Policy Number: 114

Banana Shire Council
Adopted: 27 April 2022

LANDSCAPE & VISUAL IMPACT ASSESSMENT POLICY

ACKNOWLEDMENT

Council wishes to acknowledge the assistance of Insight Design and Assessment Service in the preparation of the information in this Policy.

SCOPE

This Policy provides information about the preparation of landscape and visual impact assessments (LVIA) associated with or required for development applications and approvals.

LEGISLATION

Planning Act 2016

OBJECTIVE

The purpose of this Policy is to ensure that appropriate regard is given to the identification and mitigation of impacts from extensive developments on the landscape character and the visual amenity of surrounding properties.

DEFINITIONS

Amenity	The pleasantness of a place as conveyed by desirable attributes including views, noise, odour etc.
Artist's impression	An indicative visual representation illustrating the appearance of a proposal. Typically used to communicate a concept when photomontages are not available and/or when accuracy cannot be assured.
Character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another and often conveys a distinctive 'sense of place'. This term does not imply a level of value or importance.
Effect	The landscape or visual outcome of a proposed change. It may be the combined result of sensitivity together with the magnitude of the change.
Impact	The categorisation of effects. Legislative context should be considered in defining 'impacts' and their significance.
Landscape	Landscape is an all-encompassing term that refers to areas of the earth's surface at various scales. It includes those landscapes that are: urban,

	peri-urban, rural, and natural; combining bio-physical elements with the cultural overlay of human use and values.
Landscape effects	The effects of change and development of landscape as a resource and how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character.
Magnitude of change	The extent of change that will be experienced by receptors. This change may be adverse or beneficial. Factors that could be considered in assessing magnitude are: the proportion of the view/landscape affected; extent of the area over which the change occurs; the size and scale of the change; the rate and duration of the change; the level of contrast and compatibility.
Mitigation	Measures to avoid, reduce and manage identified potential adverse impacts.
Offset	Measures to compensate for potential adverse impacts that cannot be otherwise mitigated.
Photomontages	A visual representation of a proposal from a particular receptor viewpoint, on a photographic base. The methodology for the preparation of any photomontage and its accuracy should be defined.
Receptor	A place, route, viewer audience or interest group which may receive an effect and require assessment.
Scenic amenity	A measure of the relative contribution of each place to the collective appreciation of the landscape. The term scenic amenity has a specific meaning and application in GIS mapping (a combination of visual exposure and scenic preference) and has been incorporated into several local planning schemes across Queensland.
Sensitivity	Capacity of a landscape or view to accommodate change without losing valued attributes. Includes the value placed on a landscape or view by the community through planning scheme protection and the type and number receivers.
Values	Any aspect of landscape or views that people consider to be important. Landscape and visual values may be reflected in local, state or federal planning regulations, other published documents or be established through community consultation and engagement, or as professionally assessed.
View	Any sight, prospect or field of vision as seen from a place and may be wide or narrow, partial or full, pleasant or unattractive, distinctive or nondescript and may include background, mid ground and/or foreground elements or features.
Viewpoint	The specific location of a view, typically used for assessment purposes.
Viewshed	Areas visible from a particular location (may be modelled or field-validated).

Visibility Analysis Map	A map illustrating areas of land with views to a particular feature. This may be modelled or field-validated and assumptions must be stated. A digitally modelled analysis is usually based on a digital terrain model and may also incorporate the screening effect of vegetation and built form. Other terms, such as Zone of Visual Influence (ZVI), Zone of Theoretical Visibility (ZTV), Potential Visibility Zone, Visual Envelope, may be used, but should be defined.
Visual absorption capacity	The potential for the physical attributes (landform, vegetation and built form) of a scene to absorb a particular change.
Visual amenity	The attractiveness of a scene or view.
Visual catchment	Areas visible from a combination of locations within a defined setting (may be modelled or field-validated).
Visual effects	The effects of change and development on views available to people and their visual amenity and how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements.
Visual representation	Graphic representation of a proposal in context showing its likely appearance and scale.

