

## 6.3 Urban design, landscape character and visual amenity

The urban design, landscape character and visual impact assessment supplementary technical memorandum is provided in **Appendix C**, and a summary is provided below. This section should be read in conjunction with Section 7.3 of the EIS and the urban design, landscape character and visual amenity assessment report provided in Appendix G of the EIS.

The urban design concept for the project as described in the EIS is still relevant and applicable to the amended project. This includes urban design principles and objectives, connection to country design, urban design elements and concept plan. This is detailed in Section 7.3.4 of the EIS and has not been discussed further in this section.

### 6.3.1 Assessment methodology

The assessment has been completed in accordance with the Environmental Impact Assessment Practice Note: Landscape Character and Visual Assessment EIA-NO4 (RMS, 2018).

The assessment methodology involved the following:

- Review of the Landscape Character Zones (LCZs) identified in the EIS and identification of LCZs where proposed changes occur
- Assessment of whether there are changes on the magnitude of the impact for each LCZ because of the proposed changes
- Review of viewpoints identified in the EIS and identification of those where proposed changes would be visible
- Identification of additional viewpoints potentially impacted by the proposed change. A site inspection was carried out in January 2020 to inform six new viewpoint locations for the amended project
- For those where proposed changes are visible, the magnitude of change and overall visual impact were revised.

### 6.3.2 Existing environment

The existing environment has not changed since the preparation of the EIS. The environment described in Section 7.3.3 of the EIS is still applicable to the amended project.

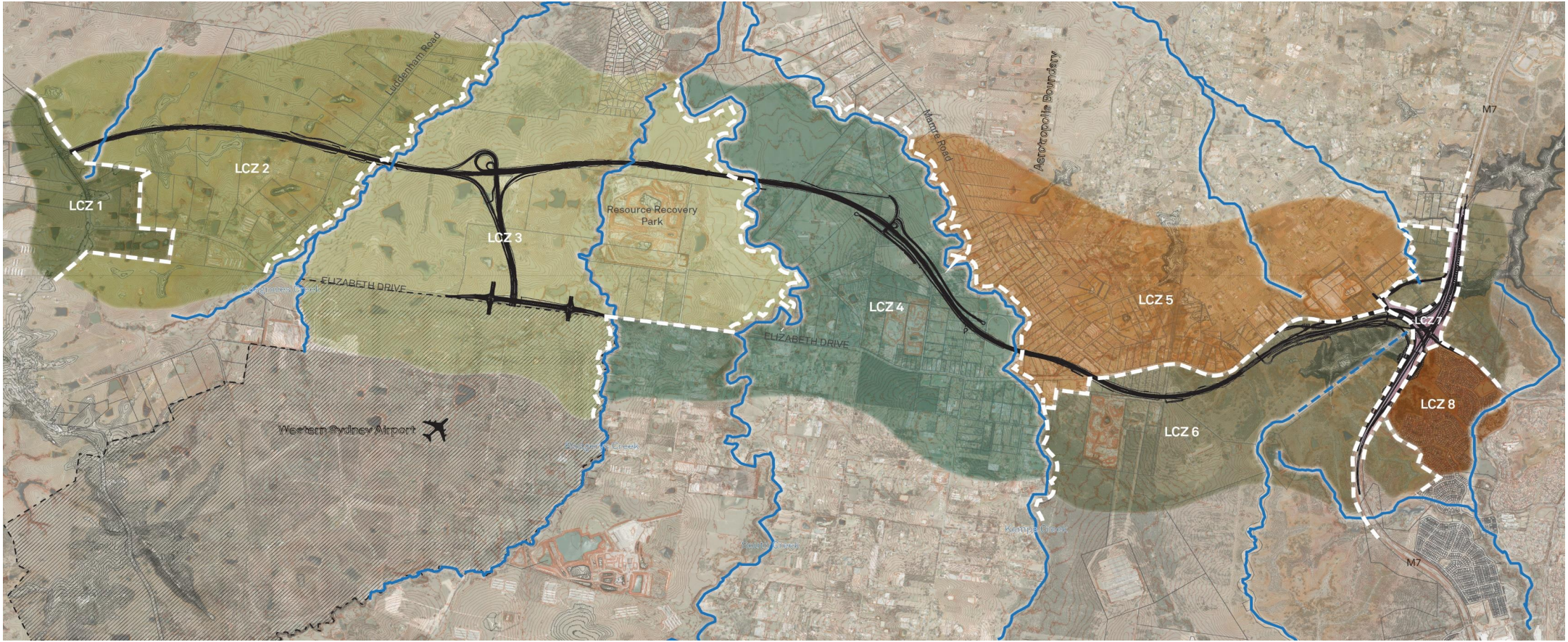
### 6.3.3 Assessment of potential impacts

