

Memo

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|-----------------|---|--------------|-----------------------------|
| To: | Hasnain Ikram | Date: | 19 th April 2024 |
| Company: | Ethos Urban | From: | Steve Schutt |
| Subject: | Merrimu PSP Landscape & Visual Character Assessment Peer Review Report | | |

Hi Hasnain.

Following a request from Ethos Urban on behalf of Bacchus Marsh Developments Pty Ltd, Hansen Partnership has undertaken a peer review of the *Merrimu PSP Landscape & Visual Character Assessment, October 2023 (LVCA)* prepared for the Victorian Planning Authority (VPA) by Tract Consultants.

The peer review has been undertaken by Hansen Partnership personnel who are experienced in the preparation of Landscape & Visual Impact Assessments, Landscape Character Assessments and Visual Amenity Assessments, led by Steve Schutt, Director of Landscape Architecture, who has provided expert evidence in landscape and visual impact assessments to VCAT, TASCAT and Planning Panel Hearings over many years, and has undertaken peer reviews of assessments prepared by other practitioners.

The focus of the peer review is on seeking to ensure that:

- The methodology applied in undertaking the assessment is robust and based on 'best practice';
- The data used to inform the assessment is reliable and fit for purpose, and
- The recommendations are supportable and demonstrate a clear application of the methodology.

Review of methodology

The methodology applied in the LVCA comprises the following stages of work:

- Review of relevant planning policy and strategic context;
- Review of existing conditions within the project study area;
- Review of landscape character and scenic quality within the project study area;
- Visual assessment;
- Identification of development opportunities and constraints, and

- Preparation of a Landscape Framework Plan.

The review of relevant planning policy and strategic context within the LVCA appears to identify all relevant existing planning controls, and summarises key relevant findings of a number of strategic documents, including the *Bacchus Marsh Urban Growth Framework* (2018), *Merrimu Wurundjeri Country Precinct Structure Plan* (2022) and *Bacchus Marsh Eastern Link Road Assessment and Recommendations*. There are no obvious errors or omissions in the review of relevant planning policy and strategic context.

The review of existing conditions within the project study area includes consideration of the typical suite of physical attributes which cumulatively inform subsequent descriptions of landscape character. There are no obvious errors or omissions in the review of existing conditions.

The review of landscape character and scenic qualities of the project study area identifies and describes (in Section 4.1) two landscape character types; 'Western Plains' and 'West Central Hills'. The descriptions provided in relation to the classification of each character type are general in nature and do not include any reference to specific locations relative to the project study area. No map is provided to illustrate the spatial extent of these character types as relates to the Merrimu PSP extents. The addition of such information would assist the reader to understand the extent to which each character type relates to the project study area.

The description of scenic quality (in Section 4.3) does not refer to the landscape character types mentioned above, but rather refers to 3 other landscape types; 'Alluvial Floodplains', Merrimu Plateaux and the Lerderderg River, Pyrites Creek and Escarpments, which are respectively described as having moderate, high and high scenic quality. No explanation is provided with respect to the spatial relationship between the landscape types described in Sections 4.2 and 4.3, nor is any explanation provided with respect to how the scenic quality of each has been determined.

The visibility analysis described in Section 5.2 utilises Zone of Visual Influence (ZVI) modelling to determine the extent of land within the Merrimu PSP area which is 'theoretically' visible from two key transport routes; the Avenue of Honour route which runs through Bacchus Marsh township and the Western Freeway which runs to the north of the Bacchus Marsh township. The manner in which the ZVI has been prepared is consistent with best practice in methodology, however the data used to inform the ZVI has some deficiencies, which are discussed in a following section of this peer review report.

The visual assessment findings set out in Section 5.3 identifies a range of locations within and around the Merrimu PSP area and describes what is 'visible' from each. Critically, it does not seek to tie this information to either the descriptions of landscape character scenic quality identified in earlier sections of the report. This is a key shortcoming of the report, as by failing to explore any relationship between landscape character, scenic quality and visibility, the subsequent recommendations in relation to "visual management" do not appear to be informed by anything other than theoretical visibility. There is no qualitative assessment of land within areas of theoretical visibility to understand its scenic quality, and hence there is no apparent prioritisation of areas identified as being of higher scenic quality for protection through 'visual management' of development. It appears that any land identified as being theoretically visible automatically qualifies as requiring visual management, regardless of its scenic quality.

