

Tweed Scenic Landscape Strategy

TWEED SHIRE COUNCIL | Living and Loving the Tweed





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# **Glossary of Definitions**

Term	Definition
Capture Point	A point along a linear route where panoramic or scenic views or vistas are particularly visible, as identified through field survey for the purposes for viewshed mapping.
Gondwana Rainforests of Australia	UNESCO World Heritage listed reserves. Formerly referred to as CERRA - Central Eastern Rainforest Reserves of Australia. Five reserves are located in Tweed Shire.
Distance Zones	Zones of a viewshed measured as progressive distances away from the observer point, classified as foreground, mid-ground and background.
Planning Principles	A statement of a desirable outcome from a chain of reasoning aimed at reaching, or a list of appropriate matters to be considered in making, a planning decision.  (NSW Land and Environment Court Practice and Procedure)
Key Landscape feature	A distinguishing or visually prominent and valued attribute regarded as characteristic of the landscape. May include recognisable natural landforms, vegetation or cultural elements.
Landscape character	The distinctive, recognisable and consistent pattern of physical elements within a landscape, which when combined, give a setting its sense of place and make one landscape different from another Multiple physical elements include terrain, vegetation, bodies of water, cultural modifications and atmospheric conditions.
Observer or viewer	A person or group of people looking at or experiencing a scene, view or vista.
Viewing Situation	Locations from which people experience and enjoy views. There are two types of viewing situations identified and mapped through this strategy, being linear and point viewing situations.
Linear Viewing situations	Includes roads, cycleways, walking trails, navigable waterways and any other route along which an observer appreciates a sequence of views from a series of locations as they move through the landscape.
Point viewing situations – also referred to as "Static" or "Stationary" viewing situations	Locations from which a single view or scene is appreciated and are static in nature. They include lookouts, public parks and reserves, beaches, headlands and places of interest such as Tumbulgum Jetty or Tweed Regional Art Gallery.
Priority viewing situations (or associated viewsheds)	<ol> <li>Viewing locations and associated viewsheds that are either:</li> <li>of national or regional significance, promoted at a regional or national level, that attract a significant number of visitors, are easily accessible, highly trafficked and those repeatedly identified through community consultation as having high scenic value, quality or preference; or</li> <li>of regional significance, promoted at a regional or local level, are moderately trafficked and easily accessible or those identified as having high scenic value quality or preference through community consultation</li> </ol>

Term	Definition
Scenic Landscape	A landscape that displays aesthetic qualities or values that an observer finds appealing. The combination of a) landscape character and b) scenic quality.
Scenic Management Principles	The overarching desired visual outcome for scenic landscapes of the Tweed Shire.
Scenic or visual quality - also referred to as "visual values" or "visual preferences	The combination of multiple natural and cultural elements within the landscape and their potential to create different levels of satisfaction or appreciation.
View shed - also referred to as "viewing field", "view corridor" or "visual catchment"	The entire area that is visible from a particular viewing situation. It is the combination of all available lines of sight along which an observer has an unobstructed view, and is directly related to terrain, elevation and obstructions, including vegetation or structures.
Views	Generally narrow viewsheds that are constrained in length or width by terrain, vegetation or buildings or other structures in the landscape
Visibility – also referred to as "visual exposure"	The extent to which a site or project is visible from publicly accessible viewing locations, and to any number of people. The measure of visibility is the number (or incidence) of viewsheds that a given location falls within.
Vistas	Broader or panoramic landscape views or a sequence or combination of views, often seen from elevated ground and defined by considerable physical or geographical features such as ridgelines, escarpments or valleys.

## 1 Introduction

## 1.1 Strategic Context

Tweed Shire's landscapes tell a rich and complex story of the region's evolution, its volcanic history, ecology, cultural identity and economic diversity. These landscapes include the southern hemisphere's largest extinct shield volcano, five World Heritage-listed National Parks containing ancient Gondwana rainforests and dramatic mountain ranges and 37km of white sandy beaches and rocky headlands. Nestled between them are 12 unique rural villages, coastal creeks, mangrove estuaries, the Tweed River and its vast rich alluvial floodplain, covered by sugar cane.

The Tweed's scenic landscapes bring great benefit to our community through visual joy but also provide a source of health and well-being for our residents, source of appreciation for natural heritage and cultural identity, an enormous tourism asset to our local and regional economies, and the potential to attract high value businesses to this incredible landscape.

At the same time, scenic landscapes and their inherent qualities are vulnerable to environmental change and human interventions such as land uses and the nature of development, particularly its placement within the landscape and its design.

## 1.1.1 Need for a Scenic Landscape Strategy

The Tweed Shire has experienced some of the strongest and most rapid population growth in NSW over the past 10 years, and the North Coast Regional Plan 2016 forecasts this growth to continue with the Tweed's population increasing to 115,000 people by 2036 with 56,000 new dwellings being built, along with the services and infrastructure required to support this population growth. Independent population forecast experts predict even higher growth to more than 125,000 by 2036 (https://forecast.id.com.au/tweed). Growth without proper management has the potential to result in land use conflict and development pressure through new residential development in proximity to sensitive lands, changing agricultural practices and increasing resource demands.

The Tweed Shire's expanding tourism industry and visitation is anticipated to continue given its proximity to the nationally and internationally significant tourist destination of the Gold Coast and being a distinct attraction for visitors in terms of visitors pursuing a more natural escape and connection with tranquil settings means that ongoing growth in tourism is also expected across the Tweed. With tourism comes associated pressure for provision of associated support services such as increased tourist accommodation and transport options, car parking and public transport hubs, increased retail and commercial space to name a few.

In the context of this growth, it important to consider the impact that increased development can and will have on landscape character and scenic amenity for the Shire. Management of visual quality is therefore an important consideration in land use and land management decisions.

It is for these reasons Tweed Shire Council has an important role to play in the protection and conservation of the Tweed's scenic landscapes. As land use manager and primary consent authority for development, Council can fulfil this role through the preparation of local environmental plans, development control plans, strategic planning, development assessment and ongoing community education. Development of a shire wide strategy

targeted at scenic landscape protection is one of a series of actions being delivered to achieve this, with a particular focus on the adoption of a consistent approach to identify and evaluate landscape character and the preferences associated with it from the community's perspective. In this regard the purpose of the Scenic Landscape Strategy is to provide a framework to identify and evaluate landscape character and its associated value in the context of assessing development as well as planning for future growth.

#### 1.1.2 Purpose of the Scenic Landscape Strategy

To provide an assessment framework and suite of management principles that ensures the exceptional and unique scenic landscape qualities of the Tweed Shire are recognised and that any adverse impacts on those qualities by new development or land use is avoided or minimised to the greatest extent possible.

### 1.1.3 Scenic Landscape Strategy Objectives

The objective of the SLS is to assist Council, landowners, land managers, developers, business and community to identify and evaluate the visual attributes and qualities associated with the Tweed's scenic landscapes and ensure their protection or enhancement through strategic planning and development assessment processes and other effective management responses.

In doing so, this strategy has:

- 1. Identified and mapped the distinct landscape character types within the Tweed;
- 2. Developed descriptive narratives for each landscape type and their associated scenic qualities;
- 3. Identified and mapped highly valued and iconic views, viewing locations and viewing experiences throughout the Shire.

From this base, the strategy seeks to achieve the following objectives:

- 1. Understand the qualitative elements of the Tweed's landscape character and scenic views than underpin why they are important to the community;
- 2. Incorporate community preferences and perceptions into landscape character narratives.
- 3. Understand how they may be affected by future change, and identify those most sensitive to modification;
- 4. Identify management strategies for the protection and or enhancement of scenic amenity, through well informed planning decisions
- 5. Recommend measures to improve and promote viewing experiences and cultural interactions within scenic landscapes in the Tweed.

#### 1.1.4 Where, When and How Does the Scenic Landscape Strategy Apply?

This strategy applies to all land within the Tweed Shire, and all proposals that require development consent under the Environmental Planning and Assessment Act 1979.

Whilst the SLS has a shire wide application, there will be instances where there is no requirement for further action beyond the standard existing development application and assessment process. The application of this strategy is therefore dependent upon the location of a proposed development or land use, its visibility within the landscape, and the visual characteristics of the proposal itself.

In general, the Strategy does not apply to views from private property. The NSW Land and Environment Court has established Planning Principles that provide guidance as to how to determine whether an impact on views from private property is reasonable, equitable or fair (Tenacity vs Warringah Council LEC 2004), and this shall continue to be the primary guide for assessing private view sharing within the development assessment process.

The SLS is not a biodiversity strategy and is not exclusively aimed at protecting naturalness or wilderness. Whilst natural landscapes are highly valued by the community, it is also the diversity of landscapes in the Tweed, including urban, suburban, cleared rural and agricultural that create value and have resulted in the recognition as 'an eclectic melting pot'. The SLS aims to protect this diversity, including the scenic quality associated with 'less natural' areas. By way of example, the urban landscape can evoke sense of place and belonging to those who connect with and prefer to live in more developed areas; the cultural and entertainment opportunities associated with 'the city' are valued for their contribution to well-being; and the urban nightscape is highly valued for its glittering lights and night scenes.

Most importantly, the SLS is not a process to stop development. Rather, it is a tool to achieve better land use and development outcomes, being mindful of federal and state polies that prevail over local controls and permit development that would otherwise be prohibited under Council's local controls. By way of example, the State Environmental Planning Policy (Infrastructure) permits a range of developments, such as extractive industries (mines) and port facilities that have the potential for high visual impact.

The Scenic Landscape Strategy can be implemented in multiple ways including:

- Through site or locality specific community driven and Council lead strategic plans where the SLS can act as a guideline for new development or redevelopment;
- At the planning proposal stage where any proposal to rezone land to provide new urban release areas outside the existing urban character footprint has to comply with Sections 4.15 Evaluation (formerly s.79C) and Section 9.1 (formerly s.117 Planning Directions) of the *Environmental Planning and Assessment Act 1979*; and
- Through ongoing Council and community effort to educate, promote and place value on the importance of scenic landscapes and their preservation or management among landowners and developers.

#### 1.1.5 How to Use the Strategy

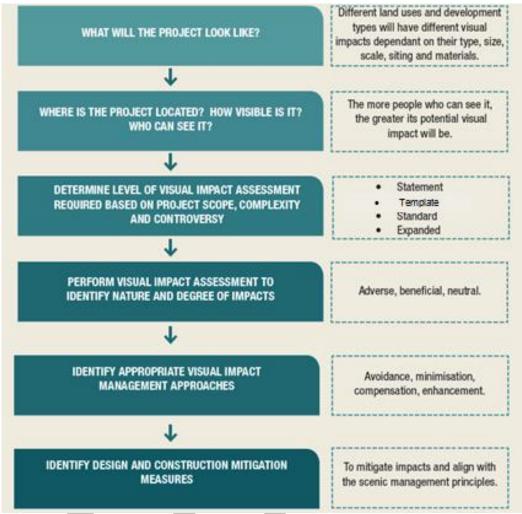


Figure 1 Strategy overview

#### 1.1.6 How was the Strategy Prepared?

Preparing the Scenic Landscape Strategy involved the following steps:

- Research and analysis of existing legislation and policy that delivers protection and management of scenic landscapes, and identification of growth and change pressures threatening these resources;
- Background examination of existing documentation specific to scenic protection of the Tweed's scenic quality and landscapes;
- Consultation with stakeholders and community to identify what they value in the Tweed's landscapes, how they define scenic quality, and what views and viewing locations are most preferred;
- Landscape character assessment of the visual attributes and elements of the Tweed Shire, their values, threats and detractors;
- Spatial analyses and mapping of landscape character
- Research and analysis of best practise Visual Impact Assessment methods
- Development of Visual Impact Assessment Methodology
- Development of Shire wide Scenic Management Principles
- Development of specific management principles and objectives for distinct Landscape Character Units.

