Visual Impact Assessment Scope and Methodology

1.1 Visual Impact Assessment Scope

This Visual Impact Assessment (VIA) addresses the potential landscape and visual impacts associated with the Project, including:

- Review of existing information relevant to the visual environment, including existing landform, vegetation, land use, and statutory requirements;
- A description of the Project and its visual components;
- Identifying the limitations and assumptions of this method;
- An evaluation of the existing landscape and visual environment;
- Discussion of visual receptor sensitivity within the study area through the use of viewpoints;
- Assessment of the significance of impacts on landscape character and visual amenity at the viewpoints as a direct result of the Project; and
- Identification of residual and cumulative impacts; and
- Proposed mitigation strategies.

1.2 Visual Impact Assessment Methodology

Existing Environmental Values

The methodology for the identification of the existing environmental values of the area surrounding the site and the identification of the viewpoints is detailed below:

- Use of Geographical Information Systems (GIS) datasets and aerial photography to generate a visual catchment map. This identifies the area within which the Project can potentially be seen;
- Identification of potentially affected receptors and viewpoints which are accessible to the public or are a place of residence using aerial photography;
- Site verification of publicly accessible and representative viewpoints with photographic recording to provide a representation of typical views possible from that locality to the Project. These viewing situations reflect particular landscape and / or visual features of importance within the visual environment and local landscape character. Generally, they represent views from key visual receptors (residents and recreation users) where a potentially significant change in view may occur; and
- Review of existing information and collation of relevant background information including planning, land use and regional landscape characteristics.

Assessment of Impacts

A qualitative assessment of landscape and visual impacts forms the second component of the assessment. The significance of impacts has been evaluated using a combination of landscape impacts and visual impacts, as defined below.

Landscape Impact

Landscape impacts refer to the relative capacity of the landscape to accommodate changes to the physical landscape of the type and scale proposed that would occur as a direct result of the Project, through the introduction of new features or loss/modification of existing features. Impacts have been assessed from identified viewpoints and consider (through professional judgement) the scale of change including:

- The extent to which the change (modification, removal and / or addition) of landscape features alters the existing landscape character;
- The extent of area from which the effect is evident;
- The duration of the effect (short/medium/long term, permanent/temporary);
- The physical state (or condition) of the landscape and its intactness from visual, functional, and ecological perspective. This includes consideration of the condition of landscape elements (eg. groups of features within the soft landscape including roadside planting, open space, recreational facilities, creek lines, tree, bush blocks), or features (eg. prominent eye-catching elements such as a distinctive building and/or its setting, significant mature specimen tree, lookout point, etc) and their contribution to landscape character. Individual features and elements make up the character of a place and influence how the landscape is experienced; and
- The effectiveness of any proposed mitigation.

Definitions used to describe this assessment are detailed in Table 1.

Table 1 Assessment of Landscape Impact

Landscape Impact	Definition
Large	A substantial / obvious change to the landscape due to total loss of, or change to, elements, features or characteristics of the landscape. Would cause a landscape to be permanently changed and its quality diminished. Change is likely to cause a direct adverse permanent or long term (more than 10 years) impact on the value of the receptor.
Moderate	Discernible changes in the landscape due to partial loss of, or change to the elements, features or characteristics of the landscape. May be partly mitigated. The change would be out of scale with the landscape, and at odds with the local pattern and landform and will leave an adverse impact on a landscape of recognised quality. Change is likely to impact adversely the integrity/value of the receptor but recovery is predicted in the medium term (5-10 years).
Small	Minor loss or alteration to one or more key landscape elements, features, or characteristics, or the introduction of elements that may be visible but may not be uncharacteristic within the existing landscape. Change is likely to adversely impact the integrity/value of the receptor but recovery is expected in the short term (0-4 years).
Negligible	Almost imperceptible or no change in the view as there is little or no loss of / or change to the elements, features or characteristics of the landscape. The existing landscape quality is maintained but be slightly at odds to

Landscape Impact	Definition
	the scale, landform and pattern of the landscape.

(Landscape Institute and Institute for Environmental Management and Assessment, 2002)

Visual Impact

Visual impacts arise from changes in available views of the landscape that occur as a result of the Project. Visual impact is determined through the subjective assessment of sensitivity of the visual receptors (i.e. residents, outdoor recreational users) and the magnitude (scale) of the change in view. Sensitivity is dependent upon receptors' location; the importance of their view; their activity (i.e. working, recreational, or travelling through); expectations; available view; and the extent of screening of this view.

Factors that have been considered in assessing the response of receptors to changes in the visual amenity include:

» Interest in the visual environment and their distance/angle of view to the source of the impact;

» The extent of screening/filtering of the view;

» Magnitude of change in the view (i.e. loss/addition of features that change the view's composition);

» Integration of changes within the existing view (form, mass, height, colour and texture);

» Duration of the effect (temporary/permanent, intermittent/continuous); and

» Effectiveness of the proposed mitigation.