Review of data used to inform the assessment

The visibility analysis relies upon a digital terrain model comprising contour information with a 1-metre interval. Whilst it is potentially possible to utilise data with a higher level of precision, such as LiDAR data, it is not necessary to do so for ZVI modelling. The digital terrain model data is appropriate for use and fit for purpose.

The number of viewpoints used to generate the ZVI however is considered somewhat deficient, on the basis that the ZVI maps at Figures 19 and 20, which illustrate the extent of theoretically visible land from the key transport routes of the Avenue of Honour and the Western Freeway, have been prepared using a very small number of viewpoints; 3 for the Avenue of Honour and 4 for the Western Freeway, at approximately 2 kilometre intervals.

By relying on such a small number of viewpoints, two deficiencies occur:

- Firstly, there is the potential to miss potential vantage points between those selected, which might offer vistas of parts of the Merrimu PSP area not able to be seen from the selected points, and
- There is little or no opportunity to develop an appreciation of the relative levels of visual exposure of different parts of the Merrimu PSP area.

To demonstrate this deficiency, we have independently undertaken ZVI modelling along the same key transport routes, but utilising viewpoints at 100 metre intervals. The resultant mapping, at Figures 1 and 2 below, demonstrates a much more nuanced analysis of the relative visual exposure of surrounding land to viewpoints along the key transport routes. It allows a categorisation of visual exposure from high level, where land is visible from at least 80% of identified viewpoints along each of the key transport routes, to low level where land is visible from less than 20% of identified viewpoints along each of the key transport routes.

The value of such an outcome is that it allows the opportunity to determine a defensible rationale for the application of 'visual management', for example applying such measures to land identified as having moderate or higher visual exposure but excluding land identified as having lower levels of visual exposure.

Figure 1



Merrimu Precinct Structure Plan LVIA

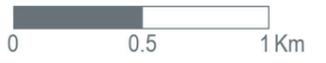
Cumulative Viewshed Analysis
Views from Avenue of Honour up to
8km from the subject land
(Viewpoints at 1.6m height above
natural ground)

Legend

- Precinct Boundary
- Roads
- Municipality boundary
- Existing contours (Dem :10m/ Interval:10m)
- Viewshed Generation points (100m space)

Potential Visual Exposure

- High visibility
- Low visibility
- None visible area



Project Ref: 24.0091
 Dwg No.: LVIA-2
 Scale: 1:60,000
 Date: 16/04/2024
 Revision: A

Hansen Partnership Pty Ltd
 Melbourne | Byron Bay | Vietnam
 Level 10, 150 Lonsdale Street
 Melbourne VIC 3000
 T 61 3 9654 8844
 E info@hansenpartnership.com.au
 W hansenpartnership.com.au