#### 6.3.3.1 *Landscape character assessment*

##### Landscape character zones

Eight LCZs were identified within the EIS study area. These were based on the surrounding land use, built form, vegetation cover and topography (see Table 7-62 and Figure 7-49 of the EIS). The eight LCZs are still applicable to the amended project (see **Figure 6-22**).





**Figure 6-22** Landscape character zones for the amended project



### Landscape character impacts during construction

The amended project involves changes to the construction footprint as described in the EIS and the provision of additional ancillary facilities, however the construction activities within each LCZ are largely the same as described in the EIS. Therefore, the impacts to the landscape character during construction of the amended project remains unchanged from the EIS.

### Landscape character impacts during operation

The following four LCZs were reassessed following a review of the amended project and where the proposed changes occur across the amended project:

- LCZ 3: Rural Plains
- LCZ 6: Ridgetop Woodlands
- LCZ 7: M7 Motorway
- LCZ 8: Cecil Hills residential.

The amended project in each LCZ is similar in nature to the project as described in the EIS, particularly base infrastructure including road elements, bridges and landscaping. Impacts to landscape character associated with the operation of the amended project would therefore be consistent with those identified in the EIS.

#### **6.3.3.2 Visual impact assessment**

##### Visibility of the project

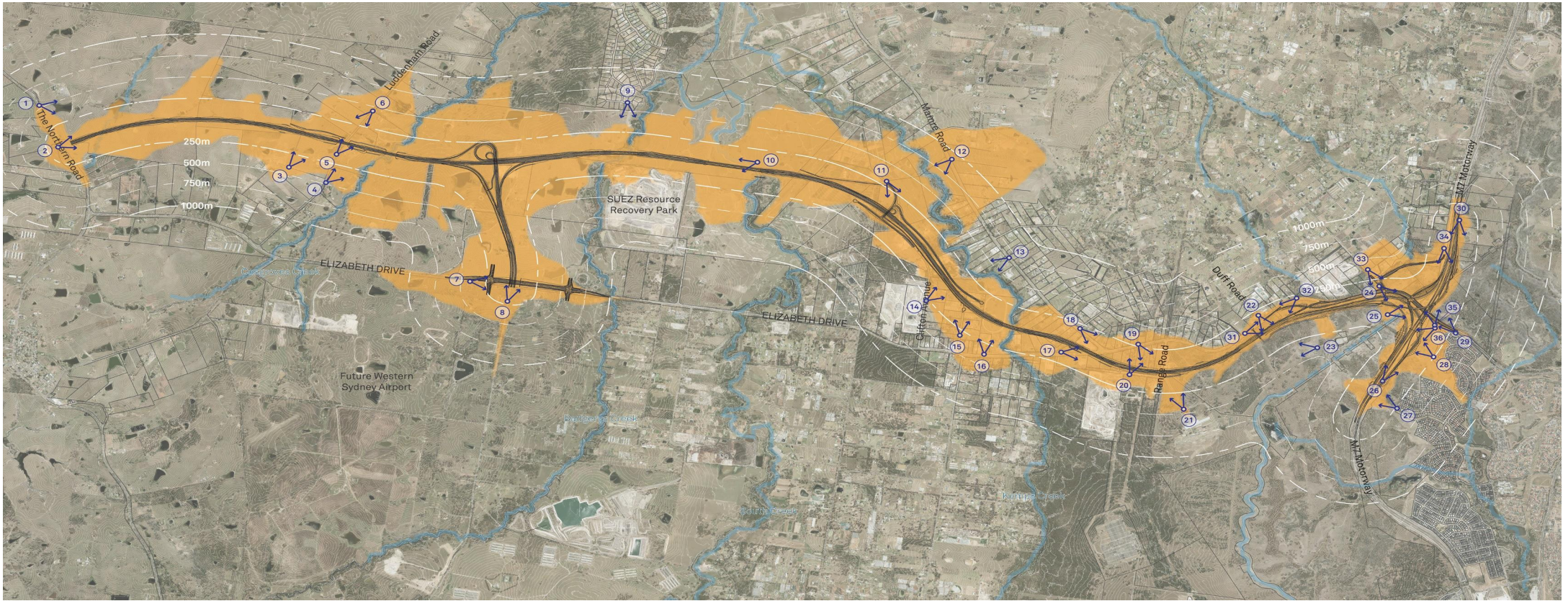
The visual catchment is the extent of the landscape that can be viewed from the amended visual impact study area and, likewise, the extent of locations from which the site can be seen. The visual catchment of the project is shown in Figure 7-50 of the EIS. The visual catchment has been updated to reflect the amended project as shown in **Figure 6-23**.