POLICY

Overview

The following summarises a methodology for assessing landscape and visual impacts for large-scale greenfield projects (such as solar farms). The methodology can also serve as a checklist when reviewing a Landscape and Visual Impact Assessments (LVIA) included with development applications.

The methodology set out in this document is based on *Guidelines for Landscape and Visual Impact Assessment, 3rd Edition,* 2013, prepared by the UK based Landscape Institute and the Institute of Environmental Management & Assessment (the **LIIEMA Guidelines**). These Guidelines are widely referenced in the industry.

As explained in the LIIEMA Guidelines[1]:

> *Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.*

The methodology set out in this document is also consistent with the approach described in the *Guidance Note for Landscape and Visual Assessment*, June 2018, prepared by the Australian Institute of Landscape Architects (the **AILA Guidelines**).

As explained in the AILA Guidelines[2]:

[1] LIIEMA Guidelines, page 4.
[2] AILA Guidelines, page 16.

The aim of a Landscape and Visual Assessment is to understand the potential impact of a project so that any adverse effects can be mitigated.

Assessment approach

There is no mandated approach to assessing landscape and visual impacts. However, as the AILA Guidelines explain[3]:

> *There are some fundamental steps that must be undertaken in order to identify potential landscape and visual impacts. It is essential that a landscape and visual assessment has a clear, logical and repeatable approach to the identification of effects and categorisation of impacts, and this method should be clearly stated in any assessment.*

The AILA Guidelines also explain[4]:

- the methodology should be clearly set out, logical and repeatable;
- the process of assessment should be consistently applied throughout any assessment;
- a methodology may be refined to reflect the specific issues of the site or project;
- the methodology should aim to reduce subjectivity as much as possible:
- the methodology should distinguish between objective and subjective evaluation;
- limitations should be stated; and
- it may be appropriate to obtain a review to validate the methodology.

The LIIEMA Guidelines are very clear about the importance of **distinguishing between effects on landscape and effects on the visual environment** and of effectively undertaking a separate assessment for each. According to the LIIEMA Guidelines:

> *LVIA must address both effects on landscape as a resource in its own right and effects on views and visual amenity.*[5]

Figures 1 and 2 at Appendix A are from the LIIEMA Guidelines and describe the process for undertaking an assessment of landscape impacts (Figure 1) and visual impacts (Figure 2). As shown, the general approach is the same for both and the determination of Impact Significance is a factor of Receptor Sensitivity and Impact Magnitude.

The **key steps** of either assessment process involves:

1. describing the Baseline situation and key aspects of the proposal;
2. identifying potential receptors;
3. identifying potential impact generators;
4. assessing Sensitivity of receptors to the potential impact generators;
5. assessing the Magnitude of potential impacts on the identified receptors;
6. combining the ratings of Sensitivity and Magnitude to determine Impact Significance.

Regarding **Baseline studies**, the LIIEMA Guidelines explain:

> *The initial step in LVIA is to establish the baseline landscape and visual conditions. The information collected will, when reviewed alongside the description of the proposed*

[3] AILA Guidelines, page 12.
[4] AILA Guidelines, page 12.
[5] LIIEMA Guidelines, page 19.

development, form the basis for the identification and description of the changes that will result in the landscape and visual effects of the proposal:

- *For the landscape baseline the aim is to provide an understanding of the landscape in the area that may be affected – its constituent elements, its character and the way this varies spatially, its geographic extent, its history (which may require its own specialist study), its condition, the way the landscape is experienced, and the value attached to it.*
- *For the visual baseline the aim is to establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected and the nature of views and visual amenity at those points.*[6]

An essential part of the Baseline studies is to determine a study area. This will vary depending on the nature and scale of the proposal as well as local conditions and may also be defined by assessing authorities. The study area should take in the extent of the landscape and all visual receptors that may be affected by the proposed development in a meaningful way. Landscape study areas may comprise a range of different landscapes. Visual study areas are often determined through GIS-based visibility mapping (to identify areas from which a proposal may be visible).