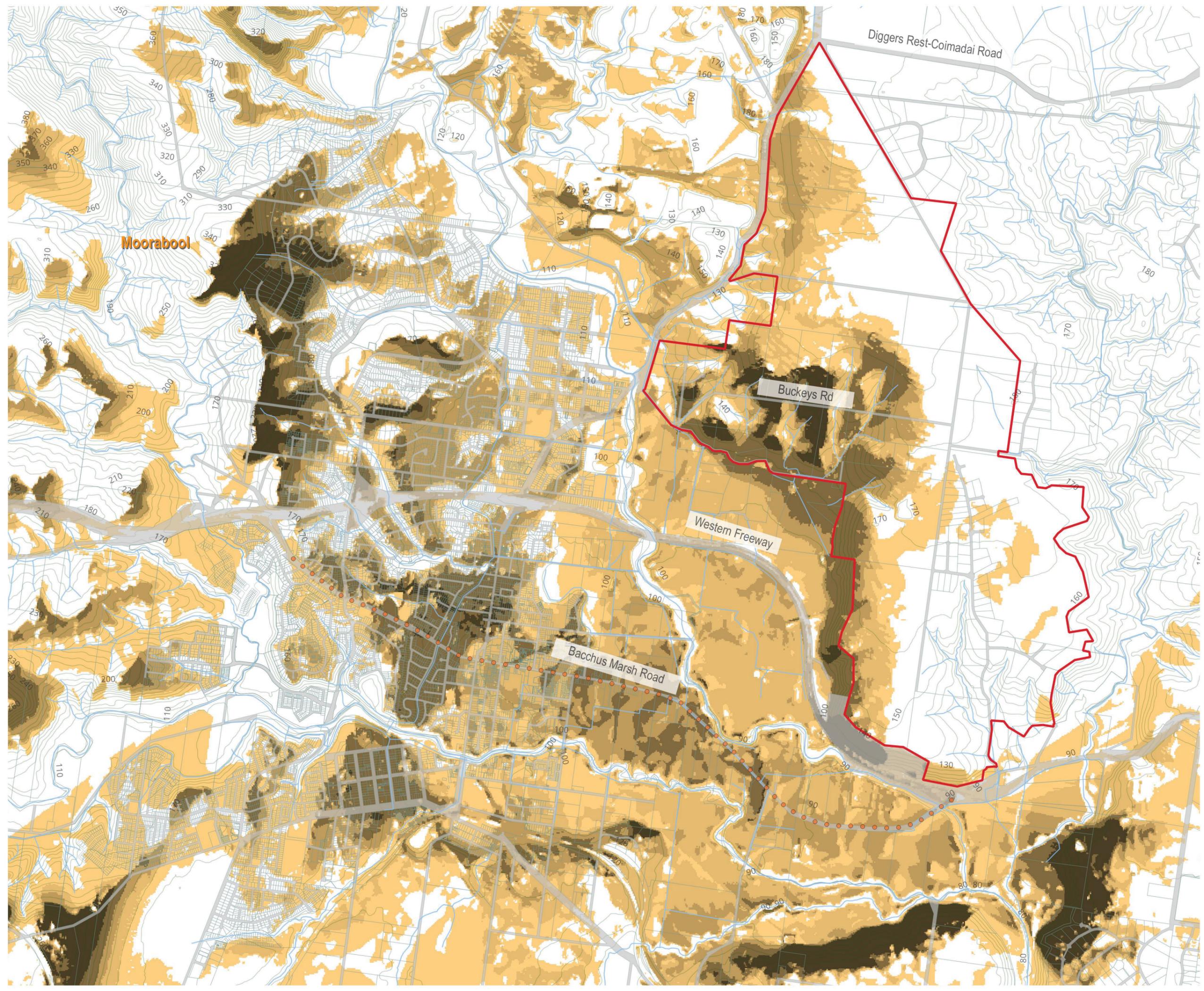


Figure 2



Merrimu Precinct Structure Plan LVIA

Cumulative Viewshed Analysis
Views from Avenue of Honour up to
8km from the subject land
(Viewpoints at 1.6m height above
natural ground)

Legend

- Precinct Boundary 
- Roads 
- Municipality boundary 
- Existing contours (Dem :10m/ Interval:10m) 
- Viewshed Generation points (100m space) 

