

**INQUIRY AND ADVISORY COMMITTEE  
APPOINTED BY THE MINISTER FOR PLANNING  
PLANNING PANELS VICTORIA**

**IN THE MATTER OF THE MORDIALLOC BYPASS PROJECT ENVIRONMENT  
EFFECTS STATEMENT**

**IN THE MATTER OF AMENDMENT GC107 TO THE KINGSTON AND GREATER  
DANDENONG PLANNING SCHEMES**

BETWEEN:

MAJOR ROAD PROJECTS VICTORIA

Proponent

and

KINGSTON CITY COUNCIL and others

Submitters

**SUBMISSIONS ON BEHALF OF  
MAJOR ROAD PROJECTS VICTORIA**

**PART C**

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## **Introduction**

1. This Part C submission is made on behalf of MRPV. It builds upon MRPV's Part A and Part B submissions, MRPV's response to the public submissions, the evidence filed and presented by the experts, MRPV'S Version 2 of the EPRs and the draft Planning Scheme Amendment as currently proposed by MRPV.
2. In summary, MRPV submits that the IAC should find that:
  - (a) Subject to the adoption of the Environmental Management Framework including MRPV's proposed Environment Performance Requirements ('EPRs') and the changes to the design of the Project proposed by MRPV, the Project will deliver an acceptable and balanced environmental outcomes; and
  - (b) The Project should proceed.

## **Recommended Changes to the Project**

3. Clause 21(d) of the Terms of Reference direct the IAC to report on:
 

*recommendations for feasible modifications to the project, including specific measures to prevent, mitigate or compensate for significant adverse effects in the context of relevant standards, objectives and guidelines established under relevant legislation*
4. As a result of additional work undertaken in preparing for the hearing as well as the submissions from Council and others, MRPV submits that the IAC should recommend the following modifications to the Project:
  - (a) The proposed truncation of Woodlands Drive should not occur and the Woodlands Drive Alternative Arrangement should be preferred with the off-ramp intersecting with Woodlands Drive north of 21 Woodlands Drive;
  - (b) The establishment of Multifunction Fauna Barriers ('MFBs'), constructed to provide numerous benefits, along the interface between the Project alignment and:
    - (i) Braeside Park (including Braeside Wetlands);
    - (ii) Woodlands Wetlands; and
    - (iii) Waterways Wetlands.

- (c) An auxiliary lane should be added to the Project between Springvale Road and Thames Promenade;
  - (d) The roundabout at the intersection of Thames Promenade and Wells Road should be converted into a signalised intersection;
  - (e) A pedestrian / bicycle crossing should be added at the north-east slip lane on Springvale Road to provide a safe connection to Soden Road.
5. MRPV considers that each of these modifications is feasible and will, if adopted, either assist in the mitigation of adverse impacts of the Project or enhance the benefits provided by the Project. On that basis, the IAC should recommend their adoption as part of the Project.

### **Recommended Changes to the EPRs**

6. Clause 21(f) of the Terms of Reference directs the IAC to report on:
- recommendations on the framework for environmental management including the proposed environmental performance requirements for the project*
7. The IAC has been provided with MRPV's Version 2 EPRs. MRPV has sought to take a pragmatic approach to the drafting of the EPRs and, where appropriate, accept the changes proposed by Council and others. In some cases, where this has not been possible, MRPV has proposed its own amended or new EPRs to address what appears to it to be the underlying concern.
8. Key changes proposed by MRPV to the exhibited EPRs include:
- (a) Clarifications to the EM EPRs. In particular,
    - (i) The reference to a six lane project has been removed from EPR EM1;
    - (ii) EPR EM2 now expressly requires the preparation of an OEMP in conjunction with VicRoads; and
    - (iii) EPR EM4 makes appointment of the Independent Environmental Auditor a requirement of the EPRs as opposed to just the EMF and the design and construct contract.

- (b) Amendments to EPR B1 to require the implementation of MFBs as part of the detailed design of the Project. The MFBs must be designed to achieve a certain level of acoustic performance. While particular heights are nominated, in part to achieve noise outcomes in sensitive wetland habitats, amended EPR B1 requires consultation with an ecologist during detailed design to optimise the flight diverter effect of the MFBs. This is in response to the recommendation of Mr Loyn on behalf of the Council.
  - (c) Amendments to EPR LV1 to provide more guidance on the approach to be taken in the urban design process. The amendment to LV1 is broadly modelled on the EPR LV1 adopted in the West Gate Tunnel project which:
    - (i) Imposes a general obligation to minimise visual impacts; and
    - (ii) Requires the Project to respond to urban design principles set out both in EPR LV1 itself and in other documents.
  - (d) Insertion of new LV8 which provides for an independent urban design review process. MRPV accepts that there is value in having its proposed design reviewed by an independent person / body. The independent advisor would be appointed by the Major Transport Infrastructure Authority.
9. Various other smaller amendments to the EPRs are proposed to strengthen them and assist in achieving the outcomes sought for the Project.
10. MRPV requests that the IAC recommend the adoption of the MRPV Version 2 EPRs, subject to any additional changes which may have been agreed following the tabling of that document.

### **Recommended Changes to the Planning Scheme Amendment**

11. Clauses 21(g) and (h) of the Terms of Reference direct the IAC to report on:
- recommendations for the statutory planning framework established for the project;*  
*and*
- recommendations for the proposed amendment to the Kingston and Greater Dandenong planning schemes under the P&E Act to facilitate the project.*
12. MRPV does not propose any significant changes to the Incorporated Document from the exhibited copy, apart from an extension of the time to commence the development of the

Project. The time limit of approximately 3 years is appropriate for a project of this scale and complexity and ensures that detailed design will not be rushed.

13. The only other proposed amendment to the Planning Scheme Amendment is a variation to the Heritage Overlay map associated with HO104 to ensure that it includes the historic heritage items specifically identified by the Historical Heritage Cultural Impact Assessment as significant.<sup>1</sup> The proposed map does not include any curtilage, as MRPV considers the question of the extent of any curtilage is best resolved between the Council and Parks Victoria.
14. With the addition of these changes, the proposed Planning Scheme Amendment (including the Incorporated Document) provides a robust framework for the implementation of the Environmental Management Framework proposed for the Project, including the EPRs.
15. MRPV requests that the IAC recommend the adoption of the Planning Scheme Amendment and Incorporated Document subject to MRPV's proposed amendments.

### **Findings, Conclusions and Recommendations in relation to Impacts**

16. The most fundamental aspect of the IAC's task is set out in clauses 21(a), (b) and (c) of the Terms of Reference which direct the IAC to present:

*findings on the significant environmental effects (impacts) of the project proposed in the EES, including impacts on matters of national environmental significance protected under relevant controlling provisions of the EPBC Act;*

*conclusions on the feasibility of the project achieving acceptable environmental outcomes in the context of applicable legislation, related policy, relevant best practice, and the principles and objectives of ecologically sustainable development;*

*recommendations on whether the proposed project will deliver an appropriate balance of environmental, economic and social outcomes, having regard to the evaluation objectives in the EES scoping requirements, public submissions and the IAC's conclusions on the significant effects of the project;*

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<sup>1</sup> Appendix I, [7.1], p. 67.

*General comments*

17. It is not in dispute that the construction and operation of the Project will have impacts on the land forming the Project alignment and the surrounding areas. A central part of the IAC's task is to assess these impacts, determine their significance (or otherwise) and draw conclusions on their acceptability.
18. MRPV contends that, in making findings and drawing conclusions, the IAC should follow the approach taken in other recent EES assessments. In particular, MRPV submits:
  - (a) First, although the IAC is not bound by the formal rules of evidence, it is required to act in accordance with the evidence. The Committee's findings should be based on probative evidence. The evidence in this matter includes written and oral statements and, in the case of experts involved in the preparation of the EES, the technical appendices relevant to their disciplines. Submissions that rely on speculation, intuition or belief may be heartfelt but should not be preferred to evidence, particularly expert evidence that has been able to be tested through cross-examination;
  - (b) Secondly, an assessment of the significance of an impact implies an assessment of the likelihood of the impact. A line can, and should, be drawn between risks which can be regarded as plausible having regard to the evidence and risks which are essentially speculative in that they are based on assumptions that either unsupported by the available evidence or actively inconsistent with it. For example, while Mr Lloyd asserted in his written evidence that certain mitigation measures 'would' fail, no evidence was provided to substantiate these assertions and he properly conceded that the true position was that he did not feel able to evaluate whether the measures would be successful.
19. At the outset, MRPV submits that the IAC should find that the material contained in the appendices to the EES and summarised in the EES provides a proper basis for the assessment of the impacts of the Project and making findings about those impacts.
20. The evidence of the MRPV witnesses sets out the extensive work that has been undertaken in the preparation of the EES. Council's expert witnesses tended to affirm the quality of the work that had been undertaken, even if in some cases they suggested additional work could have been carried out.

21. Where Council's witnesses did point to perceived deficiencies in the EES material, they were typically unable to identify any real-world consequence associated with these deficiencies or specify with any particularity what would be required to remedy them.
22. As regards the feasibility of the Project achieving acceptable environmental outcomes, MRPV notes that none of its expert witnesses or those called by the Council contended that the Project could not achieve acceptable environmental outcomes. To the extent the witnesses differed, it was over the extent of mitigation required to achieve those outcomes, rather than their achievability *per se*.
23. In relation to the experts called by RAMF,
  - (a) MRPV did not understand Dr Stone to contend that the Project would not be able to achieve acceptable outcomes. He quite properly confined his evidence to his area of expertise.
  - (b) MRPV did understand Dr Kotsirilos to contend that the Project would have unacceptable health impacts. Her conclusion was, however, based on the view that it was open to, and appropriate for, this IAC to go behind the PM2.5 standards established in 2016 by the National Environment Protection Council and adopted into Victorian law through the SEPP(AAQ). MRPV submits that this premise is incorrect and should be rejected.
24. On this basis, MRPV submits that the IAC should conclude that it is feasible for the Project to achieve acceptable environmental outcomes.

*Planning and Land Use Impacts*

25. It is recommended that the IAC should find that:
  - (a) The Project will not materially impact on the land use pattern in the surrounding area; and
  - (b) The Project is supported by State and local planning policy.

Land use patterns

26. It is not expected that the Project will significantly impact on land use patterns in the vicinity of the Project. This is because, as Mr Barlow explained, the long gestation of the Project means that any land use consequences that would have been likely to occur from the development of the Project have already occurred – that is, industrial uses which are

likely to benefit from proximity to the Project have already established to the west of the road reservation in anticipation of ready access to the freeway network, while residential development to the east of the reservation has generally, although not invariably, been designed to be setback from the alignment and orientated away from it.

27. One of the key issues identified in the Scoping Requirements is the potential for dislocation due to severance causing reduced access to social networks and community facilities.<sup>2</sup> The potential for this to occur has been significantly reduced by the manner in which the land use and development adjoining the freeway has built up to ‘back onto’ the freeway in response to its proposal over a long number of years, as outlined by Mr Barlow. This has meant the freeway does not drive itself through the middle of existing residential areas and that connectivity across the area subject to the PAO is already very limited.