## 1.2 Background

## 1.2.1 What are Scenic Landscapes?

Scenic Landscapes are landscapes that display aesthetic qualities or values that an observer finds appealing. They are the combination landscape character and scenic quality.

Landscape character is defined as the distinctive, recognisable and consistent pattern of physical elements within a landscape, which when combined, give a setting its sense of place and make one landscape different from another. These physical elements include:

- Terrain both natural topography and artificial landforms such as cut and fill, subdivision land forming, levelling, canals and reclaimed land;
- Vegetation characteristics such as cover, height, density and colouration;
- Bodies of water:
- Cultural modifications and built structures including buildings, water tanks, transmission lines, generation plants and recreation facilities; and
- Temporal and atmospheric components for example seasons, time of day, weather phenomena, seasonal humpback whale migration.

**Scenic quality** is the combination of multiple elements within the landscape and their potential to create different levels of satisfaction or appreciation. Those elements include:

- The above natural and cultural features that provide the basic pattern of landscape, noting these are fluid and reflect social and land use changes over time;
- the **observer's position** within the landscape;
- the degree of personal enjoyment someone feels from what they are seeing.

This final perceptual and often subjective element, being the personal enjoyment of landscape and how we relate to or make use of it as individuals or communities, is crucial in determining the level of scenic quality that is attributed to a particular scene.

It is the layering of these elements and their interdependence on one another which influences the collective scenic quality or value associated with a viewing experience. This relationship is also the reason why establishing a measure or ranking for scenic quality is extremely difficult to achieve, particularly given the final perceptual or personal element is so crucial to the outcome, and nearly impossible to quantify.

This strategy aims to overcome this issue of subjectivity, by seeking to understand visual preferences based on the self-interest of different viewing groups. That is, by understanding why people have chosen to occupy or visit a location with a view, we can aim to establish what they like and dislike seeing in the landscape.

It is for this reason that the SLS aims to provide a framework and repeatable methodology by which these elements can be identified and measured.

## 1.2.2 What Makes Scenic Landscapes Important?

There are a variety of known underlying values that can influence the subjective appreciation of scenic quality:

• Source of general health and well-being: One of the strongest scenic quality values expressed by community is the desire to connect and interact with the natural

- environment for the purposes of personal health, wellbeing and inspiration for recreational and physical activity, or relaxation, fulfilment and quality of life.
- Conservation and environmental stewardship: The personal desire to connect with and care for natural landscape attributes is motivated by an awareness of the exceptional and diverse biological and geological heritage of the region, as well as our practical dependence on the ecological services nature provides, such as clean air, water and soils. Several policies and programs reflect community values associated with the conservation of outstanding biodiversity and sensitive ecological systems in the Tweed, such as:
  - North Coast Regional Plan 2036, which acknowledges the importance of the Tweed environment as 'the most stunning environment in NSW". This is reiterated in the first Goal of the plan and range of actions that follow;
  - National Landscapes Program "Australia's Green Cauldron", recognises the outstanding diversity of landscapes, network of national parks and reserves, and, at its centre, Wollumbin/Mt Warning and the Tweed Caldera as one of the largest and best examples in the world of an eroded shield volcano;
  - Gondwana Rainforests of Australia World Heritage Property comprising high biodiversity with large refuges of ancient rainforest communities, plants and animals with evolutionary links to Gondwana. Previously referred to as World Heritage Central Eastern Rainforest Reserves (Australia) or CERRA.
- Cultural Heritage and Identity: Personal appreciation of landscapes is associated with Indigenous and European heritage values, which relates to custodianship, inheritance, and the familiar and nostalgic. The landscapes of the Tweed Valley are part of the identity, spirituality, connection and resource base for the Bundjalung people. They contain a network of cultural places and landscapes that are closely interrelated and bound together through oral tradition, song, story, art, language and dance. Protection of significant landscapes is key to the long term survival of cultural stories and traditions in Aboriginal culture. Similarly, European heritage values extend beyond historic buildings and memorial structures to encompass the living social and cultural dimensions of land uses and their visual features, considered as being irreplaceable assets that reflect the Tweed's cultural life and identity.
- Slowing our Perception of time: Scenic landscape appreciation and desires
  expressed by community can relate to a need to experience slowness, solitude and
  quiet, with links to improved memory and wellbeing. Values for slowness are
  associated with ancient ecological and landform systems such as Wollumbin and
  Gondwana Rainforests, and wide open spaces such as floodplain or ocean vistas.
- Contribution to Art and Economy: The Tweed eclectic mix of landscape settings are
  celebrated as a recognised source of inspiration for many creative practitioners
  within a growing local creative industry. Creative clusters and artists groups provide
  organised activities and promote local scenic landscapes as sources of artistic
  narrative.

## 1.3 Relationship to strategic and statutory planning framework

The Scenic Landscape Strategy does not have a statutory role. Under the NSW planning legislation, many categories of development and land use are permitted and can be carried out under simplified application and approval processes.

The Scenic Landscape Strategy has been developed to respect and maintain the integrity of international and national agreements and conventions that recognise the significance of the Tweed's outstanding environmental and scenic landscape qualities, namely:

- United Nations Educational, Scientific and Cultural Organisation World Heritage List
- Commonwealth Government National Landscape Program Australia's Green Cauldron
- Australia's National Heritage List Gondwana Rainforests of Australia
- Tweed Local Environmental Plan 2014 Old Growth Forest within the Shire (Gondwana Rainforests) item 100

"Australia's Green Cauldron" is promoted by Tourism Australia to local and international tourist markets. A key directive of the program is to strengthen the appreciation of world heritage values by providing local and visitor experiences at important viewing sites that go beyond local or regional best practice.

Relationship to Scenic Landscape Strategy: Important viewing locations promoted as key experiences of Australia's Green Cauldron are incorporated into the Strategy as Priority viewing situations and associated viewsheds which are to be protected and managed through proposed Visual Impact Assessment framework. The key directives and values of Australia's Green Cauldron that celebrate the "eclectic and mysterious" diversity of landscape character types are reflected in the 10 distinct Landscape Character Units and Narratives and in the Scenic Management Principles which recognises and seek to protect and complement the integrity of these landscapes and avoid key feature disruption through new and changing land use activities and development.

## Community Strategic Plan (CSP)

The Tweed Community Strategic Plan 2017-2027 (CSP) is Council's primary visionary document and outlines the Tweed community's aspirations, priorities and values for growth and change over the coming 20 years. A key aspiration is to preserve and enhance the unique scenic landscape and scenic amenity, as central to the identity of the Tweed and sense of place, for the benefit of current and future generations. The community's aspirations and values are conveyed through the vision for the Tweed which reads:

"to be recognised for its desirable lifestyle, strong community, unique character and environment and the opportunities its residents enjoy".

This vision is supported with a clear direction within the CSP to:

"Protect and manage the Tweed's unique character and world heritage scenic landscapes".

Relationship to Scenic Landscape Strategy: The Scenic Landscape Strategy responds by providing a framework for protecting the unique character and environment through management of new land use and development.

The North Coast Regional Plan 2036 (NCRP) is the NSW Department of Planning and Environment's visionary strategic document to guide land use planning priorities and decisions in the north coast of NSW until 2036. It contains high level priorities for the region, and specific goals and actions for individual local government areas. These include protecting the region's distinct social and cultural character, its biodiversity and environmental values, and its typical built character.

Relationship to Scenic Landscape Strategy: The elements identified in the Far North Coast Regional Strategy that add to the scenic value associated with the Tweed's landscapes are identified within the Scenic Landscape Strategy as important to protect.

## Tweed Local Environmental Plans (LEPs\_

The *Tweed LEP 2014* and *LEP 2012 (City Centre)* are Council's primary governing documents in relation to land use planning and development in the Tweed. The LEPs sets out what types of land uses are permitted within each land use zone, development approval requirements and development standards.

Relationship to Scenic Landscape Strategy: The Scenic Landscape Strategy aligns with the LEPs by proposing mitigation and management measures for those development types that, whilst permissible in a given zone, may result in significant visual impact. It relates to development standards within the LEP, for example maintaining lower building heights on ridgelines and highly visible areas to reduce visible impact.

## **Local Strategies and Plans**

Perhaps the most important existing mechanism for protecting scenic quality is Council's ability to prepare local growth management strategies. This process works with the community to identify where and in what form future urban growth will occur, and how that will align with directives within the North Coast Regional Plan's growth priorities.

Tweed's most current growth management strategy, the Tweed Urban and Employment Land Release Strategy (TUELRS) was published in 2009 and is due for review. Whilst some of the areas of land identified in the TUELRS have been subject to LEP amendments to facilitate development, there are many areas that remain unzoned and data that has emerged since the 2009 strategy (for example updated flood modelling, visual landscape character, aboriginal cultural heritage) should be considered with any update which may lead to changes in the perception of suitability of certain land for urban release.

In addition Council has a program of preparing Locality Plans for towns and villages. The locality plans offer a more detailed assessment of the opportunities and constrains of a locality and a set of principles and a development framework for future development.

Relationship to Scenic Landscape Strategy: Several local strategies and policies of Council provide objectives and actions to protect and manage various natural or cultural elements of the Tweed's landscapes, which may influence visual quality outcomes or scenic management and mitigation measures. In addition to those listed above, further plans include but are not limited to:

- Tweed Development Control Plan 2008
- Rural Villages Strategy 2016

- Tweed Urban and Employment Land Release Strategy 2009
- Tweed Vegetation Management Strategy 2004
- Sustainable Agriculture Strategy 2016
- Economic Development Strategy 2014
- Draft Tweed Rural Land Strategy
- Draft Aboriginal Cultural Heritage Management Plan

## 1.3.1 History of Scenic Landscape Management in the Tweed

Tweed Shire Scenic Landscape Evaluation conducted by Catherine Brouwer in 1995 was a pioneering document that characterised in detail the scenic landscape attributes of the Shire at the time, and provided outcomes including recommendations for management.

The Visual Management System (VMS) was prepared as part of the Comprehensive Coastal Assessment by the NSW Department of Infrastructure, Planning and Natural Resources (URS Asia Pacific 2004). It provided a methodology for characterising, assessing and spatially representing (through digital maps) the visual elements of the coastal zone of New South Wales. The document included an example application of the methodology using the Tweed Shire coastal area as a pilot.

The SLS aims to consolidate this past work and supersede it with updated mapping and landscape character assessment, and the use of contemporary best practise methodology.