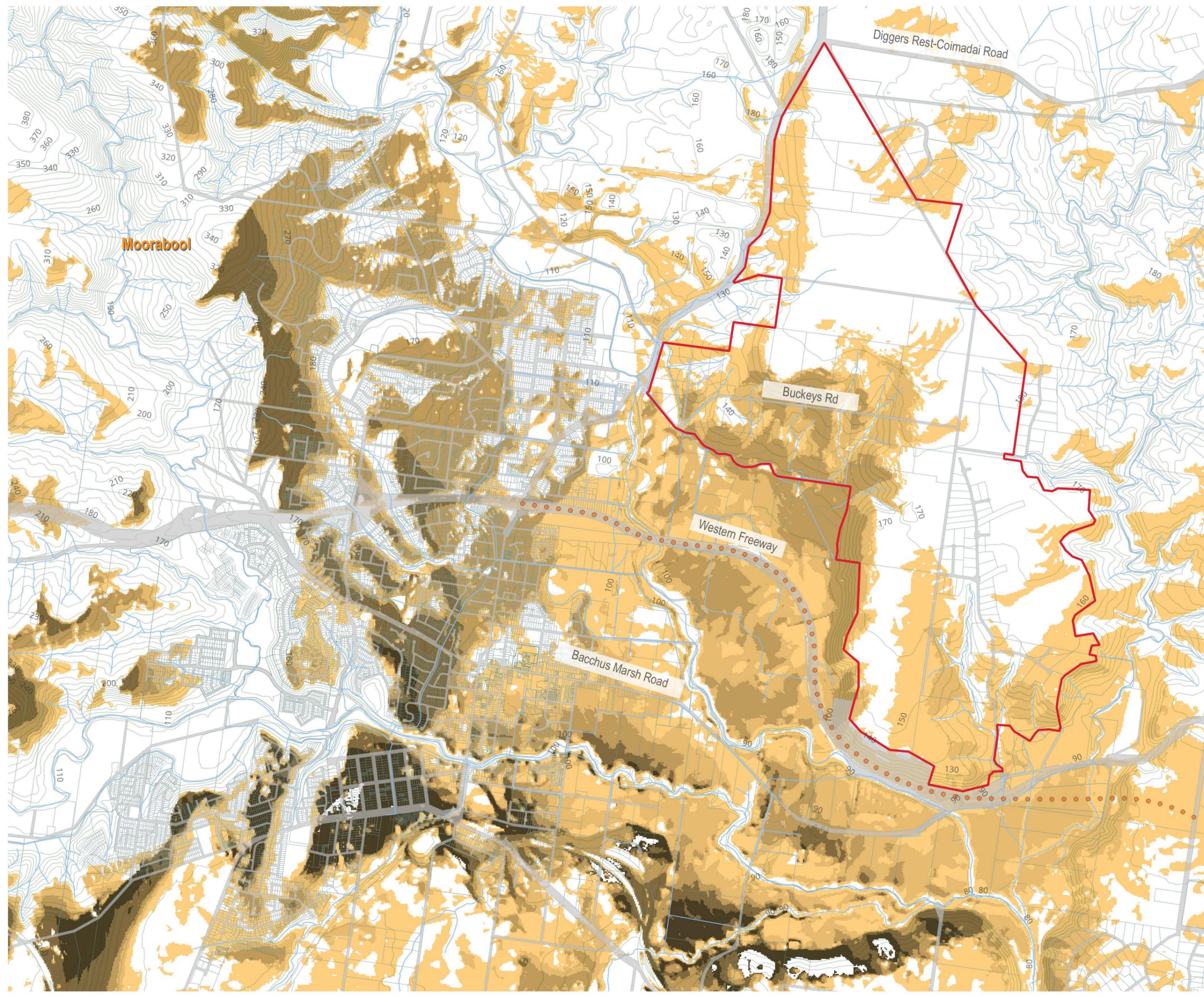
Potential Visual Exposure

- High visibility 
- Low visibility 
- None visible area 



Project Ref: **24.0091**
 Dwg No.: **LVIA-1**
 Scale: **1:60,000**
 Date: **16/04/2024**
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Hansen Partnership Pty Ltd
 Melbourne | Byron Bay | Vietnam
 Level 10, 150 Lonsdale Street
 Melbourne VIC 3000
 T 61 3 9654 8844
 E info@hansenpartnership.com.au
 W hansenpartnership.com.au



Review of recommendations

Consistent with the observations above, one of the key recommendations of the LVCA – the identification of areas requiring ‘visually managed development’ to “preserve the visual integrity of regional views into the precinct” – is deficient in that it has been determined on the basis of a limited dataset, ie a total of only 7 viewpoints at approximately 2 kilometre intervals along the key transport routes of the Avenue of Honour and the Western Freeway.

As a result, the area identified in Figure 21 within the LVCA as being recommended for “visually managed built form” offers no discretion with respect to either the relative level of visual exposure of land within the PSP area nor is it informed in any obvious manner by the differing levels of scenic quality of landscapes identified in Section 4.3 of that report. In effect the recommendation applies to all land within the PSP area which falls within the theoretical viewshed of 7 viewpoints, regardless of its degree of visual exposure or its level of scenic quality.

For comparison, we have mapped the extent of land within the Merrimu PSP area which has been assessed through our own ZVI modelling - using a significantly greater number of viewpoints – as having moderate or higher visual exposure to the key transport routes. Specifically, this comprises land which is theoretically visible from at least 40% of modelled viewpoints along each of the key transport routes. The extent of land identified occupies a significantly-reduced extent of land within the Merrimu PSP area than that identified in Figure 21 of the LVCA. Our mapping is shown at Figure 3 below.