It is also relevant to consider approved but unconstructed projects as part of the baseline assessment, including the way such projects may affect the landscape values or visibility of the landscape.

As explained in the AILA Guidelines[7], **Receptors** are:

> *A place, route, viewer audience or interest group which may receive an effect and require assessment.*

Landscape Receptors are components of the landscape that are likely to be affected by a proposal, and often include landscape character (which may vary for the study area); important landscape features (such as watercourses or topographic features), and specific aesthetic or perceptual qualities.

Visual Receptors are individuals or groups of people that may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements. Effects on visual receptors are assessed from identified viewpoints. As explained in the LIIEMA Guidelines[8], viewpoints may be:

- representative – selected to represent the experience of different types of visual receptor, where large numbers of viewpoints cannot all be included individually and where the significance of impacts are unlikely to differ;
- specific – chosen because they are key and sometimes promoted viewpoints within the landscape; or
- illustrative – chosen specifically to demonstrate a particular effect or specific issues.

According to the LIIEMA Guidelines, determination of **Sensitivity** is made up of judgements about:

- the susceptibility of the receptor to the type of change arising from the specific proposal; and
- the value attached to the receptor

[6] LIIEMA Guidelines, page 32.
[7] AILA Guidelines, page 7.
[8] LIIEMA Guidelines, page 109.

and determination of Magnitude is made up of judgements about:

- the size and scale of the effect;
- the geographical extent of the area that will be affected; and
- the duration of the effect and its reversibility.

Variables such as accessibility, duration, quality and extent are applicable to both consideration of Sensitivity and Magnitude. Good practice requires a clear definition of the ratings for Sensitivity and Magnitude. This is often done by way of ratings tables. Tables 1 and 2 below are examples of rating criteria for Landscape and Visual Sensitivity. Tables 3 and 4 below are examples of rating criteria and significance for Impact Magnitude (and can be applied for both Landscape and Visual impacts).

Maps and visualisations are often prepared to illustrate and inform ratings of Sensitivity and Impact Magnitude. Discrete methodologies should be provided to explain how these aids were prepared and identifying the base information upon which they are based.

Table 1 – Landscape Receptor Sensitivity Ratings

Sensitivity Rating	Explanation	Examples
High	Landscapes that are of particularly high value to a large population, are relatively expansive and accessibility, comprise regionally important landscape features, or are particularly vulnerable to change.	▪ landscapes that are of national or regional importance such as National Parks ▪ landscapes that are characterised by notable complexity, high scenic amenity, or include highly valued features such as memorable water features ▪ landscapes that are identified as vulnerable due to cultural or ecological reasons ▪ landscapes that serve a regionally important role in supporting, defining, or characterising other areas such as inter-urban breaks
Moderate	Landscapes that are of particular value to a local population, or that have some recognised susceptibility to change. Landscapes may be expansive or more confined and may not be accessed by the wider population.	▪ landscapes that are of local importance such as valuedd open space areas ▪ landscapes that are characterised by moderate scenic amenity or include locally valued features ▪ landscapes that typically have some vulnerability to change due to cultural or ecological reasons ▪ landscapes that serve a locally important role in supporting, defining, or characterising other areas such as inter-urban breaks
Low	Landscapes that are of moderate or low value to the community, or that are relatively resilient to change and do not comprise character or features of particular importance. Also landscapes of limited size and which are not known or easily accessible to a wider population.	▪ landscapes that are of limited local importance ▪ landscapes that are not characterised by particular scenic amenity values ▪ landscapes that typically have some resilience to change ▪ landscapes that are common in a local area and do not comprise particular cultural or ecological value

