township;*
- h) impacts on agricultural land are acceptable due to the relatively short length of the route, a substantial amount of the alignment traversing land that is not intensively farmed and part of the alignment following an existing road reservation; and*
- i) the route is sufficiently close to the Horsham township to provide connectivity for local and regional traffic (as well as through traffic) and to ensure that Horsham retains the benefits of being close to the national highway network.*

VicRoads acknowledged that Option D does have adverse impacts, including:

- a) the removal of vegetation at the Wimmera crossing;*
- b) the acquisition of land and dwellings;*
- c) residual amenity impacts on existing dwellings (noise and visual);*
- d) severance of agricultural land;*
- e) landscape impacts, primarily as a result of the overpass of the Henty Highway and Wimmera River;*

⁵ Document 1 page 42

⁶ Document 1 page 42

- f) the removal of any future option to significantly extend the NS runway of the aerodrome to the south; and*
- g) higher construction costs as a result of flood mitigation measures.*

VicRoads submitted that the benefits outweigh the disbenefits and that, overall, the Option D alignment and the Amendment have a net community benefit.

The Panel has reviewed the issues relating to Option D, and the submissions received about those issues, in Chapter 7.

6.3 Option D traffic analysis

VicRoads submitted that traffic modelling was carried out for '2031 as this was the 'anticipated' year a bypass of Horsham might commence operations (noting that this year was arbitrarily selected as VicRoads cannot predict when the bypass is likely to be constructed).'

VicRoads advised the following results of the traffic analysis undertaken using the model for 2031:

- a) Base case (without the bypass): growth is expected along all key roads, with the Western Highway expected to carry the highest volume of traffic with over 25,000 vehicles per day, including 3,700 heavy vehicles, by 2031.*
- b) Option D: 1,900 vehicles per day, including 1,300 heavy vehicles per day.*

The traffic analysis found that a bypass of Horsham is likely to be used predominantly by heavy vehicles because the number of heavy vehicle through trips was (significantly) greater than the number of light vehicle through trips, as follows (24 hour period):

- a) Of the 6,700 light vehicle trips entering the study area around 670 trips (10%) were 'through' trips.*
- b) In contrast, of the 1,700 heavy vehicle trips entering the study area, around 1,000 trips (58%) were 'through' trips.*

The Panel accepts that conclusion that Option D would be very effective in removing a substantial proportion of heavy vehicles from the central business area of Horsham.

7 Alignment Option D - assessment of issues

7.1 Introduction

In this Chapter the Panel assesses the main impacts of Option D and the proposed PAO. The assessment considers the submissions of VicRoads, technical reports provided by VicRoads, expert evidence and submissions made to the Panel.

The aim of this Chapter is to reach conclusions about whether the Amendment achieves an overall net community benefit and represents an acceptable planning outcome.

7.2 Economic impact on Horsham

(i) The issue

While there is general support for a bypass of Horsham, it is likely to have an impact on local businesses that depend on through traffic for some of their turnover. With regard to Option D, the issue for the Panel is whether the economic impact is likely to be negative and sufficiently damaging to undermine the case for the PAO in the location proposed.

(ii) Submissions and evidence

In its submission to the Panel, VicRoads relied on the AECOM report *Horsham Bypass: Stage 2 Options Assessment - Business Impact Assessment* (May 2015), which addressed the issue of the potential impact of bypass Options D, B2, 5A, 11 and 12 on Horsham businesses.

AECOM referred to a report on the business impact of bypass roads on country towns conducted in the mid-1990s for the New South Wales Road and Transport Authority, which showed that short term impacts on local business occur, but there were beneficial outcomes in the medium to long term⁷. VicRoads also provided the Panel with a copy of an update study of the economic impacts of town bypasses on Gunning, Yass and Goulburn in New South Wales⁸. This confirmed that the longer term economic impacts of town bypasses are positive, although there has been a high level of turnover of highway related businesses.

AECOM noted that there are businesses in Horsham which depend on through traffic, and over half the respondents to a survey of businesses expected that the Bypass would have an adverse impact on their turnover. However, it proposed that advance signage and ramp access to Horsham are mitigation measures that would minimise business loss, while the reduction in heavy transport through the town may stimulate local economic activity.

VicRoads concluded that:

Impacts on the businesses in Horsham does not appear to be a significant issue arising from the submissions to the Amendment as there is general support in Horsham for a bypass.

⁷ Parolin, B., & Garner, B. (1996). *Evaluation of the economic impacts of bypass roads on country towns: Final project report*. Sydney: School of Geography, University of NSW. Prepared for the NSW Roads and Traffic Authority.

⁸ *Economic Evaluation of Town Bypasses: Final Report* (October 2012)

Many of the submissions at the Panel hearing addressed the issue of the desirability of alternatives to Option D, particularly Options 2 and 5A.

The Panel received a submission from local business owners Kevin and Greer Dellar, who have been retailers in Horsham for 30 years. Mr and Mrs Dellar supported a route to the south of Horsham, partly because it would be closer to the city and be more likely to encourage through traffic to stop than a wider route.

The primary focus of One Horsham was support for the advantages of Option 2 over Option D, so local economic impact was not a strong consideration. However, it noted that its fall-back Option 5A would have advantages in its excellent transport links to industrial and residential areas, leading to opportunities for freeway related uses such as truck stops, service centres, accommodation and container storage.

Council's submission addressed a range of infrastructure, compensation, planning and decision-making issues, but did not provide any detail on potential local economic impacts.

(iii) Discussion

The Panel's consideration of local economic impacts of the Bypass proposed in Amendment C72 on Horsham is based largely on the information provided in the AECOM report and in submissions to the Panel.

The AECOM report used a simple model to assess the acceptability of the options, using the assessment criteria 'Local business operators' and owners' perceived impact on revenue by options'. Based on the survey of businesses in Horsham, it found that:

... the survey results indicate that the effects are expected to be comparable no matter which bypass option is selected. This finding therefore indicates that effects on businesses that rely on turnover from Horsham through traffic is not a key differentiator for the choice of a preferred option.

It concluded that:

*Overall, all alignment options are rated as a **Neutral** impact on local businesses in Horsham based on their perceived impact by local businesses, with Option 5A considered to have the least impact.⁹*

Apart from the business survey, the Panel did not have access to any modelling of the likely effects on the local Horsham economy of Option D, or other bypass options. The lack of specific and solid research is probably a result of the broad community support for a bypass, such that economic impact may have been regarded as a secondary matter to be managed in the future. The evidence that bypasses have a positive long-term impact on local economies may also have been a factor in the lack of specific economic research on Horsham.

The business survey suggesting that over half the respondents expected that the bypass would have an adverse impact on their turnover may be valid for current businesses, but it also shows that the economic impact of the Bypass will be longer term, there will need to be

⁹ AECOM, *Horsham Bypass: Stage 2 Options Assessment - Business Impact Assessment* (May 2015), p 23

positive management of new opportunities that will arise, and that there will be a significant transition period. In turn, this will require positive and strong community leadership, particularly from business groups and Council.

On the basis of the evidence provided to the Panel, it is highly unlikely that Option D's local economic impact will be negative and of sufficient scale to undermine the Amendment. Option D is relatively close to Horsham, and its negative impact on businesses in the town (as distinct from the impacts on aerodrome and agriculture, which are considered in separate sections of this report) will not be greater than more distant alternatives.

Many of the submissions at the Panel Hearing addressed the issue of the desirability of alternatives to Option D, particularly Option 2 and 5A. As a result, the Panel sought advice from VicRoads on evidence relating to driver behaviour in relation to town bypasses, particularly whether there is a relationship between the distance of a bypass from a town and the propensity of drivers to turn to visit the town.

VicRoads responded that it is more likely that drivers will turn into a bypassed town if it is close and convenient. Nevertheless, VicRoads:

...does not have any specific research to be able to answer the question 'how far is too far'. However, the answer to this question must depend upon a range of factors that will be different in each case including:

- The town's size and 'offer' (accommodation, meals, tourism facilities);*
- The location of the town viz a viz the origin and destination points;*
- The proximity of the town to other potential competing 'stop and rest' locations;*
- Mitigation measures taken by the town such as online advertising and highway signage.*

The Panel agrees that these are the matters that should be addressed in detail if further consideration is to be given to alternatives to Option D.

(iv) Conclusions

The Panel concludes that:

- There has been little detailed research on the economic impact of the proposed bypass on Horsham, and only a generalised analysis of differential impacts of alternative routes on the local economy.
- Despite this, the widespread support for a bypass and the likelihood that there will be some positive economic benefits mean that economic impact will not preclude consideration of a bypass.
- It is likely that a bypass closer to town would have less local economic impact than one more distant. Option D is therefore likely to be more acceptable from a local economic viewpoint than more distant options (notably Option 2).
- The implementation of the PAO in Amendment C72 is acceptable in terms of the economic impact on the town.
- If other options are to be considered in a future research and consultation process, a more rigorous approach to analysis of the local economic impacts of alternative routes (including the consideration of mitigation measures) should be undertaken.

7.3 Land use issues and connections to the broader road network

(i) The issue

The issues are:

- Does the proposed PAO unduly impact on current land uses in Horsham?
- How well does Option D service economic activity in the region?
- Is it consistent with future land use planning in Horsham?
- How well does Option D connect to the broader road network, notably the Henty and Wimmera Highways, and the Wimmera Intermodal Freight Hub at Dooen?

A further issue relating to land use planning is whether the Bypass assists in defining an outer boundary to Horsham's development.

(ii) Submissions and evidence

Impact on current land uses

Many of the submissions on the impact of Option D focused on its impact on the rural residential precinct at Riverside. These included Mr Hood, Mr Scott and Mr and Mrs Williams, who each referred to amenity and severance impacts on the Riverside community.

Relying on the AECOM report, *Horsham Bypass: Stage 2 Options Assessment - Land Use Impact Assessment* (May 2015), VicRoads submitted that the Option D alignment creates minimal impact on sensitive land uses within Horsham, aside from the impacts on agriculture and the Horsham Aerodrome (which are dealt with in other sections of this report). In particular, it argued that Option D creates little negative impact on current and future residential and commercial land uses.

The AECOM report included the objective 'have regard to impact on current and future land uses', with one of the Assessment Criteria being 'potential changes to land use'. With regard to Option D, it noted:

This alignment option has been located through farmland and may impact on the productivity of some areas of farmland where land parcels are severed by the proposed bypass road.

This option is unlikely to influence land use development in Horsham as it is located some distance from the existing urban areas of Horsham and the land in this area is already subject to flooding constraints that limit potential urban uses.

This alignment is likely to encourage highway development along Wimmera/Henty Highway to the north-east between the interchange and central Horsham. Highway development in this location is consistent with current policy.

This alignment is likely to integrate well with the future development of Dooen Freight Hub.

An interchange at Horsham-Lubeck Road may result in increased traffic along Horsham-Lubeck Road / Williams Road. Whilst this may affect

residential amenity and road safety, due to the narrowness of Williams Road, it is unlikely to lead to land uses change in the area.

This option is likely to impact on the environs of Wimmera River by limiting east west movement along the river bank and therefore may impact on access to the recreational uses of the area between Cameron Road and Riverside Road, requiring modified alternative access routes. Both sides of the River in this area are used for activities including the Riverside Recreation Reserve, the scenic drive along the River, the Riverside Equestrian Centre and the Horsham Angling Club.¹⁰

VicRoads accepted that Option D crosses rural residential land at Riverside, but noted that it does not impact on land in residential zones and affects only two properties in a commercial zone in Dooen Road.

VicRoads addressed the impact on Riverside by referring to the report by AECOM, *Horsham Bypass: Stage 2 Options Assessment - Social Impact Assessment* (May 2015). This included an objective to 'minimise severance of communities and agricultural land and maintain convenient access to properties' with performance measures including 'acquisition of residences and fragmentation of communities' and 'number of residences directly impacted by route footprint, resulting in relocation of residents'. Along with Options 11 and B2, Option D rated as 'moderately poor' on these measures, with Option 12 'very poor' and Option 5A 'neutral'.

Servicing economic activity

The *AECOM Land Use Impact Assessment* addressed several objectives, including 'support freight movement and connectivity with key industry, freight and logistics areas of Horsham'. The Assessment Criterion relating to this objective was described as 'maintains efficient road network with access to and between key industry / business areas, whilst minimising truck traffic through central Horsham'. Referring to this AECOM report, VicRoads submitted:

Option D travels past the Burnt Creek Industrial Estate and then to the north before joining the Henty Highway to the east of Horsham. From here freight trucks can exit to travel to Dooen Freight Hub. The alignment travels to the south of the aerodrome before re-joining the Western Highway.

Freight vehicles travelling from the south-east, have good access to existing industrial areas in the south via Stawell Road and to the industrial areas in the north (around Horsham Railway Station) via the proposed bypass and Dooen Road.

Freight vehicles travelling from the north-west, have good access to existing industrial areas in the north via Dimboola Road. However access to the industrial areas in the south is poor because the bypass does not provide an exit to these industrial estates. As such, vehicles travelling from the north-

¹⁰ AECOM, *Horsham Bypass: Stage 2 Options Assessment - Land Use Impact Assessment* (May 2015), p 35

west to the Enterprise Estate and Burnt Creek Industrial Estate would need to travel through central Horsham.

AECOM's conclusion was that Option D performed 'moderately well' in meeting the assessment criteria. With a mitigation option of the provision of a link from the proposed bypass to Stawell Road to improve access to Burnt Creek and Enterprise Estate, AECOM's performance rating improved to 'very well'.

AECOM also addressed the impacts on commercial development in highway locations. Its comments relating to Option D are as follows:

Option D bypasses central Horsham and includes interchanges at Williams Road and Dooen Road. This may encourage traffic using the bypass to exit or enter the town at these points.

Commercial precincts in the north of Horsham may experience increased trade as a result of traffic exiting the bypass at Dooen Road. This is consistent with current local planning policy.

The interchange at Lubeck-Horsham Road may lead to pressure for the development of commercial land uses along Williams Road which is a residential area. This is inconsistent with current land use planning policy.¹¹

It concluded that Option D performed 'moderately well' on this issue. The performance of the southern Options 5A and 12 was 'moderately poor'.

Future Land Use

VicRoads argued that Option D avoids areas of future growth identified in the Framework Plan in Horsham Planning Scheme's proposed Municipal Strategic Statement (MSS). It contrasted Option D with Option 5A, which it considered would conflict with 'growth areas' identified to the south and west of Horsham in the Framework Plan.

Connections to the broader road network

The AECOM Land Use Assessment report included an objective of 'integration of transport and other land uses'. The Assessment Criterion for this objective was 'to improve access to other key destinations'. AECOM rated all of Options 5A, 11, 12, B2 and D as 'neutral', and concluded:

All of options are likely to have an impact on access from areas outside of the bypass to areas in Horsham. The extent of the impacts is likely to be greater for the alignment options further away from central Horsham rather than those closer to Horsham. This is because the connectivity and route options are reduced the further away from central Horsham, therefore when a route is affected the remaining travel options are often indirect.¹²

¹¹ AECOM, *Horsham Bypass: Stage 2 Options Assessment - Land Use Impact Assessment* (May 2015), p 39

¹² *Ibid*, p 31

A further objective in the AECOM report is 'support the use and development of the Dooen Freight Hub'. The report concludes that Option D has the same impact as Option 11:

This option provides improved access to the Dooen Freight Hub without the need for vehicles from the north-west and south-east needing to travel through Central Horsham.

This alignment option will reduce travel times to/from Dooen Freight Hub making it a more attractive option for industry to develop at the site.

This alignment option is likely to minimise road safety conflicts to Dooen Freight Hub and for the general public.¹³

In its submission, Council raised the issue of connections to other regional highways, namely the Henty and Wimmera Highways. It considered that VicRoads and AECOM had 'limited' discussion on these connections, and the concept of links to them and to key sites such as the Wimmera Intermodal Freight Hub at Dooen is 'not developed':

While the Western Highway carries the greatest amount of freight traffic, both the Henty and Wimmera Highways carry significant levels of freight traffic - almost one-third the level of the Western Highway each.

Removing freight from Horsham's centre can only be achieved if consideration is given to all three highways. This requires an integrated transport plan that determines practical routes to link these highways, and which has regard to the community's broader needs.

VicRoads appears to have recently acknowledged this deficiency. In its Responses to Submissions document, it has referred to an 'integrated transport plan/approach/solution'...

This is a welcome development in VicRoads' position, as the word 'integrated' seldom appears in any of the Technical Reports. While it is used in some of the reports, either citing extracts from the Transport Integration Act, the State Planning Policy Framework, the Horsham CAD Strategy and other regional strategies, it is not mentioned in the Traffic Analysis Report, which would seem to be the report where it should have been considered.

Council proposed a solution which could link the Wimmera Highway at the north-west end of the proposed Bypass:

A re-configuration of the intersection at this end of the Bypass could enable a connection to the Wimmera Highway, potentially via an upgraded Curran Rd, which would allow this traffic to travel to the Henty Highway interchange, thence either north along the Henty Highway itself, or to the eastern continuation of the Wimmera Highway just north of Dooen.

This connection could also enable Wimmera Highway traffic to avoid passing through Horsham to connect with the south-eastern end of the

¹³ Ibid., p37

Western Highway. While clearly a longer route, this could provide an alternative in emergencies, such as when vehicle accidents within Horsham cause road closures, or when the Western Highway in Horsham is closed due to Wimmera River flooding.