Figure 2 Condong Sugar Mill. Image courtesy of Sunshine Sugar

## 2 Landscape Context and Character Mapping

#### 2.1 The Tweed Context

The Tweed's scenic landscapes provide a dramatic and dynamic backdrop to people's lives. They bring great benefit to our community through visual joy and are considered a source of health and well-being for residents, as well as being valued as an enormous business attraction and tourism asset for our local and regional economies.

"Defined by the caldera and Mount Warning / Wollumbin, rural Tweed and the Tweed Valley provide postcard scenery, a landscape diverse in natural features, which supports a complex mix of land uses" ~ Tweed Rural Lands Strategy 2018)

Numerous visual features give the Tweed landscape its high visual quality and basis for its enduring and significant role in the Shire's identity and image. These include:

- High diversity of landscape form and vegetation patterns;
- Predominately natural character and frequent views of water;
- Openness of the Tweed River valley with the distinctive, steeply rising Wollumbin/Mt Warning in the centre and the dramatic enclosing backdrop of the caldera rim;
- Frequent access to long, wide, highly legible views;
- Uniformity of the cane fields and forested hillsides that accentuates any visual intrusion or clearing:
- Steepness and closeness to view of the hillsides that form the prominent natural setting for views from villages and roads;
- Location of scenic historic villages and townships along main or tourist roads, with development occurring in the foreground of views of the village setting or roader landscape;
- Predominantly natural and pristine landscapes as distinct and contrasting from monoculture and high density development of metropolitan cities and suburban communities.



Image source: https://www.visitnsw.com/destinations/north-coast/the-tweed-area/attractions/cabarita-beach

## 2.2 Landscape Character Assessment

The objective of landscape character assessment is to define and assess the visual elements within a landscape that contribute to visual quality, visual significance and overall scenic quality of the Tweed. Describing and understanding the physical landscape elements in terms of visual characteristics, perceived visual quality and viewer experience will assist Council, landowners, land managers, developers, business and the community to achieve better understanding, management, planning and design outcomes for the Tweed's scenic landscapes and significant viewing locations.

Landscape character identification and assessment of their values, threats and detractors has primarily been developed through spatial mapping and supporting descriptive narratives for each Landscape Character Unit.

Scenic quality is the result of complex spatial relationships between multiple factors within the landscape, as well as the position of the observer within the landscape and the observer feels about what they are seeing. Figure 3 below illustrates this relationship as a combination of the viewer's position in the landscape, any physical constraints that restrict their view, and the landscape characteristics they can see within that view.

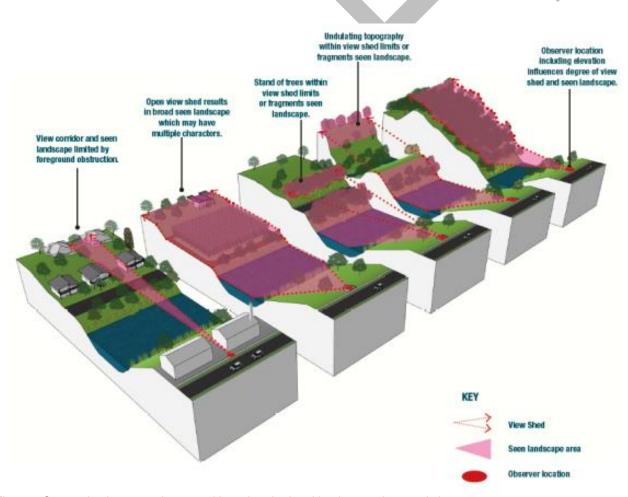


Figure 3 Connection between viewer position, viewshed and landscape characteristics

## 2.3 Mapping Methodology

The first stage of developing the Scenic Landscape Strategy involved undertaking a spatial (mapping) assessment of the entire Tweed visual catchment to bring landscape character information into the digital environment. This spatial assessment consolidates and builds on past works of the Visual Management System 2004 and the Tweed Scenic Landscape Evaluation by adding contemporary assessment and description of the Tweed's visual landscapes.

The Mapping comprises four components:

- Identifying and mapping of key spatial components within the landscape, called Landscape Character Units, which have a distinctive combination of topographic, land cover, land use and water elements and are relatively consistent in visual character:
- Identifying and prioritising important Viewing Situations within the Shire;
- Determining the landscape area visible from these locations to produce associated
   Viewshed maps for each viewing situation; and
- Combining and analysing the viewshed maps to produce **Visibility** maps which show how many viewsheds any particular location within the shire falls within.

The following sections provide an overview of the mapping process and illustrate examples. Full technical methodology used to produce the viewshed maps is explained in detail in a Technical Report prepared by consultancy Ecoscape (Australia) Pty Ltd, which can be accessed on request to Council Planning staff.

## 2.3.1 Landscape Character Units

**Landscape character** is defined as the distinct, recognisable and consistent pattern of physical elements within a landscape, which, when combined, give a setting it's 'sense of place' and make one landscape character different from another, and is relatively stable over time. The elements that contribute to landscape character are:

- the physical structure of the landscape e.g. topography, geology, soils;
- natural features such as vegetation and water bodies;
- cultural elements such as the pattern of buildings and structures, crops, tree plantings and other modifications to landscape that provide visual evidence of present and past human activities.

Defining and describing landscape character is not concerned with identifying the value or quality of a landscape. The word *character* in the context of scenic landscape assessment is often wrongly associated with ideas of amenity or aesthetic taste, and corresponding individual or personal responses to these. As a result some landscapes are described as having 'little or no character' while others as being 'full of character'. In reality, all places and spaces have an existing and individual sense of character, and this character can be analysed, described and mapped based on its distinguishing features and attributes.

There are numerous established methodologies for categorising areas of similar landscape character. The choice of approach for the Scenic Landscape Strategy was strongly influenced by the large scale at which the exercise needed to be undertaken and the volume and complexity of available data on which to base the analysis. Emphasis was placed on

characterising the whole shire through a simple, understandable and transparent approach whilst still providing enough detail to capture the variation in landscapes that occur.

Elements from multiple established methodologies were thus combined, with Landscape Character Units ultimately defined by the relationship between the following easily identified and spatially defined features:

- land use (zoning),
- physical structure (topography or land form) and
- vegetation type and cover.

A hierarchical approach was used starting with broad scale division between land and water, followed by broad division of urban and non-urban land uses based on zone boundaries, then further separating character types based on land form, vegetation cover and recognisable distinct land use types such as sugar cane or rural villages (Figure 4). This was then checked and evaluated by overlaying onto recent aerial photographs to identify any anomalies and realign boundaries where necessary.

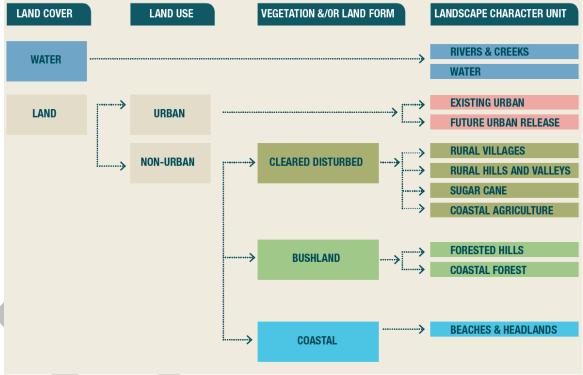


Figure 4 Landscape Character Unit delineation hierarchies

The following group of Landscape Character Units emerged:

- Rivers and Creeks
- Urban
- Future Urban Release
- Rural Villages
- Rural Hills and Valleys
- Sugar Cane
- Coastal Agriculture
- Forested Hills
- Coastal Forests
- Beaches and Headlands

Figure 5 below illustrates the spatial mapping of the finalised Landscape Character Units.

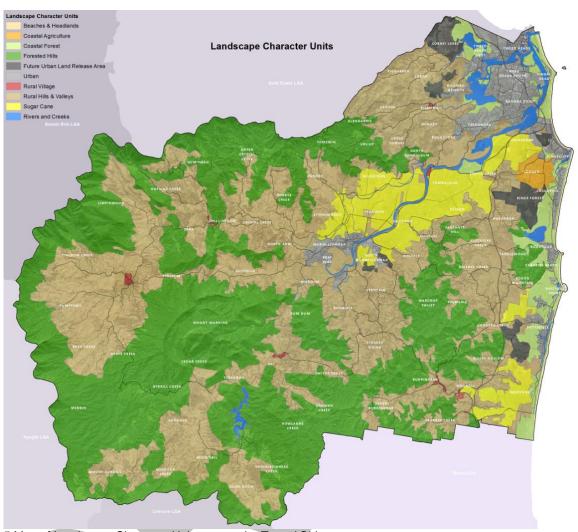


Figure 5 Map of Landscape Character Units across the Tweed Shire

The Landscape Character Narratives are presented in Appendix 6.3. These narratives identify and describe the physical landscape elements, scenic quality associated with those elements, known risks and pressures and specific management principles that are distinctive to each Landscape Character Unit. The Table 1 below provides the structure of content for each narrative. These should be referred to as the primary resource to inform the inventory stage of any Visual Impact Assessment or evaluation undertaken for new development.

#### Location

#### Example

Photographs

## **Description of Landscape Features**

- Features of the natural environment such as recognisable landforms and topography, land cover including land uses, water, vegetation;
- Cultural features such as buildings, structures, transportation infrastructure, other built artefacts and art; and
- Atmospheric conditions smoke and dust that that can alter visibility or contribute to a unique characteristic of the landscape.
- The interaction and arrangement of all natural and cultural attributes to form a unique composition

### Anticipated Future Change and Pressures

 Known risks or susceptibility to future changes that may alter landscape character or affect perceptions of visual quality

## **Scenic Quality Analysis**

- What visual elements or composition of elements make this landscape's visual character distinctive and important to the Tweed? i.e. how does an observer perceive that this landscape is "part of or unique to the Tweed"
- What makes it attractive and memorable? How might viewers evaluate the elements within the Landscape Character Unit against their preferred concepts of visual order, harmony, integrity or cohesion?
- What elements are generally perceived to be of low visual value, or taking away from the overall scenic quality of this Landscape Character Unit?

#### **Management Principles**

- This section describes general planning principles and strategic objectives to protect and manage the scenic quality and values associated with each Landscape Character Unit.
- General principles relate to managing the preferred or valued visual elements within a Landscape Character Unit in order to maintain its contribution to overall scenic amenity within a view, and the distinct identity of that Unit.
- Specific principles for individual development proposals within each Landscape Character Unit should be tested during the Visual Impact Assessment process where detailed character analysis of the immediate locality and most impacted views takes place.

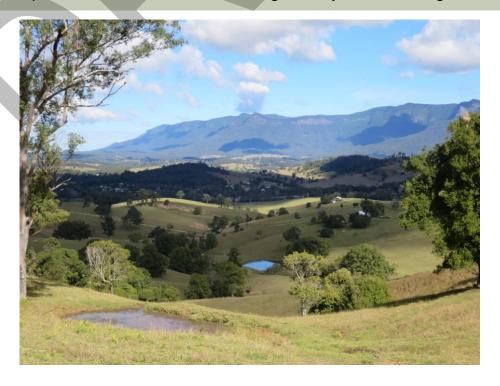
#### 2.3.2 Viewing Situations

Viewing Situations are locations from which people experience and enjoy views. There are two types of viewing situations identified and mapped through this strategy, being linear and point viewing situations.