Receptor sensitivity definitions used to describe this assessment have been outlined in Table 2 below.

Table 2 Assessment of Receptor Sensitivity

Sensitivity	Definition
High	» Occupiers of residential properties with long viewing periods, within close proximity to the proposed development » Users of outdoor recreational area including nature reserves, and nature based recreation (walking, horse riding trails, water based activities such as swimming and fishing) where their attention is focussed, in part, on the landscape and its amenity » Communities that place value upon the landscape and enjoyment of views of their landscape setting
Medium	» Outdoor workers who have a key focus on their work who may also have intermittent views of the Project Area » Outdoor recreation users (i.e. sporting activities) where their attention is focussed predominately on the activity being undertaken » Occupiers of residential properties with long viewing periods, at a distance from or screened from the Project Area
Low	» Road users in motor vehicles, trains or on transport routes that are passing through or adjacent to the study area and therefore have short term views

	»	Viewers indoor at their place of work
Negligible	»	Viewers from locations where there is screening by vegetation or structures where only occasional screened views are available and viewing times are short
	»	Road users in motor vehicles, trains or on transport routes that are passing through/adjacent to the study area and have partially screened views and short viewing times

(Landscape Institute and Institute for Environmental Management and Assessment, 2002)

Significance of Impact

For the purposes of this assessment, predicted impacts as a direct result of the project have been described according to their significance, which is a function of the magnitude of the impact and the sensitivity of the receptor as detailed in Table 3 below. Only impacts considered being of major or high significance are considered as significant for the purposes of this assessment.

Table 3 Significance of Impact

		Landscape Impact			
		Large	**Moderate**	**Small**	**Negligible**
Visual Sensitivity	**High**	Major Significance	High Significance	Moderate Significance	Minor Significance
	Medium	High Significance	Moderate Significance	Minor Significance	Not Significant
	Low	Moderate Significance	Minor Significance	Not Significant	Not Significant
	Negligible	Minor Significance	Not Significant	Not Significant	Not Significant

(Landscape Institute and Institute for Environmental Management and Assessment, 2002)

Limitations of the VIA

There are the following limitations associated with this assessment:

» There is no guidance on the assessment of landscape and visual impacts specific to Australia. Therefore the *Guidance for Landscape and Visual Impact Assessment* prepared by the United Kingdom Landscape Institute, the Tasmanian Forest Practice Board's Manual for *Forest Landscape Management*, and the United States Forest Service *National Forest Landscape Management Agriculture Handbook* and has been as a basis for the methodology for this assessment.

» The VIA process aims to be objective and describe any changes factually. Potential changes as a result of the project have been defined, however, the significance of these changes requires qualitative (subjective) judgements to be made. The conclusions to this assessment therefore combine objective measurement and subjective professional interpretation. This assessment has attempted to be objective, however it is recognised that visual assessment can be highly subjective and individuals are likely to associate different visual experiences to the study area.

Glossary of Terms and Abbreviations

Term	Definition
Background	6 km – 16 km - Textures are no longer visible, but mountain and valley forms, skylines and ridgelines are important (Forest Practice Board Tasmania, 2006)
Cumulative impact	The interaction of impacts arising from a development in conjunction with other past, present and reasonably foreseeable future actions
Foreground	0-1 km – Is the visual zone where colour contrast and textural detail are most clearly perceived (Forest Practice Board Tasmania, 2006)
GSDA	Gladstone State Development Area
Landscape feature	A component, part or feature of the landscape that is prominent or eye-catching, e.g. hills, buildings, vegetation
Landscape quality	Largely subjective judgement based on particular characteristics that influence the way in which the environment is experienced, including special interests such as cultural associations or heritage interests, the presence and/or type of elements and condition
Landscape sensitivity	The extent to which landscape can accept a change of a particular type and scale without unacceptable adverse impacts on its character
Landscape value	Areas of formally designated landscape that through national or local consensus, reflect the value placed by society on particular environments and/or their features
Middleground	1 km-6 km – Different elements in the landscape are visually apparent (Forest Practice Board Tasmania, 2006)
Mitigation	Measures, including any process, activity or design to avoid, reduce, remedy or compensate for adverse landscape and visual impacts of a development project
Residual impact	An impact that occurs/persists after mitigation measures have been put in place
Sensitive visual receptor	Person and/or viewer group that will experience an impact
Visual amenity	The value of a particular area or view in terms of what is seen
Visual impact	Changes in the appearance of the landscape or in the composition of available views as a result of development, to people's responses to these changes, and to the overall impacts in regard to visual amenity. This can be positive (i.e. beneficial or an improvement) or negative (i.e. adverse or a detraction).
Visual catchment	Extent of potential visibility to or from a specific area, feature or proposal
VIA	Visual Impact Assessment