Clearly, VicRoads has not given consideration to what would have been a desirable initial integration of key transport routes.

Council welcomes VicRoads recent recognition of the need for an integrated transport plan, and will be keen to work in partnership with VicRoads to develop such a plan.

Council considers that development of an integrated transport plan is one of the most important factors in determining the best alignment of a Western Highway bypass, provided that due regard is given to the broader impacts of the Bypass, and cannot envisage how any bypass route alignment could be determined to be appropriate in the absence of such a plan. Specifically, such a plan needs to address, as a minimum, links to the other regional highways and the potential for railway line relocation.

Other submitters also referred to the need to address linkages to the wider transport network around Horsham. For example, the East Horsham Community Committee represented by Mr John Robinson and Mr Russell Peucker stated that VicRoads questioned how Option 2 would fit into an integrated transport approach, but submitted that Option D ‘suffers the same issues of connectivity’. The submission stated that Option 2 fails to remove trucks from the centre of Horsham, fails to link to Horsham’s main industrial area, and focuses on connection with non-existent industrial areas.

One Horsham submitted that Option D did not provide convenient access to the Dooen Freight Hub, and that by contrast Option 2 provided direct access.

In response, VicRoads referred to the Panel to the AECOM traffic report, which showed that in 2012, of the 1700 trucks travelling through Horsham, only 100 of those were from the Wimmera Highway.

Horsham’s outer boundary

There was discussion at the Panel hearing on whether the Bypass plays a role in defining outer boundaries to the growth of Horsham. VicRoads submitted that Council’s preferred approach is to define a direction for future growth rather than a fixed boundary, but that the PAO will provide an appropriate future outer boundary to development to the north of Horsham, and will also provide an appropriate eastern outer edge to growth.

(iii) Discussion

Impact on current land uses

Any bypass will inevitably impact on land uses throughout its route, and Option D is no exception. However, its impact on residential, commercial and industrial land uses is relatively small (noting that its impact on agriculture and the Horsham aerodrome are dealt

with in other sections of this report). These impacts are not sufficient to undermine the Amendment.

Many of the submissions referred to impacts on the rural residential precinct at Riverside. The alignment of Option D traverses Rural Living Zone (RLZ) land north of Horsham-Lubeck Road, and is close to RLZ land south-west of the intersection of Dooen Road and Riverside Road. Discussion at the Hearing led to a refinement of the alignment north of Horsham-Lubeck Road to follow the edge of several properties, rather than splitting them and leaving a narrow lot next to the Bypass.

There is no doubt that the Bypass would have negative impacts on this attractive locality, and create amenity impacts. However, the Panel considers that these are not sufficient to offset the benefits of the Bypass, and is therefore insufficient reason to abandon the Option.

Servicing economic activity

The Panel considers that there will be significant economic impacts on Horsham when the Bypass is constructed and opened, with most being positive as a result of the removal of much of the heavy freight traffic from the centre of town. As noted in Chapter 7.2, there will also be significant transition impacts on many local businesses.

Option D would contribute to these economic impacts. It also provides for good access to the Wimmera Intermodal Transport Hub at Dooen, via the Henty Highway.

Future Land Use

Option D is consistent with future directions for Horsham's growth, as shown in the proposed framework plan for Horsham exhibited in Amendment C75 (see Figure 3 in Chapter 5 of this report).

The Panel therefore concludes that Option D is a satisfactory alignment in terms of Horsham's future strategic land use planning.

If other bypass options are to be reconsidered in the future, particularly those to the south and west of Horsham, their consistency with the directions outlined in the Horsham Framework Plan would need to be confirmed.

Connections to the broader road network

The Panel considers that Option D has satisfactory connections to the broader road network, particularly the Henty Highway to the north, although its connections to the Wimmera and Henty Highways to the south and west of Horsham are not ideal. Its links to the local road network are also adequate, with the PAO allowing for interchanges at the Horsham-Drung South Road, Henty Highway, Horsham-Kalkee Road and Geodetic Road.

As a major regional centre, Horsham has highway connections from several directions, and it is inevitable that there will be advantages and disadvantages in the efficacy of highway connections for northern and southern routes around the urban area. For example, it is likely that Option 5A would facilitate effective linkages to the Henty and Wimmera Highways to the south and west, but would be less effective with Henty Highway connections to the north. The key is to establish a clearer picture of how the wider transport system should be configured to maximise net community benefit.

The Panel supports the view presented by Council and other submitters that an integrated transport plan for Horsham is highly desirable, and should be carried out as a matter of urgency. Such a plan would develop greater clarity about the future of road and rail around Horsham, and reduce the likelihood of the misconceptions and mistrust that has characterised recent debate about the Bypass.

The Panel is also surprised by Council's position that it cannot envisage how any bypass route alignment could be determined in the absence of such a plan, but has not prepared one despite the work being carried out on the Bypass for many years. Irrespective of the outcome of Amendment C72, the Council should commence a process of collaboration and planning with VicRoads, other agencies and the community, and establish clearer directions for the future.

Horsham's outer boundary

The Panel reviewed the debate about the role that the Bypass may play in creating an outer boundary for Horsham's urban area. A bypass that is outside the current and planned urban fabric may reinforce consolidation, as long as it is not so distant to be irrelevant. This also requires careful long-term land use planning to avoid development surrounding the Bypass in a way that undermines the function of the Bypass itself.

Most of the options that had been considered at Horsham may in effect create an urban boundary. Option D may carry out this function, because it is generally within a few kilometres of the urban area.

The Panel considers that the issue is a minor matter in defining the alignment of the Bypass. There is some advantage in being relatively close to the urban area, but land use planning which encourages urban consolidation and protects the traffic function of the Bypass are much more important.

(iv) Conclusions

The Panel concludes that:

- Although there is inevitably some impact on land uses throughout its route, Option D does not create undue impacts on residential, commercial and industrial land uses.
- There is an impact on rural residential areas at Riverside. The Panel accepts that the Bypass would create amenity impacts in this area, but that these are not significant enough to abandon the Option.
- Option D is consistent with future directions for Horsham's growth, as shown in the proposed Framework Plan for Horsham exhibited in Amendment C75.
- Option D connects well to the local road network and Henty Highway in the north.
- While Option D may create an outer boundary for Horsham, this is not a significant matter in defining the alignment of the Bypass.
- If alternative alignments are to be considered in the future, southern alignments such as Option 5A may enhance links between the Wimmera and Henty Highways to the west and south. If alternatives are to be considered, this should be carried out in conjunction with an Integrated Transport Strategy for Horsham, to be carried out by Council in collaboration with other stakeholders and the community.

7.4 Rail crossings

(i) The issue

The Option D alignment involves two crossings of the Melbourne to Adelaide rail line. The possibility that the line may be relocated further to the north of Horsham in the future was flagged in submissions. If this occurs, the rail crossings incorporated into the PAO may become redundant. The issue for the Panel is whether planning for possible rail relocation should precede decisions regarding the PAO for the Bypass.

(ii) Submissions and evidence

The Council submission provided background on the proposal to relocate the rail line. Representing Council, Mr John Martin explained that the Horsham railway yards and the adjacent industrial sites create a physical and social barrier between Horsham North and the rest of Horsham. With the shift in the focus of freight to the Wimmera Intermodal Freight Terminal at Doon, there is an opportunity to relocate the rail to improve connections between Horsham CBD with Horsham North, and develop parts of the railway corridor for other uses.

He cited the exhibited new Municipal Strategic Statement Clause 21.04-5, which identifies that:

Horsham Rural City Council will also investigate the relocation of the railway line from the centre of Horsham as part of the Horsham Western Highway Bypass.

Mr Martin referred to a study prepared by Aurecon, *Horsham Rail Bypass Planning Report: Final Report* (12 June 2013), commissioned by the Council with the then Department of Transport, supported by the Australian Rail Track Corporation and VicRoads. This was presented as a 'pre-feasibility' level study of options for a railway line bypass of Horsham, developing background information, but not involving public consultation. It considered a number of options along the Western Highway and Henty Highway sections of the rail line, with potential benefits including a reduction in rail length, possible revitalisation of the current rail corridor through Horsham, and safety improvements through removal of level crossings. Further:

The rail relocation would provide the opportunity to simplify potential Western Highway bypass flyovers at the Henty and Western Highway junctions.

Mr Martin also noted that:

...Council has a continuing priority to the return of passenger rail to Horsham, which is potentially in conflict with a rail bypass of Horsham.

In the interim, Council will aim to revitalise the rail corridor within Horsham due to the significant social benefits in doing so.¹⁴

¹⁴ Horsham Rural City Council submission dated 22 October 2015, pp 14-15

In response to a Panel request for information on the status of the rail realignment, Mr Martin referred to a letter from the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) dated 25 September 2015, which advised Council that Public Transport Victoria (PTV) considers the project to be a 'low priority project'.

Council's recommendation to the Panel was that '*Planning for a railway bypass of Horsham, in conjunction with the Western Highway bypass, should proceed upon finalisation of the route alignment for the Western Highway Bypass*'.

The Panel heard from Mr John Forrest, who presented a case supporting One Horsham. Mr Forrest argued that there were benefits in realigning rail to the north of Horsham, and that it is highly likely that the rail deviation would occur prior to the construction of the road bypass. He supported consideration of the rail deviation in conjunction with the Bypass, or abandon all of the northern options for the Bypass (including Option D).

Referring to the Aurecon report commissioned by Council, VicRoads submitted that:

The report gave detailed consideration to the relationship between the bypass and rail options. The report illustrates quite plainly why it is useful, in planning for rail, to know the proposed road bypass alignment. While Mr Forrest argues that road and rail should be planned concurrently, the process that is being undertaken is an integrated process - whereby the planning for both pieces of infrastructure consider and take account of the planning for the other piece.

The alignment of the Horsham bypass does not unduly restrict future options for rail realignment due to the fact that a northern alignment was a superior option on a range of factors, including the benefit of reducing rail travel distance and time.

Further, the Bypass does not rely upon relocation of the rail, and hence it is not premature to plan for the Bypass, prior to the rail alignment being determined.

The PAO proceeds upon the current status quo, namely that the railway will not be re-aligned. However, if this changes in the future, then the potential impacts of the Bypass would be reduced even further because VicRoads would re-examine the extent of the PAO in the vicinity of the rail crossing and the Henty Highway in order to minimise impacts on landowners.¹⁵

¹⁵ VicRoads submission, paragraphs 144-46, pp 36-37

(iii) Discussion

The Panel supports an integrated approach to transport planning, in which a strategic approach is taken to ensure all modes of transport are complementary, and that land use planning is considered at the same time. This means more than planning for two major pieces of infrastructure taking account of each other's planning - rather, it is a collaborative strategic approach shared by all the key planning parties.

In this case, however, the issue of the rail realignment remains uncertain. While Council has initiated valuable work on the revitalisation of the Horsham North area and the possibility that this may involve relocation of the rail line, it also retains an understandable position of support for enhancing passenger rail for Horsham. The low priority currently given to this project means that planning for the road Bypass should proceed, thus reducing uncertainty surrounding one significant element of infrastructure.

The Panel supports the position of VicRoads that the PAO could be refined and land acquisition reduced if rail realignments precede the road Bypass.

On a separate matter relating to rail crossings, several submissions pointed to the advantages of southern alternatives such as Option 5A, which do not involve rail crossings. If other options are to be reconsidered in a future planning process, the costs of rail crossings in northern options and the advantages of avoiding rail crossings in southern options should be reviewed.

(iv) Conclusions

The Panel concludes that:

- An integrated approach to transport planning is highly desirable, but uncertainty about the location, likelihood and timing of the rail realignment means that it is reasonable to plan for the road Bypass prior to firm decisions on rail.
- Implementation of the PAO at rail crossings could be refined if decisions are made about rail realignment prior to construction of the road Bypass.
- The possibility of the rail realignment is not sufficient reason to reject Option D and abandon Amendment C72.
- If further consideration is given to other bypass options, the costs of rail crossings in the northern options should continue to be assessed, and flexibility built into plans to take account of possible rail realignments. Further, the advantages of avoiding rail crossings in the southern options will need to be confirmed.

7.5 Henty Highway interchange design alternatives

(i) The issue

The Panel noted that the Option D alignment requires a deviation of the Henty Highway at the interchange with the Bypass. VicRoads explained that this is to provide for bridging of the rail line clear of the on and off ramps for the interchange. The alternative of retaining the Henty Highway in its current reserve means that additional bridges would be required to take the on and off ramps over the rail line as well, significantly adding to the cost.

The Panel asked VicRoads to expand on other alternatives for the Henty Highway interchange that might reduce the area to be acquired and reduce impacts on existing properties.

(ii) Submissions and evidence

VicRoads provided the following summary of alternative design options that had been considered in 2013:

No Rail Scenario (Henty Highway interchange - No Rail)

A basic interchange configuration was produced to show the default arrangements for a typical interchange arrangement in this location should the rail line not exist.

Western Interchange (Henty Highway Realignment - Western interchange)

An interchange with realignment of the Henty Highway to the west of the rail line was considered in order to assess if residential impacts could be reduced.

The interchange requires four separate bridge structures, being:

- Bypass bridges over the rail line*
- Bypass over the realigned Henty Highway*
- Henty Highway over the rail line - twice*

Whilst the bypass connections to the Henty Highway are catered for in this configuration, the local road connections were considered highly problematic due to Henty Highway bridge requirements. Due to the size of the bridges (minimum 7.2m clearance over rail) the structures will be significant, requiring large infrastructure that would create a barrier to existing roads and properties. An example is SW of Peppertree Lane and Dooen Road.

The ramp up to bridge over the rail line in this location would utilise the entire existing road reserve and therefore access could not be provided to adjoining properties, alternatively service roads would need to be constructed which would result in the acquiring of a number of properties and residences.

Reconnection of Riverside Road and other local roads would prove to be problematic and would likely result in realignment and additional roads being required, with additional acquisition required.

The western interchange option, whilst reducing the land impacts required by the interchange, introduces a greater number of structures at additional cost, greater access issues and ultimately greater potential property impacts than the proposed interchange configuration.

Loop interchange (Henty Highway interchange - Loop Interchange)

This configuration was considered in order to assess whether it would reduce infrastructure required and potential property acquisition impacts.

Whilst this style and design has been implemented in other locations across Victoria, growing evidence is demonstrating that these designs have adverse implications for heavy vehicle movements such that the freight industry does not want them and VicRoads has safety concerns for their operation. Based on the project objective to provide safe and efficient movement of freight, this interchange configuration was rejected and not pursued.

VicRoads submitted that, arising out of this work, it concluded that the proposed alternative of an interchange to the east provided the best response.

At the Hearing VicRoads advised that a further review had been done of the design in response to the Panel's concerns. The revised design is shown in Figure 3 (*AECOM Plans SKE-0004 & SKE-0005*) and is based on:

- *A design posted speed of 80km/hr which is considered appropriate for the road environment and future interchange considerations at this location.*
- *A 40m width, reduced from 60m previously. The modified Henty Highway alignment is suitable for a design speed of 90 km/h, which would be suitable for a speed limit of 80 km/h.*

VicRoads advised that the revised Henty Highway alignment and interchange utilises the lower design speed to move the curves and avoid a number of residential properties. The revised alignment avoids the dwellings of Ryan and Ladlow, and also avoids impacts on the Nawlor property. All other property access, local road realignments and connections remain the same.

VicRoads submitted that it would accept a recommendation from the Panel that the PAO be modified in accordance with these plans. VicRoads has confirmed that the realigned PAO does not impact on any properties not already affected by the exhibited PAO and that the modification will reduce impacts on some of the directly affected properties.



Figure 3 Proposed modified alignment for the Henty Highway interchange (*AECOM Plans SKE-0004 & SKE-0005*)

(iii) Discussion

The Panel believes that it is unfortunate that the issue of possible relocation of the rail line cannot be resolved sooner. The Panel accepts that, with the rail line in its existing location, it would be cost prohibitive to construct an interchange to the west of the rail line. The Panel is not entirely convinced that a loop (or Parclo) interchange is unworkable. Such designs are used in the metropolitan area in locations with heavy vehicles, and VicRoads recently proposed such a design option for an interchange on the Westernport Highway. The Panel believes that it may be possible to design a loop arrangement with a larger ramp radius that would work for this location. It is, however, somewhat of a moot point as loop ramps may end up occupying as much space as the proposed deviation.

The Panel accepts the proposed modified design as shown in Figure 3 is an improvement in terms of property impacts without unreasonably compromising design standards, and concludes it should be supported if the Option D alignment is to be adopted.

(iv) Conclusions

The Panel concludes that in the event that the Option D alignment is implemented:

- The revised alignment for the Henty Highway as shown in *AECOM Plans SKE-0004 & SKE-0005* should be adopted.
- The Henty Highway reservation can be reduced to 40m width.

7.6 Horsham aerodrome

(i) The issue

Is the impact of the Option D alignment on the Horsham aerodrome an acceptable outcome?

The limit to the potential easterly expansion of the east-west runway was a key reason for the deletion of Option B2 from Amendment C72. Many of the submissions opposing Option D argued that it would compromise safety and the potential expansion of the north-south runway at the aerodrome.

The Panel notes that the terms 'airport' and 'aerodrome' are used interchangeably, and for the purposes of this report mean the same thing.

(ii) Submissions and evidence

The issue of the potential impact of Option D on the current operation and potential future expansion of Horsham aerodrome was a common thread throughout many of the submissions on the Amendment. About 50% of the submissions referred to issues relating to the aerodrome.