**Linear viewing situations** include roads, cycleways, walking trails, navigable waterways and any other route along which an observer appreciates a sequence of views from a series of locations as they move through the landscape.



**Point viewing situations** are locations from which a single view or scene is appreciated and are static in nature. They include lookouts, public parks and reserves, beaches, headlands and places of interest such as Tumbulgum Jetty or Tweed Regional Art Gallery.



It is important to distinguish between linear and point viewing situations because the way in which an observer is exposed to and experiences a scenic landscape from these situations is different, and this can affect their visibility and appreciation of certain landscape qualities or elements. Similarly, the way in which changes within a landscape affects or impacts the viewer experience is also different. The linear viewing experience is dynamic and has the potential to change dramatically and rapidly as the observer moves through the landscape. More often the observer appreciates the broader vista and larger features as the finer details and foreground are obscured by movement and difficult to focus on.

In contrast, when experiencing views from point viewing situations the viewer is stationary or static within the landscape. The view doesn't change with time or space and the observer has the ability to choose the duration of the viewing experience and appreciate finer details and more intricate components of the landscape. Observers of static views are therefore more likely to be affected by smaller or less obvious changes as they have the time to focus on and contemplate their impact within the broader landscape setting.

In most circumstances it is not practical to identify and evaluate every conceivable viewing situation available, and this is particularly relevant in the Tweed where spectacular views are experienced from so many areas. In that sense, detailed evaluation was focussed to those locations considered to be of cultural value or preferred by the community.

## 2.3.2.1 <u>Identifying Viewing Situations</u>

**109 viewing situations** throughout the Shire were identified and prioritised based on community recognition and preference, accessibility, field observations and by reference to cultural and tourism data and resources, including:

- Council asset data of publicly accessible and well-utilised point locations where views of surrounding landscapes were possible;
- Highly trafficked and important tourism driving routes and destinations identified through Destination Tweed, VisitNSW, Australia's Green Cauldron and various other tourism data sources.
- Consultation with community and stakeholders on preferred viewing situations and views of scenic quality, through initiatives such as:
  - ~ 'What's My Scene' Community Conversation Drop in Sessions
  - 'What's My Scene' online digital storybook on Your Say Tweed
  - 'Scenic Mappiness' exercises and surveys at local community events (Sustainability Home Expo 2016 and 2017, Tweed River Festival 2016)
  - Incidental feedback from the Cultural Plan Community Survey
  - Incidental feedback from the Tweed River Management Survey

#### 2.3.2.2 Prioritising Viewing Situations

Viewing situations and their associated viewsheds were then categorised as being regionally or locally significant depending on a combination of factors including accessibility, number of viewers, viewer activity and viewing time, viewer experience and community preference for the associated viewshed.

In order to prioritise the significance of viewsheds, the following ranking system was applied:

• Priority 1 - National or regional significance, promoted at a regional or national level, that attract a significant number of visitors, are easily accessed, highly trafficked and

- those repeatedly identified through community consultation as having high scenic value, quality or preference;
- Priority 2 –Regional significance, promoted at a regional or local level, are moderately trafficked and easily accessed or those identified as having high scenic value quality or preference through community consultation;
- Priority 3 Local significance that are visible from publicly accessible and moderately trafficked locations, and those identified through community consultation as holding local scenic value, quality or preference;
- Priority 4 –Locations with relatively low traffic or patronage and identified as holding local scenic value, quality or preference.

Figure 6 illustrates the location of Priority 1 and Priority 2 viewing situations.

Table 2 below shows the number of linear and static viewing situations categorised by Priority level. This data collapses multiple sections of a road or route and any capture points along the route as a single linear viewing situation. A full table identifying the name, location and type of each viewing situations is presented in Appendix 6.1.

Table 2 Number of Viewing Situations in the Tweed categorised by Priority and Type

Viewing Situation Type	Static	Linear	Total
Priority 1	7	6	13
Priority 2	26	12	38
Priority 3	24	5	29
Priority 4	28	1	29
Total	85	24	109

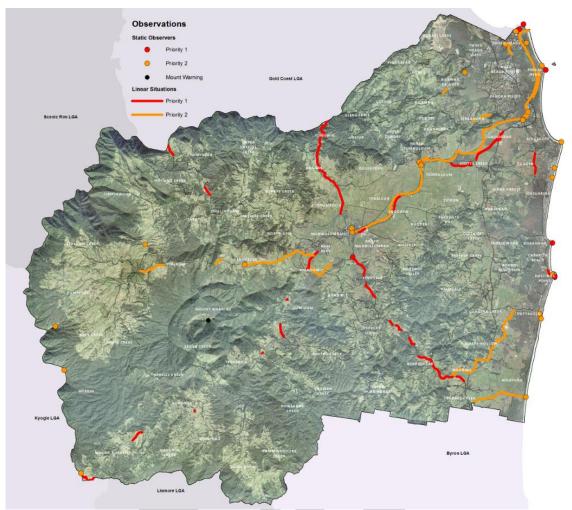


Figure 6 Priority 1 and 2 viewing points identified through community comment, tourism and cultural data.

### 2.3.3 Viewshed Mapping

A viewshed is the entire area that is visible from a particular viewing situation. It is the combination of all available lines of sight along which an observer has an unobstructed view, and is directly related to terrain, elevation and obstructions.

Viewshed maps are an important resource when assessing the visibility of a site or proposed development, as a factor in determining the level of information required in a Visual Impact Assessment. They are produced through analysis of detailed LiDAR (light detection and ranging) elevation data.

Defining viewsheds is a complex process, particularly for linear viewing situations which require the combination of multiple viewsheds as seen from point locations along a route, and can be influenced by factors such as speed of movement, whether the viewer is walking, driving or a passenger in a vehicle, and what their fixation distance may be.

Many of the Tweed's significant scenic landscapes are highly visible from major roads and tourist routes; therefore it was important that these view types were accurately and technically mapped. Council engaged specialist mapping consultants to assist and provide advice on the chosen methodology, which was based on the approach adopted by the US. Department of Transportation "US Guidelines for the Visual Impact Assessment of Highway Projects (2015). This approach incorporates speed, viewer angle and fixation distance and is a well-established best practice mapping methodology for producing view sheds from

dynamic viewing locations, particularly in terms of assessing visual impacts of development proposals on views from major driving routes.

A trial of this methodology was performed for select linear viewing situations; however the complexity of data proved to be an impediment to efficient progress and in many instances was more detail than was required, particularly in terms of the wide panoramic views experienced from many linear viewing situations. In an effort to reduce data and processing time it was decided to remove fixation distance from the analysis and assume a 360 viewing angle for each interval point, thereby simplifying the data yet capturing the greatest possible visible extent for both driver and passengers along each route.

An additional complexity was the vast distance of roads identified across the Shire that provides views of value. To address this, field surveys were undertaken to locate the specific points or sections along each route where scenic views of the surrounding landscape were plainly visible and to exclude the sections where visibility was obstructed by elevated terrain or other obstacles. Each section was mapped as a separate linear viewing situation, the sum of which was combined to produce the overall viewshed from each route or road.

Given the complexity and volume of data to be processed, mapping for the purposes of publication was limited to the viewsheds from Priority 1 and 2 viewing situations. These 51 viewsheds are considered a good representation of what a viewer may experience in the Tweed and capture significant views likely to be experienced regularly by the local community, regular visitors and people visiting the Tweed for the first and perhaps only time.

Figures 7 and 8 below illustrate the viewsheds from a static viewing situation (Norries Headland) and a linear viewing situation (Bakers Road) respectively.

All 51 Priority 1 and Priority 2 viewshed maps are published and available for review on Council's online mapping tool (refer to URL).

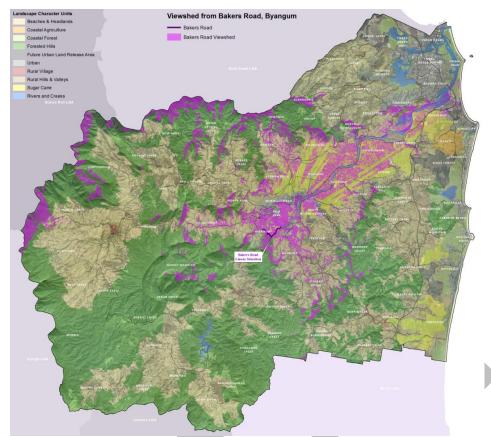


Figure 7 Viewshed as seen from Baker Road linear viewing situation

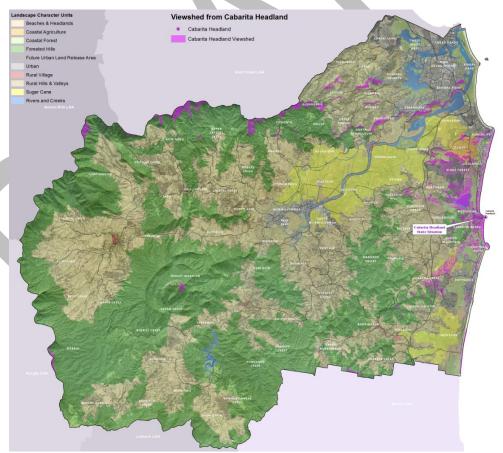


Figure 8 Viewshed as seen from Cabarita (Norries) Headland static viewing situation

## 2.3.4 Visibility Mapping

The more visible a landscape is (in terms of the number of people who can see it), the more people are likely to be affected by any change or impact that occurs within it. For example, a vegetated hillside such as Razorback Mountain, facing towards a highly urbanised area such as the Tweed Heads city centre, is more visible due to the volume of people within the urban area who are likely to be viewing it at any point in time. It is therefore more sensitive to change than, for instance, a vegetated hillside in the hinterland that cannot be seen from any roads or accessible viewing situations, because more people will see and be impacted by that change.

It was therefore important to identify the extent to which parts of the Shire are visible from multiple identified priority viewing situations and represent this spatially through categories of visibility. The category of visibility of a site then becomes a determining factor when deciding which level of Visual Impact Assessment is appropriate for development proposals on that site. Part 4 of this Strategy further describes how this occurs.

The Visibility Map shown in Figure 9 was produced through query of the incidence of Priority 1 and 2 viewsheds that any given 5m x 5m piece of land falls within, resulting in the following:

- 1-2 viewsheds (blue)
- 3-5 viewsheds (green)
- 6-9 viewsheds (orange
- 10 or more viewsheds (red)

Of note is the strong and obvious relationship between elevation and visibility. Areas shown in red can be seen from 10 or more viewing situations and are, in general, areas of higher elevation across the Shire.

In terms of visibility, Table 3 below shows the proportions of the Shire that fall within each category, emphasising that whilst being highly visible, only a small proportion (7%) of the Tweed Shire falls within 10 or more priority viewsheds.