##### Viewpoint locations

Potential visual impacts of project elements on the existing visual environment were assessed from 30 viewpoints within the visual catchment (see **Figure 6-23**).

Based on a review of the amended design, the following viewpoints from the EIS were reassessed for operational impacts associated with the amended project:

- Viewpoint 7 - View east along Elizabeth Drive
- Viewpoint 22 - View south from Duff Road
- Viewpoint 24 - View south from Cecil Road
- Viewpoint 25 - View north-west toward M7 Motorway - M12 Motorway Interchange
- Viewpoint 26 - View north along the M7 Motorway
- Viewpoint 28 - View west from Jaquetta Close
- Viewpoint 29 - View west along Elizabeth Drive.
- Viewpoint 30 - View south along shared user path and M7 Motorway.



**Figure 6-23** Revised visual catchment and viewpoints for the amended project



Six new viewpoints (see **Figure 6-23**) have also been identified, which have the potential to be impacted by the amended project during operation as a result of the proposed changes:

- Viewpoint 31: View south from Elizabeth Drive, west of Duff Road
- Viewpoint 32: View south-east from Elizabeth Drive, east of Duff Road
- Viewpoint 33: View south from Cecil Road, north of Elizabeth Drive
- Viewpoint 34: View south from Wallgrove Road
- Viewpoint 35: View north from Isabel Street
- Viewpoint 36: View west from Isabel Street.

### Visual impacts during construction

While the amended project includes changes to the construction footprint as described in the EIS and the provision of additional ancillary facilities, the visual impacts at viewpoints are similar in nature during construction, and would be consistent with those described in the EIS.

### Visual impacts during operation

The assessment identified that out of the eight existing viewpoints that were reassessed, one viewpoint (Viewpoint 22) would experience a lower overall impact assessment rating when compared to the EIS, reducing from Moderate, to Moderate-Low. The remaining seven viewpoints would experience the same overall impact assessment ratings as identified in the EIS. This is due to the amended design being of similar nature to the design described in the EIS at each of these locations. In addition, the amended project would have the following impacts at the six additional viewpoints:

- Viewpoint 31: Moderate-Low
- Viewpoint 32: Moderate
- Viewpoint 33: High
- Viewpoint 34: Moderate-Low
- Viewpoint 35: High-Moderate
- Viewpoint 36: High.

The impact assessment ratings for each viewpoint are provided in **Table 6-28**. Visualisations of the operational visual impact at each of the updated and additional viewpoints is provided in **Table 6-29**.