One Horsham relied on the evidence of Captain (Ret) Richard Brumby, who expressed concern that Option D would compromise safety standards and force 'extreme encumbrances' on the future expansion of the aerodrome. He considered that the relevant AECOM and VicRoads reports included inaccurate and outdated material, and so should be discounted.

VicRoads referred to the expert evidence of Mr Mel Dunn of SGS Hart Aviation, who outlined the functions and operation of the Horsham aerodrome with its primary '08-26' east-west runway and shorter '17-35' north-south runway. Focusing on matters raised in submissions, he addressed the potential impact of locating Bypass Option D along Gatehouse Road about 400m to the south of the 17-35 runway. Mr Dunn analysed the operation and safety of the aerodrome, and reviewed the alternative possibility of extending the 17-35 runway to the north. He cited the experience of a number of other aerodromes, including Ballarat, Canberra, Lethbridge, Essendon, Moorabbin, Mildura and Tyabb.

In summary, Mr Hart reached the following conclusions:

SGS HART Aviation is of the view that the implementation of either Option B2 or D would not have any adverse effect on current operations occurring at Horsham Aerodrome.

SGS HART Aviation considers that the implementation of Option B2 would indeed impact adversely on the ability to extend the existing east - west

runway to the east and, to a lesser extent, the north - south runway to the north at Horsham Aerodrome.

SGS HART Aviation considers that the implementation of Option D would not impact adversely on the ability to extend existing runways at Horsham Aerodrome; in particular, the east - west runway to the east and the north - south runway to the north.

SGS HART Aviation considers Option D is not so close to the Horsham Aerodrome such that it would contribute to distraction of aircraft pilots and / or vehicle drivers and lead to aircraft and / or vehicle accidents. There are many similar (or closer) conditions which exist at other aerodromes where no such problems exist.

It is considered that the obstacle limitation surfaces for the existing runways at Horsham Aerodrome will not be compromised by the construction of Option D, either for the existing runways or for any extension of such runways to the north or the east. Nevertheless, a professional detailed assessment of such needs to be undertaken.¹⁶

Council stressed the importance of planning for the future of the Horsham aerodrome in its submission to the Panel:

... Council had commenced a new stage of planning for runway extensions to its main east-west runway, currently 1322m long, to a length of 1800m, and the secondary north-south runway, currently 999m long, to a length of 1100m.

This planning is a staged step towards the ultimate vision that both runways should be lengthened to 2000m as outlined in the Horsham Airport Business Plan (adopted by Council 3 May 2010 - and included as VicRoads' submission Document 7d), which recommended on p26:

- Fourthly, the Council to build into its next Horsham Planning Scheme and Municipal Strategic Statement review the need to ultimately establish 2000m long runways at the Horsham Aerodrome.*
- Fifthly, the Council to seek funding assistance to purchase the land identified to extend the north-south runway 17/35 to Gatehouse Road, and westwards to Geodetic Road.*
- Finally, the Council to establish preliminary plans to re-align Gatehouse Road southwards or to close Gatehouse Road to accommodate the ultimate extension of runway 17/35 to 2000m, and to investigate the possibility of closing a section of Flacks road just south of Aerodrome Road to allow for the ultimate extension of the east-west runway 08/26 to 2000m (p26).*

With regard to the possibility of extending the 17-35 runway to the north, Council submitted:

¹⁶ SGS Hart Aviation, *Review of Potential Impact on Aviation Operations at Horsham Aerodrome of Western Highway, Horsham: Bypass Alignment Options B2 & D, Horsham Planning Scheme Amendment C72* (October 2015), Executive Summary.

Extending the runway to the north is not a simple task. It involves analysis of CASA standards and significant earthworks design and cost. It was not contemplated in the Business Plan. It would be appropriate to undertake a comprehensive investigation to assess if it is viable - Mr Dunn's evidence supports that this investigation be done. Council is a willing partner in this further investigation - but at this stage the viability of this northern extension is not known.

Council submitted a position that its Horsham Airport Business Plan (2010) for the aerodrome had the status of a 'master plan'. Clause 18.04-3: Planning for airfields of the Horsham Planning Scheme includes strategies that include:

Plan for areas around all airfields such that:

- Any new use or development which could prejudice the safety or efficiency of an airfield is precluded...*
- Any new use or development which could prejudice future extensions to an existing airfield or aeronautical operations in accordance with an approved strategy or master plan for that airfield is precluded.*

This was contested by VicRoads in its submission to the Panel:

The Council's submission that the Business Plan is an 'approved master plan' for the purposes of cl 18.04-3 is disingenuous. It is not even a reference document in the proposed MSS under Amendment C75 (see e.g. cl 21.13 'reference documents'). To the contrary, Amendment C75 includes the following strategies:

- Strategy 2.3 Prepare a Master Plan for the Horsham Aerodrome and implement its recommendations.*

Clearly there is no 'Horsham Masterplan'. Even the Airport Master Planning document tendered by the Council draws a distinction between a 'business plan' and a 'master plan'.

(iii) Discussion

The AECOM report *Horsham Bypass: Stage 2 Options Assessment - Land Use Impact Assessment* (May 2015) reviewed the potential impact of Bypass Options D, B2, 5A, 11 and 12 on the Horsham aerodrome. The assessment criterion used was 'To avoid development that impacts on the operation of Horsham Aerodrome'. It concluded that they all had a 'Neutral' performance rating before and after mitigation measures, and that there were 'No mitigation options identified' in all cases. With Option D, the report noted that the Option 'is unlikely to impact on the current use and future use of the Aerodrome as it will not limit the future growth of the Aerodrome'. The assessment of Option 11 included the following:

Whilst this may limit the extension of the runway to the south, there is sufficient land to the north should future expansion of the runway be required.¹⁷

¹⁷ AECOM, *Horsham Bypass: Stage 2 Options Assessment - Land Use Impact Assessment* (May 2015), p38.

Following the exhibition of the Amendment, the likely impact of Option B2 on the potential expansion of the east-west runway emerged as a key issue, leading to its removal. This leads to two main issues:

- Is the current operation and safety of the aerodrome likely to be compromised by Option D?
- Will an extension of the north-south runway be constrained if Option D proceeds?

Operations and Safety of the Aerodrome

The Panel noted many submissions that praised the safety of the aerodrome, enhanced by its proximity to open and relatively flat paddocks. All of the parties to the hearing wished to ensure that this safety was not compromised.

The evidence presented to the Panel indicated that a bypass located along Gatehouse Road would have minimal impact on the current operation of the aerodrome. Issues such as the potential distraction of drivers, possible reduction in safety for planes experiencing engine failure or the confusion for pilots as a result of street lighting along the Bypass were not likely to be significant, if the 17-35 runway is not extended towards the south. While there is no desire to support a 'lowest common denominator', the experience of aerodromes in other parts of Australia suggests that the current gap between the end of the runway and the Bypass is adequate to meet operational requirements comfortably.

Some submitters raised concern about the compromise of obstacle limitation surfaces for the existing runways at the aerodrome if Option D is to proceed. There are already constraints on development to ensure that this does not occur, and any future planning would be required to meet the requirements of the Civil Aviation Safety Authority (CASA). Further, the Horsham Planning Scheme includes Design and Development Overlays Schedule 2 (Immediate Airport Environs Area) and Schedule 3 (Wider Airport Environs Area), limiting the height of any development around the aerodrome to ensure that it does not prejudice the existing or future use of the airport.

Northern Extension of 17-35 Runway

Mr Dunn addressed the issue of the potential extension of the 17-35 runway in his evidence:

It has been suggested that the an extension to the north would create a problem in the construction of the runway as the land allegedly slopes downwards and any runway would not then meet the requirements of the CASA Manual of Standards 139 for operating aircraft to be visible from both ends of the runway. The allegation that the land north does slope downwards has not been confirmed. Whilst there are existing precedents where such has been accepted, but only when aircraft enter the runway for the centre and all elements of the runway are then visible and radio reporting is required as well, this is not a matter which SGS HART Aviation considers would be relevant to any extension proposed at Horsham Aerodrome of the north - south runway to the north. It is very likely that CASA would insist on the full MOS 139 Aerodrome Standards being met and this would no doubt require infill if indeed it is the case that the land to the north is lower than that land within the confines of the aerodrome. Clearly a detailed assessment of such would

need to be done before any commitment is undertaken for any such extension to the north.

Further extension to the south is possible but desirably probably limited to no more than approximately 200 - 300m.¹⁸

In cross-examination, Mr Dunn stated that his view that an extension towards the south for 200m to 300m was possible was based on a minimum of 100m to a road. The Panel considers that such limited extension of 200m to 300m is unlikely to satisfy long-term needs. This leads to a need to consider either an extension to the north (crossing Aerodrome Road, which would require a diversion), or a diversion of Gatehouse Road prior to an extension towards the south. Either Option could be costly, and should be assessed carefully in a new master plan for the aerodrome.

During its site inspections, the Panel observed that the land does slope downward to the north of the runway. This was confirmed by a number of submitters at the Hearing.

The issue then becomes one of the cost of extending the runway towards the north, which may be significant depending on the amount of fill required to ensure that CASA standards are met. No evidence was put to the Panel on the extent of additional cost that would be incurred; and it is not clear to the Panel that there is any mechanism to compensate the aerodrome owner for any extra costs.

The Panel supports planning for a possible extension of both runways in the future. The impact of Option D on future planning of the aerodrome is not a fatal flaw in its own right, because it is physically possible to extend both runways. However, there was minimal information on the cost differential of a northern rather than a southern extension of 17-35 runway, making an assessment of net community benefit a difficult exercise.

The Need for an Aerodrome Master Plan

Council referred to its Business Plan as the most recent version of a master plan for the aerodrome. While it did not cover expansion plans in any significant depth, it was the most recent plan available on the future of the aerodrome.

The Panel accepts the VicRoads criticism of the status of the business plan, which performs a different function to that normally expected of a master plan. However, the Panel does not rely on the Business Plan for its analysis of future planning, but takes its content as a moderately useful indicator of Council's latest views on planning for the aerodrome.

If there is to be reconsideration of the Bypass options, clarity about expansion plans for the aerodrome is essential. This may involve the preparation of a new master plan - at minimum, firm decisions will be required on long-term planning for runway extensions. Just as it is appropriate to plan for the future road Bypass of Horsham even though funding and implementation is uncertain, planning for the future expansion of the aerodrome is also appropriate.

¹⁸ SGS Hart Aviation, *Review of Potential Impact on Aviation Operations at Horsham Aerodrome of Western Highway, Horsham: Bypass Alignment Options B2 & D, Horsham Planning Scheme Amendment C72* (October 2015), p9.

The Panel requested information from Council on the preparation of a new master plan for the Aerodrome. The Council responded that 'significant work' would be required, while the time taken to complete a master plan would depend on its scope. Council suggested:

A consultant who prepares master plans for aerodromes (Dave Race at Meinhardt) advised that a master plan could be prepared in three months, although a preferred period would be six months. An example was cited by this consultant was the Benalla Aerodrome Master Plan which was recently completed in seven months.

The Panel supports the immediate preparation of a master plan for the aerodrome. This should be conducted with a transparent and collaborative process, with VicRoads actively involved.

(iv) Conclusions

The Panel concludes that:

- The impact of Option D on the current operations of the Horsham aerodrome is minimal, and any impacts can be managed.
- The main issue is whether the constraint on the future southern expansion of 17-35 runway is of sufficient significance to preclude any option (including Option D) that follows the alignment of Gatehouse Road.
- It is physically possible to extend this runway to the north, but at a cost because the topography would result in additional requirements for cut and fill. Some very limited extension towards the south may be possible, but location of the Bypass along Gatehouse Road would ensure that future planning for runway extensions would be required to focus on the north.
- Planning that precludes an expansion of 17-35 runway is short-sighted; it is therefore necessary to ensure that a northerly extension is practical and not cost-prohibitive.
- The Amendment and Option D should only proceed following the preparation of a Master Plan for the aerodrome that confirms that it is possible to extend the north-south runway in a cost-effective way.

7.7 Flooding

(i) The issue

What engineering design response is required to implement the Option D alignment across the Wimmera River - Burnt Creek floodplain?

Is the impact of the Option D alignment on the floodplain an acceptable outcome?

(ii) Submissions and evidence

Ms Forsyth, for VicRoads in her opening submission, advised that the WCMA and VicRoads have been in constant consultation regarding the design of the Bypass. She submitted that the WCMA have indicated that the floodplain would not be impacted provided VicRoads took necessary precautions and engineering solutions that don't create afflux or block the passage of the overland flow path. She submitted that the introduction of relief culverts and

elevated bridge structures will offer a solution that will maintain the existing water catchment conditions. VicRoads pointed to a number of examples where road infrastructure has traversed floodplains.

VicRoads, as part of its initial submission, referred to the following two relevant documents.

A document prepared by Water Technology *Horsham Bypass - Stage 2 of Phase 2 - Options assessment* (March 2015) to inform its Options Assessment. This provided a good understanding of the hydraulic and hydrological challenges facing Option D.

- The analysis was undertaken using 100 year ARI event.
- Water Technology adopted the same OBEM methodology as AECOM to assess the options. The original Project Objective 4 for floodplain impacts is to *'Avoid or minimise impacts on areas of...floodplain function...'*. This objective was refined later to be *'Free passage flood water during a 100 year ARI event'*.
- The indicator for this objective: *'Option is able to realistically allow free floodplain flow'* and the assessment criteria include *'number of wetland and waterway crossings and 100 year crossings'* and *'Length alignment within 100 year ARI extent'*.
- In the Executive summary, Water Technology assessed Option D with a 'Poor' Rating (OBEM) and ranked it fifth out of the five options assessed.
- The initial rating defines poor as *'policy non-compliant, High Negative Impact floodplain impacts'*. This rating was subsequently changed to *'unlikely to realistically achieve no negative floodplain impacts'*.
- Water Technology explained the difference between the initial and revised ratings as follows:

However as each of the alignment options have the potential to cause no negative floodplain impacts and the purpose of this component is to mitigate the impact/cost of the potential alignment, the rating system has been revised.'

- Water Technology recognised the 2011 flood event as the largest in living memory:

The event is broadly considered as being between a 100 to 200 year ARI event.
- They estimated the floodplain intersection length is 4,710m and stated that the cost of the infrastructure will vary significantly depending on the length of bridge or number of culverts required. Further, Water Technology commented that a latent risk exists that an event larger than the 100 year ARI could cause afflux upstream with the consequences varying. A factor of safety could be built in reducing the risk of the design capacity being exceeded, which Water Technology suggested could occur once a more detailed design is prepared.
- Water Technology recommended that VicRoads meet with the WCMA to discuss the model results presented in their report.

A document prepared by AECOM - *Horsham Bypass - Route Adoption Report* (15 May 2015).

- This report is an iteration of previous documents and stages, and synthesised the individual specialist study reports such as the Hydrological and Hydraulic Assessment prepared by Water Technology.

- The report's Executive Summary concluded that Option B2 and Option D were identified to be taken into the planning process on the grounds that they satisfied the principal Project Objectives and that the Benefit Cost Ratio for B2 is in the middle of the range:

Whilst Option D has a lower Benefit Cost Ratio, it has benefits in that has reduced impacts on landowners in particular agricultural properties.

- The report identified two Principal Project Objectives and five Additional Project Objectives, one of which, Objective 4, is:

Avoid or minimise impacts of ecological sensitivity, floodplain function and heritage significance to the extent practicable.

- The relative assessment criteria included, amongst others:
 - Number of wetland and waterway crossings and 100 year ARI crossings
 - Length of alignment within 100 year ARI extent
 - Flow required to be passed
 - Potential number / type of culverts / bridges required.

The OBEM methodology was adopted and the ratings are consistent with the Water Technology report, however, in this report all the Options have been rated 'Neutral' against the assessment criteria because *'all bypass options have been designed so that they will meet the 100 year ARI flood level and will not further impact flood levels in the affected areas', 'and 'As construction costs associated with each bypass option has been considered in the economic analysis.'*¹⁹

VicRoads called expert evidence from Mr Warwick Bishop on Hydrology and flooding matters. Mr Bishop, although employed by Water Technology, advised that he had not been involved in the previous Water Technology work.

Mr Bishop advised that this floodplain was one of the most researched and complex in Victoria characterised by shallow flows, low gradient, slow moving floodwaters; complicated by the confluence of a number of floodplains - primarily the Wimmera River and Burnt Creek.

He considered that it was in a sense 'lucky' to recently have had such a major flood (2011) to enable flood behaviour to be measured and previous modelling outcomes can be validated or reconfigured. As a result current modelling has a high level of confidence.

Mr Bishop summarised his position as follows:

Community concerns regarding the crossing of a floodplain by a major roadway are understandable. The possible construction of a large embankment across the Wimmera River and Burnt Creek floodplain could potentially result in detrimental flood consequences. The alignment of Option D does pass relatively close to existing properties in the Riverside area and the design would need to be carefully planned in this area to ensure there are no adverse flood impacts on these properties over a range of design flood conditions.

¹⁹ AECOM, *Horsham Bypass, Route Adoption Report* (15 May 2015), p20

However, I believe that with appropriate engineering investigation and design these challenges are able to be addressed. It is also clear that the selection of alignment options is more likely to be driven by economic, heritage or other issues than flooding ones.