Table 3 Proportions of the Tweed Shire that fall within each visibility category

Number of viewsheds	Area of land (ha)	% of Shire
0	51,302	37
1-2	43,960	32
3-5	22,172	16
6-9	10,677	8
10 or more	9,006	7

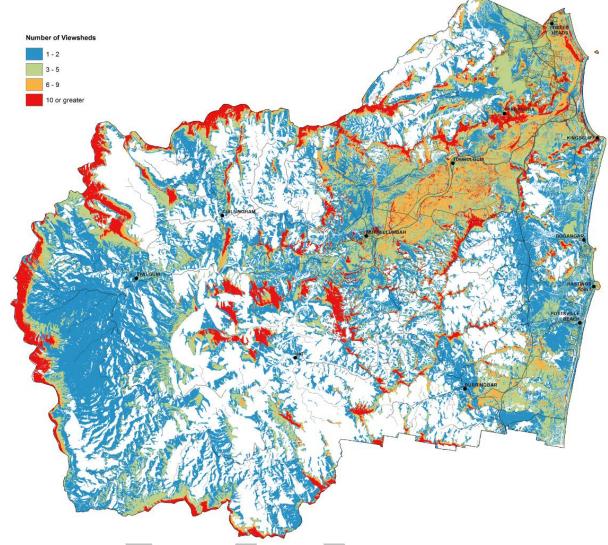


Figure 9 Visibility from Priority 1 and 2 viewing locations, not including Wollumbin / Mt Warning

## 2.3.5 How to Use the Maps

Proponents for new development or land use shall familiarise themselves with the suite of maps available and use them to understand the characteristics about their development site and the landscape within which it sits.

The Landscape Character Unit Maps identify the boundaries of different landscape settings and are a critical resource for identifying the first layer of landscape differentiation when describing landscape character elements during the initial stages of a Visual Impact Assessment. Proponents should identify the Landscape Character Unit that their development site is located within, then refer to the associated narrative to understand the visual elements and scenic values that are important to protect through avoiding, minimising or compensating for visual impacts as a result of new development.

The viewshed maps and visibility map are to be used to gain a sense of a how visible a site is and from where it can be seen. Areas that are most visible are likely more vulnerable to change due to the high number of people who will see the change. However, the visibility maps whilst providing a useful tool for an element of strategic appraisal of the Tweed's scenic landscapes should not be relied upon as comprehensive. Some areas within the Shire may not necessarily be categorised as highly visible from priority viewing situations,

but may be considered important once local viewing situations are taken into consideration. It is therefore essential that community consultation to identify additional local viewing situations and local community preferences for what constitutes scenic quality in their area is incorporated into higher level Visual Impact Assessments.

The maps are intended as a resource to provide guidance when identifying and describing a site's context within the visual landscape. They are not a definitive or exhaustive resource and additional assessment of a site's existing landscape characteristics may be required, particularly when forming the basis for proposed development that is likely to have a significant visual impact.

The mapping is a critical component of the foundation spatial data resources and will be made available on Council's website, along with other proposed tools e.g. revitalising the existing online Scenic Mappiness tool to promote and continue to capture community and visitor preferences on scenic quality in the Tweed (subject to approval and consultation with community and stakeholders).

All maps are available for viewing on Council's online mapping tool found at (*URL*). For further guidance on how to use the maps, please contact Council's Strategic Planning and Urban Design Unit.

## 2.3.6 Mapping Limitations / Considerations

However, the features that constitute character are continuous across the landscape and distinct boundaries separating one Landscape Character Unit from the next rarely exist, particularly in non-urban areas of the Shire with highly peppered patterns of vegetation and land use. Therefore in many instances the delineation between character units was made using best available information and a judgement decision based on where the most reasonable change in dominant natural and cultural features was likely to occur. Consequently, the mapping is essentially a starting point as it does not identify fine grained local landscape characteristics and should be taken as indicative of broad landscape character. Further detailed assessment of localised landscape character will be necessary when performing assessment of visual impact of development proposals.

Similarly, the mapping does not document urban design or the character or impact of built form beyond select important, highly visual or influential structures. Whist the focus of this part of the strategy is landscape character, which includes the urban landscape, where significant elements of the natural and built landscape significantly overlap, such as the tall buildings of the Tweed Heads CBD adjacent to Jack Evans Boat Harbour or Razorback Mountain, additional assessment of the interaction between the two elements and their influence on one another needs to take place.

The spatial extent of viewsheds is fluid and subject to change over time as a result of changes in land use activities, development and vegetation growth or clearing. Such changes may create new viewing situations, or reduce or increase the spatial extent of existing viewsheds. The viewshed mapping is therefore not intended to be an exact representation of every viewshed or the visibility of land in perpetuity. It is, however, designed to be conservatively over inclusive, as explained below.

Viewshed analyses was performed using 'bare ground' data, which represents the actual surface of the earth and excludes above ground structures such as buildings, tree canopies. The published viewshed and visibility maps thus illustrate the greatest possible extent that could be seen from a viewing situation, regardless of temporal changes in obstructions to view.

It is intended for the maps to be treated as a living and evolving resource that will be regularly reviewed and updated to reflect changes across the landscape s data improvements are available. It is therefore recommended that field assessment to validate viewsheds should be undertaken as part of any Standard or Expanded Visual Impact Assessment, with emphasis on identifying the features of a viewing location that may be susceptible to change over time.

The view from Wollumbin / Mt Warning, whilst highly significant, is so vast and encompasses so much visual detail that most change can be readily absorbed into the visual landscape. Figure 10 below shows the viewshed from the peak of the mountain, which encompasses 49% of the Shire. Given the extent of land that falls within this viewshed, it was not considered practical to include it within the Visibility Map. The purpose of the Visibility Map is as a parameter in determining the appropriate level of visual impact assessment. To include the Wollumbin / Mt Warning viewshed, more than 50% of the Shire would be captured and potentially require a higher level of assessment that is considered necessary.

Notwithstanding the above, this viewshed from Wollumbin / Mt Warning is should be considered in all development proposals, particularly proposals that fall within 15 km of the Wollumbin / Mt Warning viewing situation and are likely to result in a significant visual impact through contrasting colour or significant scale.

Finally, the mapping does not include viewsheds that encompass land within the Tweed Shire but are observed from viewing situations outside it. By way of example, the viewshed from The Best of All Lookouts in Springbrook National Park, encompasses sweeping views of the entire Tweed Valley but is located within the boundaries of the City of Gold Coast local government area, Queensland thus falls outside the jurisdiction of this strategy. Notwithstanding, given the regional if not national significance of this viewing situation and others similar to it, locations such as these should be taken in to account when performing high level VIAs for development anticipated to have a high visual impact.

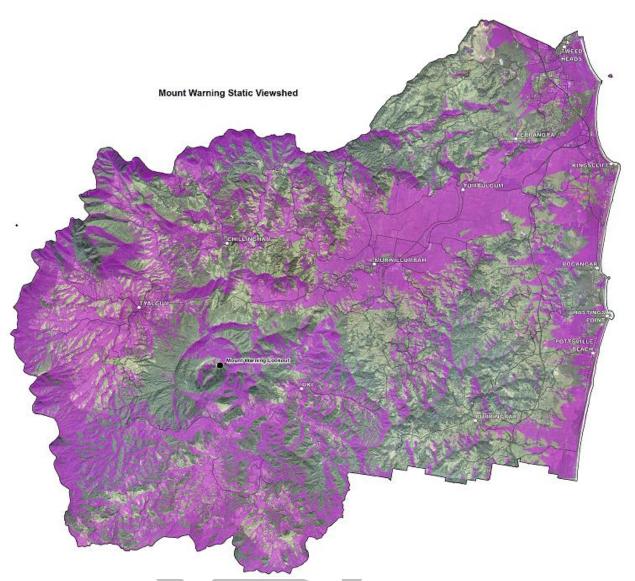


Figure 10 Viewshed from summit of Wollumbin / Mt Warning

## **3 Scenic Management Principles**

The Scenic Management Principles described in this part represent the overarching desired visual outcomes for scenic landscapes of the Tweed Shire.

The Scenic Management Principles are presented as standards and goals for protecting and managing the character, condition and quality of scenic landscape attributes and experiences of the viewing public.

The Scenic Management Principles have been primarily developed to be used as part of the Visual Impact Assessment process. They should be treated as a benchmark for evaluating management approaches and associated mitigation (or enhancement) efforts that are proposed in response to identified visual impacts of development or land use activity.

They should be considered not in isolation, but rather as a whole, as they reflect the overall objective of the Scenic Landscape Strategy to ensure the exceptional and unique scenic landscape qualities of the Tweed Shire are recognised and that any adverse impacts on those qualities by new development or land use is avoided or minimised to the greatest extent possible.

Whilst some Scenic Management Principles provide specific examples of how the overall Principle may be achieved, these are not definitive or exhaustive, and applicants for development are encouraged to use innovation and creativity in their proposed mitigation measures.



## Principle 1: Protect, restore and create views from public places

Protect and provide new opportunities for panoramic and enduring views and vistas to scenic landscapes and major features of the Tweed, which are valued as unique viewing experiences that slow the perception of time.

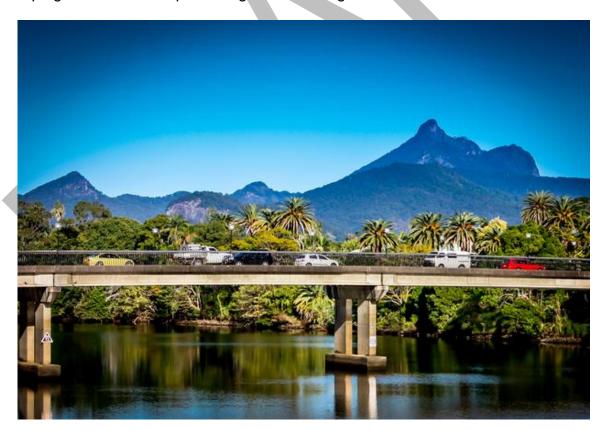
Restore partial views and protect whole views from development that results in visual obstruction or detraction of scenic landscape and important features as seen from publicly accessible stationary point or dynamic viewing situations that allow long and uninterrupted viewing experiences.

Maintain and improve access to and visibility of scenic attractions through landscaped space and vegetation management in the vicinity of the observer's viewing location.

Design and site park facilities and amenities such as lookouts, viewing platforms and shelters to maximise safe access, comfort and enjoyment of views.

Design and site new development located in the visual fore-ground of key vantage points to avoid or minimise view-taking impacts - blocking, dividing or diminishing an existing viewshed – by managing the profile, form, building materials (colours and reflectivity), and lighting that may obscure, degrade or interrupt visibility of scenic landscapes or features.

Create new viewing opportunities from roads, footpaths and cycling trails, employing landscaping measures to improve degraded viewing locations and screen visual detractors.



## **Principle 2: Protect Scenic Landscape Integrity**

Ensure the design and siting of new development contributes to visual elements of the landscape and importantly, does not become the dominant characteristic of the landscape character area or viewshed.

Preserve or enhance existing landscape attributes valued by community, ensuring that attributes of new development complement with these visual landscape elements (natural and cultural), and are coherent with their composition or order of visual elements within the viewshed.