Overall, the amended project would have the following visual impacts during operation on all viewpoints (existing and additional):




- Six viewpoints would experience a High impact – two additional viewpoints compared with EIS
- Ten viewpoints would experience a High-Moderate impact – one additional viewpoint compared with EIS
- Six viewpoints would experience a Moderate impact – one additional viewpoint compared with EIS
- Six viewpoints would experience a Moderate-Low impact – two additional viewpoints compared with EIS
- Three viewpoints would experience a Low impact – same number of viewpoints compared with EIS
- Five viewpoints would experience a Negligible impact – same number of viewpoints compared with EIS.

Table 6-28 Summary of visual impacts during operation of the amended project at updated and additional viewpoints

Viewpoint		Project as per EIS			Amended project			Notes
		Sensitivity	Magnitude	Impact	Sensitivity	Magnitude	Impact	
22	<u>Existing viewpoint</u> View south from Duff Road	Moderate	Moderate	Moderate	Moderate	Low	Moderate-Low	Given the design changes in this location are likely to not be visible when compared to the design as described in the EIS, the overall assessment impact is reduced from Moderate to Moderate-Low.
31	<b>New viewpoint</b> View south from Elizabeth Drive, west of Duff Road	N/A	N/A	N/A	Moderate	Moderate	Moderate	There would be limited views from nearby residents, against the rural-residential backdrop. The project would introduce new built elements that are of a similar scale and proportion existing elements in this view. Overall assessment impact is Moderate.
32	<b>New viewpoint</b> View south-east from Elizabeth Drive, east of Duff Road	N/A	N/A	N/A	Moderate	Moderate	Moderate	There would be limited views from nearby residents, against the rural-residential backdrop. The project would introduce new built elements that although are similar in nature, are of a much larger scale and proportion existing elements in this view. Overall assessment impact is Moderate.
33	<b>New viewpoint</b> View south from Cecil Road, north of Elizabeth Drive	N/A	N/A	N/A	High	High	High	The streetscape in this view has a rural-residential character with a backdrop of the Western Sydney Parklands.  The project would introduce new built elements that are considerably larger in scale and proportion to existing elements in this view, and would also require clearing of existing woodland. Overall assessment impact is High.

Viewpoint		Project as per EIS			Amended project			Notes
		Sensitivity	Magnitude	Impact	Sensitivity	Magnitude	Impact	
34	<b>New viewpoint</b> View south from Wallgrove Road	N/A	N/A	N/A	Low	Moderate	Moderate-Low	The project would introduce additional infrastructure to the existing corridor already in this view as part of the motorway-to-motorway interchange and updated Elizabeth Drive connections. Overall assessment impact is Moderate-Low.
35	<b>New viewpoint</b> View north from Isabel Street	N/A	N/A	N/A	High	Moderate	High-Moderate	The project would introduce new fill embankments into this view with vehicles and road furniture possibly visible at this distance. Vehicles and road furniture are currently visible at this distance. Existing vegetation provides some ability to screen the infrastructure from residents. View would improve over time as new plantings are established. Overall assessment impact is High-Moderate.
36	<b>New viewpoint</b> View west from Isabel Street	N/A	N/A	N/A	High	High	High	The project would introduce new fill embankments into this view with vehicles and road furniture possibly visible at this distance. Vehicles and road furniture are currently visible at this distance. Existing vegetation provides some ability to screen the infrastructure from residents. View would improve over time as new plantings are established. Overall assessment impact is High.

Table 6-29 Operational visual impacts of the amended project at updated and additional viewpoints

Existing viewpoint	Viewpoint during operation of amended project
<u>Existing viewpoint</u> – Viewpoint 7: View east along Elizabeth Drive	
	
<u>Existing viewpoint</u> – Viewpoint 22: View south from Duff Road	
	<p>The alignment has shifted so view would be similar to existing.</p>



Existing viewpoint	Viewpoint during operation of amended project
<u>Existing viewpoint</u> – Viewpoint 24: View south from Cecil Road	
	 <p>New bridge structures</p> <p>New fill batters Widened Elizabeth Drive</p>
<u>Existing viewpoint</u> – Viewpoint 25: View north-west toward M7 Motorway - M12 Motorway Interchange	
	 <p>New interchange bridges and road alignments</p>