Major roadways frequently cross large rivers and floodplains. This is a common practice throughout Australia, and one that can be readily accommodated for through appropriate design.²⁰

Mr Bishop also assessed the impacts of climate change which would increase the depth and extent of inundation. If the 100 year ARI design level is adopted, with climate change factored in, almost all of Option D is inundated from Burnt creek to the northern side of the Wimmera River, a distance of approximately 5,370m. He added that the impacts of the 200 year ARI flood is similar to the 100 year ARI flood with the inclusion of climate change.

Council submitted to the Panel that it had major concerns with the potential floodplain impacts of Option D. It advised that the WCMA has indicated that the 2011 flood was between a 100 year and 200 year ARI and therefore have recommended that the Bypass be designed to meet a 100 ARI flood with climate change or a 200 year ARI flood and have requested the Panel to give clear guidance on the appropriate standards to be applied at the subsequent Planning Application Stage.

One Horsham called a number of expert witnesses but the Panel considers that their broad engineering expertise, whilst valuable, did not add to the Panel's deeper understanding of the hydrological and flooding assessments of Route D and the Panel regarded their statements as submissions rather than expert evidence.

A significant number of submissions expressed concerns with Option D traversing the floodplain. The submitters' principal concern was that the proposed Option D would increase the risks associated from flooding. Understandably, the community has heightened levels of anxiety following the 2011 floods and at least two previous floods of a similar magnitude over the past 20 years.

The following points were made consistently by the submitters:

- VicRoads route assessments have repeatedly under-weighted the importance of flooding.
- VicRoads has not prepared any engineering plans of any level to provide comfort to the community on how it proposes to ensure no adverse flood impacts.
- Farmers and others that were impacted by the 2011 flood submitted that the flood characteristics are so complex that they find it difficult to put their trust in modelling.
- Incomplete flood studies (particularly Burnt creek) need to be finalised.
- VicRoads will need to ensure that the proposed culvert and bridge structures allow for free passage of flows - blockages will cause the flood levels to rise.
- Allow for the impacts of the channel decommissioning.

²⁰ Water Technology, *Expert Opinion, Horsham Planning Scheme Amendment C72, Western Highway, Horsham Bypass Alignment-Flooding Issues* (9 October 2015), p18.

- A 100 year ARI design standard is not adequate to allow for the most recent floods, climate change and the levels of uncertainty.
- The assessment methodology utilised to identify the preferred Option is too subjective and the assessment summaries are often contradictory and too open for interpretation.

Mr Sudholz provided a very good presentation to the Panel on his family's concerns. Of particular interest was a slide that showed a comparison between the hydrological modelling and the actual satellite imagery of the floods. The flooding extremities shown in the satellite photo appear more expansive than the model's.

The Panel undertook an accompanied site visit to the property of Mr and Mrs Trigg situated at 80 Horsham - Lubeck Road, in Riverside.

Mr Trigg requested the Panel to view the various complexities of the floodplain in the context of the 2011 floods in which Mr. Trigg and his family were forced to leave their house and property to avoid the rising floodwaters from both the Wimmera River and the Burnt Creek systems. The Panel observed the very flat topography of the land, the efforts and measures Mr Trigg took to protect his property, received an explanation of how the two river systems flood and in particular an understanding of the implications of which system floods first and how that order can vary from flood to flood.

(iii) Discussion

The Panel considers that potential flooding impacts to be a matter of high significance when assessing the Option D route through the floodplain. It must satisfy itself that it has enough information to assess that a satisfactory engineering response can be designed.

The Panel agrees with Mr Bishop's description of the challenges faced by Option D and concurs with him that the community's anxiety is entirely understandable. It also agrees in principle with Mr Bishop that with appropriate engineering investigation and design these challenges are able to be addressed. The caveat is always - at what cost?

VicRoads submitted:

The Panel should have confidence in VicRoads' and the WCMA's ability to address those matters at the detailed design phase, especially given the extent of modelling already done within this catchment based upon recent flood data.

The Panel does not question VicRoads' capabilities to carry out a final design, however, there are still a number of key steps that will need to be undertaken prior to the final design and at each step the continued viability and value of the preferred Option will be reviewed. The fact that a PAO is in place will not in itself drive the outcome.

The Panel in its deliberations is required therefore to determine whether there is enough information currently available to it to recommend with confidence that Option D will proceed to the final design phase. The Panel considers that a review of the Route Assessment methodology and process undertaken by VicRoads is necessary to understand firstly how Option D was arrived at as the preferred option and secondly to gain an insight

into what may trigger a reassessment of the preferred option. In this section the discussion relates only to flooding and related matters.

There are several key considerations for the Panel. The Panel is unclear at this stage what a suitable design parameter should be for the floodplain crossing. All VicRoads assessments and relevant estimates adopt a 100 year event, but this is primarily for comparative purposes with other options. The Panel believes there is good case in this particularly complex floodplain to strongly consider design parameters in excess of the 100 year ARI event. This belief is reinforced with the knowledge that the 2011 flood was somewhere between a 100 year and 200 year ARI event. Should there be allowances for climate change and should there be a margin for safety included given the complexity of the floodplain? The Panel heard various suggestions from all parties but unfortunately did not hear directly from the WCMA who as the Referral Authority for this could have provided the Panel with valuable advice on what their expectations could be. Ms Forsyth submitted that VicRoads and the WCMA have been in '*constant consultation*' however no documentation was presented to the Panel that would have provided an insight into any progress towards agreement on the design parameters.

The choice of design parameters will have a significant impact on the length of the structure and therefore the estimated costs of the project.

Included in Document 30, titled '*VicRoads Response to Questions raised by the Panel*', is a high level breakdown of the cost estimates for Option D (at November 2013). This is based on a 100 year ARI event design parameter. The overall estimate for Option D is \$276,924,147 which is used to inform the AECOM route assessment. The waterway structures component of this overall amount is estimated at \$136,364,000 for a floodplain crossing of 2,720m. The proposed Wimmera Bridge sub component of this amount is \$103,186,160 based on a bridge length of 1,960m.

Mr Bishop of Water Technology in his evidence estimated that with a 100 year ARI climate change scenario almost all of the Option D alignment would be inundated, equating to a distance of 5,370m, an increase of 15% in length with associated cost increases.

Heightening the Panel's concerns on the potential length of the floodplain crossing is a bundle of emails, between VicRoads, WCMA and AECOM tabled by Mr O'Brien (Document 13). The Panel is not giving these documents full weighting as they were not received directly from the WCMA, however, they appear to suggest the floodplain crossing could be greater than 6,200m. If this were to be accurate the associated cost increases significantly impact the viability of this route.

If a design is required to cater for a greater than 100 year ARI, the costs would presumably be greater again as the flood plain would be wider, and the structures required to be higher.

The Panel concludes that these uncertainties in the design parameters and the substantial effect on project cost may materially affect the choice of Option D as the preferred option. Whilst it is not certain without further work, it seems likely that the assumptions used in selecting Option D may have significantly underestimated the cost of crossing the floodplain.

To mitigate these concerns the Panel suggests that VicRoads meet with the WCMA as recommended by Water Technology and formally seek advice from the WCMA as to its

views and design requirements for the floodplain crossing. Further that a higher level functional design be progressed based on these parameters to establish a prudent level of confidence in the costings that could inform a consideration of Option D continuing as the preferred route.

The Panel reviewed the route assessment selection process (OBEM), as suggested by VicRoads, in order to better understand how Option D was recommended and how any matters such as the costing matter addressed above affects the process.

The Panel finds it difficult to understand how Option D can satisfactorily meet Additional Project Objective 4- 'To minimise or avoid areas of floodplain function'. It clearly does neither minimise nor avoid the floodplain based on the assessment criteria provided. Water Technology has ranked Option D fifth out of the five options assessed and initially assess Option D as 'Poor', which has the descriptor - 'Policy non-compliance and High negative impact'. Water Technology then revised its descriptor for the Poor rating to the confusing - 'unlikely to realistically achieve no negative floodplain impacts'.

With either descriptor it is arguable whether Option D should have passed through the initial screening process against Objective 4.

The AECOM report, although integrating the Water Technology report, arrives at a different rating by assessing all five options against Objective 4 as Neutral. This is rationalised by taking the view that all options can meet the requirements of the Objective 4 and the associated costs are considered in the economic analysis.

It is not apparent to the Panel that such a rationalisation has been applied to any other Objective. The Panel questions the logic and transparency in this instance as it understands that the OBEM methodology has been utilised to evaluate options based on their respective impacts against set objectives not to establish the premise that all Options are equal because all problems associated with each Option can be resolved with varying cost premiums.

Irrespective of this matter, the Panel reviewed AECOM's report to consider how the associated costs were included in the assessment. Objective 5 involves achieving a balanced outcome for the lowest project costs, but there are no specific descriptors for the project costs.

It is difficult to identify how Option D has been so favourably assessed on a cost basis as suggested by AECOM.

The Panel considers that the questions raised with the assessment of Objectives 4 and 5, primarily related to flooding, contribute to its lack of confidence in the information it has available to it to support Option D at this stage.

(iv) Conclusions

The Panel concludes that:

- The design of the Option D floodplain crossing should be reviewed in conjunction with WCMA to:
 - Confirm the appropriate design standard (particularly whether a 200 year ARI flood level and/or climate change should be factored in);

- More accurately confirm the length of floodplain crossing;
- More accurately design the required floodway structures; and
- Prepare a more accurate estimate of costs.
- Based on this review, VicRoads should reassess whether Option D can be constructed at an acceptable cost and is still the preferred option.

7.8 Flora and fauna

(i) The issue

Is the impact of the Option D alignment on the flora and fauna within its footprint, an acceptable outcome?

(ii) Submissions and evidence

Ms Forsyth summarised the key findings of VicRoads' expert witness Mr Cameron Miller:

- A total of four EVC's (Ecological Vegetation Class) have been mapped within a 100m buffer of Option D (50m each side). The EVC's identified covered a total area of 5.18ha.
- Aerial imagery indicates the Option passes mainly through cleared agricultural land and road side reserves, however, some treed vegetation is apparent in the vicinity of the Wimmera River.
- Vegetation at the Wimmera River can be characterised as a narrow open riparian woodland running along the river verge.
- There is further scope to minimise impacts on biodiversity once a final option has been selected. Further ecological assessments could then inform the design phase particularly influencing the micro siting of infrastructure such as the Wimmera Bridge crossing.
- With these further measures impacts will be reduced to acceptable levels, with any residual impacts requiring offset.

VicRoads called Mr Cameron Miller as an expert witness on flora and fauna matters.

Mr Miller is an employee of AECOM and advised the Panel that he works from the same office as two other AECOM staff who prepared the VicRoads submission - *Horsham Bypass Stage 2 Options assessment - preliminary flora and fauna assessment* (14 April 2015).

Mr Miller advised that he had reviewed that document and signed off on it.

Mr Miller provided a PowerPoint presentation (Document 11) to complement his written advice to the Panel. The key elements of his advice, not mentioned above, included:

- Option D was subject to a Dataset review followed by field assessments by two AECOM ecologists. Mr Miller undertook a further two assessments in preparation for his evidence.
- A number of specific measures to avoid, minimise and offset impacts had been considered.
- A list of further requirements that will be necessary to meet legislative and regulatory requirements and to enable further impact minimisation.

Mr Miller also undertook an assessment of Option 2 which identified 6 EVC's covering a total of 26.92ha. He concluded:

It is my determination that of Option D and Option 2 considered within, Option D represents a significantly better Option with respect to ecological impacts. This is primarily driven by the reduced footprint of Option D and associated reduction in vegetation clearance.²¹

VicRoads as part of its initial submission included the AECOM document *Horsham Bypass Stage 2 Options assessment - preliminary flora and fauna assessment* (14 April 2015).

The Executive Summary explained that the OBEM methodology was employed to assess five possible options (B2, 5A, 11, 12 and D) following a desktop review of available databases and a preliminary field assessment. The OBEM model ranked each assessment against Objective 4, similar to the flooding issue, 'avoid or minimise impacts on areas of ecological sensitivity'.

AECOM summarised- *The highest rating was achieved by Options 5A, B2, and D which were assessed as 'Moderately Poor'.* These options were noted to largely avoid ecologically sensitive areas with the exception of the Wimmera River crossing.

The Wimmera River is a major constraint on all options to varying degrees with the potential to impact upon native vegetation and therefore AECOM recommend that more detailed ecological surveys be undertaken at later stages of the Option selection particularly in the vicinity of the river crossings.

Within the details of the report AECOM rank Option 5A as the best Option - *this Option is considered to be the best of those assessed in terms of fulfilling the objective* however rate it equally as 'Moderately Poor' with Option B2 and D.

Mr O'Brien for One Horsham submitted that for flora and fauna impact Option 5A was ranked the best by AECOM but questioned how then did Option D come to be equally rated as 'Moderately Poor'. Mr O'Brien also questioned in an overall comment the comparison analysis submitting that a 'point to point' comparison would have been a more appropriate comparison.

There were a relatively small number of submitters that raised the issue of flora and fauna with a number covering their concerns under the broader category of environment. An example is Mr Selwyn Ellis (submission 61):

The proposed alignment cuts through and impacts upon a large area of remnant bushland near the city which is an important recreation area for many citizens with extensive use of walking tracks. This is by far the largest area of remnant bushland near the city ...

The environmental assessments relied upon in the route adoption report are based on two days fieldwork conducted to support the Parsons Brinkerhoff analysis of the original 12 options. The opportunity presented

²¹ Mr Cameron Miller, AECOM, *Flora and Fauna Expert Witness Statement - Horsham Planning Scheme Amendment C72: Planning Panels Victoria* (9 October 2015),p11.

by reducing the number of options has not been leveraged so conclusions are largely based on average models and guesswork.

Option D is claimed to have less environmental impact than Option B2 yet they share an alignment through the environmentally sensitive area demonstrating inconsistent analysis.

Mr Schneider (submission 5) made similar comments on the river frontage bushland.

(iii) Discussion

Much of the evidence and submissions focussed on comparative analysis between the 5 shortlisted options and then with Option 2.

The Panel's primary task on the issue of flora and fauna is to consider Option D only and determine its level of confidence as to whether the option can be supported to proceed to the PAO implementation or whether there are any matters arising that could influence a different outcome.

The OBEM methodology, although primarily provided to make comparisons between options, is useful to the Panel in considering Option D on its own merits.

The Panel considers that the desktop analysis, fieldwork and subsequent site visit by AECOM and Mr Miller to be appropriate for this stage of a route comparison assessment.

It also accepts the equal highest OBEM rating of 'Moderately Poor' against Objective 4 arrived at by AECOM, even though within the report AECOM mentions that Option 5A was ranked as the best option. Mr Miller, under cross examination from Mr O'Brien, conceded an '*inconsistency*' on this matter. The Panel considers that there is not a significant enough material difference between Option 5A and Option D to warrant any change on this basis.

It accepts the preliminary assessments of the AECOM report identifying four EVC's covering an area of 5.18 ha and does not see this as a prohibitive amount. The OBEM comparison shows at a preliminary stage that Option D is well placed to avoid and minimise environmental impact at least as well as the other options.

Mr Miller in his PowerPoint (Document 11) advice, sets out on two slides a '*Summary of Measures to Avoid, Minimise & Offset Impacts*' and '*Further Requirements*' - necessary to meet legislative and regulatory requirements and to enable further minimisation.

The Panel recognises that this advice should be followed as a matter of course as the route progresses but highlights its importance to the project and to the community's perception of both VicRoads and the route.

Mr Miller's advice to the Panel included reference to the potential of minimising vegetation clearance by reducing the alignment footprints:

As part of AECOM's works, AECOM was provided with buffered alignments of which the alignment was centred. As such there is significant potential to reduce ecological impacts by reducing the alignment to a realistic clearance footprint to be determined in consultation with VicRoads.

*The development of a Construction Management Environment Plan (CEMP) will further mitigate impacts to flora and fauna ...*²²

The Panel agrees strongly with Mr Miller's advice. It considers the 100m width of the proposed alignment warrants review to more realistic levels in order to minimise impacts on flora and fauna.

The Panel notes the concerns of the submitters and that there are still numerous activities open for the community to be involved in the environmental and community outcomes of this route particularly in the Wimmera River environs. The Panel strongly recommends VicRoads and other authorities involve the community in these future tasks and activities in a meaningful and transparent manner.

(iv) Conclusions

The Panel concludes that:

- Option D is an acceptable outcome from a flora and fauna perspective, however, the width of the footprint is recommended to be reviewed to minimise its impacts on flora and fauna.

7.9 Cultural heritage

(i) The issue

Is the impact of the Option D alignment on cultural heritage, within proximity to its footprint, an acceptable outcome?

(ii) Submissions and evidence

Ms Forsyth summarised the key findings of Andrew Long and Associates who were engaged by AECOM on behalf of VicRoads to undertake a heritage impact assessment of the five shortlisted alignment options. The desktop and predictive modelling exercise allowed comparisons to be made between the five options. Ms Forsyth summarised the assessment as follows:

- All options would trigger a mandatory CHMP.
- All options essentially traverse similar areas of cultural heritage sensitivity as defined by the Aboriginal Heritage Regulations 2007 and as a result it was not possible to use these areas to differentiate between options.
- The principal factor in differentiating between the performances of different options was the results of the predictive modelling.

In terms of cultural heritage, Option 5A and D are the preferred options for the optimum realignment route for the Bypass route on the basis of the predictive model scores.

- A scarred tree (the only registered aboriginal cultural heritage place within any of the alignments) is located along Option 5A and as a consequence Options B2 and D were preferred.