Protect the region's unique rural, coastal and hinterland landscape characteristics that are highly valued for the cultural and visual distinction from urbanised areas.

Consider cumulative and collective visual impacts and avoid development that may fragment the uniformity and cohesion of natural resources and cultural components, or disrupt the balance of various landscape elements that are integrated into an overall pattern.

Manage edge effects to avoid adverse impacts on the scenic integrity of adjoining or nearby landscapes.

Colour and reflectivity should be managed to be no more than 2 degrees / 10% contrast of the hues and tones of surrounding background. Use the 256 grayscale chart below as a reference to measure contrast.

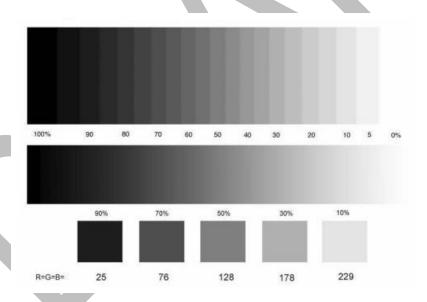


Figure 11 Greyscale chart Image Source: NSW Government, Department of Planning and Environment, 2015. Wind Energy: Visual Assessment Bulletin AB 01 for State significant wind energy development



## Principle 3: Complement existing valued landscape character attributes

Ensure siting, design, and management of development located in key viewsheds blends with and/or adds to existing values and attributes of the landscape unit and surrounding environment.

Avoid development that penetrates the established skyline or horizon. Where avoidance is not possible, implement other measures to minimise the contrast and visibility of the penetrating structure.

Avoid disrupting the established elements of landscape that add to community, especially natural and cultural landmarks that enable orientation and positioning within the landscape.

Architectural form, massing and articulation of buildings or structures should complement or add to the elements which give local communities their distinctive style and character.

Materials, forms and finishes of structures should mimic with the existing cultural environment visible from affected viewsheds, and desires of affected viewers and community.



## Principle 4: Retain and restore unique landforms in their natural state

Protect the dramatic and exceptional landform elements of Wollumbin/Mt Warning, distinctive caldera elements (including ridgelines, peaks, hillsides, steep slopes, ravines) and coastal formations (headlands and bluffs) that provide a dominant backdrop for views and vistas.

Avoid or minimise changes to the existing topography or compensate for impacts by designing contours to mimic the visual character and form lines of the natural terrain.

Protect the natural form of waterways and waterbodies, by mimicking the natural alignment, cross-section and gradient of streams and rivers or the shape of native ponds and lakes

Use sensitive grading and building techniques to minimise the impacts of landform alteration. Grading is a common source of adverse visual impacts, particularly creation of artificial embankments and cuttings, which often require biotechnical measures (such as retaining walls and mesh fabrics) to stabilize slopes.



## **Principle 5: Manage vegetation**

The presence or absence of vegetation can be one the most important of elements defining visual character within any landscape. Key attributes such as extent, height, density and colouration of foliage all contribute to landscape narrative and scenic quality. This is not limited to native or endemic vegetation but may encompass exotic mature and distinctive species that are identified as valued visual symbols that contribute to identity of the locality.

Consider the cumulative impact of vegetation removal – many towns and villages are characterised by significant tree canopy or vegetation cover (including understorey). These distinctive local character elements should not be compromised in the long term by the combined effects of individual developments each seeking to maximise the development potential of the site.

The use of vegetation as a screening management tool should start with avoidance and then extend to compensation. Compensation needs to be sensitive to the context of the development.

Select appropriate type and location for new vegetation in the context of ongoing visual impact mitigation success.

Consider the cumulative impact of ad hoc revegetation –for development occurring in the mid-ground of a significant viewing situation, augmenting existing vegetation stands in the foreground may provide superior screening (and potentially better ecological outcomes) than on site isolated plantings.

Consider impact of revegetation on landscape character, for example, cleared paddocks and fields play a role in defining the Rural Hills and Valleys Landscape Character Unit. In this instance revegetation efforts should consider expanding existing stands of vegetation to retain some cleared land for cultural visual value.

Protect the consistency and integrity of vegetated areas. Consider the visual impact of interruption to vegetated ridgelines through contrast in colour and form.

Retain and encourage native vegetation on coastal shorelines and waterway embankments to soften and improve edge effect of banks and shorelines, as well as mitigate erosion, and provide viewing opportunities.



## **Principle 6: Avoid Key Feature Disruption**

New development must respect visually prominent and valued landscape features by maintaining the central line of sight to them from public viewing locations. Any new development or land use activity must avoid disrupting or interrupting this central line of sight.

Avoid siting structures and other visual elements of a proposed development in the central line of sight to landscape features visible from public viewing locations, particularly where they fall in the fore-ground or middle-distance zone.

Where re-siting is not an option and elements of a development fall in the central viewing field of a landscape feature, they should not compete with major visual elements of the landscape feature.

Manage size, shape, setback, colour, reflectivity, illumination, glint, glare of materials that may attract the focal attention of the viewer to the site away from important key landscape features.

Where significant landscape features are absent or where detractors are present, developments may introduce aesthetic treatments or artistic interest to become a major or even dominant element or screening opportunity for the view field, and thus improve visual resource and viewer experience. For example, consider landscaping treatments, beams, walls, and/ or fencing to screen any unsightly landscape attributes viewed in the fore-ground of highly travelled road corridors and other public use areas, that distract or detract from the line of sight to important landscape features.



## **4 Visual Impact Assessment**

#### 4.1 Introduction

This Visual Impacts Assessment toolkit presents a methodology to:

- Conduct an assessment of visual impact for proposed land use or development activity, and
- Establish context-sensitive and proposal-based mitigation measures, and
- Evaluate the effectiveness of those mitigation measures towards achieving the Landscape Character Unit Management Principles, and
- Achieve consistency with the overarching scenic management principles for protecting the Tweed's scenic landscapes as presented in Part 3.

The purpose of this Visual Impact Assessment toolkit is twofold:

- to assist land owners, applicants and proponents carry out appropriate and informed investigations to determine any visual impact of proposed development and offer measures to mitigate identified impacts; and
- to assist Council as consent authority in considering those impacts and assessing the suitability of suggested mitigation measures proposed to avoid, mitigate or compensate for identified visual impacts.

Effective mitigation options are best determined through a consistent approach to visual impact evaluation and assessment that involves diligent consideration of context-specific factors, including:

- Scenic Management Principles;
- Visual compatibility of proposed development with the surrounding landscape character;
- Viewer exposure;
- Viewer sensitivity guided by an understanding of community preferences for protection of scenic landscape features, and
- Technical practicality and financial feasibility of design, construction and maintenance.

This toolkit incorporates the above factors into a comprehensive, repeatable and transparent assessment and evaluation process that can be applied to minor development through to complex, major and/or sensitive new developments. The process will assist developers and the community to understand the visual values associated with the environment within which they live, work and recreate and how to acknowledge and protect those values when considering new development.

# 4.2 Preliminary Assessment – What Level of Documentation is Required?

Many development proposals will result in either negligible or minimal visual impacts that are generally viewed by the broader community as acceptable. The SLS seeks to ensure that the development assessment process is balanced and does not to place undue burden on Council as the assessing authority, or applicants and the community in terms of the cost and time required to prepare applications.

The preliminary step for all applicants is thus to determine the type and extent of assessment that is appropriate to submit based on the nature of the proposed development and the visual environment within which it is located.

There are four levels of assessment based on scope, complexity and controversy of proposed development. These are:

- 1. Statement
- 2. Template
- 3. Standard
- 4. Expanded

Statement and Template Visual Impact Assessments require basic assessment and presentation of findings. Standard and Expanded Visual Impact Assessments are expected to conduct more complex assessments with findings presented as additional reports accompanying development applications.

Using the Risk Evaluation in Table 2 below, weighted scores are given to known visual attributes of a proposal and the visibility and exposure of a development site in terms of the risk of adverse visual impact. The cumulative risk score then translates to:

- A level of visual concern
- The type of documentation that needs to be submitted with a development application or planning proposal;
- Whether community consultation is required
- The required expertise of the person preparing the visual impact assessment

The risk weightings have been carefully selected to ensure a fair and reasonable preliminary assessment and that development proposals with multiple high risk elements perform the appropriate detailed Visual Impact Assessment. Emphasis was also placed, however, on recognising that whilst other developments may be high risk in terms of, for example, location or scale, but are low risk in all other areas are not required to do the same level of assessment. By way of example as shown in Table 2, for a significant major development type (risk score 4) that has potential to substantially alter the existing visual environment (risk score 3), but has low visual exposure (i.e. is not located in any priority viewsheds – risk score 0), would result in a cumulative risk score of 7 where a template visual impact assessment to identify and mitigate likely visual impacts would be appropriate.

If unsure how to describe the visual attributes of proposed development in relation to the risk criteria, proponents are encouraged to liaise with Council planning staff to confirm the appropriate level of documentation prior to submitting their development application.

Table 4 Risk Evaluation to determine the level of visual impact assessment required.

Risk Evaluation Criteria		Sco	ore	
Score	1	2	3	4
<b>Development Type</b> (see Appendix 6.2 for examples)	Routine	Minor	Major	Significant
Visibility – how many priority viewsheds is the development site located in? See Visibility Map section 2.3.3. No viewsheds equals score of zero.	1-2	3-5	6-9	10+
Proximity – of development site from key priority viewing situation/s. No viewsheds equals score of zero	Background	Background	Mid-ground	Fore-ground
Expected Alteration of visual environment – consider colouration, scale, reflectivity, form	No noticeable change	Limited noticeable change	Substantial noticeable change	Significant noticeable change b
Risk score	0	0	3	4
Cumulative risk score			7	
Final Score	2-6	7-9	10-13	141
				14+
Visual Concern	Negligible	Minor	Moderate	Significant
Documentation Requirement	Statement	Template	Standard	Expanded
Early community consultation required?	No	No	Potential	Yes
Visual Impact Assessment to be prepared by expert / professional	No	No	Yes	Yes

## 4.3 Statement and Template Visual Impact Assessment

The following sections outline Council's expectations regarding the first two levels of assessment. These two formats will be sufficient for the majority of development applications submitted to Council.

#### 4.3.1 Statement

All development applications should consider potential visual impacts regardless of the scale or type or development. The basic requirements for considering visual impact are contained within Council's Statement of Environmental Effects (SEE) Checklist. This is the standard requirement for all development applications. The SEE identifies the following broad components to be addressed:

- Description of the existing environment and of the subject site and its surrounds
- What steps have been taken to mitigate any likely adverse environmental impacts (including visual impacts)
- An explanation of the design and construction characteristics of the proposal
- How the development will be in character with other developments in the locality and achieve the Scenic Management Principles.

When preparing their SEE, Applicants should address the visual elements of their proposal in response to each of the above points. For small scale development with negligible or no visual impact, the SEE should briefly state that the potential for adverse or beneficial visual impacts is negligible, then go on to briefly explain the logic and approach used to reach that conclusion.

#### 4.3.2 Template

Applications for development that is anticipated to result in minor visual concern (based on the Risk Evaluation in Table 3) are to be accompanied by a Template Visual Impact Assessment. Completed templates will provide a brief description of the proposed development and succinctly report high level findings of the elements within a Visual Impact Assessment.