Negligible	Landscapes without valued character or features and which are resilient to change. Also landscapes of limited size and which are not known to a wider population and where access is limited or difficult.	▪ landscapes that are not valued by local or wider community ▪ landscapes that are characterised by adverse visual qualities or generally considered unattractive

Table 2 – Visual Receptor Sensitivity Ratings

Sensitivity Rating	Explanation	Examples
High	Situations where viewpoints are easily accessible, where viewing opportunities are prolonged, where the value of the view is high quality and where the scale or extent of views are substantial.	▪ travellers along scenic routes or visitors to scenic lookouts ▪ visitors to viewing locations where views to landscapes are rare or unique or of regional importance ▪ residents or workers in close proximity to the site with interest in the landscape or particular views ▪ those involved in outdoor recreation in close proximity to the site with high interest in the landscape or particular views
Moderate	Situations where viewpoints are reasonably accessible, where viewing opportunities are more than fleeting, where the value of the view is of moderate quality and where the scale or extent of views are substantial.	▪ travellers along road and rail routes in close proximity to the site which are not scenic routes but offer clear and quality views ▪ visitors to viewing locations where views to landscapes are representative of local character or sense of place but are not rare or unique ▪ residents or workers beyond the immediate vicinity of the site with interest in the landscape or particular views ▪ those involved in outdoor recreation beyond the immediate vicinity of the site with high interest in the landscape or particular views
Low	Situations where viewpoints are not easily accessible, where viewing opportunities are of limited duration, where the value of the view is of moderate or low quality and where the scale or extent of views are limited.	▪ travellers along road and rail routes beyond close proximity of the site which are not scenic routes but offer clear and quality views ▪ residents or workers beyond 6km of the site where clear and quality views to the site are achieved ▪ people at place of work where setting is not important to quality of working environment ▪ those involved in outdoor recreation beyond 6km of the site or where activities do not depend on views to landscape
Negligible	Situations where the viewpoints has little or no concern about possible changes, or	▪ people with little interest in landscape or with views where the site is barely noticeable

	where access to viewpoint is particular limited.	

Table 3 – Impact Magnitude Ratings

Magnitude Rating	Explanation	Examples
High	The size, scale and duration of the effect are substantial and/or the geographic extent of the effect is large (i.e. regionally significant).	▪ severe consequences, significant at a regional level, likely to be unacceptable at a regional level ▪ a large number of people measurably affected ▪ substantial/obvious changes due to total loss of or change to elements, features or characteristics of the landscape which are regionally significant ▪ overwhelming loss or addition of features in the view such that nature of visual environment is fundamentally changed ▪ significant contrast of any new features or changes compared to existing and remaining landscape ▪ views to key landscape elements (such as ocean, skyline, headlands) obstructed
Moderate	The size, scale or duration may be limited or the geographic extent is limited (i.e. locally significant).	▪ moderate consequences, significant at a local level and likely to be unsatisfactory at a local level ▪ discernible changes due to partial loss of or change to the several elements, features or characteristics of the landscape which are locally significant ▪ significant loss or addition of features in the view such that nature of view or character of landscape is altered ▪ noticeable contrast of any new features or changes compared to existing and remaining visual environment ▪ built form partially integrated such that dominance of landscape elements remains ▪ views to key landscape elements partially obstructed but views remain intact
Low	Either the size, scale, or duration of change is constrained or limited and geographic extent is limited.	▪ low consequences, significant at a local level but likely to be satisfactory at a local level ▪ minor change in the visual environment due to loss or change to one or two elements, features, or characteristics of the visual environment which are locally significant ▪ minor memorable change to the visual environment ▪ impact likely to be temporary or reversible ▪ built form well integrated such that landscape is clearly dominant ▪ little permanent change to local character
Negligible	The change is not material in terms of size, scale, duration or extent.	▪ no consequences of significance at a local level ▪ almost imperceptible or no change to the landscape as there is little or no loss of/or change

		to the elements, features or characteristics of the visual environment ▪ no memorable change to the visual environment