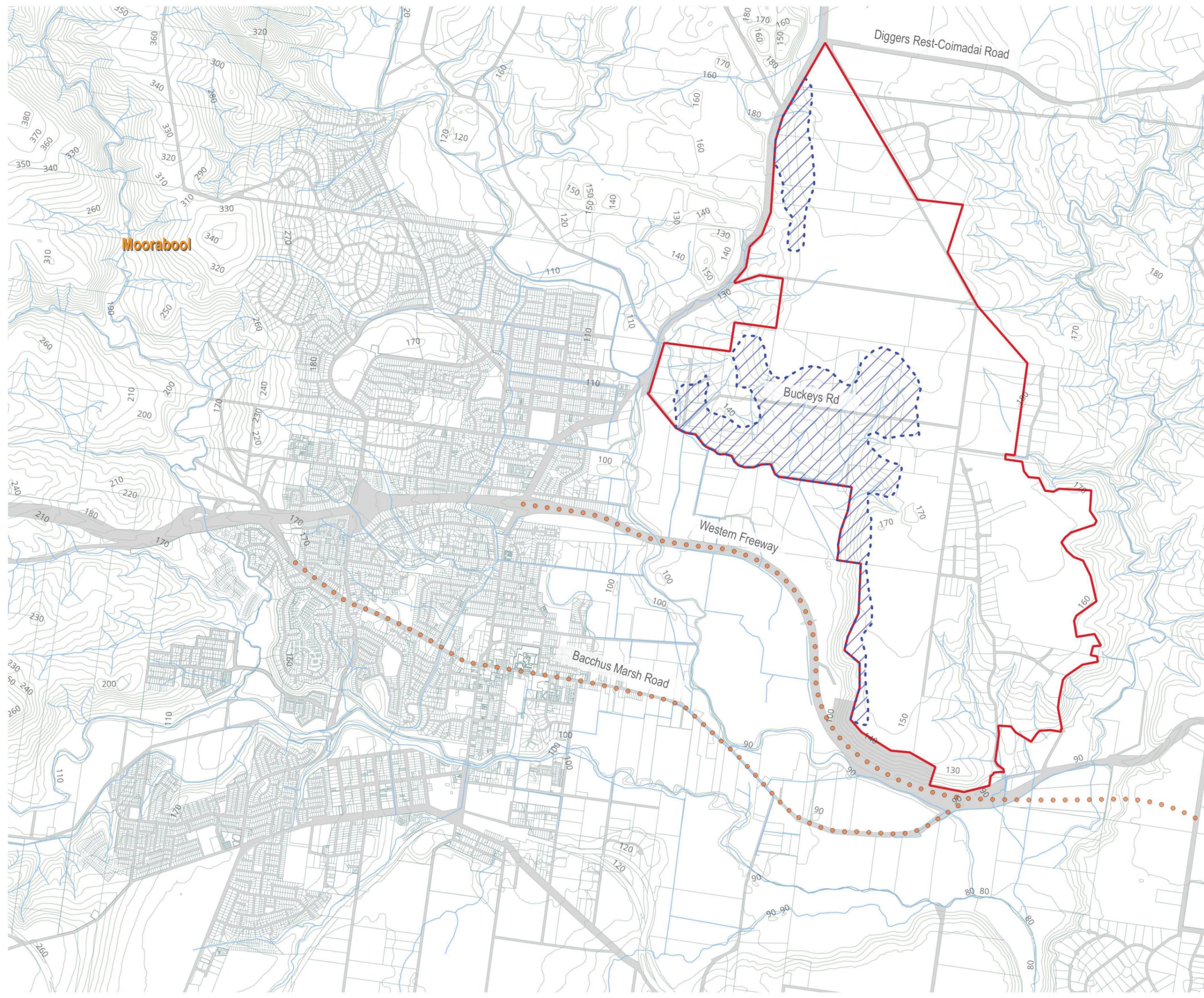
A further concern in relation to the small number of viewpoints used to inform the ZVI modelling and the subsequent recommendations in relation to the need for ‘visually managed development’ is that the selected viewpoints do not appear to have been verified through any fieldwork. We have undertaken fieldwork to understand the nature of actual views – as opposed to theoretical views – of the Merrimu PSP area able to be experienced from each of the viewpoints identified in the LVCA. Our findings are set out in the table below and supported by the subsequent Figures (4-8), noting that photographs of some identified viewpoints within the Western Freeway corridor were not able to be obtained due to restrictions on stopping which apply).