#### Policy and legislative support

28. The delivery of the Project is consistent with the Planning Policy Framework (‘PPF’) regarding transport networks, including *Plan Melbourne 2017-2050*.

#### *Plan Melbourne*

29. The Project is consistent with *Plan Melbourne*. Policy 3.1.5 of *Plan Melbourne* is, expressly, to ‘improve the efficiency of the motorway network’. This states, relevantly,

*Motorways (including both freeways and toll roads) and heavy rail contribute to productivity and liveability by efficiently moving high volumes of people and goods over longer distances.*

...

*The motorway network supports liveability by providing strategic bypasses that minimise freight- and car-based traffic across Melbourne.*

*Optimisation of the existing motorway network will be achieved through the use of technology and new and upgraded connections, including consideration of how to fill the missing North East Link on the Metropolitan Ring Road.<sup>3</sup>*

30. The delivery of a more efficient motorway network (including new and upgraded connections such as the Project) supports, rather than detracts from, the delivery of ‘20

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<sup>2</sup> Scoping Requirements, section 4.7.

<sup>3</sup> *Plan Melbourne*, p. 69.

minute neighbourhoods'. The establishment of the Project will draw freight and through traffic away from local streets in the surrounding road network, providing additional road space for local transport uses, including active and public transport.

*The planning policy framework*

31. Clause 18.01-1S of the PPF seeks to create 'a safe and sustainable transport system by integrating land use and transport'. Strategies underpinning this objective include:

*Develop integrated and accessible transport networks to connect people to jobs and services and goods to market.*

*Plan urban development to make jobs and services more accessible by:*

- *Ensuring equitable access is provided to developments in accordance with forecast demand, taking advantage of all available modes of transport and to minimise adverse impacts on existing transport networks and the amenity of surrounding areas.*

32. Clause 18.01-1S specifically refers to the need to take advantage of 'all available modes of transport'. In this regard, the PPF does not discriminate between private, public and active transport. Rather, it recognises that all modes of transport have a role to play in delivering an integrated and accessible transport network which facilitates access to jobs and services.

33. While *Plan Melbourne* seeks to increase jobs growth outside the CBD, it is important to note that *Plan Melbourne* also projects that employment growth will continue to be strongest in the CBD. Over the period 2015 – 2031, it is expected that the 233,000 jobs will be added in inner (CBD) Melbourne, which is more than double the next highest level of growth (being 113,000 jobs in the Western region).<sup>4</sup> As such, it remains important to facilitate access to the CBD area, even as the policy framework seeks to direct increased jobs growth to middle and outer suburbs.

34. At a local level, the Project is expressly supported by the PPF. Clause 21.12-3 includes a policy objective:

*To create a safe, convenient and efficient road network based on a functional hierarchy of local and regional road linkages, which meets the transport and freight needs of Kingston's residents, businesses, and through traffic.*

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<sup>4</sup> *Plan Melbourne*, p. 21.

35. Strategy 1 under this objective is:

*Advocate for major road infrastructure construction in key priority areas including the Dingley Freeway (to Boundary Road, then to Springvale Road), **the extension of the Mornington Peninsula Freeway**, and the Scoresby Freeway to assist regional movements in a north-south direction. (emphasis added)*

36. The Project can also be expected to assist in the alleviation of many of the ‘Key Issues’ identified in clause 21.12, which include:

- *Capacity deficiencies for both north-south and east-west traffic leading to conflicts between arterial traffic and abutting land use.*
- *High volumes of industrial traffic on roads which are operating at or near capacity.*
- *Retail/commercial activity centres located on main arterial roads experiencing high volumes of arterial through traffic which causes conflict with local user movements.*
- *Protection of residential areas from industrial through traffic.*
- *Need for improvements to key freight routes.*

37. As articulated in the EES and supported by the evidence of Mr Kelly and Mr Barlow, the Project will provide additional north-south capacity, drawing industrial (i.e. freight) and through traffic off local and arterial roads.

#### *Kingston Green Wedge Plan*

38. It was suggested in submissions that the Project is inconsistent with the *Kingston Green Wedge Plan 2012*. The Plan, including Maps 3<sup>5</sup> and 5,<sup>6</sup> expressly contemplates the existence of the Project running south from the Dingley Bypass down and connecting to the Mornington Peninsula Freeway.<sup>7</sup> In this regard, it cannot fairly be said that the delivery of the Project is inconsistent with the Green Wedge Plan.

#### *The Transport Integration Act 2010*

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<sup>5</sup> City of Kingston, *Green Wedge Plan 2012*, p. 45.

<sup>6</sup> *Ibid*, p. 81.

<sup>7</sup> *Ibid*, p. 109 (described there as the Mornington Peninsula Link (Freeway Extension)).

39. The delivery of the Project is consistent with the decision-making principles articulated in the *Transport Integration Act 2010* and the achievement of the transport system objectives contained in that Act. An analysis of this is set out in the draft Explanatory Report for the proposed Planning Scheme Amendment.

Not one or the other, but both

40. Many of the submissions made to the IAC sought to set up a ‘zero sum’ game between private and public transport. MRPV does not accept this approach.
41. The reality is that, as expressly recognised in the PPF and the *Transport Integration Act*, all modes of transport have a role to play in the delivery of an integrated transport system. The Victorian government – including through Public Transport Victoria and other agencies within the Major Transport Infrastructure Authority – is committed to the construction of many public transport projects, including the Metro Tunnel, Regional Rail Revival Project, the Airport Rail Link and electrification of rail lines through the western suburbs to Melton and Wyndham Vale as well as various other projects identified by Transport for Victoria in their submission.
42. The Suburban Rail Loop is another project currently being considered by the Victorian government. It is important to note, however, that the preferred route set out in the Suburban Rail Loop Strategic Assessment would not pass through the area serviced by the Project. Rather, it would pass north and west, linking Clayton and Cheltenham stations.
43. Having said that, and as Dr Stone conceded, public and private transport are not perfectly substitutable. Road use is, and will continue to be, necessary for many socially desirable activities, including provision of emergency services, freight transport (particularly outside urban Melbourne) and private vehicle trips where public transport is not a suitable alternative. In this context, it is not appropriate to simply say that no public money can or should be spent on road projects.

*Transport*

44. The Project is a major piece of road infrastructure that will provide a much needed link between the Dingley Bypass and Mornington Peninsula Freeway, improving freight movements, efficiency, capacity and safety through the dual benefits of the freeway itself and the overall improvements to the surrounding road network.
45. The IAC should make findings to the following effect:

- (a) The transport modelling provides a sound basis upon which the impacts of the Project can be assessed;
  - (b) The Project will improve travel efficiency, road safety and network capacity;
  - (c) The Project will improve amenity and local transport networks by removing freight from the local road network and increasing capacity;
  - (d) The Project will provide an effective connection between the Mornington Peninsula Freeway and the Dingley Bypass;
  - (e) The Project will provide a new shared pedestrian and bicycle path along the length of the new alignment, enhancing active transport connections and improving amenity;
  - (f) The Project will enhance public transport through the provision of bus priority lanes at key intersections.
46. The positive transport outcomes for the Project are noted by a number of submitters, with strong support at the hearing for the Project from both Transport for Victoria (TfV) and VicRoads. The Project was also supported by a number of submitters in response to exhibition of the EES.<sup>8</sup>

The modelling is satisfactory

47. The IAC can be satisfied that the transport modelling undertaken is robust and comprehensive. Significantly, no real doubt has been cast upon the transport modelling. In addition to the VITM modelling, microsimulation (SIDRA) modelling was undertaken with respect to a number of intersections. It was the evidence of Mr Kelly that this further modelling showed a number of intersections performing better than was originally identified in the VITM results.
48. While Dr Stone and RAMF sought to criticise the use of VITM as inappropriate to calculate travel time savings, this was not put to Mr Kelly. In any event, the calculation of travel time savings is only one element of the modelling process and, even if inaccurate, such inaccuracy would not invalidate the broader modelling results which indicate that, in the absence of the Project, roads throughout the Project area and surrounds will continue to experience significant traffic growth.

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<sup>8</sup> See for example submissions numbers 16, 35, 45, 48, 51, 55, 61, 65, 78, 95 and 105.

49. RAMF also sought to argue that the disparity between observed traffic counts for 2016 on various roads and VITM modelling for 2016 indicated that the modelling was inaccurate. It is true that WSP undertook modelling of 2016, but it is important to understand the context in which this occurred which is summarised in Appendix A to Appendix A to the EES. It states:

*Project modelling required for the traffic impact assessment and economic appraisal was completed using the Victorian Integrated Transport Model (VITM) for three future years (i.e. 2021, 2031 and 2051).*

*A series of validation checks helped ensure that the version of VITM received from Transport for Victoria (TfV) was suitable for assessing the proposed Mordialloc Bypass project. These included reviewing the original model's validation using data from 2011, and comparing with 2016-modelled and observed project area traffic volumes for individual count locations, screenlines and travel times. The model was found to be suitable for assessing the project, as it met all the measures specified in the VicRoads strategic modelling guidelines.<sup>9</sup>*

50. That is, the purpose of the 2016 modelling was to calibrate the VITM modelling for the relevant years, rather than for predictive purposes. As set out in detail in Appendix A to Appendix A to Appendix A to the EES, the calibration process ensured the model was compliant with the VicRoads *Transport Modelling Guidelines*.<sup>10</sup>

### Benefits of the Project

51. The results of the transport modelling indicate the Project will increase efficiency and capacity both within the new road alignment and within the existing road network, accounting for induced demand. Key benefits identified through the modelling and summarised in the EES<sup>11</sup> and Mr Kelly's presentation<sup>12</sup> show:
- (a) Improvements to east-west and north-south connectivity and capacity, with the new bypass to attract a large amount of freight, significantly reducing freight movements from many adjacent roads, particularly parts of Boundary and Westall roads;
  - (b) Route travel time savings of up to 10.6 minutes;

<sup>9</sup> Transport Impact Assessment, Appendix A, p. iv.

<sup>10</sup> Transport Impact Assessment, Appendix A to Appendix A, pp. A-5 to A-13.

<sup>11</sup> EES, Chapter 8, p 8-1.

<sup>12</sup> Document 17, Mr Kelly's presentation.

- (c) Reduced traffic and congestion on many existing arterial roads which will improve connectivity;
  - (d) A significant reduction in daily traffic volume on surrounding roads, with substantial improvements to parts of Wells and Boundary roads;
  - (e) Improved safety by reducing the risk of collisions, evidence showing the risk of crashes is much lower on freeways.
52. These benefits are significant in the context of the Scoping Requirements for transport and support a finding that the Project will improve travel efficiency, road safety and network capacity.
53. While some of these benefits may erode over time due to continued traffic growth associated with an ongoing population growth, some of the benefits are likely to be permanent. In particular,
- (a) First, there will be a permanent increase in capacity across the relevant part of the transport network. This additional capacity means that, even if travel time savings reduce to zero over time, there would still be more trips occurring over the network as a whole as compared to the same period for the 'no project' scenario. It should also be observed that the additional capacity provides additional resilience – at present, a major accident on Boundary or Springvale Road would likely force traffic onto the remaining roads. With the Project in place, there would be an additional route to be utilised in such a scenario.
  - (b) Second, it is likely that the Project will continue to be a preferred route for freight and through traffic due to the absence of intersections, which means that traffic will generally flow more freely.
  - (c) Third, it is likely that the safety benefits of the Project will be ongoing, as these benefits arise from the absence of intersections and the reduced potential for collisions.
54. The removal of freight from local road networks is likely to enhance the amenity of existing areas relative to the existing and 'no project' scenarios as freight vehicles are typically louder and have greater emissions than private cars.