²² Mr Cameron Miller, AECOM, *Flora and Fauna Expert Witness Statement - Horsham Planning Scheme Amendment C72: Planning Panels Victoria* (9 October 2015), p10.

- A site inspection was carried out in May 2015 to provide an opportunity for the RAP (Registered Aboriginal Party) to comment on the two remaining options. The RAP expressed a preference for Option D.

The Andrew Long and Associates report made the additional points:

Option 5A performs best in relation to the predictive model with an overall total modified rank of 4.65 and has performed best in four out of the six site models rankings.

The presence of the scarred tree might be considered to reduce the options overall ranking. However, as noted below there is a reasonable potential for impacts to this place to be avoided during the detailed road design process.

Nevertheless the report concluded 'As a consequence Option B2 and D are more preferable' (to 5A).

The report also undertook an OBEM assessment which concluded that Options 5A, D and B2 are equal highest ranking assessed as being 'Neutral'.

Mr Selwyn Ellis (submission 61) commented on the Andrew Long and Associates Report being reliant upon a 'desktop and probabilistic point of view'.

Option D is rated as better than B2. This difference is not supported by local observation as the options share the same alignment and only deviate over ground that has been under intensive cultivation for generations.

(iii) Discussion

The Panel notes that there is minimal opposition to the Option D on cultural heritage grounds.

The Panel also notes the RAP is comfortable with the preferred option and that it will be subject to a CHMP prior to any works commencing which will contain any required mitigation works.

Whilst Option 5A performed the best in the model utilising the OBEM assessment against Objective 4, Options 5A, D and B2 were all rated equally with a 'Neutral' ranking.

The Panel considers that any of these three options would be acceptable on cultural heritage grounds and in the context of this Amendment therefore Option D is an acceptable outcome.

(iv) Conclusions

The Panel concludes that:

- On cultural heritage grounds, Option D is considered an acceptable outcome.

7.10 Social and amenity impacts

(i) The issue

Is the social impact of the Horsham Bypass Option D alignment an acceptable outcome?

(ii) Submissions and evidence

VicRoads set out the benefits of a bypass around Horsham particularly highlighting the safety benefits resulting from a decrease in accident rates between large heavy vehicles with vulnerable road users within a township. VicRoads stated that even if the Bypass was initially constructed as a single carriageway the Bypass would direct the majority of through traffic, and in particular heavy vehicles, away from the Horsham CBD.

VicRoads submitted that:

VicRoads acknowledges that, without mitigation, the Bypass would impact on linear recreation and vehicle access pathways along the river and potentially access on the access currently to the Riverside Equestrian Centre if horse riding occurs along the river. VicRoads notes the Equestrian centre provides an indoor arena which would not be impacted by the alignment.

VicRoads submitted that it would engage and consult with the local community and Council to minimise social and amenity impacts.

AECOM was engaged by VicRoads to undertake a Social Impact Assessment of the route options-*Stage 2 Options Assessment - Social Impact Assessment* (15 May 2015).

AECOM's Executive Summary does accept that all shortlisted options have positive social impacts purely as a result of a safer road alignment and the reduction of uncertainty for potentially affected property owners and the overall community as a result of a defined route being given statutory effect.

It summarises the social impacts of the five shortlisted Options -5A, 11, B2, D, and 12:

No two options present exactly the same benefits and disbenefits except with regard to impact on community facilities and attractions with regard to the creation of a safer road environment. Within each option the rating of positive impacts is more prevalent than negative impacts.

AECOM specifically refer to the policy *a Fairer Victoria - Real support real Gains* (May 2010) which makes a long term commitment to reducing disadvantage through ensuring more Victorians have the opportunity, capability and support to lead active fulfilling lives including improving health and wellbeing and reducing inequalities in health status.

In its Social Impact Assessment, AECOM identified a number of *Places of Significance* including the Riding for the Disabled Association (RDA) of Victoria centre located on the Riverside Equestrian Reserve which provides an opportunity for people with disabilities to gain benefits from horse riding and the Riverside area along the Wimmera River which is used for leisure and recreation.

In its analysis of previous community consultation, AECOM states (noting that Option D was not on the table to that point):

There were diverse views on whether a bypass is best located a long distance away from Horsham so it has little impact on local traffic or whether the Bypass is better located close to town so the road has utility for the local community. There was considerable support for Options remote from the town as well as Option 5A which passes relatively close to the town centre.

AECOM undertook the OBEM methodology against Project Objectives 1, 2 & 3 which rated Options D, B2 and 11 as performing 'Moderately Well' and Options 5A & 12 as 'Neutral'.

Mr David O'Brien representing One Horsham submitted:

It is noted that one of the significant adverse impacts of the proposed Bypass alignment through the Riverside Community is on the much lauded Riding for the Disabled.

He submitted that the argument for Option D is not advanced given its adverse impact on the Riding for the Disabled.

Ms Jan Croser submitted as part of the One Horsham submission, and tabled Document 34 from Ms Angela Montgomery, Secretary/Treasurer of the Riverside Recreation Reserve Committee of Management, objecting to the Option D.

Ms Croser outlined her personal experience and qualifications as being a Director of Disability Services at Wimmera Health Care and is a national assessor for riding grounds for the disabled.

Ms Croser submitted that Option D will '*definitely not be acceptable*' due to its impact on the Riding School for the disabled. She submitted that the noise from traffic will be a '*major problem*' and adversely affect disabled riders and horses alike.

Ms Montgomery expressed the Committee of Management's strong objection to the proposed option. Riverside Recreation Reserve is the home of five horse riding clubs.

The preferred Options come extremely close to the Riverside recreation Reserve and would greatly affect the use of the area:

- Danger to horses and riders particularly riding for the disabled riders... Horses are large unpredictable animals that are easily frightened by a noisy, fast moving environment.*
- There will be problems entering and exiting the reserve.*
- The Bypass would affect the Riverside Recreation reserve mostly because it would no longer be a safe environment for the clients of RDA, the children of Horsham, Pony Club...*

It is possible that the horse riding clubs of Horsham would no longer be able to operate from this location.

Several other submitters raised their concerns regarding the benefits that may be lost in the in the Riverside area along the Wimmera River which is used for leisure and recreation.

VicRoads responded that noise attenuation would be applied where required in accordance with VicRoads policy and that it would continue to consult with the community including RDA in the detailed design phase to manage any amenity impacts.

(iii) Discussion

The Panel has a number of concerns with AECOM's Social Impact Assessment.

AECOM identify the Riding for the Disabled Centre as a Place of Significance but does not appear to include it within its Social Impact Assessment of Option D. The Panel considers it to be close enough to the Option D alignment that impacts should have been more carefully considered.

The Panel is cognisant of the Fairer Victoria policy referred to by AECOM and its commitment to reducing disadvantage and would have benefitted from any advice on how any impacts could be mitigated.

It is not clear whether AECOM or VicRoads have met with the Recreation Reserve user groups and/or the Riding for the Disabled Centre representatives. The impact of the route on the linear recreation and vehicle access pathways along the Wimmera River is not mentioned in the Option D summary of assessment. The OBEM assessment rates the options against Project Objective 3 (also 1 and 2) which is to *provide a safe transport system that supports social connectivity, health and wellbeing*. Yet neither of the two applied assessment criteria have an obvious correlation to *social connectivity, health and wellbeing*.

Assessment against Project Objective 1 - *Ensure consistency with current and proposed sensitive land uses*, includes a criteria: *Extent and nature of impacts on community facilities and attractions*, and rates each option as '*neutral as they are all located clear of the Horsham urban area where most community facilities are located.*'

The OBEM assessment does not appear to include criteria that relate to health and wellbeing or the criteria are at such a high level not to assess the Project Objectives against Places of Significance.

The assessment does not appear to specifically accommodate the Fairer Victoria policy and the prioritised needs of the disabled community.

The Panel questions how the OBEM assessment could overlook the impacts on the Riding for the Disabled Centre and not recommend relevant mitigation measures as has been provided for other social impacts. If the assessment criteria are established at a higher level to the extent that Places of Significance don't register, then the Panel would find the assessment relatively unhelpful.

On this matter, VicRoads acknowledged that without mitigation Option D would impact on both the Wimmera River riverside environs and the Riding for the Disabled Centre.

The Panel would have benefited from feedback from any meetings with the relative stakeholders in both Places of Significance and any recommended mitigation measures.

The Panel agrees with AECOM when it asserts that there is a positive social impact in creating certainty for potentially affected community members by the introduction of the PAO, however, does not accept this assertion by itself. In its Social Impact Assessment

AECOM analyses previous community consultation and many submitters strongly support the options remote from the town and Option 5A. There is also clearly strong community objection to Option D.

The Panel understands that VicRoads at the time of construction would engage and consult with the local community to minimise social and amenity impacts, however, in this case, given the number and substance of the objections and the potential impacts on the Riding for the Disabled Centre, it would have appreciated more detail on the social impacts and potential mitigation solutions.

The Panel therefore finds that it does not have enough information available to it to support Option D on social impacts grounds.

(iv) Conclusions

The Panel concludes that:

- It does not have enough information on the social impacts of Option D available to it to confidently support the proposed route.
- VicRoads should undertake a revised Social Impact Assessment for Option D taking into account the matters raised above. In particular, it should be confident that the impacts on the two Places of Significance can be mitigated.

7.11 Landscape and visual amenity

(i) The issue

Is the landscape and visual amenity impact of the Horsham Bypass Option D alignment an acceptable outcome?

(ii) Submissions and evidence

VicRoads referred to the *Landscape and Visual Amenity Impact Assessment* prepared by GHD and advised:

The Option D alignment was partly chosen for the minimal impact it has on community.

VicRoads submitted that the dominant land use in the vicinity of Option D alignment is arable farming with only scattered private housing in the Riverside area.

It is submitted that this Landscape character has the capacity to accommodate the type of impacts related to the Bypass of Horsham.

VicRoads identified the potential impacts of noise walls that may need to be constructed in order to meet the VicRoads Traffic Noise Reduction policy. It was submitted that landscape and visual impacts will almost always arise from the development of roads, however, that these impacts must be balanced against the overarching need for and benefits from the project together with an appreciation of how the range of mitigation measures will serve to reduce the impacts over time.

GHD were commissioned in December 2013 by VicRoads to undertake a preliminary study of landscape and visual amenity impacts of the two Options B2 and D. The resulting document

Horsham Bypass Landscape and Visual Amenity Impact Assessment - May 2015 was submitted to the Panel as part of the Amendment.

GHD undertook the assessment in two key stages. Stage one involved a preliminary baseline assessment of interim advice on key landscape and visual impact issues as well a baseline field assessment. Stage two involved the development of appropriate plans and photomontages, outlining mitigation strategies and an assessment report. The *Landscape and Visual Amenity Impact Assessment* was undertaken using the greatest potential impact (worst case).

GHD chose seven viewing locations for the production of photomontage images to undertake the assessment of visual impacts. It also set out the proposed mitigation measures -avoid, minimise and offset.

GHD summarised its conclusions:

The assessment has focused on the impacts of the grade separation interchanges and flyover locations (highway over local roads) proposed for the bypass.²³

The impacts are summarised in the report's Table 18:

As this assessment has focussed on the interchanges and flyover ratings are quite high. However for the rest of the proposed Bypass the impacts are considered to be minor as the road is at grade and is not readily visible in the flat to slightly undulating topography and would be filtered from views due to intervening vegetation.

Council (submission 8) made the point that the Bypass will bring traffic to some areas that currently have very low levels of traffic and are well away from current highway alignments which for many people was the precise reason they selected to live in this location:

It is anticipated the bypass will need to be elevated in many locations, for example to cross the Wimmera River and its floodplain and the railway.²⁴

The planned Henty Highway overpass and connecting roads, in particular, are most likely to create a significant sound and visual impact.

A number of submitters raised their concerns with the impacts of Option D on landscape, views and amenity.

Mr Ryan tabled Document 76 which included photos of his 88 year old 'Landmark' home. From a personal point of view he submitted that he would lose his house and that there are no replacements in Horsham.

Mr Schneider submitted that the proposed road will finish up no more than 170m from his front door and at least 6m higher than the surrounding land with minimal scope for buffering available.

²³ GHD, *VicRoads, Western Victoria, Horsham Bypass, Landscape and Visual Impact Assessment*(May 2015), p38

²⁴ Horsham Rural City Council, *Submission to VicRoads on Selection of a preferred route for the Horsham Bypass* (August 2015)-Attachment 1, p4

This combined with the visual impact of a large batter starting some 120 meters from my home will significantly reduce the amenity of my property. When I constructed here 15 years ago there was no consideration for a bypass to the north of the town.

Mr and Mrs Wong Shee submitted that, despite the fact that they are directly impacted, no one from VicRoads has been to discuss the plans for their home. They submitted:

Our quality of life would be extremely affected by the Bypass. Our home would be hemmed in by the Bypass bridge, the new Henty Highway and the existing railway line. Our uninterrupted views of the surrounding countryside and the tranquillity of our environment would be ruined.

(iii) Discussion

The Panel agrees with VicRoads that some landscape and visual impacts almost always arise from the development of roads, and that these disbenefits must be balanced against the benefits of the Bypass. The Panel also acknowledges that this can be one of the most sensitive areas for a community and understands the distress of the various community members directly affected by the proposal. The question for the Panel is whether it has enough information available to it to support Option D.

The GHD report only assesses two Options - B2 and D - and does not make any choice between the two, although only Option D is still being progressed. It did not assess any of the other options and was not subjected to the OBEM comparison. Therefore, the Panel believes it cannot legitimately be claimed that Option D was chosen because of its minimal impact on the community as submitted by VicRoads in relation to this matter.

The GHD report concludes that, other than the high impacts of the grade separations and flyover locations, the rest of the Bypass alignment landscape impacts are minor because the road is at-grade and flat.

The Panel appreciates the methodology, detail and information that the GHD Report provides. Impacts and assessments were undertaken at seven locations including viewing locations 2 and 3 at the proposed Horsham - Lubeck Road flyover and Cameron Road flyover respectively. Overall, the impacts at Horsham - Lubeck Road are assessed as 'Moderate' landscape impact and for Cameron Road a 'Small' landscape impact.

GHD have prepared photomontages for the Horsham - Lubeck Road in the vicinity of these two viewing locations which depict an Option D road with relatively minor impact.

GHD also include photomontages of a bridge structure over the Wimmera River from a distance.

The Panel cannot identify in the GHD report any allowance for the proposed waterway structures that will be required through the floodplain and in the area covered by the Horsham - Lubeck road and Cameron Road.

The Panel is aware that structure could be between 4,000m and 6,000m long and will involve a substantial embankment and bridge structure to allow open flow of the flood

waters and a significant extent of culverts. The Panel believes this is an oversight that should be corrected in any further review.

Given the questions raised above, the Panel believes further work is required on the visual assessment to confidently support Option D.

Despite the issues identified, on balance the Panel does not consider the visual amenity issues as a significant impediment to the project proceeding.

(iv) Conclusions

The Panel concludes that:

- On balance, Option D is a satisfactory landscape and visual amenity outcome.
- If the impact of Option D on the floodplain is reviewed, the visual impact of the embankments and bridge structures should also be re-assessed.

7.12 Impact on agriculture

(i) The issue

The alignment of the Bypass will cross agricultural land, creating economic impacts on farmers along the route. The issue is whether the impact on agriculture of Option D is sufficient to undermine its viability.

(ii) Submissions and evidence

VicRoads relied on the information included in the AECOM report, *Horsham Bypass: Stage 2 Options Assessment - Agricultural Impact Assessment* (May 2015), and expert evidence of Mr Ray Phillips.

The AECOM report assessed the impact on agriculture of Options D, B2, 5A, 11 and 12. It analysed the following impacts:

The key impacts to agricultural operations were found to be:

- *Loss of productive land;*
- *Operational issues due to reduced access of land, both due to internal division within properties by the Bypass and reduced access between properties; and*
- *Altered configuration of land, which imposes an operational burden when using farm machinery such as sprayers and harvesters.*

To a lesser extent, landholders expressed concerns about impacts on surface drainage and the uncertainty around the choice of option, which affects investment decisions in and on agricultural properties.²⁵

AECOM concluded that Option D had less impact on agriculture than Options B2 or 11 (although a greater impact than Option 12 and Option 5A).

²⁵ AECOM, *Horsham Bypass: Stage 2 Options Assessment - Agricultural Impact Assessment* (May 2015), Executive Summary.

Mr Phillips reviewed the impacts of Option D on agriculture, assessing them on a property by property basis. He focused on loss of land, severance impacts and additional operational costs, estimating that 41 properties would be affected with a landholding area of 2,653ha, a direct land loss of 188.5ha, and severance impact of 126.7ha.²⁶ He stated that:

The impact of severance is severe on a number of the larger properties.

- *The Burnt Creek Drive to Wimmera River section has seven land holders that are affected to a greater or lesser degree by severance;*
- *The Henty Highway to the Horsham-Kalkee Road section has significant severance affects on the farming properties of J G Moore Holdings and L W Worthy Holdings.*

They are also affected by direct land loss, the creation of triangular paddocks and access difficulties.

A major concern of one of the large land holding families is that a history of consolidating land to achieve farming efficiency is now being faced with fragmentation. Agricultural businesses are land dependent and not readily relocated. The only amelioration option appears to be financial compensation and the acceptance of a permanent loss of productivity and convenience of operation to the properties affected.²⁷

Mr Phillips also reviewed the possibility of refining the alignment of Option D to reduce impacts on agriculture, arrangements for compensation of landowners, and the potential for mitigation measures to reduce impacts of severance and operational costs. He concluded:

The study has not identified any obvious modifications to alignment design that could materially benefit rural impact performance. From the submissions presented the major concerns of rural land holders are the permanent severance effect, the impact on rural productivity, access difficulties and increased operational costs. While these all occur throughout the district they are best addressed at the individual property level where they can be subject to different forms of amelioration or financial compensation.