Existing viewpoint	Viewpoint during operation of amended project
<u>Existing viewpoint</u> – Viewpoint 26: View north along the M7 Motorway	
 <p>A photograph showing the current state of the M7 Motorway from Viewpoint 26. The road is a multi-lane asphalt highway stretching into the distance under a clear blue sky with scattered clouds. The road is flanked by green grass and trees. A concrete median is visible on the right side of the road.</p>	 <p>A photograph showing the proposed view north along the M7 Motorway from Viewpoint 26 during the operation of the amended project. The road is wider and features new interchange bridges, embankments, and widened cuttings. A new on-ramp is visible on the right side of the road. Labels with leader lines point to these features: "New interchange bridges, embankments and widened cuttings" and "New on ramp".</p>
<u>Existing viewpoint</u> – Viewpoint 28: View west from Jaquetta Close	
 <p>A photograph showing the current landscape from Viewpoint 28, looking west from Jaquetta Close. The view is dominated by a grassy hillside with several trees in the foreground and middle ground. A fence line is visible in the immediate foreground.</p>	 <p>A photograph showing the proposed view west from Jaquetta Close from Viewpoint 28 during the operation of the amended project. The landscape is similar to the existing view, but with a new fill batter and road barrier visible on the right side of the road. Labels with leader lines point to these features: "New fill batter" and "Road barrier".</p>



Existing viewpoint	Viewpoint during operation of amended project
<u>Existing viewpoint</u> – Viewpoint 29: View west along Elizabeth Drive	
 <p>A photograph showing the current state of Elizabeth Drive. The road is a two-lane asphalt road with a concrete curb on the left. A line of trees runs along the left side of the road. In the distance, a bridge structure is visible over the road.</p>	 <p>A photograph showing the proposed future state of Elizabeth Drive. The road is wider, with a new asphalt surface and white lane markings. A new interchange bridge is visible in the distance. Labels with leader lines point to the 'New interchange bridges' and 'Widened Elizabeth Drive'.</p>
<u>Existing viewpoint</u> – Viewpoint 30: View south along shared user path and M7 Motorway	
 <p>A photograph showing the current state of the M7 Motorway. A shared user path with a metal fence runs along the left side of the road. A concrete barrier separates the path from the motorway. In the distance, a truck and a car are visible on the road. A sign above the road indicates 'M7 Motorway'.</p>	 <p>A photograph showing the proposed future state of the M7 Motorway. The road is wider, with a new asphalt surface and white lane markings. A new off ramp and new interchange bridges are visible in the distance. Labels with leader lines point to the 'New off ramp' and 'New interchange bridges'.</p>



Existing viewpoint	Viewpoint during operation of amended project
<b>New viewpoint</b> – Viewpoint 31: View south from Elizabeth Drive, west of Duff Road	
	
<b>New viewpoint</b> – Viewpoint 32: View south-east from Elizabeth Drive, east of Duff Road	
	



Existing viewpoint	Viewpoint during operation of amended project
<b>New viewpoint</b> – Viewpoint 33: View south from Cecil Road, north of Elizabeth Drive	
	
<b>New viewpoint</b> – Viewpoint 34: View south from Wallgrove Road	
	



Existing viewpoint	Viewpoint during operation of amended project
<b>New viewpoint</b> – Viewpoint 35: View north from Isabel Street	
	 <p>New interchange bridges</p> <p>New fill batter</p>
<b>New viewpoint</b> – Viewpoint 36: View west from Isabel Street	
	 <p>New fill batter</p>



### 6.3.4 Cumulative impact

The EIS identified that the project would have a moderate to high contribution to cumulative landscape character and visual impacts in the area. The cumulative landscape character and visual impacts associated with the amended project would be likely to remain unchanged from the assessment carried out as per Section 7.3.7 of the EIS.

### 6.3.5 Environmental management measures

The landscape character and visual impacts associated with the amended project are generally consistent with the impacts described in the EIS. The environmental management measures identified in Section 7.3.8 of the EIS are therefore considered appropriate to manage the landscape character and visual amenity impacts associated with the amended project. No additional or amended environmental management measures are required for the amended project.