### Concerns regarding impacts elsewhere in the road network

55. A number of submitters raised impacts of the Project upon other parts of the road network, including South Road, Governor Road, Centre Dandenong Road and Tootal Road, which are predicted to experience a growth in traffic volumes relative to the 'no project' scenario.<sup>13</sup>
56. It is not a requirement, nor is it realistic to expect, that the Project will reduce traffic volumes on all roads in and adjacent to the Project area. Having said that, Table 8.6 of the Transport Impact Assessment shows that, leaving aside the Project itself, the Project is expected to result in a net reduction of 44,300 in daily two-way traffic volumes on the key roads identified in that Table.<sup>14</sup>
57. Further, it should be kept in mind that increased vehicle numbers and increased heavy freight movements are not an inherently negative outcomes. Such increases are consistent with the demand for increased access to the industrial and commercial precincts to the west, including the Moorabbin Airport and for increased access to the CBD by commuters. Such capacity building serves an essential role in meeting the demands of our growing city, as identified by TfV and Mr Barlow.

### The Project alignment

58. The IAC should find that the Project alignment provides a suitable connection between the Dingley Bypass and Mornington Peninsula Freeway as sought by the Transport Evaluation Objective.
59. No plausible alternative alignment has been identified. Any alternative alignment is equally, if not more, likely to entail a variety of significant impacts while being significantly more costly due to the need to acquire land for the Project, which itself causes social and economic impacts such as the displacement of families and businesses.
60. Development of the current alignment represents an appropriate and efficient use of the land owned by VicRoads and subject to the PAO and which will serve the needs both of the immediate local communities and Melbourne's greater vision with respect to freight, bicycle and vehicle movements.

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<sup>13</sup> Transport Impact Assessment, Table 8.6, pp. 77 – 79.

<sup>14</sup> Id.

61. One of the factors that makes the alignment an appropriate choice is that the land use consequences of the Project have, to an extent, already been factored into planning decision-making for the area.
62. Mr Barlow gave evidence that there has been substantial industrial, commercial and residential development in anticipation of the freeway. Commercial, and in particular industrial areas, have built up along the western side of the alignment, reflecting the reality of the proposed freeway and creating a need for improved road services and capacity to serve the needs of these businesses.
63. Residential areas have responded in different ways. For example, Dingley Village has grown in response to the freeway, but has done so in a different way to Waterways Estate. Dingley Village has turned its back to the freeway reservation, whilst the Waterways Estate has been setback from the reservation and created wetlands with substantial planting (not housing) within the area of the PAO.
64. By utilising the area of the existing PAO and land owned by VicRoads, the Project has avoided the need to acquire any residential houses and substantially reduced its impacts upon local business and industry.

#### Active transport

65. The Project includes a significant active transport component in the form of the proposed Shared User Path ('SUP') for the length of the Project. The delivery of this SUP is consistent with various State and local policies aimed at facilitating active transport throughout Melbourne.

#### Public transport

66. The Project includes public transport components in the form of the bus priority lanes at key interchanges. The delivery of these bus priority lanes is consistent with State and local policies aimed at facilitating improved public transport services throughout Melbourne.

#### Recommended Design Changes

67. Mr Kelly made the following recommendations for design changes to the Project:
  - (a) The inclusion of an auxiliary lane between Springvale Road and Thames Promenade;

- (b) Changes to the Thames Promenade/Wells Road roundabout to provide for a signalised intersection;
  - (c) The provision of a pedestrian/bicycle crossing at the north-east slip lane on Springvale Road to provide for a safe connection to Soden Road.
68. Mr Kelly also recommended that consideration should be given to the Woodlands Drive Alternative Arrangement.
69. MRPV submits that the IAC should find that each of these is a feasible modification to the Project which will assist in delivering better overall outcomes.

#### Woodlands Drive Alternative Arrangement

70. The IAC heard a number of submissions and evidence from Mr Kelly regarding access arrangements impacting Woodlands Drive. Mr Kelly prepared a memorandum setting out the four options under consideration.<sup>15</sup>
71. The IAC should recommend, consistent with the evidence of Mr Kelly in his memorandum, that Alternative Option Two is the preferred option that should be recommended to be implemented subject to detailed design. In particular, this option:
- (a) resolves the concerns raised by a number of submitters who sought to retain the existing access arrangements at Tarnard Drive and Woodlands Drive;
  - (b) indicates there will be no need to acquire any property at 21-27 Woodlands Drive;
  - (c) is a minor refinement to Alternative Option One, which was supported by all of the experts called by MRPV.

#### Other issues

72. It was Mr Kelly's evidence that South Road is already experiencing congestion and the improvements announced by the Government should be recommended to be implemented as soon as reasonably practicable. As South Road is outside the Project area and is the subject of a separate commitment by the Government, MRPV submits no change to this Project is required in response to submitters' concerns about the increase in traffic volume anticipated for South Road.

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<sup>15</sup> Memorandum of Mr Peter Kelly dated 13 March 2019, entitled EES – Alternative Lower Dandenong Road / Mordialloc Bypass Freeway Interchange Arrangements.

73. Mr Kelly did not support a grade separated interchange at the Dingley Bypass, given the substantial cost and construction difficulties it presented. Further, SIDRA assessment indicated the performance of a signalised intersection was sufficient to cater for the 2031 anticipated demand. On the evidence, there is no basis to recommend that a grade separated interchange be included at this location as part of this Project.
74. Mr Kelly did not support a six lane freeway, as it would result in bottlenecks on the four lane Mornington Peninsula Freeway and because the four lane preferred option meets the anticipated demand for 2031. The Project has, however, been designed to facilitate a six lane upgrade, which would be subject to a separate approvals process at a later time.

#### Construction impacts

75. Whilst construction of the Project will have an impact upon the transport networks, these are appropriately addressed through the EPRs, which include the requirement for a Transport Management Plan (EPR T2) and the replacement of vehicle and pedestrian access as soon as practicable (EPR T3).
76. Mr Kelly gave evidence that the truck fleet required for the construction of the Project could be spread over the local arterial road network, reducing the burden on any particular road and avoiding the need to use local roads for truck transport.

#### *Noise and Vibration*

77. The IAC should find that:
- (a) The noise and vibration impact assessment appropriately identifies and quantifies the likely noise impacts from the Project;
  - (b) Subject to the application of the EPRs, the construction noise impacts from the Project will be acceptable;
  - (c) Subject to the proposed mitigation measures and EPRs, the operational noise impacts from the Project will be acceptable;
  - (d) The PONL noise limits are appropriate; and
  - (e) No additional PONLs are required.

Accuracy of the modelling

78. The IAC received evidence from Mr Dowsett on behalf of MRPV regarding the noise modelling that had been conducted. Mr Leo on behalf of Council, agreed that the modelling, at least to the extent that it depicted predicted noise levels at ground level, was accurate.
79. As such, the IAC should find that the noise modelling provides an appropriate basis upon which to assess the noise impacts of the Project.

Construction noise and vibration

80. It was not disputed between the experts that construction noise and vibration could be managed to achieve acceptable impacts.
81. Mr Leo did recommend a number of changes to the EPRs to address construction noise and vibration impacts. As Mr Dowsett observed, a number of the suggested changes simply set out detailed standards and guidelines that would otherwise be required to be specified through EPR NV2, which requires a Construction Noise and Vibration Management Plan ('CNVMP') to be prepared in consultation with EPA Victoria. As such, MRPV submits that the recommended changes are unnecessary.
82. In the context of a project such as this, which is subject to mandatory auditing requirements, the imposition of redundant EPRs can impose real and unnecessary costs. This was the evidence of Mr Dowsett who has experience as part of the Independent Reviewer and Environmental Auditor on the WGT project. Moreover, the overheads imposed by unnecessary auditing requirements will inevitably be more significant in a \$375m project such as this than in the context of a \$6.7bn project such as WGT.
83. Even leaving aside the respective costs of the projects, it may be observed that this Project is, from a noise and vibration perspective, a lower risk project than the WGT. As Mr Kollmorgen observed, the intent is to avoid nightworks as far as possible, with only bridge lifts proposed to occur at night time, and there is no underground tunnel component.
84. MRPV does not accept Mr Leo's recommendation that construction noise targets for sensitive land uses be based on Australian Standard 2107. That Standard is expressly not intended for construction noise targets. At clause 2.2 Limitations, it states:

*This Standard is not intended for—*

(b) application to sounds which are not categorized as steady-state or quasi-steady-state;

(c) either the assessment or prescription of acceptable recommended noise levels from transient or variable noises outside the building such as—

(ii) construction noise

85. MRPV submits that, having regard to the particular circumstances of the Project, the proposed EPRs provide an appropriate level of guidance that will enable the Project, in consultation with EPA, to achieve acceptable construction noise outcomes.

### Project Operational Noise Limits

86. It was not disputed between Mr Dowsett and Mr Leo that, for the majority of residential receivers (those currently experienced noise levels of 50 dBA L<sub>10, 18hr</sub> or more), the PONL of 63 dBA L<sub>10, 18hr</sub> was appropriate. These levels are consistent with VicRoads *Traffic Noise Reduction Policy* ('TNRP').

### *The status of the TNRP*

87. During the hearing, there was discussion about whether the TNRP is a policy or a standard for the purposes of the evaluation objectives. MRPV acknowledges that, unlike for example a State Environment Protection Policy made under the *Environment Protection Act 1970*, the TNRP is not a standard mandated by legislation. Notwithstanding this, MRPV considers that the TNRP represents a *de facto* standard and an applicable policy.
88. The Scoping Requirements require design and mitigation measures to avoid, reduce and/or manage any significant effects for sensitive receptors during the Project operation arising from noise in the context of '*applicable policy and standards*'.
89. The Macquarie Diction definition of 'standard' includes:
- A level of quality which is regarded as normal, adequate or acceptable.*  
(emphasis added)
90. It is this definition that best describes the way in which the TNRP operates for the purpose of assessment of the Project against the Scoping Requirements: regardless of its legal status, the TNRP is the applicable government policy that has come to be utilised for the evaluation of the acceptability of noise impacts from major new road projects in Victoria.

Indeed, it is apparent that Mr Leo regarded the TNRP as an appropriate standard against which to assess the noise impacts of the Project.