Part of the submission by One Horsham included a detailed critique of VicRoads documentation by Mr Jeff Moore. Mr Moore's submission included a section on 'Agricultural Impact Assessment Report Errors and Impacts', which listed what he considered to be errors and omissions in the research. He therefore disputed a number of interpretations and conclusions made by AECOM and VicRoads.

(iii) Discussion

Given the importance of agriculture surrounding Horsham, it is inevitable that the Bypass will have significant impacts on farming properties, mainly through its impacts on loss of productive land, severance and access. The issue is whether the impacts are likely to be severe enough to offset the community benefit of proceeding with a bypass.

²⁶ Ray Phillips, Phillips Agribusiness, *Statement of Expert Evidence, Horsham Planning Scheme Amendment C72: Impacts on Agriculture* (October 2015), p6.

²⁷ Ibid, p8.

The availability of compensation and longer-term mitigation measures will ameliorate the negative impacts on agriculture to a degree, but there is no doubt that some farming properties will be significantly affected. Nevertheless, the Panel considers that the wider benefits of a bypass will exceed the impacts on agriculture, which will occur irrespective of the location of the Bypass. This applies to Option D as well as other bypass options, so the impact on agriculture of Option D does not provide sufficient cause to abandon Amendment C72 in its own right.

This does not mean that the Panel has concluded that Option D is superior to other options in terms of its impact on agriculture. The Panel did not have detailed information that was tested in an exhibition process, apart from Option D.

(iv) Conclusions

The Panel concludes that:

- The Bypass will have significant impacts on farming properties along its route, through its impacts on loss of productive land, severance and access.
- Option D will have major impacts on several farms, and a total of 41 properties will be affected to a degree.
- All Bypass options would have an impact on agriculture, with compensation and longer-term modification of operations being the methods to minimise impacts.
- Given the wider community benefits of the Horsham Bypass, the impact on agriculture of Option D is not sufficient to abandon Amendment C72 in its own right.

7.13 Summary of conclusions on Option D

In summary, the Panel has reached the following conclusions about Option D:

Issue	Summary conclusions
Economic impact on Horsham	While limited analysis was conducted on local economic impacts, it is likely that the long-term positive economic impacts of Option D will outweigh negative transitional outcomes.
Land use issues and connections to the broader road network	Although it does have a negative impact on the amenity of rural residential areas at Riverside, Option D does not create undue impacts on residential, commercial and industrial land uses. Further, it is consistent with future directions for Horsham's growth, and has satisfactory links to the Wimmera Intermodal Freight Hub at Dooen, Henty Highway (north) and the local road network. If alternative alignments are to be considered in the future, southern alignments such as Option 5A may enhance links to the Wimmera and Henty Highways. If alternatives are to be considered, this should be carried out in conjunction with an integrated transport strategy for Horsham, to be carried out by Council in collaboration with other stakeholders and the community.

Rail crossings	Uncertainty about the location, likelihood and timing of a rail realignment means that it is reasonable to proceed with a Bypass prior to firm decisions on rail. Implementation of the PAO at rail crossings could be refined if decisions are made about any rail realignment prior to construction of the road Bypass.
Henty Highway interchange	In the event that the Option D alignment is implemented: • The revised alignment for the Henty Highway as shown in <i>AECOM Plans SKE-0004 & SKE-0005</i> should be adopted. • The Henty Highway reservation can be reduced to 40m width.
Horsham aerodrome	While Option D will have minimal impact on the current operations of the Horsham aerodrome, it will constrain the future southern expansion of 17-35 runway. It is possible to extend this runway to the north, but at a cost because the topography would result in additional requirements for cut and fill. It is therefore necessary to ensure that a northerly extension is practical and not cost-prohibitive. Option D should only proceed following the preparation of a master plan for the aerodrome that provides for an expansion of the north-south runway in a cost-effective way.
Flooding	Potential flooding impacts are a matter of high significance when assessing the Option D route through the floodplain. The design of the Option D floodplain crossing should be reviewed in conjunction with WCMA to confirm the appropriate design standard; the length of floodplain crossing; the required floodway structures; and a more accurate estimate of costs. Based on this review, VicRoads should reassess whether Option D can be constructed at an acceptable cost and is still the preferred option.
Flora and fauna	Option D is an acceptable outcome from a flora and fauna perspective. However, the width of the imprint should be reviewed to minimise its impacts on flora and fauna.
Cultural heritage	In terms cultural heritage, Option D is an acceptable outcome.
Social impacts	There is insufficient information on the social impacts of Option D to confidently support the route at this stage. VicRoads should undertake a revised Social Impact Assessment for Route D, including analysis of impacts on the Wimmera River Riverside environs and the Riding for the Disabled Centre, assessing ways that impacts can be mitigated.
Landscape and visual amenity	On balance, Option D is a satisfactory landscape and visual amenity outcome. However, if the impact of Option D on the floodplain is reviewed, the visual impact of the embankments and bridge structures should be re-assessed.

Impact on agriculture	Option D will have major impacts on several farms through its impacts on loss of productive land, severance and access, and a total of 41 properties will be affected to a degree. Given that all options will have impacts, the impact on agriculture of Option D is not sufficient to abandon Amendment C72 in its own right.
Access and amenity impacts	Impacts of Option D on access are unknown at this stage, but will be addressed at later stages of planning and are likely to be resolved. Similarly, noise issues should be resolved with mitigation measures at stages of detailed design.
The extent of the PAO	The Panel queries whether the 100m corridor is needed throughout the length of the Bypass. More detailed planning is likely to lead to a more defined and narrower PAO, with reduced impacts on landowners. In the event that Option D is proceeded with: • Reduction of the PAO extent is supported between Blue Ribbon Road and Geodetic from 120m wide to 100m wide (excluding the local road crossings at Blue Ribbon Road and Geodetic Road. • Realignment of the PAO is supported north of Horsham-Lubeck Road and south of Wimmera River in accordance with AECOM Plans SKE-0002 & SKE-0003 tabled at the Hearing.

Table 2 Summary of Panel conclusions on Option D

The Panel is aware that Amendment C72 involves consideration of issues at a strategic level. The next phases of planning will address matters of detailed design in much greater depth, thus reducing the number of unknowns and the degree of risk in the project.

The issue before the Panel is therefore whether the Amendment should proceed. The Panel is satisfied that Option D is appropriate in terms of its impact on: local economics; rail crossings; flora and fauna; cultural heritage; landscape and visual amenity; agriculture; and access. The Panel has reached this conclusion because it has information to show that Option D is a satisfactory solution, or that mitigation measures can be implemented to address potential negative impacts at later stages of planning or design.

However, several key matters remain unresolved, particularly: the impact of Option D on planning for the extension of the north-south runway at Horsham Aerodrome; uncertainties about the feasibility of the crossing of the Wimmera River floodplain; and the unclear social impacts of the Option. The Panel concludes that it is possible that all of these issues may be able to be addressed if further research and consultation is carried out, but that they represent obstacles to adoption of the Amendment at present. As concluded in Chapter 5, the solutions to these issues may result in considerable cost blow outs and lead to a conclusion that the Option D alignment is in fact not the best option.

The Panel has assessed the issue of whether the Amendment as exhibited represents net community benefit for the community and the state. The conclusion that has been reached is that, on the basis of the material before the Panel, net community benefit has not been clearly demonstrated at this stage.

There is no doubt that a bypass of Horsham has strong support, and a well planned project that facilitates a bypass and reasonably manages the inevitable adverse impacts will very likely pass a test of net community benefit. However, the proposed PAO has not yet been shown to be a satisfactory planning outcome because of the risk that its shortcomings may prove to be fatal flaws.

This does not mean that the Panel concludes that assessment of Option D should be abandoned completely. Rather, the outstanding matters should be reviewed in a transparent and collaborative process, and the Amendment process should be deferred until more extensive research is carried out and stronger community ownership achieved. Part of this process will involve preparation of an Integrated Transport Plan for Horsham and a Master Plan for Horsham Aerodrome, both of which should be driven by Council.

7.14 Recommendations

In relation to Amendment C72 and the exhibited PAO based on Option D, the Panel recommends that:

- 2. VicRoads carry out more detailed examination of the following matters in relation to the Option D alignment, including:**
 - a) Review the impact of Option D on planning for the extension of the north-south runway at Horsham Aerodrome.**
 - b) Review the design of the Option D Wimmera River floodplain crossing in conjunction with Wimmera Catchment Management Authority to confirm the appropriate design standard; the length of floodplain crossing; the required floodway structures; and a more accurate estimate of costs.**
 - c) Develop a revised Social Impact Assessment for Route D, including analysis of impacts on the Wimmera River Riverside environs and the Riding for the Disabled Centre, assessing ways that impacts can be mitigated.**
 - d) More accurately consider access arrangements for each stage of the Bypass to a higher level of detail, with a view to more accurately defining and reducing the Public Acquisition Overlay extent.**
 - e) Review other aspects of the project as required (e.g. visual impact; flora and fauna impacts; cultural heritage) if the above work results in changes to the alignment or built form of the project.**
- 3. Horsham Rural City Council support the review of the most appropriate Horsham Bypass alignment by immediately commencing the following work:**
 - a) An Integrated Transport Plan for Horsham.**
 - b) A Master Plan for Horsham Aerodrome.**
- 4. In the event that the Option D alignment is implemented:**
 - a) Adopt the revised alignment for the Henty Highway as shown in AECOM Plans SKE-0004 & SKE-0005.**
 - b) Reduce the Henty Highway reservation to 40m width.**
 - c) Reduce the Public Acquisition Overlay between Blue Ribbon Road and Geodetic from 120m wide to 100m wide (excluding the local road crossings at Blue Ribbon Road and Geodetic Road).**

- d) Realign the Public Acquisition Overlay north of Horsham-Lubeck Road and south of Wimmera River to the east in accordance with AECOM Plans SKE-0002 & SKE-0003.**

8 Submissions on route options

8.1 The issues

The Panel received many submissions that favoured other route options over the VicRoads' preferred Option D alignment.

The main concerns raised by submitters were:

- The route selection process was flawed, wrongly assessing the relative merits of some options and/or prematurely eliminating viable options from the selection process.
- The VicRoads' consultation process was flawed and failed to engage fully and transparently with all stakeholders.
- Other route options are superior and should be favoured over Option D. Most of these submissions favoured Options 2 or 5A.

As noted in Chapter 4, the Panel has determined that it is appropriate for it to make comment on the process to select the preferred option in the context of assessing the suitability of Option D. The Panel has found deficiencies with the work done to define and assess the preferred option, the Panel believes it is therefore appropriate to make 'further recommendations' on what would be needed to take the project forward.

8.2 The route selection

(i) Background

The assessment of Horsham Bypass alignment options was carried out over three phases:

Phase 1 - *Western Highway Realignment at Horsham: Parsons Brinkerhoff, 2009*

- Considered 14 possible route options evaluated against project objectives.
- Utilised a multi-criteria decision analysis method involving scoring and then weighting was applied to derive three preferred routes.
- Used 14 specific categories of weighting under three broader categories - Economic, Social and Environment. Under Economic - *length of realignment (kms)* is given a weighting of 25% - significantly higher than any other category and under Environmental, *Floodway / flood plain operation* is a 5% weighting.

Phase 2 Stage 1 - *Horsham Bypass Route Options: AECOM, July 2011*

- Reviewed the Phase 1 options and several additional options.
- Assessed each option against a set of criteria.
- Shortlisted five options for public consultation carried out in 2011.
- Four of these (Options 5A, 11, 12 and B2) were investigated in more detail and a fifth (Option D) was developed for assessment in Stage 2.
- Used the OBEM methodology with a desktop assessment to review the validity of the Phase 1 report.

Phase 2 Stage 2 - *Draft Route Adoption Report: AECOM, 2013 and Route Adoption Report: AECOM, 2015*

- Assessed five short listed options 5A, 11, 12, B2 and D as shown on Figure 2.

- Further community information sessions held in 2013.
- Included the following more detailed technical reports on Options 5A, 11, 12, B2 and D:
 - *Agricultural Impact Assessment AECOM May 2015*
 - *Business Impact Assessment AECOM May 2015*
 - *Cost Benefit Analysis AECOM May 2015*
 - *Flora and Fauna Assessment AECOM April 2015*
 - *Hydrological and Hydraulic Impacts Assessment Water Technology March 2015*
 - *Land Use Impact Assessment AECOM May 2015*
 - *Social Impact Assessment AECOM May 2015*
 - *Traffic Analysis AECOM May 2015*
 - *Landscape and Visual Impact Assessment GHD May 2015*
 - *Aboriginal Cultural Heritage Report Andrew Long and Associates March 2015.*
- Recommended that Options B2 and D progress to next stage of planning.

Phase 3 - *Planning Report: GHD, May 2015*

- Provided a summary of the technical reports from Stage 2.
- Conducted a planning assessment of Options B2 and D.
- Proposed Public Acquisition Overlays (PAOs) for Options B2 and D.
- Based on Option B2 as the preferred option with Option D as an alternative.

At the Directions Hearing on 21 September 2015 VicRoads advised that, in response to submissions, Option B2 would no longer be pursued and that only Option D would be progressed as the preferred option.

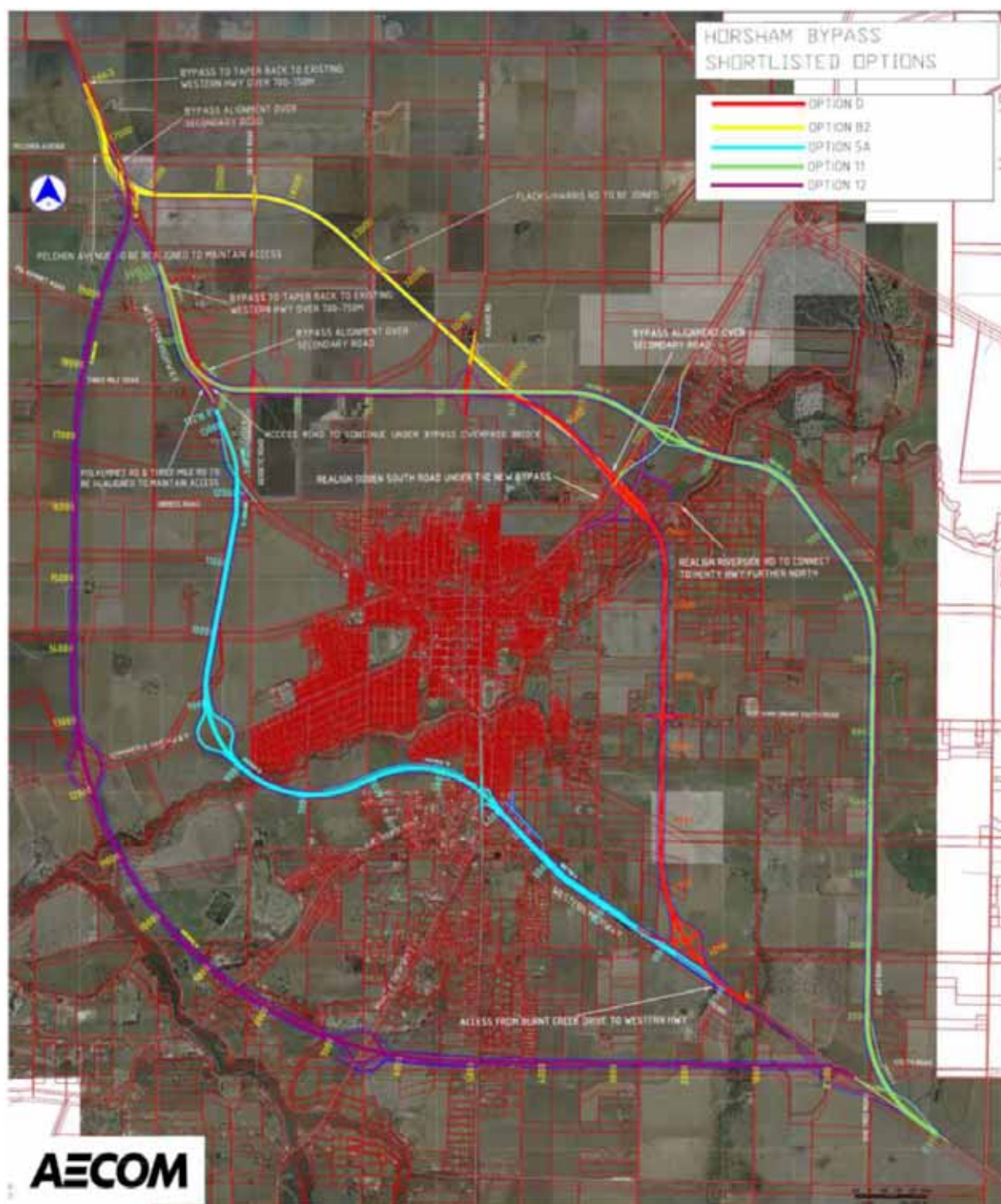


Figure 4 Short listed options

(ii) Submissions and evidence

VicRoads clarified that the OBEM methodology was not a tool for comparing options, rather it provided a stand-alone assessment of different options and suggested that it is a useful tool for the Panel to use only so far as it relates to Option D and to assess the impacts of Alignment D.