Many of the template requirements may be shown on a site analysis and development plans that form part of the application, and should be referenced as such within the Template. The Template is available for download on Council's website or through enquiry to Council's Planning and Development Division.

The Template format is illustrated in Table 5 overleaf.

Table 5 Template format for visual impact assessment

Stage	What to Address	How to document it
<b>Define</b> the study area	Location and spatial extent of the proposal	Show on development application plans
	Priority views to and from the development site.	Which viewsheds, if any, does the proposal fall within?  Are there views to significant landscape features that the proposal may affect?  Consult Viewshed mapping
	Landscape character	Which landscape character unit(s) is the development site located in, and adjacent to? (Consult Landscape Character Unit map)
Inventory visual elements	Viewing experience	Who are the affected viewers? (Consult viewing situations by type linear or static to consider which viewer groups might access these vantage points)
	Visual quality of surrounding landscape	What are the natural and cultural visual elements within the site or study area? (Consult the Landscape Character Unit narratives). Are there any additional locally relevant details to describe their visual significance? Use photos to reduce need for text.
Analysis	Impacts on viewer experience	Does your development alter any existing views? e.g. Does it reduce or divide any viewsheds? How? From which viewing points? Does it obscure or obstruct visibility of significant landscape features? How / In what way?
	Impacts on landscape character and quality	How will the visual landscape change as a result of the development? Will it dominate or complement the existing visual elements of the landscape or their composition? Consider the profile, height, scale, form, density, colours, reflectivity of materials.
Management	Mitigation measures	What measures will be used in the development to avoid, minimise or compensate the impacts identified?  Consider re-siting, re-sizing, colours and reflectivity of materials, or screening  What, if any, visual enhancements will be incorporated in the proposal?
	Scenic Management Principles	Briefly describe how the above measures will meet these principles that apply to the Landscape Character Unit(s), and the overall Scenic Management Principles of Part 3.

## 4.4 Standard and Expanded Visual Impact Assessment

The overview presented in Table 3 below outlines the Stages to follow and steps involved in preparing a Standard or Expanded Visual Impact Assessment.

#### The aim is

- 1. To clearly establish the **intersection** (relationship) between the affected **environment** and the affected **viewers**;
- 2. To evaluate the scale and type of impacts (beneficial, adverse or neutral) on scenic landscape elements and affected viewer preferences, and
- 3. Identify appropriate management approaches (avoid, minimise, compensate, enhance) to achieve the Scenic Management Principles detailed in Part 3.
- 4. Evaluate and describe the link between proposed mitigation measures and their anticipated effectiveness in the context of the Scenic Management Principles.

Table 6 Visual Impact Assessment Process Overview

	,				
Pla	anning Context	What are the existing planning or other legislative or social constraints that influence the visual character of what can be constructed?			
		Environment +	Viewers =	Intersection	
1	Define Study Area	Physical Limits Topography, obstructions, opportunities  Visibility Viewsheds and visibility			
2	Inventory	Catalogue the visual elements of the landscape Catalogue the visual elements of the	Identify the affected viewers	Visual Quality  Identify which visual elements the affected viewers prefer (like or dislike)	
		proposed development		Greinte)	
3	Impact Analysis	Compare visual elements of proposed development to existing landscape - identify change	Identify <b>preferred</b> elements that will change - be impacted	Are the impacts Adverse? Neutral? Beneficial?	
4	Management Approach	Propose specific management actions (avoid, minimise, compensate or enhance)			
5	Evaluation	Describe effectiveness of management actions in achieving Scenic  Management Principles			

#### 4.4.1 Standard Visual Impact Assessment

Where visual concerns are anticipated to have moderate adverse or beneficial visual impacts, a Standard Visual Impact Assessment shall be conducted and submitted with a development application or planning proposal.

This document should report the findings of the Visual Impact Assessment establishment, inventory, analysis and mitigation Stages, supported by input from the affected community which clearly and accurately describes viewer preferences.

It should be structured with key chapters, consistent with industry standard environmental assessment documentation, for example (but not limited to):

- 1. Description of Proposed Development / Project
- 2. Author and Qualifications
- 3. Regulatory Context
- 4. Methodology
- 5. Site Description and Landscape Character Analysis
- 6. Affected Environment and Viewers
- 7. Impact Analysis
- 8. Proposed Mitigation
- 9. Response to Scenic Management Principles

#### 4.4.2 Expanded Visual Impact Assessment

Usually reserved for very complex or controversial proposals where resolving visual impacts has been identified as being key to public acceptance. This report should follow a similar structure as a Standard Visual Impact Assessment; however findings are to be reported with more detail, for example:

- The inventory of landscape characteristics and affected viewers should be more finegrained.
- Detail of existing visual quality and impacts should be presented in both broad and local contexts.
- Develop and execute a public participation strategy that acutely establishes viewer preferences. Include descriptions of how the public was consulted in the Visual Impact Assessment process.
- Use simulations showing impacts and mitigation.
- Alternative designs and proposed mitigation measures should be fully and separately inventoried and analysed.

#### 4.4.3 Visual Impact Assessment Authors Experience and qualification requirements

Level of skills and experience of a Visual Impact Assessment author can be critical to the effective application of visual impact assessment and identification of the most suitable and appropriate mitigation measures.

Standard and Expanded Visual Impact Assessments are to be prepared by suitably qualified and experienced persons, typical of a licensed landscape architect or other similarly trained professional with experience in evaluating landscape aesthetics. This could include environmental design, geography or strategic land use planning qualifications; or persons with demonstrated professional experience similar in type and scope to the proposed development. Such persons should demonstrate previous successful completion of either

developing a VIA, producing a visual quality design manual, providing technical advice for assessing or implementing visual quality requirements and/or publicly conducting a planning process that established visual quality goals or visual preference.

Where professional assessment skills are required, the name, qualifications and experience of the person preparing the visual assessment (or the principal preparer, if prepared by a team) should be provided, along with the date on which the assessment was completed.

#### 4.4.4 Early stage consultation requirements

Where early community consultation is identified as a requirement of the Visual Impact Assessment, engagement with affected viewers should comprise the following matters:

- Information and discussion of the development site / area and the nature of the proposal with affected landholders and community;
- Confirmation of which viewpoints are considered important and validation of their viewsheds:
- Capture community values about scenic qualities that is, the landscape features and visual elements that viewers prefer (like / dislike); and
- Provision of photomontages generated from each viewing point to facilitate an understanding and discussion of potential visual impacts of the proposed development.
- Scope alternative designs and listen to and report on viewers concerns about visual impact and the extent to which they perceive the proposed mitigation measures will achieve the Scenic Management Principles.

#### 4.4.5 Documentation requirements

Each stage provides some details concerning acceptable formats to document the Visual Impact Assessment process and findings. Specific standard requirements for photomontages and survey data must be consistent with the Land and Environment Court - Requirements for Photomontages "Photomontages Policy" 2013.

#### **5 References**

Brouwer, C. 1995. Tweed Shire Scenic Landscape Evaluation, Volumes 1-3

Corkery, N. 2004. Visual Management System for NSW Coast (Tweed Pilot), prepared for the Comprehensive Coastal Assessment (DoP) by URS Asia Pacific, North Sydney.

Department of Environment and Energy, *Australia's Green Cauldron National Landscapes*, accessed on 6 June 2018 via: http://www.environment.gov.au/topics/national-parks/national-landscapes-0

NSW Department of Planning and Energy, 2016. Wind Energy: Visual Assessment Bulletin AB 01 - For State significant wind energy development. December 2016. © Crown Copyright 2015 NSW Government

NSW Department of Planning and Energy, 2017. *North Coast Regional Plan 2036*. March 2017 © Crown Copyright 2017 NSW Government, accessed 6 June 2018 via: <a href="https://www.planning.nsw.gov.au/~/media/Files/DPE/Plans-and-policies/north-coast-2036-regional-plan-2017.ashx">https://www.planning.nsw.gov.au/~/media/Files/DPE/Plans-and-policies/north-coast-2036-regional-plan-2017.ashx</a>

NSW Land and Environment Court *Planning Principle*. accessed on 6 June 2018 via <a href="http://www.lec.justice.nsw.gov.au/Pages/practice\_procedure/principles/planning\_principles.aspx">http://www.lec.justice.nsw.gov.au/Pages/practice\_procedure/principles/planning\_principles.aspx</a>

NSW Land and Environment Court, 2013. *Photomontage Policy*. Accessed on 19 December 2017 via URL http://www.lec.justice.nsw.gov.au/Pages/practice\_procedure/policies.aspx. Document http://www.lec.justice.nsw.gov.au/Documents/use%20of%20photomontages%20-%20final.doc

NSW Land and Environment Court, 2004. *Tenacity Consulting v Warringah* [2004] NSWLEC 140, accessed on 6 June 2018 via:

https://www.caselaw.nsw.gov.au/decision/549f893b3004262463ad0cc6

Tweed Shire Council, 2017. Community Strategic Plan 2017-2027, accessed on 6 June 2018 via http://www.tweed.nsw.gov.au/IPRF

United Nations Educational, Scientific and Cultural Organization (UNESCO), Gondwana Rainforests of Australia. Accessed on 6 June 2018 via <a href="https://whc.unesco.org/en/list/368">https://whc.unesco.org/en/list/368</a>

US. Department of Transportation, 2015. US Guidelines for the Visual Impact Assessment of Highway Projects, accessed on 6 June 2018 via:

https://www.environment.fhwa.dot.gov/env\_topics/other\_topics/VIA\_Guidelines\_for\_Highway\_Projects.aspx#chap3

## **6 Appendices**

- 1. Identified Viewing Situations
- 2. Visual Impact Assessment Risk Evaluation Criteria (Table 4)
- 3. Landscape Character Unit Narratives for the purposes of exhibition, these are presented in a separate document

## **6.1 Identified Viewing Situations**

The table below lists the 109 viewing situations throughout the Shire that were identified and prioritised based on community recognition and preference, discussions with local and regional knowledge holders, field observations and by reference to cultural and tourism data and resources. Specifically, as shown the table, data sources were:

TOURISM: Highly trafficked and promoted tourism driving routes and destinations were identified through Destination NSW, Destination Tweed, VisitNSW, Australia's Green Cauldron and various other tourism data sources, State Tourist Driving Routes identified on digital maps and GPS devices, various web based tourist websites, books, and brochures.

FIELD SURVEY: Driving along roads and stopping at viewpoints and performing visual assessment of available viewing situations and viewsheds

PARKS DATA: Evaluation of Council asset data identified publically accessible and well static viewing locations where views of surrounding landscapes were possible

COMM: Identified as of significance through consultation with community and stakeholders.