91. The noise levels specified in the TNRP have also been adopted in other recent major road projects which have undergone detailed assessment by bodies similar to the IAC, being East West Link and WGT projects. Notably, in both cases, the Minister for Planning rejected recommendations from the assessing body to adopt more stringent noise limits than those contained in the TNRP. In the Minister's assessment for the WGT project, the Minister observed that the TNRP "*represents the State's current formal policy position on traffic noise.*"<sup>16</sup>

#### *Background +12dBA*

92. Council seeks an amendment to NV1 to apply a PONL of +12dBA  $L_{10,18\text{ Hr}}$  for dwellings where existing noise levels are less than 50dBA  $L_{10,18\text{ Hr}}$ . It relies on the evidence of Mr Leo. MRPV does not support the proposed amendment. The TNRP states only that 'consideration will be given' to the application of the +12 dBA limit, it does not require that it be applied. In this case, MRPV did consider the application of such a limit and concluded that it should not apply the limit. The reasons are set out at 3.2.2 (p8) of Appendix E to the EES:

*MRPA have determined that a PONL of 63 dBA  $L_{10,18\text{ Hr}}$  will be adopted for all receivers where existing levels are below 50 dBA  $L_{10,18\text{ Hr}}$  based on the following:*

- *Targets established on previous freeways and arterial roads projects completed in the Greater Melbourne region*
- *Consideration to the level of acoustic improvement that is likely to be achieved with the adoption of this criterion*
- *Potential costs, visual and aesthetic impacts to the project and surrounding environment with the adoption of this criteria based on indicative noise barrier heights and extents required to achieve this criterion.*

93. Mr Dowsett gave evidence that as part of the noise impact assessment, there was an assessment of the noise barriers that would be required to achieve the background +12dBA

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<sup>16</sup> Minister for Planning, *West Gate Tunnel Project: Assessment under the Environmental Effects Act 1978*, p. v.

level.<sup>17</sup> It can be seen that an increase in noise wall heights of up to 4.5m would be required.<sup>18</sup>

94. Mr Leo sought to bolster his argument by reference to the terms of Road Design Note 06-01: *Interpretation and Application of the VicRoads Traffic Noise Reduction Policy 2005* ('the RDN'), which provides additional guidance on the interpretation and application of the TNRP. While the RDN does set out a standard approach to be followed in the evaluation of the practicability and feasibility of noise mitigation treatments, it expressly reserves to VicRoads (and by extension MRPV) 'the right to apply the Policy in a fair and appropriate manner and determine the most suitable noise attenuation solution'<sup>19</sup> in any particular case.
95. MRPV regards the application of a consistent noise limit of 63 dBA along the entire alignment for the new road as the fairest outcome. This is particularly so where, on a strict application of the TNRP and the RDN, residences along the Project alignment would be unlikely to be eligible for noise mitigation:
- (a) Clause 3 of the TNRP sets out a number of exemptions to the TNRP where noise attenuation will not ordinarily be provided.
  - (b) Relevantly, one of these is where residential development likely to be affected by road noise occurs after the road is reserved. The RDN provides an example of this:

*Exception 3 - new buildings or subdivisions abutting any road zone shown on any planning scheme for a new road or a road widening.*

*A variation on Exception 2, an example of this exception is a nursing home constructed in 1990 abutting a road reserve set aside for the Scoresby Freeway in the 1970's. This property would be exempt from consideration for noise attenuation under the Policy as the property owners could have been reasonably expected to be aware of the potential for future traffic noise impacts at the time of making the decision to build the nursing home<sup>20</sup>*

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<sup>17</sup> See the maps at Appendix F to Appendix E, which depict the wall heights and extents necessary to achieve a PONL of background +12dBA.

<sup>18</sup> Document 19, which provides in a readily accessible form a comparison of the information in Appendix E and Appendix F to Appendix F.

<sup>19</sup> VicRoads, *Interpretation and Application of VicRoads Traffic Noise Reduction Policy 2005* (2006), p. 4.

<sup>20</sup> *Ibid*, p. 7.

96. It is also relevant to observe that MRPV is unaware of any instance where the +12dBA criterion has been applied in an urban, as opposed to rural, context.
97. The IAC should find that a mandatory PONL of background +12dBA for dwellings with existing noise levels below 50dBA is unwarranted given:
- (a) Noise wall increases of up to 4.5m will be required;
  - (b) The increased wall heights would have visual impacts and increase overshadowing and would contribute to a further sense of confinement along sections of the SUP;
  - (c) there would be significant cost and structural requirements to providing the additional noise walls;
  - (d) it is clear that much of the area is, and in the future will be increasingly, affected by noise impacts from the Moorabbin Airport;<sup>21</sup>
  - (e) the difference between the PONLs as sought by Council and those supported by MRPV only changes the final result by 1-4 dBA (i.e. an increase of up to 12dBA compared to an increase of up to 16dBA), with increases of 3 dBA typically being regarded as imperceptible;<sup>22</sup> and
  - (f) The fairest overall outcome is to provide an equal level of noise protection to all members of the community along the Project alignment.

#### *An open space PONL*

98. As set out in the Recommended Changes to the Project and required by amended EPR B1, MRPV proposes to install MFBs along the interface between the Project and Braeside Park.<sup>23</sup>
99. The height of the proposed MFBs is consistent with modelling prepared at the IAC's request regarding the height of acoustic fencing that would be required to achieve 63 dBA L<sub>10, 18hr</sub> along Howard Road Trail in Braeside Park and 60 dBA L<sub>10, 18hr</sub> in the Woodlands and Braeside Park wetlands. Attainment of these levels is consistent with the open space PONLs proposed by Mr Leo.

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<sup>21</sup> See document 38, noise contour maps from the Moorabbin Airport Master Plan 2015.

<sup>22</sup> See Appendix E at 5.3. Of the 12 locations monitored for existing noise levels, 3 were 49dBA and 2 were 48dBA. The remainder were 50dBA or greater.

<sup>23</sup> Specifically, the MFBs will be installed as close to the carriageway as possible to maximise effectiveness.

100. As can be seen from the noise contour maps, noise impacts to Chadwick Reserve are already reduced to acceptable levels due to the noise walls required to ensure nearby dwellings achieve the PONLs.
101. Considerations relating to noise impacts on fauna are discussed in more detail in the Biodiversity section, but it is convenient to note that the proposed MFBs would ensure that noise levels with the Woodlands and Braeside Park Wetlands – being those wetlands identified as providing the best habitat for species of concern – would be held to 60 dBA  $L_{10, 18hr}$ .
102. Given that the installation of the MFBs mandated by EPR B1 will achieve the PONL proposed by Mr Leo, the IAC should find that the imposition of a separate PONL for open space is unnecessary.

Receiver heights for assessing compliance with the PONLs

103. The evidence of both Mr Dowsett and Mr Leo is that the traffic noise modelling was conducted consistently with VicRoads guidance, and in particular the RDN, which requires the receptor point for modelling measurements to be undertaken at the lowest habitable level of the building, with the aim being to achieve acceptable outdoor levels (63 to 68 dBA).
104. The RDN states that this requirement arises:
- due to ease of measurement, and because noise is generally louder at the lower level. Also, the 63 db(A) level is aimed at achieving acceptable outdoor levels, which generally occurs at ground level.*<sup>24</sup>
105. Mr Leo's recommended that the EPRs should be amended to include a requirement that the PONLs specified in NV1 should be met at all habitable levels of a sensitive receiver. This recommendation was based on the recommendations of the WGT IAC. As Mr Leo acknowledged in cross-examination, however, that:
- (a) The Minister had rejected the recommendation in his assessment of the WGT; and
  - (b) The urban context in which WGT was being delivered was significantly different from that in the present case:

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<sup>24</sup> VicRoads, *Interpretation and Application of VicRoads Traffic Noise Reduction Policy 2005* (2006), p. 6.

- (i) The RDN identifies one of the objectives of the 63 dBA level as being to achieve 'acceptable outdoor levels' of amenity;
- (ii) Mr Leo conceded that, along the Project alignment, private open space was typically not provided above ground level;
- (iii) By contrast, in the WGT project context, the question of assessment at floors above ground arose in the context of increasing multistorey development in West Melbourne, which developments typically rely on balconies for their private (as opposed to communal) open space.

106. Mr Dowsett did not support this approach. His evidence was that it would be difficult to monitor due to access difficulties and that, if the requirement was imposed, significant increases in noise wall heights were likely to be necessary for compliance.

107. No evidence has been provided to the IAC which would enable it to assess the impacts that of adopting this requirement. Indeed, in cross-examination, Mr Leo acknowledged that he was not in a position to say that the costs would necessarily exceed the benefits. This is especially so if height increases were required in areas of particular visual sensitivity as identified by the landscape and urban design experts.

108. Accordingly, the IAC should not recommend the adoption of the proposed requirement.

*Biodiversity*

109. The IAC should find:

- (a) The Project will not have any impact or cumulative effect on fauna or flora at the Edithvale Wetlands;
- (b) Impacts upon biodiversity have been minimised by ensuring water quality and flow to nearby wetlands is unlikely to be affected;
- (c) The landscaping and urban design plans have been developed in consideration of potential impacts upon biodiversity;
- (d) The EPRs establish a suitable framework for the management of impacts upon biodiversity;
- (e) The multifunction fauna barriers ('MFB') will limit the impacts of noise, light and motor vehicle collisions upon avifauna using the valuable habitat at the Braeside and Woodlands wetlands;
- (f) The fauna culverts will ensure fauna connectivity is appropriately maintained;
- (g) There is unlikely to be a significant direct or indirect impact upon any of the listed species identified as potentially present if the MRPVs proposed EPRs are applied and implemented.

Key Issues

110. The IAC heard evidence from four ecology experts called on behalf of MRPV and two called on behalf of Council.

111. The experts were in agreement that the Project will not have a direct impact upon the Edithvale Wetlands.

112. All experts agreed that the Project would have an impact upon flora and fauna, including habitat. The experts also agreed the impacts could be managed to ensure an acceptable outcome is achieved. The key issues in dispute relate to:

- (a) the information in the impact assessment;
- (b) impacts on biodiversity arising during construction, including reestablishment of wetlands;

- (c) the design of the culverts and effectiveness in maintaining connectivity, including whether it is necessary to maintain fish connectivity;
- (d) the design of the multifunction fauna barriers, particularly regarding the appropriate location and height of the barriers to minimise impacts on birdlife from noise and vehicle collision risk; and
- (e) whether the fauna fencing in the northern section of Braeside Park should be constructed from wire mesh or a solid, opaque material.

### The impact assessment

113. The IAC should find that the Flora and Fauna Impact Assessment ('**FFIA**') provides an appropriate basis for decision-making.
114. In addition to desktop survey work, which is a necessary first step in any flora and fauna assessment, considerable survey work has been undertaken in preparing for the Project. This work is conveniently summarised in Table 3.7 of the FFIA<sup>25</sup> and included:
- (a) Flora and fauna surveys, including targeted surveys for particular species, carried out by Biosis in April 2013 and in November – December 2014;
  - (b) A preliminary flora and fauna assessment carried out by WSP in January – May 2017;
  - (c) Additional survey work carried out by WSP between November 2017 – March 2018; and
  - (d) Targeted flora surveys carried out between January and May 2017 and supplemented by further survey work in November and December 2017 to ensure surveys were undertaken during appropriate seasons for targeted species.
115. Mr Loyn was generally positive about the FFIA, noting that it had 'major positive features' and did a 'good job' of identifying risks during construction and operation.<sup>26</sup> While he did suggest it would have been preferable if there had been more contact with local observers, he did not suggest that this invalidated the results of the FFIA. As Mr Loyn noted, birds can be thought of as groups where mitigation methods that are effective for one member of the group are likely to be effective for others.<sup>27</sup> In this context, none of the material before

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<sup>25</sup> Flora and Fauna Impact Assessment, pp. 23 – 25.