VicRoads also referred to the EES for the Kilmore Wallan Bypass Inquiry which utilised the OBEM methodology.

AECOM's Route Adoption Report of May 2015 and its raft of associated specialist reports has been cited in detail in earlier sections of this Panel Report.

Mr David O'Brien for One Horsham questioned why a *point to point* comparison was not made to allow an *apples with apples* comparison. Further:

The consultants retained by VicRoads have apparently not even bothered to consistently identify the respective departure points from the Western Highway, and have sought to contend that distances from the departure point of Option 5A are longer than B2 when they are clearly some kilometres further away.

He submitted that the corrected length comparisons saw Option D with a total distance of 45.0km compared to Option 2 with 41.9km and Option 5A with 45.0km.

In his closing submission, Mr O'Brien referred to this issue of a point to point comparison was a central element of the One Horsham Group's submission and referred to AECOM's '*Route options to be Further Investigated*' report of July 2011 which called for an assessment of all Bypass options to be evaluated on the same basis being the start and end of the longest option (Option 2).

Council, in its submission to the Panel (Document 16) explained its 'non-support' of Options B2 and D by highlighting that the assessment *has quite a degree of subjectivity* and provided examples:

B2 is shown rating 'well' for impacts on Horsham aerodrome which appears to be an error, as discussed in Council's initial submission.

Options B2 and D are showing rating 'neutral' for impact on floodplain, the same as other options, but the report notes the much higher cost of floodplain management for Options B2 and D.

Council referred to the submission of Mr May (who was put forward by One Horsham as an expert witness but was deemed by the Panel to be a submitter) that its concerns were *essentially similar to Mr May's*:

Consideration of the subjective ratings and the errors in the reports, when combined, make it difficult for Council to reconcile that VicRoads assessment of the preference for Route B2 and D is justified based on the information provided.

Mr May submitted that OBEM essentially involves specifying operational objectives and analysing information to determine how well the objectives are met:

It does not in itself test outcomes.

He asserted that it is not an integrated process that actively embodies all of the factors that may be considered as complementary or competing that may be critically important to a community directly affected by a bypass project. He submitted that the OBEM used an

assessment rating guidance and terms that are vague and somewhat meaningless in definition and open to subjective bias.

Mr Moore, as part of the One Horsham submission, provided a very detailed analysis of the Stage 2 Options assessment process. He highlighted numerous issues and concerns.

In relation to Option B2, AECOM stated that it is *unlikely to impact on the current and future use of the aerodrome as it will not limit the future growth of the aerodrome*.

Mr Moore submitted:

This is a ridiculous statement as it passes within 200 metres from the east end of Runway 26 (the main runway and already planned for extension) and has consistently been pushed by AECOM and VicRoads until very recently when B2 was dropped as the preferred route. The City Council and the community already knew this and it is another reason that there is so much animosity toward the chosen route because of a lack confidence and transparency in the selection process.

Referring to AECOM's Project Planning Report of May 2015 on the matter of the Hydrology assessment, Mr Moore submitted:

This table (Table 7 Page 19) rates Option 5A and 2 as neutral in the ranking and places Option D at number 4. It is finally good to see that these Options are not all rated neutral for a change it is interesting to see the ratings on Table 2 Page 11 still rates all options as neutral for hydrological impact. And all in the same report.

(iii) Discussion

The route assessment process

The Panel believes that there are a number of concerns with the route selection process that may or may not have resulted in a different preferred route or routes.

The Panel understands and accepts the difficulty involved in adopting any evaluation and assessment methodology. It is important to recognise that any method has inherent weaknesses which can deliver an acceptable or flawed assessment.

The Panel in the first instance refers to the initial PB Phase 1 assessment. The scoring and weighting method has some advantages to achieving a more transparent outcome, but this is dependent upon quality inputs. A weighting of 25% adopted for *the length of realignment* under the 'Economics' category indicates that this is a proxy for cost on the general premise that a longer route is a more costly route. Comparatively the floodway/floodplain works are weighted at 5% under the 'Environment' category.

This highlights an inherent problem with generally applied evaluation methods such as this in that it weights equally for each option and discounts the specific priorities associated with different options. In the case of Option B2 and D crossing the floodplain is a significant cost with a high level of complexity compared to the other options and the uniform weighting does not reflect the difference, potentially leading to lower quality or flawed assessment.

AECOM utilised the OBEM method to compare each option against project objectives with assessment criteria that are refined through the process as more information becomes available. As with most like methodologies, the quality of the inputs and its application influence its success.

One Horsham, a number of community submitters, and Council are strongly of the view that: the OBEM methodology lacks transparency; it is too subjective; ignores community feedback; that it is open to bias; and therefore delivers a questionable assessment.

Many submitters questioned the accuracy of the information that was integrated into the model and how that information was applied in determining rankings - on virtually every aspect of the preferred Option D.

The Panel also identified a number of concerns with the application of the OBEM method in assessing Option D which are detailed in Chapter 7 of this report.

One significant example is the OBEM treatment of Flooding. Option B2 and D both traverse the very complex Wimmera River /Burnt Creek floodplain which in 2011 witnessed the largest flooding in the region's history. VicRoads' expert witness Mr Bishop acknowledged that flood was somewhere between the 100 year and 200 year ARI event. He also acknowledged that if the floodway infrastructure was designed to allow for climate change or 200 ARI, the length of the structure would need to be significantly longer.

The input into the OBEM model was based on a 100 year ARI event, which the Panel understands was used only for comparative purposes, and understandably did not ameliorate a very anxious local community.

Objective 5 includes the overarching proviso for balanced outcomes on a triple bottom line analysis to provide best value benefits *...for the lowest project cost*. The Stage 2 assessment includes three criteria, none of which have any relationship to the lowest project cost.

The OBEM assessment against Objective 5 resulted in a rating of 'poor' for Option 5A, the lowest project cost option, and 'neutral' for the other four options. It is equally difficult to understand how Option D is preferred when it has the second lowest Benefit Cost Ratio of the 5 Options.

The Panel highlights this one example, but could have provided others. The OBEM methodology in some instances results in outcomes that are counter-intuitive to the Panel and the community, unfortunately manifesting itself in the community's exhibited concerns.

The Panel also noted throughout the Hearing reference to the high project costs associated with Option 2 as a key reason for its elimination, but also noted an inconsistent approach when comparing the preferred options to Option 5A. The Panel also notes other similar submissions on a point to point assessment of the route options.

On balance, the Panel believes that it does not have enough information available to it to draw a definitive conclusion on this matter, but would recommend to VicRoads that any further assessments are carried out on an 'apples with apples' comparison.

Whatever evaluation method is adopted going forward, route options should be developed in sufficient detail to allow confidence in the preferred route progressing to completion. It

should provide for objectivity and transparency so that the community can be more confident of the impacts the route will have on them.

The Panel, whilst acknowledging all the valuable work completed on this project, envisages that further work will be required to ensure Option D can withstand further detailed assessment and progress to the next stage of the planning process.

The Panel is also of the opinion that the route selection process adopted, and in particular its application, has some key deficiencies which may warrant VicRoads re-considering Option D in comparison to other options.

Submissions on other options

The Panel reviewed the extensive submissions it received that advocated for other route Options, particularly Options 2 and 5A.

Option 5A

Option 5A was one of the Phase 2 shortlisted options and it was eliminated at the final route adoption stage. It was assessed to have some benefits, including it is the shortest bypass option, it has the lowest project cost, it has by a significant percentage the highest Benefit Cost Ratio, it minimises the impacts on the floodplain, has the lowest ecological impact and it passes closest to the town centre. It was also assessed to have some comparative disbenefits. It rated 'very poor' in the criteria to *Minimise land and building acquisition and potential changes to land use*.

AECOM stated *this option has substantial land use conflicts both in terms of displacing existing land uses and compromising the future growth plans for Horsham. Also it is less able to reduce the noise, visual and amenity effects of the Western Highway through traffic than all other options.*

A revised Horsham Municipal Strategic Statement under Amendment C75 is now seriously entertained which appears to provide slightly different guidance in terms of the benefits of the location of future residential growth and other criteria. These changes raise some questions about the strategic basis for route choice as discussed in Chapter 5.

Submissions to the Hearing submitted that there may be value in a modification to Option 5A to move it clear of the existing residential zone to the south of Horsham by moving the route further south following approximately the Osborne Road - Kenny Road alignment.

This potential variation, together with the changed approach to growth areas south of Horsham as proposed in Amendment C75 may mitigate some of the disbenefits identified in earlier assessments.

For these reasons the Panel would suggest that Option 5A be included if other route options are to be reconsidered.

Option 2

Option 2 was heavily supported by the One Horsham By Pass Consultative Group and numerous other submitters. AECOM's draft document *Route Options to be Further Investigated - 15th July 2011* stated:

Option 2 was considered to be of excessive length, at around 41 kilometres, and would lead to redundancy of a significant length of the existing Western Highway. This would result in a high construction cost exacerbated by the requirement to build a large proportion of the road at elevation to mitigate impacts associated with its location within the floodplain to the north and east of Horsham. It would also result in significant land acquisition and property severance impacts due to the length of greenfield construction (construction in undeveloped areas) required. By extending to Wail this option would avoid the township of Pimpinio and the requirement for a second grade separation with the existing railway line although these benefits would be outweighed by the high construction costs. Notwithstanding, community consultation during Phase 1 identified this as the preferred option of respondents and this view was reiterated by community members on the steering group. As such, it was retained for further analysis²⁸.

Option 2 was subsequently eliminated in this assessment phase due to its long distance from the town, high project costs, and numerous other issues that led AECOM to conclude:

On balance of the discussions above, the high costs are not justified by the level and nature of benefits achieved by these options in comparison to others which are less expensive and have a lower level of negative impacts but similar benefits²⁹.

The Panel agrees that Option 2 does not warrant further consideration, primarily for the following reasons:

- It is the highest cost option (This creates a related problem that it is less likely to be funded in the short term).
- It bypasses Horsham by over 15km raising concerns about the impact on businesses in the town.
- The alignment around Dooen and impacts on that township are unresolved.
- It has the highest land severance impact.

The Panel acknowledges that Option 2 has some advantages over other options, but on balance cannot be supported.

(iv) Conclusions

The Panel concludes that:

- The OBEM route assessment process adopted for this project does provide much valuable information.
- There are some key deficiencies in the application of the OBEM methodology.
- VicRoads should consider including a reassessment of Option 5A (or a variation on that route) in parallel with further work on Option D.
- Further consideration of Option 2 is not supported.

²⁸ AECOM, *Horsham Bypass-Route Options to be further investigated*, (15 July 2011), p18.

²⁹ AECOM, *Horsham Bypass-Route Options to be further investigated*, (15 July 2011), p52.

- Further route assessments should be carried out in enough detail to mitigate the concerns raised in this report and that they be carried out on a like for like comparison.

8.3 Consultation

(i) Overview of consultation

A lengthy consultation process was carried out by VicRoads and its consultants in the development and testing of options, and in preparing and exhibiting Amendment C72. Despite the effort, many of the submissions criticised the quality and effectiveness of community engagement.

By its nature, planning for a bypass at Horsham is challenging. On one hand, there is wide community support for a bypass, making redundant the issue of whether or not a bypass should proceed. However, selection of the route is highly controversial, partly because there will be winners and losers in each of the options. This is exacerbated by the technical and complex nature of the planning process, incorporating strategic, traffic, land use, environmental, economic and community issues.

The fact that the issue is complex and challenging means that the community engagement process is especially important. There is little prospect of achieving consensus, but a degree of community ownership is invaluable for planning and implementing a project such as the Horsham Bypass. In turn, this implies community confidence in planning and decision-making processes, the information they are based on, and the channels of communication used.

In this case, the Panel found little evidence of community ownership of Option D and Amendment C72. In its own right, this does not necessarily mean that the Amendment is fundamentally flawed and should be abandoned, because it is to be considered on its planning merits. However, it does appear to the Panel that the consultation phase lacked effectiveness, and the implementation of the next phases of the project is likely to be problematic if Council and the community are not actively involved in the solution.

(ii) Submissions and evidence

Several submitters referred to shortcomings in the consultation process. An example is the submission by Mr Selwyn Ellis, who referred to the consultation process followed by VicRoads as ‘false’, while the Steering Committee established by VicRoads was not transparent:

There has been no engagement with the community, no response to issues raised and an apparent determination to proceed with a predetermined outcome.

The Panel also heard from Mr Gary Lean, who was a community representative on the project’s Steering Committee, which has been established and supported by AECOM and VicRoads. Mr Lean expressed frustration that the Steering Committee lacked transparency and effectiveness, and members were constrained by a requirement for confidentiality.

The One Horsham Group described its frustration with consultation processes. In his contribution to the submission of the One Horsham Group, Mr Jeff Moore provided a highly detailed critique of the information and interpretations of the AECOM reports, suggesting that their lack of accuracy undermined community understanding and support.

Another submission critical of the consultation conducted by VicRoads was from the East Horsham Group led by Mr John Robinson and Mr Russell Peucker. They referred to a lack of 'natural justice, transparency and due diligence' to date, and recommended a way forward:

There is a need to establish a way forward but the process must be both rigorous and transparent. We are keen to work with our community, our Council and VicRoads as a partnership to achieve the best outcome for the national, state and municipal concerns of freight efficiency and also for our community benefit across a range of impact areas ...

If it is within the Panel's power we recommend that representatives from the relevant interest areas form a representative group to support this process to allow the Panel to take forward a resolution to the Minister. Community consultation would need to be part of the process.

Council supported the case of submitters who expressed a lack of confidence in the accuracy of information provided by VicRoads, its consultants and expert witnesses. Council quoted a series of factual and mapping errors and what it perceived to be inappropriate interpretations (such as VicRoads' reference to Horsham 2040, which was not adopted by the Council). Its view was that the lack of community confidence is demonstrated in the number and substance of community submissions made on this Amendment.

Council described its position on the route in a response to a query from the Panel:

At a local level, the process of resolving the route alignment has the potential to pit parts of our community in opposition to each other.

The decision is best made through an independent State Government process.

Council has continually maintained its position that each route has advantages and disadvantages, and whichever route is ultimately selected will have adverse impacts on parts of our community, which will need to be addressed.

Council has for a considerable period of time adopted the position of not identifying a preference for any route alignment. It formally adopted that view by resolution on 4 February 2013. It reiterated that position when it further resolved matters on the 7 September 2015.

The change the Council made at the 7 September 2015 meeting was that it resolved that it does not support the preferred route alignments options B2 and D as proposed in the VicRoads reports, and as being put forward for the Planning Scheme Amendment application.

Council's recommendations to the Panel included:

VicRoads address the range of errors, inconsistencies and subjectivity of analysis identified in the reports, and re-present the reports to the community for consideration in a subsequent planning process.

In its submission, VicRoads described what it considered to be an extensive community consultation process relating to the Bypass. This included consultation carried out by Parsons Brinckerhoff prior to their 2009 study; establishment of a steering committee comprising representatives of agencies, Council and residents; distribution of feedback forms seeking community input; exhibition of Options 5a, 11, 12, A2 and B2 seeking feedback; individual consultation with landowners and politicians; community information sessions; and use of the VicRoads and DELWP websites for disseminating information. Much of this involved active participation from AECOM staff. The exhibition process for Amendment C72 provided an additional opportunity for community input.

VicRoads also addressed the criticism from a number of submitters that there were flaws in the AECOM reports that formed the basis of the Amendment:

It is not unusual for submitters to suggest that there are errors, inconsistencies or methodological issues in background reports for major infrastructure projects - which often involve a large number of technical reports. Some submitters appeared to suggest that if the alleged errors had been ironed out, or if a more 'objective' assessment framework had been provided, then there would not be community dissatisfaction with the outcome. History and experience tells us that that is rarely the case. The reports were comprehensive in scope and prepared by experienced consultants, they were reviewed on a number of occasions by VicRoads officers and by the steering committee and they were updated and re-referred to the steering committee as more information became available. They used the established OBEM, which is now the accepted framework for road option assessments. That is not to say that they are flawless or that they did not contain value judgments upon which other people may not agree. However, they do demonstrate that there was an extensive option selection process which formed the background to the Amendment. Of course, the options assessment process is not before the Panel, whose task is to determine whether the proposed alignment is acceptable. The relevant question is not whether the option assessment process could have been improved but whether or not the Panel has sufficient information upon which to make a decision about whether the proposal provides an acceptable planning outcome. VicRoads submits that the information before the Panel is sufficient for a decision to be made.

VicRoads cited the 2004 Panel report on the Environment Effects Statement for the Bald Hills Wind Farm, which suggested that community opposition to an infrastructure project involves a 'transitional' social impact, which may cease with the passage of time. It also noted that Panel's view that its recommendations were not to be based on an opinion poll, nor on an exercise of determining the best site on the basis of community acceptance, but rather on an assessment of the proposal before it.

This perspective is reflected in the AECOM route adoption report, referring to community support for Option 2:

Whilst community input is important to gain information on the issues and concerns relevant to selection of a bypass route, the route will be chosen on the basis of consideration given to technical matters, as set out in this report and via a transparent planning scheme amendment process that will provide further opportunity for community input.³⁰

VicRoads concluded by considering the nature of opposition to Amendment C72:

... VicRoads notes that the people and groups who made submissions to the Panel clearly do not represent the whole of the Horsham community. It was apparent even from those who did make submissions to the Panel that there are a wide range of diverse views in the community about the preferred location of the bypass. The submitters were, as one would expect, for the most part, landowners directly affected by Alignment D. The Panel could rightly expect that if the exhibited alignment was along another route, there would have been a different subset of the community making submissions in opposition.