Figure 3



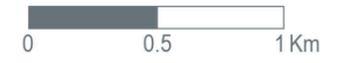
Merrimu Precinct Structure Plan LVIA

Areas of moderate or higher visibility



Legend

- Precinct Boundary
- Roads
- Municipality boundary
- Existing contours (Dem :10m/ Interval:10m)
- Viewshed Generation points (100m space)
- Areas of moderate or higher visibility



Project Ref: 24.0091
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 Scale: 1:60,000
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Hansen Partnership Pty Ltd
 Melbourne | Byron Bay | Vietnam
 Level 10, 150 Lonsdale Street
 Melbourne VIC 3000
 T 61 3 9654 8844
 E info@hansenpartnership.com.au
 W hansenpartnership.com.au

| <i>LVCA viewpoint</i> | <i>Location</i> | <i>Nature of view of Merrimu PSP area</i> |
|-----------------------|--|--|
| VP3 | Rupert Vance Moon Reserve | Merrimu PSP area is largely screened from view by existing established vegetation close to the viewing location. Glimpses of the southern escarpment of the Merrimu PSP area are available through limited breaks in the vegetation. |
| VP4 | Avenue of Honour, opposite Dellios Apples Orchard | Merrimu PSP southern and western escarpments are visible as a backdrop to the foreground orchard view, framed by existing established vegetation and built form which limits the horizontal extent of the view. |
| VP5 | Main Street at intersection with Fiskens Street | Merrimu PSP area is almost entirely screened from view by existing established vegetation and built form. Limited glimpses of the western escarpment are available through very small breaks. |
| VP6 | Bacchus Marsh Road at intersection with Ascot Avenue | Merrimu PSP area is entirely screened from view by existing built form. |
| VP14 | Gisborne Road at Western Freeway overpass | Merrimu PSP southern and western escarpments are visible as a backdrop to the foreground Freeway corridor view, punctuated by existing established vegetation and which interrupts the horizontal extent of the view. |



Figure 4: Existing view at Viewpoint 3.



Figure 5: Existing view at Viewpoint 4.



Figure 6: Existing view at Viewpoint 5.



Figure 7: Existing view at Viewpoint 6.



Figure 8: Existing view at Viewpoint 14.

Finally, the ZVI modelling, mapping and field investigations we have undertaken – as described and illustrated above – has determined that to the extent that the Merrimu PSP area is able to be seen from the broader landscape and urban context within which it is located, the visually exposed land is almost entirely comprised of sloping land associated with the western and southern escarpments. This finding is broadly consistent with the Proposed Landscape Framework at Figure 24 in the LVCA, which identifies that land as either “existing rural residential”, with a recommendation for minimal/no further subdivision, or “conservation (steep slopes / drainage lines)”, with a recommendation for no urban development. We agree that this land should be protected from development, for visual and other landscape-related reasons.

We note the recommendation in Section 7.4 of the LVCA for the establishment of expansive buffers at the top of escarpments, comprising a nature trail, low order road and shared path within a broad, vegetated landscape corridor, as illustrated in Figure 29 of the LVCA. Whilst appreciating the diagrammatic nature of the cross-section illustrated in Figure 29, it appears to recommend a buffer width of approximately 50 metres, measured from the top of escarpment (or ‘break in slope’) to the first row of future housing.

Given the findings of our peer review of the LVCA, including the additional mapping, modelling and field investigations undertaken, it is questionable whether further ‘visual management’ of future development within the broader Merrimu PSP area – as advocated by the LVCA - is necessary, given that the most visually exposed areas (ie the escarpments) are recognised as being unsuitable for future development, and the proposed expansive buffers at the top of the escarpments have the intention – once established – of providing effective screening of future urban development beyond. Extending the area of ‘visually managed development’ into areas where existing visual exposure is limited,

and where future development can be effectively screened by proposed conservation of escarpments and the establishment of landscape buffers, appears an unnecessary constraint on urban development within the Merrimu PSP area.

Please contact the undersigned if you have any questions or require additional information.

Yours faithfully,
Hansen Partnership Pty Ltd

Steve Schutt
Director