<sup>26</sup> Loyn, [3.1].

<sup>27</sup> Loyn, [3.4.7].

the IAC identifies any additional species as being present which would result in the application of new or modified mitigation methods beyond those already proposed.

116. While Mr Lloyd offered a number of criticisms of the FFIA, it is apparent that a number of his concerns were based on not having reviewed the full suite of material relevant to management of flora and fauna impacts and in particular the mitigation measures which were proposed. Relevantly:
- (a) Mr Lloyd stated in his evidence in chief that the appointment of an Independent Environmental Auditor ('IEA') would go a long way to addressing his concerns. However, the EES always contemplated the appointment of an IEA and Mr Lloyd acknowledged in evidence that he was not aware of this;
  - (b) While Mr Lloyd's written evidence was that the proposed mitigation measures would be ineffective, he conceded in cross-examination that it would be more accurate to say that he felt that he could not comment on the likely effectiveness of the proposed mitigation measures.
  - (c) Insofar as Mr Lloyd expressed views about the risks of spills and the adequacy of spill containment measures, he acknowledged in cross-examination that he was not aware of the actual spill containment measures – in particular, the use of 20,000 litre spill containment systems - proposed; and
  - (d) Similarly, while Mr Lloyd expressed concern about the proposed re-establishment of aquatic EVCs, he acknowledged that he had not reviewed the Landscape Concept Plan.

#### Impacts arising during construction

117. The impacts during construction will be managed through the CEMP that is required by EPR EM2. The CEMP will incorporate aspects of other EPRs relevant to the construction phase.
118. MRPV submits that MRPVs Version 2 EPRs appropriately mitigate construction risks and that no further amendments to the EPRs are necessary with respect to construction impacts upon flora and fauna.
119. In relation to Council's proposed requirement for an aquatic flora and fauna ecosystem reinstatement plan, MRPV proposes to amend EPR B1 to include an express requirement

to reinstate vegetation, including wetland species, in areas of the Waterways Wetlands disturbed by the Project. EPR B5 also includes a specific obligation to re-establishment of the substrate and landform beneath Mordialloc Creek bridge following construction.

120. With respect to Mr Lloyd's concerns that turbidity and nutrients resulting from sediment run off during construction will result in water quality impacts that will have flow on effects for aquatic vegetation and fauna, there are no grounds for concluding that the sediment impacts cannot be suitably managed to avoid unreasonable impacts.
121. EPR W3 specifically requires the application of best practice sedimentation and pollution control during construction. Following construction, pollution impacts will be managed through stormwater control and spill containment in accordance with EPR W1.
122. MRPV tabled technical notes that detail predicted construction techniques to be used in the Waterways wetlands and Mordialloc Creek area. The IAC will see that it proposes to limit the area which will experience sediment changes, and that floating berms, sediment curtains and sediment fences will be installed to achieve this. Contamination risks associated with acid sulphate soil ('ASS') will be managed by minimising the need for excavation and, where excavation is required, utilising an approved ASS Management Plan required under EPR CL2.
123. While it is possible that there may be short term impacts arising from construction, there is no evidence before the IAC that this would result in concerning or ongoing impacts. It was Mr Lloyd's evidence that he anticipates there will be a significant recovery of the Waterways Wetlands within 2 years following construction, with a full recovery likely within 5 to 10 years.
124. The IAC should find that the construction impacts upon flora and fauna affected by the Project during construction will be appropriately managed and minimised.

#### Multifunction Fauna Barriers

125. A key risk to fauna in and around the Project alignment is the risk of wildlife-vehicle collision ('WVC'). It is proposed that this risk can be appropriately addressed through the use of Multifunction Fauna Barriers. The MFBs are 'multifunctional' in that they:
  - (a) Establish a barrier to terrestrial fauna, minimising the risk of such fauna crossing the road pavement and risking collision with motor vehicles;

- (b) Operate as a flight diverter to encourage avifauna (birds) to fly higher and, in doing so, avoid collisions with vehicles using the Project; and
  - (c) Prevent light spill from vehicle headlights.
126. In addition, if (as is now required by EPR B1) the MFB is constructed to an appropriate standard, it will operate as an acoustic barrier, reducing noise impacts along its length. The issue of noise impacts on birds is discussed further below.
127. There was no dispute between the relevant experts regarding the effectiveness of the MFBs in preventing WVC risks for terrestrial fauna (e.g. echidnas) and for managing light spill from headlights. MRPV acknowledges that there is less research on the effectiveness of MFBs as flight diverters, but notes that no alternative has been identified and all relevant experts supported the use of MFBs subject to refinement at detailed design.
128. In terms of the overall height of the MFBs, MRPV has nominated its preferred heights for MFBs adjacent to important habitat areas in EPR B1. Consistent with the evidence of the ecologists, and particularly Mr Loyn, MRPV's proposed EPR B1 allows for the refinement of the MFB heights to optimise the effectiveness of the MFBs as flight diverters, subject to not compromising their effectiveness for their other intended purposes.
129. In relation to the Council's proposed amendment requiring 'detailed research' to determine the optimal height of the barriers, MRPV considers that this requirement is too vague and open-ended and goes beyond what was contemplated by Mr Loyn's written evidence, which referred to consultation during detailed design as proposed by MRPV's EPR B1. It is unclear as to what is meant by 'detailed' research, what kind of timeframe is contemplated for this research and whether, if undertaken, it would yield any sort of concrete and usable result beyond what is already known.
130. The IAC heard evidence from a number of very experienced specialist ornithologists and from Dr van der Ree, a fauna road mitigation expert, and the IAC should find that the proposed MFBs are fit for purpose and appropriate to mitigate the risks of the Project to fauna, including for listed threatened species and listed migratory birds, subject to detailed design refinement as proposed in MRPV's EPR B1.
131. It is proposed that all MFBs will be solid and opaque. This is consistent with Dr van der Ree's expressed preferences and was supported by the Landscape and Urban Design experts who considered that it would provide visual relief for park users. The precise

materiality (including visual treatment) of the MFBs would be resolved during detailed design in consultation with specialist ecologists in accordance with MRPV's EPR B1.

### Noise impacts on birds

132. All of the ecology experts agreed there was potential for birds to be impacted by traffic noise, with greatest concern being directed to the areas of greatest habitat significance for the birds and for listed migratory and listed threatened species in particular, namely the Woodlands wetlands and Braeside Park wetlands.
133. The impact assessment for the EES contained a detailed discussion of noise impacts upon birds and the use of the proposed MFBs to limit noise impacts.<sup>28</sup> This will be done by constructing the MFBs to have acoustic attenuation properties as now proposed in EPR B1.
134. In evidence, there was substantial discussion of the CalTrans Report, which nominates 60dBA (although it does not expressly specify an averaging period) as a guideline value where the masking effect is likely to be experienced, noting that there will be variation across bird species and that the limit is likely to be conservative.<sup>29</sup>
135. In addition to the CalTrans Report, both Mr McCaffrey and Mr Richardson, in preparing the FFIA, and Mr Smales in preparing his evidence, undertook literature reviews to seek to determine an appropriate noise level to manage impacts on birds.
136. Ultimately, what is apparent from the evidence before the IAC is that there is not a specific standard that is to be applied in relation to noise mitigation for birdlife.
137. The evidence before the IAC is that the Braeside and Woodlands wetlands are of the greatest value as habitat for threatened species. At the IAC's request, Mr Dowsett prepared additional noise modelling to show the heights for the MFBs required to achieve a noise reduction to 60dBA<sub>L10, 18hr</sub> for these areas. The MFB heights nominated in the MRPV's EPR B1 are sufficient to achieve these levels and should be supported by the IAC.
138. For the Waterways Wetlands and Mordialloc Creek areas, MRPV's EPR B1 now specifies proposed heights of MFBs based on the Project reference design contained in the EES. An increase in heights of the MFB is not proposed for Waterways wetlands to achieve guideline noise levels in these areas as the evidence was that these area are not of the same

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<sup>28</sup> See Flora and Fauna Impact Assessment at 6.1.4.2 and 7.4.1.2.

<sup>29</sup> See pages 7, 16 (footnote 9) and Appendix G to the CalTrans Report: *Technical Guidance for Assessment and Mitigation of the Effects of Highway and Road Construction Noise on Birds* California Department of Transportation Division of Environmental Analysis, June 2016.

significance in terms of habitat to threatened species and migratory birds, due to the areas of open water. Nor, unlike Braeside and Woodlands wetlands, is it identified as a key biodiversity area.<sup>30</sup>

139. MRPV submits the proposed MFBs set out in EPR B1 strikes the appropriate balance between visual impact (in an area of very high sensitivity under the landscape character assessment) and mitigation of noise to wetlands.

#### Culvert design for fauna use

140. As Dr van der Ree identified in evidence, while MFBs are effective in avoiding WVC for terrestrial fauna, they have connectivity impacts for those fauna. As a result, the Project proposes a combination of MFBs and fauna culverts to minimise WVC while maintain a reasonable degree of connectivity between habitat on both sides of the Project. Dr van der Ree's evidence was that such culverts were widely used for a broad range of terrestrial fauna and were effective in maintaining connectivity.
141. Mr Lloyd raised a general concern that inadequate attention had been given to fish connectivity, but did not identify any particular areas in which he considered additional or alternative mitigation was warranted.
142. To the extent specific concerns were raised about culverts acting as a 'traps' for wildlife, the evidence of Dr van der Ree was that studies have shown that this does not occur on a systematic basis, although it may occur opportunistically when predator and prey species utilise the culvert simultaneously. In this regard, however, the situation is not markedly different from any situation where predator and prey encounter each other and the associated risk is reasonably considered to be low.

#### Habitat at the Waterways Wetlands and Mordialloc Creek

143. Mr Smales' evidence was that the area of highest value to significant birds are the complex shallow water of Braeside Park and Woodlands Wetlands. His evidence was that the large open water of much of Waterways Wetlands and Mordialloc Creek was of less value to the significant bird species. Council's submissions likewise focussed on the importance of the two northern wetlands.
144. Nonetheless, impacts upon habitat and connectivity in the Waterways Wetlands and Mordialloc Creek are to be minimised through a number of techniques, including:

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<sup>30</sup> See Figure 10.2, Chapter 10, EES.

- (a) The new freeway will use a raised bridge structure instead of embankments to cross the Waterways Wetlands and Mordialloc Creek, thereby maintaining water flows, minimising impact to habitat and allowing for bird life to pass under the bridge;
- (b) Fauna culverts and MFBs are proposed, as discussed above;
- (c) Construction techniques for the bridge have been selected to keep the footprint for construction in this section to a minimum and to minimise increases to sediment levels; and
- (d) Areas impacted by construction will be replanted with appropriate indigenous species, including shade tolerant species where required – Mr McCaffrey gave evidence that he anticipates replanting to be successful on the basis of his experience with other Projects and by virtue of the fact that Waterways itself is a reconstructed wetland in an area that more recently was covered in paddocks. This is not a situation in which the IAC is left guessing, it can be confident the replanting is likely to be successful in this area just as it was when the wetland was constructed.