(iii) Discussion

The consultation process

The Panel accepts the case of VicRoads that it had carried out consultation using a range of techniques. However, many of the techniques involved sharing of information and seeking responses to plans, rather than genuine participation and empowerment.

The fact that the location of the Horsham Bypass is a complex and controversial local issue means that it is even more important to develop and implement consultation measures that include strong elements on the 'participation and empowerment' end of the spectrum, rather than relying on information sharing.

The Panel was impressed with the contributions made by community members in their submissions to Amendment C72. This interest should be captured by both VicRoads and Council if further assessment of the Bypass is to take place.

Steering Committee

Following criticism of the project's Steering Committee, the Panel reviewed its composition and operation, based on its agendas and minutes and submissions on the Amendment.

The Steering Committee was supported by the consultants and VicRoads, and comprised representatives from VicRoads, several agencies, Council, two community representatives and a representative of Business Horsham. It first met in September 2010, met six times until November 2011, and then met in June and November 2012. The agendas and minutes of the meetings indicate a focus on feedback on the material being prepared by AECOM, while consideration of community consultation related to information provision.

³⁰ AECOM, *Horsham Bypass: Route Adoption Report* (May 2015), Appendix A, p a-4.

The Panel considers that the Steering Committee would have been more effective with a broader representation, and with a much greater focus on encouragement of wider community participation in planning and decision-making processes. While it is possible that there will be sensitive matters raised at the Steering Committee requiring confidentiality, it would have been much more effective if it was treated as a valuable conduit for the exchange of information and viewpoints between all the key stakeholders.

Information errors

The errors in reports related to the Bypass were clearly a concern of many submitters. Differing interpretations of information also occurred, although that is likely to happen in a project as controversial as this.

The Panel supports the position of VicRoads on this matter. It is probable that there would be community dissatisfaction with the outcome even if factual errors and misinterpretations had not occurred.

The Panel considers that the main issue is the lack of trust in the planning and decision-making process, which in turn led to an unfortunate focus on issues of detail rather than the central concerns relating to the project. If a level of trust and confidence existed between the parties, matters of factual detail could easily have been resolved.

The role of Horsham Rural City Council

The Panel supports the Council's decision to transfer the role of Planning Authority to VicRoads. The Bypass is a significant project for the State, and VicRoads has the expertise and resources to carry out the role.

However, the Panel does not support Council's subsequent position, that it should not commit to options on the basis that there will be winners and losers in the Horsham community with each of the options. The Bypass is a major project of considerable significance to the municipality - its planning is inevitably controversial, because different routes will have their supporters and opponents. This is precisely when the community leadership of an active, well-prepared local government is needed.

If a future planning process takes place, the Panel expects the Council to be an active partner from the beginning, playing a much more strategic role than that of providing critiques of the material prepared by VicRoads and its consultants.

(iv) Conclusions

The Panel concludes that:

- The consultation process included several well-accepted techniques of communication, but lacked creativity in engaging with a community that appeared to become sceptical of the project, the quality of information relating to it, and its proponent.
- The outcome is that there is little community ownership of Option D and Amendment C72, despite the Panel's view that the option has some merit.
- An indication of the lack of success of the consultation process is the role of Council, who established a position of not supporting or opposing the options until it decided to oppose Option D in September 2015. While the Panel understands

Council's decision that VicRoads should be the Planning Authority, it concludes that Council should have played a stronger community leadership role and been a much more active participant throughout the planning process.

- If options are to be reconsidered with further planning and community engagement, VicRoads, Council, other agencies and the wider community should be actively involved in a thorough, transparent and collaborative process.

8.4 Recommendations

The Panel recommends that:

- 5. VicRoads should consider including a reassessment of Option 5A (or a variation on that route) in parallel with further work on Option D.**

Appendix A List of Submitters

No.	Submitter
1	John and Alice Ladlow
2	Robyn Gulline
3	Winton Scott
4	John and Faye Muszkiet
5	Gil and Liz Hopkins
6	Graeme and Elizabeth Gulline
7	Nola & Mervyn Baker
8	Horsham Rural City Council
9	Jane Moore
10	Alan and Sue Frankham
11	John and Jacky Adlington
12	R A Hood
13	Sally Hood
14	Stewart & Margaret Smith
15	Mr Denis O'Brien and Ms Helene Calvird.
16	Russell McKenzie
17	Robert & Denise Queale
18	Janbert and Mabel Brouwer
19	Tony Brand
20	James Heard
21	Robin Webb
22	Vincent (Frank) and Leonie McClelland
23	Tim Minter
24	Geoff and Diane Bacon
25	Mark Plowright
26	Anne Sprague
27	Jeff Moore
28	Colin Moore
29	Melissa Smith
30	East Horsham Community Committee
31	Wimmera Development Association

32	Terry and Jackie Arnel
33	John Francis
34	Lance and Claire Trigg
35	Wilma Bishop and Geoff Eagle
36	Angela Turner
37	Ray and Molly Pummeroy
38	Tina Pallot
39	Mark and Tanya Sudholz
40	Virginia Redden
41	Donald Timmins
42	Ken Easson
43	Barry Laird and Shirley Baker
44	Richard May
45	Greg Huff
46	Kim Adams
47	Greg and Liz Voigt
48	Andrew Harrington
49	Helen Coutts
50	Connie and Les Wong Shee
51	John Harrington
52	Yarriambiack Shire Council
53	Hindmarsh Shire Council
54	Wimmera Southern Mallee Regional Councils
55	Kevin and Greer Dellar
56	Victorian Farmers Federation
57	Michael Patterson and Serafina Perovic
58	Alan and Sue Williams
59	One Horsham Bypass Consultation Group
60	Horsham Flying Club
61	Selwyn Ellis
62	Chris Bartlett
63	Lawrence and Janette Williamson
64	Edwin Bartlett

65	Jeff Schneider
66	Jacky Adlington
67	Arnold and Linda Niewand
68	Neville and Gayle Thomas
69	Gary Lean and Irina Bennewitz
70	Shannon Argall
71	David & Kelly Jewson
72	Andrew and Kate Hood
73	Craig and Kate Hicks
74	Christine Hallinan
75	Scott Johns
76	Shannon and Denise McLellan
77	David and Susan Walker
78	Riverside Recreation Reserve Committee of Management
79	Kath Dumesny
80	Graeme and Buffy Harrison
81	Gary O'Leary
82	Peter Ryan
83	Wimmera Flying Club
84	GWM Water
85	Michelle and Anthony Cross
86	Brian Watts
87	Department of Environment, Land, Water & Planning

Appendix B List of Documents

No.	Date	Description	Presented by
1	19/10/15	VicRoads submissions to the Panel	Ms J Forsyth
2	19/10/15	Folder including VicRoads' submission documents	Ms J Forsyth
3	19/10/15	Aecom, <i>Horsham By pass: Route Options to be Further Investigated</i> , 15 July 2011	Ms J Forsyth
4	19/10/15	Parsons and Brinckerhoff, <i>Western Highway Realignment at Horsham: Strategy and Consultation Report</i> , updated report, June 2009	Ms J Forsyth
5	19/10/15	Road crash information	Ms J Forsyth
6	19/10/15	Les and Connie Wong Shee, submission to the Panel	Ms Kirsten Wong Shee
7	20/10/15	Letter from Department of Planning and Community Development to Horsham Rural City Council, headed 'Horsham 2040 - Growth Management Strategy', dated 26 October 2007	Mr David O'Brien
8	21/10/15	Letter from Captain Richard M Brumby to O'Brien Lawyers relating to SGS Hart Aviation evidence, 16 October 2015	Mr David O'Brien
9	21/10/15	PowerPoint presentation by Mr Mel Dunn, SGS Hart Aviation	Ms J Forsyth
10	21/10/15	Mr Dunn, SGS Hart Aviation, commentary on four additional submissions provided by O'Brien Lawyers representing One Horsham Bypass Group on 12 October 2015	Ms J Forsyth
11	21/10/15	PowerPoint presentation by Mr Cameron Miller, <i>Terrestrial Ecology</i> , October 2015	Ms J Forsyth
12	22/10/15	Copy of email from Dave Brennan, Wimmera CMA to Mr J Moore on 'Horsham Bypass' dated 21 October 2015	Mr David O'Brien
13	22/10/15	Copy of bundle of emails between VicRoads, AECOM and Wimmera CMA on 'Horsham Bypass - B2' dated between 23 May 2013 and 11 August 2015	Mr David O'Brien
14	22/10/15	'Comment on Expert Witness Reports: Water Technology Report' by Mr May	Mr David O'Brien
15	22/10/15	Alan and Sue Williams submission to the Panel, and attachment (letter from Shire Secretary, Shire of Wimmera to A G and L S Williams, dated 21 April 1993)	Ms S Williams
16	22/10/15	Horsham Rural City Council submission and attachments to the Panel.	Mr J Martin

No.	Date	Description	Presented by
17	22/10/15	Aerial image of Option 2 river crossing at Ballyglunin Road, Bungallally	Ms J Forsyth
18	22/10/15	Aerial image of Option 2 through Dooen	Ms J Forsyth
19	23/10/15	Phillips Agribusiness, Agricultural Assessment: Horsham Bypass, May 2014 [<i>confidential report</i>]	Ms J Forsyth
20	23/10/15	One Horsham submissions to the Panel	Mr David O'Brien
21	23/10/15	Folder including One Horsham's submission documents	Mr David O'Brien
22	23/10/15	Information on Wimmera Intermodal Freight Terminal from Maree McNeilly, Transport Coordination Manager, DEDJTR	Ms J Forsyth
23	23/10/15	Media release headed 'Forrest: Hurry Bypass', dated 19 August 2011	Ms J Forsyth
24	23/10/15	PowerPoint presentation by Mr Richard May, <i>Issues in Respect of Option D</i> , 23 October 2015	Mr David O'Brien
25	23/10/15	Mr Richard May, <i>Comment on Expert Witness Reports: Water Technology Report</i> , 9 October 2015	Mr David O'Brien
26	23/10/15	PowerPoint presentation by Mr Richard May, <i>Supplementary Information relevant to consideration of a bypass of Horsham</i> , 23 October 2015	Mr David O'Brien
27	23/10/15	Supplementary folder including One Horsham's submission documents	Mr David O'Brien
28	23/10/15	Membership of One Horsham Committee	Mr Moore
29	29/10/15	Letter from O'Brien Lawyers to Planning Panels Victoria, providing clarification and correction of Mr Treacey's evidence	Mr Denis O'Brien
30	4/11/15	VicRoads response to questions raised by Panel	Mr J Forsyth
31	4/11/15	Horsham Rural City Council, letter to Panel, Horsham Bypass - Planning Scheme Amendment C72 - Request for Supplementary Information	Mr J Martin
32	4/11/15	Letter from O'Brien Lawyers to Norton Rose Fulbright, objecting to the late provision of material to the Panel	Mr David O'Brien
33	4/11/15	Addendum to submission by Mr Dennis O'Brien to the exhibited Amendment, with attachments of aerial image and designs of Riverside Bridge	Mr Denis O'Brien
34	4/11/15	Submission as part of One Horsham submission by Jan Croser, Riverside Recreation Reserve Committee of Management and Horsham Riding for the Disabled, dated 4/11/2015	Ms Jan Croser

No.	Date	Description	Presented by
35	4/11/15	One Horsham Bypass Planning Panel submission: Stage 2 Options Assessment - Social Impact Assessment - issues and concerns	Mr Jeff and Mr Peter Moore
36	4/11/15	A comparative view of risk assessment between Horsham Bypass (2014) and Beaufort to Ararat Study (2012)	Mr Jeff Moore
37	4/11/15	Images, plans and detail from Shepparton Planning Scheme Amendment C11 Panel Report relating to Shepparton airport	Ms J Forsyth
38	4/11/15	Horsham Aviation Services submission to the Panel	Mr Tony Brand
39	4/11/15	Horsham Flying Club submission to the Panel	Mr P Weissenfeld
40	4/11/15	Package of material relating to Mr Treacey's expert witness report, including modifications to the original evidence	Mr David O'Brien
41	5/11/15	Marked-up versions of material relating to Mr Treacey's expert witness report, including modifications to the original evidence	Mr David O'Brien
42	5/11/15	Letter from O'Brien Lawyers to PPV dated 4 November 2015, covering membership of the One Horsham committee	Mr David O'Brien
43	5/11/15	Horsham By-Pass, petition of ratepayers and citizens, opposing Options B2 and D and supporting Option 2	Mr David O'Brien
44	5/11/15	Elevations relating to North-South runway, showing amount of fill required to keep the runway level	Mr Jeff Moore
45	5/11/15	Information relating to Mr Ross Treacey's evidence, including waterway crossing length and costings	Mr David O'Brien
46	5/11/15	Aerial image of Dooen from Google Maps	Ms J Forsyth
47	5/11/15	Email from David O'Brien to Dennis O'Brien regarding Mr Ross Treacey's report	Ms J Forsyth
48	5/11/15	Scenarios regarding operations and maintenance costs for Option 2 and Option D	Ms J Forsyth
49	5/11/15	Aerial images of Darwin and Gold Coast airports	Ms J Forsyth
50	5/11/15	Email from Steve Marcroft to Steering Committee members dated 24 December 2010, <i>Re: Horsham Bypass Planning Study - Draft Route Options for Further Investigation Report</i>	Mr David O'Brien
51	5/11/15	Letter from Gary Lean to Horsham Rural City Council dated 8/2/2011, <i>Re: Dooen Freight Hub/Western Highway</i>	Mr David O'Brien

No.	Date	Description	Presented by
52	5/11/15	Email from Gary Lean to Ewan Nevitt, VicRoads dated 8 February 2013, More Detailed Studies	Mr David O'Brien
53	5/11/15	Letter from Gary Lean to Minister for Roads, undated, expressing concerns about selection process for route options	Mr David O'Brien
54	5/11/15	Series of dot points prepared by Mr Gary Lean regarding the consultation process	Mr David O'Brien
55	5/11/15	Letter from One Horsham Bypass Consultation Group to Hon Terry Mulder, Minister for Roads, dated 24 April 2012, Re: New option for Phase 2 of the Horsham Bypass Planning Study	Mr David O'Brien
56	5/11/15	Mark and Tanya Sudholz submission to the Panel, including PowerPoint presentation	Mr Mark Sudholz
57	5/11/15	Submission by John Robinson and Russell Peucker to the Panel, <i>Objection to Amendment C72 Horsham Planning Scheme - Horsham Bypass</i>	Mr John Robinson
58	5/11/15	One Horsham final submissions to the Panel	Mr David O'Brien
59	5/11/15	ABC News report dated 23 October 2015, <i>VicRoads experts quizzed over Horsham Bypass preferred route</i>	Mr David O'Brien
60	5/11/15	ABC News report dated 27 March 2015, <i>Western Highway Bypass option 2 too impractical says Roads Minister Luke Donnellan</i>	Mr David O'Brien
61	5/11/15	The Weekly Advertiser report dated 3 November 2015, <i>Minor Horsham Bypass win</i>	Mr David O'Brien
62	5/11/15	Letter from One Horsham Bypass Committee to David O'Brien MLC dated 25/10/2013, <i>Western Highway Bypass Planning Study, Horsham: Request to have Option 2 Properly Evaluated in the Planning Process</i>	Mr David O'Brien
63	5/11/15	One Horsham submission appendices, including material on inter-modal hubs; methodology on VicRoads Western Highway - Section 2; and Horsham Bypass Option 2 Map	Mr David O'Brien
64	5/11/15	Sections from <i>Victorian Climate Change Adaptation Plan</i> , March 2013	Mr Jeff Moore
65	5/11/15	Email from Shannon Bolton, VicRoads to Jeff Moore dated 22 July 2015, <i>Detailed Estimates for Horsham Bypass Options</i>	Mr Jeff Moore
66	5/11/15	Costings Western Highway - Horsham Bypass, Option D - November 2013	Mr Jeff Moore

No.	Date	Description	Presented by
67	5/11/15	Sections from Hansard citing Ms Jacinta Allan, Minister for Public Transport, regarding Infrastructure Victoria Bill 2015, 24 June 2015	Mr David O'Brien
68	5/11/15	Media release dated 12 May 2015 covering Commonwealth Government infrastructure funding, <i>Building Our Future: world-class infrastructure for a stronger Australia</i>	Mr David O'Brien
69	6/11/15	Submission by Jeffrey Schneider to the Panel	Mr J Schneider
70	6/11/15	Submission by Russell McKenzie to the Panel	Mr R McKenzie
71	6/11/15	Submission by Gil Hopkins to the Panel	Mr G Hopkins
72	6/11/15	Submission by Selwyn Ellis to the Panel	Mr S Ellis
73	6/11/15	Submission by Lance and Claire Trigg to the Panel	Mr L Trigg
74	6/11/15	Submission by Arnold and Linda Niewand to the Panel	Mr A Niewand
75	6/11/15	Submission by Wilma Bishop to the Panel	Ms W Bishop
76	6/11/15	Submission by Peter Ryan to the Panel	Mr P Ryan
77	6/11/15	Submission by John Adlington to the Panel	Mr J Adlington
78	6/11/15	Submission by Victorian Farmers Federation to the Panel	Mr David Jochinke