Viewing Location Name	Туре	Priority	Data / Source Informing Priority Ranking
Kyogle Road	Linear	1	Tourism (State Tourist Route)
Numinbah Road	Linear	1	Tourism / Field Survey
Pacific Highway	Linear	1	Tourism State Tourist Route
Tomewin Road	Linear	1	Field Survey
Tweed Coast Road	Linear	1	Field Survey / Tourism
Tweed Valley Way	Linear	1	Tourism / Parks Data
Cabarita (Norries) Headland	Static	1	Comm / Tourism
Fingal Headland (Grants			
Causeway)	Static	1	Comm / Tourism
Hastings Point Headland	Static	1	Comm / Tourism
Jack Evans Boat Harbour	Static	1	Tourism / Parks Data
Point Danger	Static	1	Comm / Tourism
Tweed Regional Art Gallery -	Ctatia	4	All
Observation Deck	Static	1	All
Wollumbin (Mt Warning)	Static	1	Tourism / Field Survey
Bakers Road	Linear	2	Field Survey
Bilambil Road	Linear	2	Tourism / Field Survey
Cane Road& Tumbulgum			
Road	Linear	2	Field Survey
Chinderah Bay Drive	Linear	2	Field Survey / Tourism
Fingal Road	Linear	2	Comm / Tourism

Viewing Location Name	Туре	Priority	Data / Source Informing Priority Ranking
Minjungbal Drive	Linear	2	Field Survey
Pottsville Road	Linear	2	Tourism / Field Survey
Riverside Drive	Linear	2	Tourism / Field Survey
Terranora Road	Linear	2	Comm / Tourism/ Field Survey
Tweed River	Linear	2	Tourism / Field Survey
Tyalgum Road	Linear	2	Field Survey
Wooyung Road	Linear	2	Comm / Tourism / Parks Data
Bakers Road	Linear	2	Comm
Blackbutt Lookout	Static	2	Comm / Tourism
Bluey Hill Park	Static	2	Field Survey
Bruce Chick Reserve	Static	2	Comm / Tourism
Chinderah Jetty	Static	2	Comm / Tourism
Chinderah Pub & Foreshore	Static	2	Field Survey Have Your Say
Cudgen Foreshore Reserve	Static	2	Comm / Tourism
Cudgen Sight Line	Static	2	Comm
Cudgera Creek Park	Static	2	Tourism / Field Survey
Fingal Beach	Static	2	Comm
Kerosene Bay	Static	2	Tourism / Field Survey
Kyogle Road Lookout (Rainforest Way Site)	Static	2	Comm / Tourism
Lions Lookout	Static	2	Field Survey & Comm
Oxley Park	Static	2	Comm / Tourism / Parks Data
Pottsville Beach	Static	2	Comm / Tourism
Pottsville Bridge	Static	2	Comm / Tourism
Razorback Lookout	Static	2	Comm / Tourism
Seagulls to Peninsula Drive Rainforest Walk	Static	2	Comm / Tourism
The Pinnacle Lookout	Static	2	Tourism / Field Survey
Travis Campbell Park	Static	2	Comm / Field Survey
Tumbulgum Jetty	Static	2	Comm / Tourism
Tumbulgum Pub & Foreshore	Otatio		Commit Founding
(Faith Mussing Bandler Park)	Static	2	Comm / Field Survey / Tourism
Tweed Coast Cycleway	Static	2	Comm / Field Survey / Tourism
Tweed Coast Cycleway	Static	2	Tourism / Field Survey
Tyalgum Lookout (Waste	Otatio		Todrisiii / Ticia Garvey
Transfer Station)	Static	2	Comm / Field Survey
Wooyung Beach	Static	2	Comm / Tourism / Field Survey
Doon Doon Rd	Linear	3	Comm / Tourism
Dulguigan Road	Linear	3	Field Survey
Mistral Road	Linear	3	Tourism / Field Survey
Stokers Rd	Linear	3	Tourism / Field Survey
Stokers Road Town Entry	Linear	3	Tourism / Field Survey
Arkinstall Reserve	Static	3	Parks Data
Brummies Lookout	Static	3	Tourism / Field Survey
Budd Park	Static	3	Tourism / Parks Data
Byrrill Creek	Static	3	Comm / Tourism
Crams Farm Reserve	Static	3	Comm /Tourism / Parks Data
Cudgera Beach Reserve	Static	3	
	Sidlic	3	Comm / Field Survey

Winning Landing Name	T	Dairenites	Data / Source Informing Priority
Viewing Location Name	Type	Priority	Ranking
Doon Doon Rd Capture	Static	3	Field Survey
Dreamtime Beach	Static	3	Comm / Tourism
Ebenezer Park	Static	3	Tourism / Field Survey
Faulks Park	Static	3	Tourism / Parks Data / Comm
Faux Park	Static	3	Parks Data
Gruners Lookout	Static	3	Comm
Jack Bayliss Park	Static	3	Tourism / Parks Data
Knox Park	Static	3	Tourism / Parks Data
Lyrebird Lookout	Static	3	Tourism / Parks Data
Murwillumbah Bridge	Static	3	Parks Data
Pacific Motorway Bridge North	Static	3	Tourism / Field Survey
	Static	3	Tourism / Fleid Survey
Pacific Motorway Bridge South	Static	3	Tourism / Field Survey
Pascoe Park	Static	3	Parks Data
Pottsville Road & Kellehers	Otatio	J	T dino Bala
Rd Intersection	Static	3	Tourism / Field Survey
Terranora Chambers Lookout	Static	3	Comm
Top Of Smiths Creek Road	Static	3	Comm
Tumbulgum Bridge	Static	3	Tourism / Field Survey
Tweed Botanic Gardens	Static	3	Field Survey
Byrrill Creek Road	Linear	4	Field Survey
Ambrose Brown Park	Static	4	Parks Data
Apex Park	Static	4	Parks Data
Burringbar Capture	Static	4	Field Survey
Byrrill Creek Road	Static	4	Field Survey
Byrrill Creek Rock pools	Static	4	Field Survey
Frangela Drive Reserve	Static	4	Parks Data
George Ord Park	Static	4	Parks Data
Gollan Drive Riverside Local	Static	4	Paiks Dala
Park	Statio	1	Barka Data
	Static	4	Parks Data
Hardy Park	Static	4	Parks Data
Harry Hansen Park	Static	4	Parks Data
Hartigan Hill Reserve Lookout	Static	4	Parks Data
Harwood Road Intersection	Static	4	Field Survey
John Fowler Fitzhenry	Static	4	Parks Data
Kingscliff Lions Park	Static	4	Tourism / Parks Data
Mcilrath Park	Static	4	Parks Data
Merv Edwards Reserve	Static	4	Parks Data
Near Minnows Road	Otatio		T dino Data
Intersection Capture	Static	4	Field Survey
Nicholl Park	Static	4	Parks Data
North Cabarita Beach	Static	4	Parks Data
Piggabeen Valley	Static	4	Comm
Queens Park	Static	4	Parks Data
Remembrance Place	Static	4	Parks Data
Sacred Park	Static	4	Parks Data
	Static	4	
South Hastings Beach	Static	4	Parks Data

Viewing Location Name	Туре	Priority	Data / Source Informing Priority Ranking
Stan Sercombe Park	Static	4	Parks Data
Sweetnam Park	Static	4	Field Survey
Tom Oconnor Recreation	Static	4	Parks Data
Uki Centenary Park	Static	4	Parks Data



## 6.2 Visual Impact Assessment Risk Evaluation Criteria

The following table gives an indication of the visual impact risk associated with different development types, based on the usual nature and scale of such proposals. This is to be used as a guide for completion of the preliminary assessment table in Part 4 of the Strategy.

Whilst the indication of risk below represents the usual anticipated visual impact, the list is not exhaustive and each proposal should be assessed on its merits based on the design and scale of the proposed development in relation to the surrounding built form and land use character. There may be situations where the below risk levels are not appropriate for a given proposal. The overall risk score will also be dictated by other visual risk criteria, including the location of the development in relation to priority viewsheds and the expected level of contrast with the surrounding visual character in terms of land use.

#### **Development Type**

Routine – activities or developments that are visually consistent with the existing landscape character and surrounding land use activity.

#### **Examples**

Internal or external renovations or change of use of premises that do not involve any additional structures or increase the external façade area of buildings;

Advertising or signage in urban areas that is not illuminated and does not protrude above the dominant skyline when viewed from ground level within a visual catchment of 1km;

New dwellings or alterations to existing dwellings in established residential areas;

Agricultural activities in rural areas that are in keeping with the existing visual character of the area and do not involve the erection of new structures:

New commercial or industrial buildings, community facilities, educational establishments, entertainment facilities, freight transport facilities, function centres, passenger transport facilities, places of public worship or child care centres within established urban areas that are of a similar scale and form to existing surrounding structures;

Temporary structures and activities such as filming or special events where the site will be rehabilitated to its original state;

Whole the one will be remadilitated to its enginal state

Forestry in rural areas;

Roadside stalls;

Wharf or boating facilities, boat building or repair facilities, launching ramps, sheds or the like on foreshore of waterways

in areas where such facilities are already existing;

Maintenance and repair of existing infrastructure e.g. roads, bridges, water and sewer service infrastructure,

<b>Development Type</b>	Examples
	revetment walls, routine recreation works such as landscaping, BBQs, seating etc.
Minor – activities or development that will cause minimal visual disturbance to the existing visual character and quality of the surrounding landscape.	Signage or advertising structures in urban areas that are illuminated or protrude above the dominant skyline (including building lines) when viewed from ground level within a visual catchment of 1km;  Animal boarding or training establishments in rural zones involving the erection of new structures;  Camping grounds, caravan parks and manufactured home estates in RU1, RU2, RU5 or environmental zones;  New farm buildings or buildings associated with rural use;  Multi dwelling housing in low density residential zones;  Maintenance and repair of existing infrastructure e.g. roads, bridges, water and sewer service infrastructure, revetment walls, minor recreation facilities such as shelters, play equipment, pathways and large landscaping areas;
Moderate – activities or development where the visual character or built form is unlike that of the dominant surrounding landscape or land use character	All planning proposals for re-zoning;  Erection of new structures of any type that are more than 25% higher than the average building height within a 1km radius (not including dwelling houses on rural land or buildings associated with rural practices on rural zoned land);  Activities in rural zones that involve the erection of substantial visually contrasting structures e.g. greenhouses, feedlots, aquaculture facilities, heavy industry storage establishments and the like;  Air transport facilities, airstrips;  New commercial or industrial buildings, educational establishments, entertainment facilities, hospitals, function centres, passenger transport facilities, recreation facilities, places of public worship, service stations, transport or truck depots, warehouse or distribution centres in RU5 zones;  Recreation facilities, health care facilities and education facilities in residential zones;

<b>Development Type</b>	Examples
	launching ramps, sheds or the like on foreshore of waterways in areas where no such facilities exist;
Significant Large scale complex and/or controversial proposals of significant contrasting character, scale or form.	New and additional development of scale, type or form that contrasts with the surrounding visual landscape, land use character and dominant built form;  New hospitals, new educational establishments, new health care, commercial or industrial precincts on greenfield development sites or in otherwise undeveloped areas;  Large scale Planning Proposals (re-zoning);  Above ground extractive Industries or mines, open cut mining;  Large scale clearing of vegetation;  Major infrastructure projects (new bridges, major roads);  Highway service centres;  Telecommunications Facilities;  New Marinas and port facilities;

## 6.3 Landscape Character Unit Narratives

Refer to separate document



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