*Surface Water*

145. The IAC should find that, provided the EPRs are applied, the Project will not materially impact on the surface water environment and, in particular:
- (a) no adverse impacts upon surface water quality given the stormwater treatment and spill containment mitigation measures proposed;
  - (b) minimal impacts on flow regime; and
  - (c) no change in peak flood level and velocity up to 1% AEP and no increase in flood hazard or floodplain storage subject to three exceptions.
146. Of those three exceptions, only one cannot be fully mitigated by modifications that will be incorporated at the detailed design stage. The one issue that remains is that under the climate change scenario modelling, if a 100 year flood occurred at the same time as a 100 year surge tide, there is currently afflux of up to 27mm anticipated for parts of Braeside.<sup>31</sup> Mr Leslie's evidence is that this can be further mitigated. The evidence of Mr Loyn is that short term flooding (such as would occur if this rare events coincided) would be of benefit,

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<sup>31</sup> See 4.3 of Appendix C to the Witness Statement of Mr Leslie.

not detriment, to the wetlands birds. Council did not have any remaining concerns regarding flood impacts.

147. Council seeks amendment to EPR W2 to identify three specific parts of the Project area that will be subject to further work at the detailed design phase to minimise surface water impacts. MRPV acknowledges that detailed design is required to further optimise the Project to avoid surface water impacts at these three locations. As presently proposed, EPR W2 requires changes to flood behaviour to meet Melbourne Water's guidelines, to the satisfaction of Melbourne Water. This is appropriate and it is unnecessary to identify specific parts of the Project area in EPR W2 as proposed by Council as these matters will be addressed in detailed design in any event.
148. The evidence of Mr Prout and Mr Clemson on behalf of a private landowner did not call into doubt the accuracy of the modelling methods. This evidence was not of any concern to either Mr Warwick or Mr Leslie.
149. The IAC should find that it is appropriate that the updated land survey details will be incorporated into the modelling for the detailed design phase and that no unacceptable impact is anticipated as a result of the information that has been provided.
150. Finally, the EPA and Melbourne Water are to have significant further input into this Project through the EPRs and through their statutory and legislative obligations. This will ensure the appropriate consultation is undertaken. As explained in chapter 23, which outlines the EMF framework, the EMF provides a transparent and integrated governance for managing the environmental effects of the Project in the context of applicable environmental laws and statutory approvals required for the Project. Where, for example, approvals are required under the *Water Act 1989*, those approvals will be obtained consistent with the legislation and the EMF framework.
151. For these reasons, the IAC should find the impacts to surface water are acceptable.

*Groundwater and contaminated land*

152. The IAC should find that:
  - (a) The Project is unlikely to materially impact on groundwater flow or quality to any of the wetlands near the Project area, including the Edithvale Wetlands;
  - (b) The Project is unlikely to result in the mobilisation of additional contamination from the landfill at Lot 1 Grange Road;

- (c) The EPRs establish a suitable framework for the management of:
  - (i) Acid sulfate soils;
  - (ii) PFAS; and
  - (iii) Landfill gas.
- (d) The Project is unlikely to have a cumulative impact on Edithvale Wetlands.

### Groundwater impacts

153. Preliminary risk assessments for the Project identified two potential mechanisms by which the Project could impact on groundwater flow or quality. These were:

- (a) Through compression of soil by the embankment structures; and
- (b) By the mobilisation of additional contamination from the landfill(s) in the northern portion of the Project area.

154. These risks were assessed respectively in the Groundwater Impact Assessment and the Contaminated Land Impact Assessment.

### *Compression impacts on groundwater flow*

155. The IAC heard evidence from Mr Hatley, on behalf of MRPV, and Mr Smitt, on behalf of Council, in relation to groundwater impacts.

156. Mr Hatley's evidence was that WSP, on behalf of MRPV, had undertaken modelling of the likely compressive effects of proposed embankments on groundwater aquifers and that the results showed that changes in groundwater levels were negligible and would be confined to within the Project area. Using conservative assumptions,<sup>32</sup> the levels of change predicted (up to 13 cm)<sup>33</sup> were materially smaller than observed levels of naturally occurring seasonal variation, being between 0.5 and 1m.<sup>34</sup>

157. In addition to modelling proposed embankments, WSP undertook an additional modelling scenario based on an embankment height of 15m (i.e. significantly greater than the

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<sup>32</sup> Appendix A to Appendix D of Appendix K. The ground profile for the Project area consists of alternate layers of sand and clay. Changes in the permeability of the sand layers due to stress from compression was expected to be minimal. Notwithstanding this, the modelling assumed that both sand and clay layers would act like clay layers under stress. The effect of this is that the modelling assumed a higher degree of compression than is likely to occur.

<sup>33</sup> Appendix K, p. 81.

<sup>34</sup> Id.

maximum 9m height proposed in the reference design). Under this scenario, changes in groundwater levels did extend beyond the Project boundary, but the level of change beyond the boundary was between 0.05 and 0.1m.

158. These conclusions were not affected by any of the matters raised in Mr Smitt's evidence. Relevantly, Mr Smitt gave evidence that:

- (a) He had not identified any potential mechanisms by which the Project would impact on groundwater flow apart from compression;
- (b) He would not expect a long term impact from the embankments;
- (c) He was not aware of a relevant case in which an embankment had had a significant impact on groundwater levels; and
- (d) The modelling would have to be 'really quite wrong' before it would impact on the wetlands.

159. In the circumstances, the IAC can be satisfied that the Project is unlikely to have any significant impact on groundwater levels or flows. No EPR is reasonably required to manage or mitigate groundwater impacts, although EPR W5 will require groundwater monitoring in any event.

#### Mobilisation of contamination

160. The IAC heard evidence from Ms Jones, on behalf of MRPV, in relation to contaminated land management. Mr Smitt made some comment on this area, but observed that it was not his area of expertise.

161. The evidence of Ms Jones was that it was likely that the landfill at Lot 1 Grange Road was already generating leachate, as it was an unlined landfill which was largely below the water table. If, as the evidence suggests, the direction of groundwater flow is generally south, then leachate is already flowing in the groundwater south towards the wetlands regardless of any impacts of the Project. In this context, as Mr Smitt agreed, the relevant question is whether the Project would change the level of leachate generated.

162. The evidence of Ms Jones was that:

- (a) The use of a slab and driven piles for the road pavement to rest upon, through landfill site, would avoid compressing the landfill mass and expelling additional leachate; and
- (b) The use of driven piles, as proposed, could avoid the creation of preferential pathways, preventing contamination from spreading upwards.<sup>35</sup>

163. No evidence has been provided to contradict Ms Jones' position. Mr Smitt specifically disavowed any experience in contaminated land management. If Ms Jones' evidence is accepted, as it should be, then there is no identified mechanism by which additional contamination could be mobilised.

164. In relation to the concerns expressed by Mr Smitt in his written evidence regarding the need for modelling of the groundwater flow from landfill areas, Ms Jones stated that, given the Contaminated Land Impact Assessment relied on empirical data from the landfill site and surrounds, numerical modelling would not have materially assisted in managing groundwater issues relating to the landfill.

165. Groundwater monitoring (flow and quality) is expressly required by EPR W5 and, on the evidence of Ms Jones, the risk associated with the landfill is appropriately dealt with by the various CL EPRs. It is particularly relevant that EPR CL7 requires the structures that penetrate the landfill to be designed to *avoid* the creation of additional pathways for contaminants to move from leachate to surrounding groundwater. These monitoring and management requirements mean that changes to groundwater are to be avoided through design and construction methods. In addition, if a change in groundwater quality occurs, then it will be detected and managed in accordance contingencies required by the EMF.

166. MRPV's position in this respect is supported by the submission of EPA Victoria. The evidence of Ms Jones should be accepted and the IAC should find that the Project is unlikely to impact on groundwater quality.

#### Contaminated Land Management (ASS, PFAS and Landfill Gas)

167. The Contaminated Land Impact Assessment identified a number of issues that would need to be addressed along the Project alignment, including the presence of Acid and Potentially Acid Sulfate Soils and PFAS and the management of landfill gas.

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<sup>35</sup> Contaminated Land Impact Assessment, p. 58.

168. These matters are adequately addressed through the relevant CL EPRs, which were supported by the EPA in its submission. Ultimately, these are common management issues for infrastructure Projects in the Melbourne metropolitan area and there are established methods for dealing with them.
169. The evidence of Ms Jones is that a registered auditor is not required to achieve appropriate, best practice outcomes in managing the impacts of the Project on the landfill site.
170. The IAC should be satisfied that the CL EPRs adequately manage the risk relating to these issues.

#### Cumulative Impacts on Groundwater

171. Given the small changes in groundwater levels predicted to arise from the Project, there is no real risk of cumulative impacts with LXRA projects that could affect the Edithvale Wetlands. This is especially so given that the LXRA projects themselves are predicted not to affect groundwater at the Edithvale Wetlands.
172. The IAC should find that there is no risk of cumulative impacts affecting the Edithvale Wetlands.

#### *Matters of National Environmental Significance*

173. The Project was referred to the Commonwealth Minister for Environment and Energy to determine whether it was a ‘controlled action’ within the meaning of the EPBC Act. If an action is ‘controlled action’, then the carrying out of the action is prohibited unless an approval is obtained.
174. On 30 January 2018, the Minister determined that the action was a controlled action under the following provisions of the EPBC Act:
- (a) Sections 16 and 17B, relating to Ramsar wetlands;
  - (b) Sections 18 and 18A, relating to listed threatened species and communities; and
  - (c) Sections 20 and 20A, relating to listed migratory species.
175. The Edithvale Wetland is a Ramsar wetland approximately 700m south west of the Project. It is a matter of national environmental significance in its own right, as well as providing high quality habitat for listed threatened and migratory species protected under the EPBC Act.

176. For the reasons set out above in relation to Biodiversity, Surface Water, Groundwater and Contaminated Land, the IAC should find that the Project will have no impact on the Edithvale Wetlands.
177. The potential for the Project to impact listed threatened species and communities and listed migratory species was identified in the EES,<sup>36</sup> including the FFIA.<sup>37</sup> EPBC Act significant impact criteria assessments were undertaken and it was concluded that significant impacts from the Project are unlikely.<sup>38</sup>
178. Those impact assessments concluded there were potential impacts upon the following, but that the impacts were unlikely to be significant:
- (a) Two migratory shorebird: Sharp-tailed Sandpiper and Latham's Snipe;
  - (b) Three listed threatened fauna species: Australasian Bittern, Australian Painted Snipe and Curlew Sandpiper;
  - (c) One listed vulnerable species: Grey-Headed Flying Fox;
  - (d) Two listed threatened ecological communities: the Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains, and the Natural Damp Grassland of the Victorian Coastal Plains.
179. In relation to avifauna specifically, Mr Smales specifically considered whether the impacts on these species were likely to be significant and concluded that they were unlikely to be significant having regard to the Guidelines published by the Commonwealth Department of Energy and the Environment. This is consistent with the conclusions reached in the FFIA and Chapter 22 of the EES.
180. In relation to the Grey-Headed Flying Fox, there is the potential for limited foraging habitat to be impacted, but higher quality foraging habitat occurs (and remains) nearby therefore a significant impact is not anticipated.<sup>39</sup>
181. In relation to the two ecological communities, the evidence before the IAC is that both were planted as part of the creation of the Waterways Wetlands.<sup>40</sup> Within these communities were found two listed threatened flora species, the Matted Flax-Lily and Swamp Everlasting occurring, but in areas not to be impacted by the Project.<sup>41</sup>

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<sup>36</sup> Chapter 22.