Table 4 – Impact Significance Rating

Receptor Sensitivity	Impact Magnitude			
	High	**Moderate**	**Low**	**Negligible**
High	High	High-Moderate	Moderate	Negligible or Low
Moderate	High-Moderate	Moderate	Moderate-Low	Negligible
Low	Moderate	Moderate-Low	Low	Negligible
Negligible	Negligible or Low	Negligible	Negligible	Negligible

The above approach is focussed on the assessment of adverse effects. In some instances, it may be necessary to also identify and assess positive effects (for example the rehabilitation of a landfill). There are a number of ways to do this, and the appropriate approach would depend on the type of project and impacts. It is possible to expand the above ratings tables to factor in positive effects and to include ratings for negative and positive Impact Significance. Alternatively, a separate assessment of positive effects can be undertaken and discussed in relation to any assessed negative effects. Importantly, it is not necessarily appropriate to weigh positive effects against negative effects in order to come to some final relative impact assessment. Rather, the importance of positive and negative effects are more appropriately considered in terms of what Council's planning scheme seeks for the subject area.

Mitigation Measures

As explained in the AILA Guidelines[9]:

> *Mitigation measures should be proposed as a means of avoiding, remedying or reducing potential impacts. These measures are typically developed following the identification of impacts, and can influence the design of a project, or may be in addition to the original description of the project.*
> ...
> *Mitigation, as a first priority, should aim to eliminate or minimise adverse impacts through careful upfront planning and design of the project. In this way the mitigation becomes incorporated into the project. This is sometimes referred to as 'inherent' mitigation.*
> ...
> *Where mitigation measures require time to have an effect, (e.g. growth of screening plants) this should be explained, and maintenance requirements specified.*

Once assessment of impacts of a proposed development has been undertaken, a determination should be made about impacts that need to be addressed (avoided, reduced or offset) through mitigation measures. The mitigation measures must be carefully described with a level of detail that avoids any uncertainty, particularly in terms of timeframes (i.e. when measures will be implements and completed) and responsibilities (i.e. who is responsible for implementing and monitoring).

Following identification of mitigation measures, an assessment of Residual Impacts should be undertaken to describe the benefits (in reducing impacts) that mitigations measures would have. This essentially involves revisiting the assessment of Receptor Sensitivity and Impact Magnitude having regard to the potential mitigation measures in order to identify the Significance of Residual Impacts. This

[9] AILA Guidelines, page 12.

process can be undertaken as a means of comparing the relative benefits of alternative mitigation measures.

Cumulative Impacts

It is not common, but for certain projects it may be appropriate to include an assessment of cumulative impacts. This involves a consideration of how the impacts arising from a particular project may, in combination with other existing or approved projects, result in greater cumulative impacts. As explained in the LIIEMA Guidelines[10]:

> *Cumulative landscape effects may result from adding new types of change or from increasing or extending the effects of the main project when it is considered in isolation.*
> ...
> *Cumulative visual effects are the effects on views and visual amenity enjoyed by people, which may result either from adding the effects of the project being assessed to the effects of the other projects on the baseline conditions or from their combined effects.*

The assessment of cumulative effects is nuanced and depends on the types of projects being considered. Should cumulative effects be determined as a relevant consideration, reference should be made to the LIIEMA Guidelines or other guidelines describing a process for assessing such effects.

PROCEDURE

Procedures as approved and issued by the Chief Executive Officer, and subject to further revision, amendment and issue under the authority of the Chief Executive Officer.

CERTIFICATION

.....
CHIEF EXECUTIVE OFFICER
BANANA SHIRE COUNCIL

5/5/2022
.....
DATE

[10] LIIEMA Guidelines, pages 124 and 129.