<sup>37</sup> See Appendix E [to Appendix C](#), in particular Table ES1 at p. xx and section 8.1, including Table 8.1 at pp 225-236.

<sup>38</sup> Appendix G to Appendix C.

<sup>39</sup> Chapter 22, p22-27.

<sup>40</sup> Ibid p22-11.

<sup>41</sup> See Figure 22.10, p22-23.

182. The fragmentation to the Seasonal Herbaceous Wetlands is to be managed by rehabilitation and revegetation under the bridge and re-establishment of the landform and substrate under the bridge (EPR B1 and B5). Additional areas will be added to no-go zones where possible with financial incentives to the contractor to minimise vegetation losses. Impacts are unlikely to be significant.<sup>42</sup>
183. As assessed against the Guidelines, it was concluded that the small impact on these two listed ecological communities was unlikely to be significant.<sup>43</sup>
184. Accordingly, it is recommended that the IAC should find that the Project will not have a significant impact on any matters of national environmental significance provided the mitigation measures and EPRs are carried out.

#### *Air Quality*

185. The IAC should find that the Project will comply with applicable air quality standards, including for PM<sub>2.5</sub>.
186. Mr Wallis gave evidence regarding a number of features of the Project which assist in ensuring the impacts arising from changes to air quality will be acceptable.
187. Key features are:
- (a) There is a generous road reserve that enables a separation buffer of at least 25 metres between the main four lane road pavement and the nearest commercial and residential receptors. The one exception to this is the Parks Vic annex at 22m. Whilst predicted to comply with the relevant SEPP for air quality, a precautionary approach is being taken and MRPV has agreed to work with Parks Victoria to relocate the annex building, which is not heritage protected or of any heritage value;
  - (b) The 3 metre wall to be provided to the Parks Victoria building will deliver improved air quality outcomes, although – as Mr Wallis explained in evidence – the bigger the wall the better the outcomes from an air quality perspective;
  - (c) The elevation of the road where there are embankments and bridges delivers increased distance over which the air from the roadway will mix and disperse, thereby reducing the impacts upon the wetlands, commercial and residential receptors; and

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<sup>42</sup> Ibid, p22-36.

<sup>43</sup> Ibid, p22-21 and 22-22.

- (d) The landfill over which the road passes in the northern section is not close to residential properties and experienced its peak landfill gas generation around 1980 and has reduced significantly since then. Landfill gas is also addressed in the contaminated land impact assessment.
188. Consistent with the evidence of Mr Wallis, construction phase air quality impacts will be managed and mitigated through the CEMP required by EPRs EM2 and AQ2. The potential for dust impacts to affect a small number of residential and commercial receptors was identified, particularly on hot, windy days, with the CEMP to outline appropriate measures to address impacts and EPR AQ2 requiring monitoring of PM10 and compliance with the VicRoads standard.
189. During the operational phase, the modelling establishes that whilst there will be an impact upon the air quality along the road alignment for the Project, those effects quickly dissipate.
190. As a result, all residential and commercial receptors are predicted to meet the SEPP(AQM), the relevant standard for the evaluation of a new source of emissions. The IAC can also take comfort in the modelling that establishes SEPP(AAQ) will be met and that EPR AQ1 requires both standards to be met.
191. Dr Kotsirilos gave detailed evidence regarding health impacts of air quality matters and the need for new air quality standards in Australia. She did not, however, question the correctness of the air quality modelling or conclusions stated in the EES in respect of the Project's compliance with the current standards applicable in Victoria. Appropriately, Dr Kotsirilos acknowledged she was not qualified to do so.
192. Insofar as concerns have been raised about the adequacy of the standards or the manner in which they have been applied, it is relevant to note that EPA has, at all times, formed part of the Technical Reference Group for the Project, has not sought to be heard as part of this hearing and has not requested any changes to the AQ EPRs or suggested that application of any standards other than those articulated in SEPP (AQM) or SEPP (AAQ).
193. MRPV submits that the IAC should apply the relevant standards adopted by EPA and the National Environment Protection Council, whose statutory role is to regulate air emissions, for the reasons put forward by MRPV in its previous submissions. On that basis, it is respectfully submitted that the IAC should find that, subject to the application of the proposed mitigation measures, air quality impacts from the Project will be acceptable.

*Human Health*

194. The IAC has requested MRPV to address it on why no Human Health Impact Assessment was included in the EES for the Project. MRPV understands this question to be put in the context of a Human Health Impact Assessment forming part of the EES for the WGT project.
195. The scope of the assessment contained in the EES was determined by the Scoping Requirements published by the Minister for Planning. The Scoping Requirements for the Project were exhibited in draft form for public comment between 14 March 2018 and 11 April 2018. The final Scoping Requirements were issued in May 2018, following consideration of public submissions.
196. The Scoping Requirements for this Project's EES were materially different from those issued for the WGT project. Specifically:

- (a) The WGT final Scoping Requirements included the following evaluation objective:

*To minimise adverse air quality, noise and vibration effects on the health and amenity of nearby residents, local communities and road users during both construction and operation of the project.*

- (b) Under the heading 'Assessment of Likely Effects', the WGT Scoping Requirements providing that the EES should:

*Analyse risk of exceeding relevant air quality standards resulting from the project both in isolation and in addition to background levels of air pollutants and assess **implications for human health***

...

*Evaluate any improvements to air quality and noise conditions for nearby residents and local communities and **implications for human health.***

(emphasis added)

- (c) The final Scoping Requirements for the Project take a materially different and more standards based approach. The Amenity Evaluation Objective states:

*To protect the health and wellbeing of residents and local communities, and minimise effects on air quality, noise and the social amenity of the*

area, **having regard to relevant limits, targets or standards.** (emphasis added)

- (d) The standards based approach for this Project's EES is reflected in the 'Assessment of Likely Impacts' in the Project Scoping Requirements which requires:

*Predict likely atmospheric concentrations of dust and other relevant air pollution indicators at sensitive receptors along the road corridor, during project construction and operation, **using an air quality impact assessment undertaken in accordance with relevant SEPP environmental objectives.*** (emphasis added)

197. It follows that the directive contained in the Scoping Requirements was for assessment of air quality impacts of the Project using an air quality impact assessment undertaken in accordance with relevant SEPP environmental objectives.

198. MRPV is not aware of the specific reasons for adopting one assessment approach for the WGT project and a different assessment approach for this Project, but observes that:

- (a) The WGT was a materially larger project, involving the establishment of new point sources of emissions (tunnel ventilation shafts) and was situated in an area which already experienced relatively compromised air quality.
- (b) The final Scoping Requirements for WGT were issued in April 2016. This was prior to the variation of the Victorian SEPP (AAQ) to incorporate the current mandatory PM2.5 reporting standards based on the updated Ambient Air Quality National Environmental Protection Measure.

*Landscape, Urban Design and Visual Impact*

199. The IAC should find that:

- (a) The EPRs establish a suitable framework for:
- (i) minimising visual amenity impacts;
  - (ii) minimising impacts on connectivity;
  - (iii) ensuring the noise walls, MFBs and bridge structures will exhibit best practice urban design outcomes;

- (b) Landscape and urban design plans will be prepared to ensure the visual impact of the Project is appropriately minimised; and
- (c) Through the provision of a 2m opaque MFB along the northern section of Braeside Park, appropriate acoustic and visual amenity outcomes for park users will be achieved.

#### Visual and landscape impact outcomes

200. The Landscape and Visual Impact Assessment ('LVIA') at Appendix D to the EES identifies the existing conditions and impacts of the Project. The IAC also heard evidence from Ms Bauer, Ms Bisits and Mr Biles on landscape and urban design matters.
201. The LVIA provides a detailed and comprehensive identification of the landscape characters and values of the area, identification of sensitive view points and an assessment of the potential impacts, including with respect to connectivity and accessibility of places of social value.
202. Significantly there was no dispute that the impact assessment had appropriately characterised the landscape character and important viewpoints. Nor was there any real dispute that the visual and landscape impacts from the Project can be managed to achieve an acceptable outcome.

#### Landscaping and Urban Design Principles

203. Ms Bauer gave evidence that the draft Landscape Concept Plan responds appropriately to the issues identified in the LVIA and aligns with key landscape mitigation recommendations.
204. Key features of the proposed Landscape Concept Plan include:
- (a) Extensive use of landscaping to ameliorate visual impact – mature trees and advanced planting will be used where there is a need for immediate visual relief and tube stock will be utilised to ensure long term success;<sup>44</sup>
  - (b) There will be a substantial net increase in the number of trees and shrubs with new plantings greatly outweighing the amount of vegetation to be removed;
  - (c) Species lists have had input from the Project's ecologists; and

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<sup>44</sup> This is furthered through EPR LV1.

- (d) The identification of areas for wetland restoration of the EVC Swamp Scrub and the provision of shade tolerant species where required.
205. Landscaping is of central importance as it will reduce the visual impact of the road, embankments and noise walls, particularly in areas of high sensitivity. Landscaping will support biodiversity and CPTED outcomes.
206. Other key benefits and features include:
- (a) The provision of a new 3m SUP along the eastern side of the alignment providing an important connection envisaged in the principal bicycle network route; and
  - (b) The provision of an underpass connecting Braeside Park with the industrial area to the west.

#### Further urban design process and agreed changes

207. The experts all recognised the need for detailed design of the Project to be subject to an urban design process. This has been accepted by MRPV. EPR LV1 now provides for an integrated landscape and urban design process to be undertaken by qualified professionals. This EPR is in generally similar form to that utilised in WGT in that:
- (a) It requires the design to respond to specified documents;
  - (b) It requires consultation with stakeholders, including in particular Kingston City Council; and
  - (c) Requires visual impacts to be minimised, including on particular areas.
208. The proposed LV1 goes further than the WGT EPRs, however, by specifying guiding principles to be applied in the preparation of the landscape and urban design plans.
209. MRPV also accepts that it is appropriate to have an urban design review process. MRPV does not accept, however, that:
- (a) The urban design review must be carried out by the OVGA; or
  - (b) The urban design reviewer should have any kind of quasi-approval function.

210. Ms Bauer and Mr Biles were both comfortable with the appointment of an individual, independent urban design professional to review the urban design and landscaping for the project. Neither considered it necessary that the OVGA be appointed to review the project.
211. Indeed, at several points during the hearing Mr Biles acknowledged that a process other than the OVGA, such as the appointment of an 'individual Master Architect', could be a preferable outcome.
212. MRPV does not support the requirement that the independent reviewers' recommendations shall, or must, be complied with or adopted. The form of EPR sought by the Council is unnecessarily onerous and restrictive and inconsistent with the need for the Project to balance competing objectives. MRPV is not aware of any previous major infrastructure project in which OVGA or a similar body has been given a quasi-approval role. Even in the context of, for example, WGT, which was a much larger project with substantial structural components requiring detailed urban design, including portals over 40m in height,<sup>45</sup> bridge structures and elevated interchanges.
213. The proposed process sought by the Council is simply not appropriate for this matter: the Project's scale does not warrant it and there are many other considerations that must be balanced beyond just landscape and urban design outcomes. There will be times where impacts on visual amenity must be balanced out with competing objectives due to traffic engineering, biodiversity, acoustic, surface water and the project objectives.
214. For example, the ability to use earth mounds to limit visual impact of the project is limited by surface water considerations, heightened by the fact that parts of the proposed freeway are in areas subject to flooding. Another example is the need for MFBs to be opaque to reduce bird collisions, thus in some places transparent materials will not be appropriate.
215. The approach proposed by the Council ought to be rejected.

#### Agreed outcomes

216. The experts all agreed, and MRPV has accepted that urban design principles should be applied to guide visual outcomes for the project.
217. Other outcomes that were supported by all experts and which MRPV has adopted include:
- (a) the underpass at Braeside Park will be designed to best practice principles;

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<sup>45</sup> West Gate Tunnel Project, *Proposed Vertical Alignment Plans – WDA-WGTP-VAP-0010* (15 May 2017)

- (b) mature tree stock and advanced tree plantings will be used where appropriate to reduce initial visual impacts in areas of high use and sensitivity; and
- (c) the colours and materials for noise walls and barriers will be derived from the existing landscape and ecological environment.

Visual and landscape matters remaining in dispute

218. The key issue remaining are:

- (a) Whether the MFB in the northern section of Braeside Park should be 2m or 3m in height;
- (b) Whether an underpass (or overpass) at Chadwick Reserve ought to be recommended for inclusion as part of the Project;
- (c) Whether a SUP boardwalk crossing Mordialloc Creek ought to be recommended for inclusion as part of the Project;
- (d) Whether an overpass at Dingley Bypass ought to be recommended for inclusion as part of the Project;
- (e) The appropriateness of allowing space for a SUP on the western side of the road alignment as part of the Project; and
- (f) Other enhancement Projects sought by Council, including the 'purple pipe', new wetlands in the vicinity of Dunlop's Drain and Chadwick Reserve, and a solar farm opportunity in the northern section.

The MFB along the north-western boundary of Braeside Park

219. MRPV has agreed to provide a 2m high MFB along the north-western boundary of Braeside Park.

220. The evidence before the IAC is that the opaque MFB to a height of 2 metres is appropriate to funnel fauna to the culverts to assist in maintaining connectivity and avoiding WVC, and that it will deliver the acoustic improvements to the park recommended by Mr Leo. A barrier of 2m in height will also improve visual amenity, consistent with the evidence of Mr Biles and Ms Bauer.

221. The only justification that has been identified for providing a higher MFB in this area (noting that it is unlikely to be traversed by birds travelling between wetlands) is to provide additional visual screening of vehicles on Braeside Park. Moreover, it is apparent that extending the MFB to a height of 3m from 2m will provide only a limited visual benefit:
- (a) Mr Biles' evidence was that a 2m wall was sufficient to mask passenger vehicles from the view of park users;
  - (b) As various witnesses noted, the height of the larger trucks is approximately 4.3m. As such, increasing the height of the MFB to 3m would not result in the masking of all freight vehicles, but simply that portion which was 3m or less in height.
222. It is also noted that, while Mr Biles recommended 3m for the MFB in his oral evidence, his written evidence did not specify a height for the proposed MFB.<sup>46</sup>
223. For these reasons, the IAC should not make recommendations that the height of the barrier in this section be increased to 3m.

#### Connectivity impacts

##### *Braeside underpass*

224. MRPV has agreed to an EPR requiring the delivery of a best practice outcome in relation to the Braeside Park underpass. The ultimate width will be a matter to be resolved through detailed design, including through the proposed urban design review process.
225. This is to be an urban designed underpass that will implement the principles and guidelines of Crime Prevention Through Environmental Design (CPTED) and Urban Design Guidelines for Victoria. This is achieved through EPR LV2 and is supported by Ms Bauer.

##### *Chadwick Reserve underpass*

226. The evidence before the IAC is insufficient to establish a definite need for the underpass, or that it can be constructed in a manner that has acceptable visual, environmental and other impacts.
227. The evidence of Ms Bauer was that it is a lower priority connectivity improvement. Mr Barlow had concerns about the safety of an underpass in this location. Mr Kelly questioned

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<sup>46</sup> Witness Statement of Tim Biles, pp 20-22.

the demand for the connection, the absence of a clear desire line and practicality of construction, given a substantial length and width would likely be required.

228. Mr Kelly gave evidence of the low pedestrian counts that had been recorded, with only 19 crossings over the day (a peak of 2 in one hour), several of which appeared to be circular trips utilising the reserve as a walking trail in a manner that could be achieved without the need to cross over from one side to the other.
229. Detailed assessment of what impacts would be associated with provision of an underpass in this location is not before the IAC. The Council led no meaningful evidence as to how an underpass would be provided, with what impacts, and at what cost. There is presently no public land on the western side of the alignment to provide a suitable east-west connection as sought by Council.
230. Council's proposed amendment to the EPRs requiring an underpass at this location should be rejected by the IAC. The evidence before the IAC is not sufficient to justify it and further design work would be required to assess whether it could or should be delivered.

*Dingley Bypass overpass*

231. Providing a SUP overpass at the Dingley Bypass had, at best, lukewarm support from Council's own expert, Mr Biles. He considered there was not a sufficiently strong connectivity basis to justify imposing a requirement for a SUP overpass at the Dingley Bypass. Nor was it something that Ms Bauer identified as being necessary. Ms Bisit's recommendations for it must be viewed in light of Council's strong desire for an overpass in this location, something it was seeking prior to the impact assessment.<sup>47</sup>
232. The evidence of Mr Kelly was that the signalised crossing was more appropriate than an overpass in this location. His evidence was that an underpass would not be a realistic option. Whilst he acknowledged an overpass in this location could be explored, it was his view that it would be expensive to construct, that further design work would be required to assess whether it could be delivered and that he was not aware of the number of pedestrians or cyclists that would use it.
233. The IAC should find that it is not required or justified in this location and that the EPR in LV1 which requires the landscape and urban design plans must "enhance key gateway streetscapes" provides the appropriate balance between flexibility and prescription to

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<sup>47</sup> See page 130 of Appendix D to the EES (Landscape and Visual Impact Assessment).

ensure an appropriate design solution and outcome is achieved. Council's proposed amendment to the EPRs requiring an overpass at this location should be rejected by the IAC. The evidence before the IAC is not sufficient to justify it.

#### *Waterway Boardwalk*

234. In a similar vein, the proposal for a SUP boardwalk in the vicinity of Bowen Parkway received little support from Ms Bauer. Her evidence can be summarised as indicating that it would be a benefit if it could be provided, but Ms Bauer acknowledged the potential for impacts upon the environment might mean the proposal was unacceptable. In his written evidence, Mr Biles described the provision of the boardwalk as 'desirable', but stopped short of saying it should be provided.
235. Council points to Dr van der Ree not having a particular objection to the provision of a boardwalk in this area but, with respect, his area of expertise is fauna mitigation and connectivity, not flora which is the key issue for concern here.
236. Mr McCaffrey, who does have expertise on flora impacts, considered the provision of the boardwalk structure would have a further impact upon the ecological values of the Waterways Wetlands, both in terms of the construction techniques to provide the boardwalk, increased human activity in the area, and the additional shading, with no potential for light to filter through given its proximity to the water.
237. Mr Kelly's evidence was that the SUP would need to be separate from the existing bridge structure.
238. For these reasons, the IAC should decline to recommend the EPRs or reference design be amended to require it.

#### Social enhancement opportunities

239. The Council has identified a number of projects that it wishes to see allowed for by the Project. They are not projects that are part of, or are required by, the Project. These are:
- (a) The purple pipe;
  - (b) Any future wetlands near Chadwick Reserve;
  - (c) Any future wetlands near Dunlop's Drain;
  - (d) The western SUP; or

(e) A solar park.

240. MRPV is happy to work with the Council to try to determine whether these proposals can be incorporated into the Project or delivered in parallel with it, but it does not support the inclusion of EPRs requiring the Project to be designed around them.
241. The IAC has been provided with very limited information on any of the proposals and, in particular, no timelines have been provided to indicate when the projects will be ready to proceed or the impacts of those projects if they were to be proceeded with. For example, it is not clear whether the potential western Shared User Path would require the removal of additional native vegetation or what the impacts of developing a wetland or solar farm on the landfill site would be on the mobilisation of contaminated groundwater.
242. For these reasons the IAC should not recommend any changes to the EPRs to require the design of the Projects to allow for the Council projects.

#### *Heritage*

243. The IAC should find that the heritage values of the MMBW structures will be protected through EPR H3 and the updated mapping for HO104 (Braeside Park Precinct) as currently proposed by MRPV.
244. The statement of significance for HO104 records that:

*Braeside Park is of historical and technological significance at a local level. Although substantially altered to provide Park and Wildlife habitat, it retains a number of early key elements of historical significance from its period as a pastoral property including the racetrack. It retains other elements from the period as an MMBW sewerage treatment plant including settling basin, substation, and administration buildings that are of historical and some technological significance.*

245. Under the planning scheme as it presently stands, HO104 does not apply to any of the MMBW buildings. This is an error, as Council admits in its submissions. Although it is not MRPV's role to correct this error, it has in good faith undertaken discussions with Council and Parks Victoria to resolve the issue.
246. The correction proposed by MRPV will apply HO104 to the two brick MMBW buildings, being the Administrative Building and Chlorine Store and key associated infrastructure such as the concrete tanks and treatment ponds located outside the Project area. MRPV

understands this to be agreed by Parks Victoria and that Council does not dispute that HO104 should apply to these structures. EPR H3 serves to protect those buildings for the purposes of the use and development of the land for the Project, in accordance with the Incorporated Document.

247. If Council is not content with the form of the proposed HO104 map, it is welcome to commission its own heritage report and to initiate a further planning scheme amendment to implement the findings of that report. This would need to be done in consultation with Parks Victorian and DELWP. MRPV should not have its project held up due to Council's late notice of its heritage concerns, particular in circumstances where:

- (a) There is no evidence the Project will impact upon the heritage values identified in the Statement of Significance;
- (b) The current HO104 is outside of the Project area and will not be affected by works proposed for the Project; and
- (c) The proposed HO104 is a sensible first step to correcting longstanding existing mapping errors.

*Other matters*

248. The IAC has also received evidence on a number of other matters, including social, business and greenhouse gas impacts from the Project. The witnesses who prepared that evidence were not required by any party to attend the hearing and were not questioned. It is submitted that the IAC should accept their evidence.

**Conclusion**

249. For the above reasons, MRPV commends the Project, the EES and the EPRs to the IAC as a Project worthy of support within a robust framework for managing and mitigating environmental effects.

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15 March 2019