Figure 1 – Process for assessing Landscape Impacts. From LIIEMA Guidelines

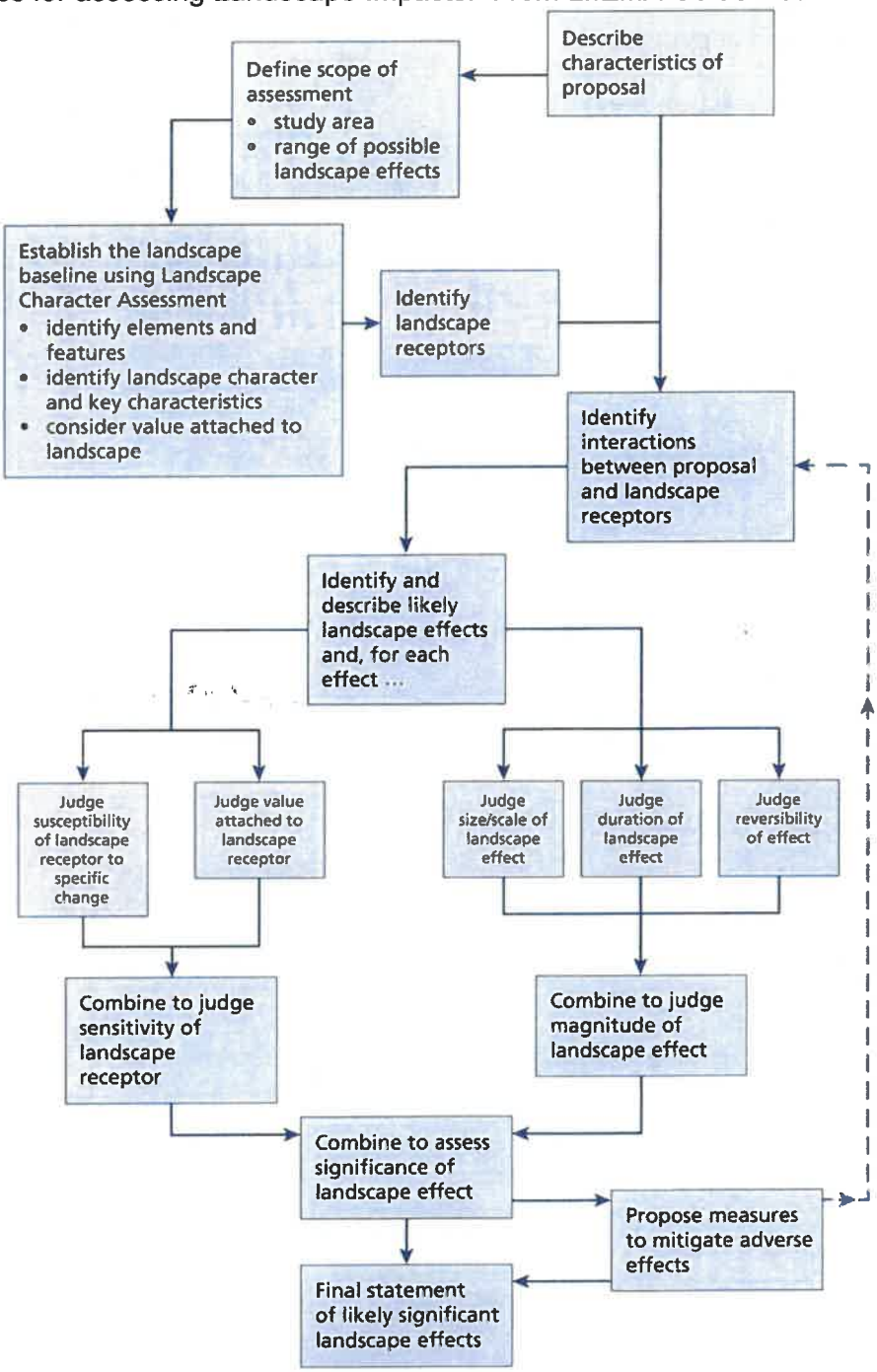

Figure 2 – Process for assessing Visual Impacts. From LIIEMA Guidelines