



Lake Macquarie
Scenic Management Guidelines 2013
Adopted by Council 11 February 2013

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Summary

The Scenic Management Guidelines provide a system for the protection and management of the Lake Macquarie Local Government Area's (LGA) more important scenic and landscape values.

The strong natural qualities of Lake Macquarie are widely recognised and valued, yet like many Australian coastal regions there is pressure for new areas to be developed and existing ones to be changed. The Council recognises that without adequate management of our scenic and landscape values these values can be eroded or lost. It is therefore important to identify what is important and how best to protect and manage valued areas, as well as to identify which development types have the greatest potential for negative impact and how best to reduce or prevent such impact.

As such, these guidelines:

- Provide guidance to Council officers and applicants during both strategic planning stages and development assessment;
- Identify the most visually-sensitive landscapes and sensitive view locations across the LGA;
- Define appropriate levels of scenic management across the LGA and provide recommendations for each level;
- Identify development types and areas most requiring management and provide relevant guidelines; and
- Establish when a landscape and visual impact assessment is required for a development application or planning proposal (rezoning) and what it should include.

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Some of the original baseline information from the Lake Macquarie Scenic Quality Guidelines (2004) was also referred to in the preparation of this guideline. The Lake Macquarie Scenic Quality Guidelines (2004) were based on Part B of the *Scenic Quality Plan* (1997) prepared by Clouston Consultants.

The development of the *Scenic Management Guidelines* began with a comprehensive review of existing Australian and International best practice for visual assessment and scenic quality management. In that regard, particular acknowledgement for informing the document is given to:

- NSW Department of Planning's *Sydney Harbour Foreshores and Waterways Area Development Control Plan (DCP)*(2005),
- Western Australian Planning Commission and Department for Planning and Infrastructure's *Visual Landscape Planning in Western Australia* (2007),
- United Kingdom's Landscape Institute and the Institute of Environmental Management and Assessment's *Guidelines for Landscape and Visual Impact Assessment* (2002),
- The Countryside Agency and Scottish Natural Heritage's, *Landscape Character Assessment: Guidance for England and Scotland, United Kingdom* (2002).

Revision History

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Master	February 2013	Integrated Planning	Creation of Scenic Management Guidelines 2013

PART A: INTRODUCTION

1 INTRODUCTION

1.1 PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide a system for the protection and management of Lake Macquarie Local Government Area's (LGA) most important scenic and landscape values.

The guidelines have been prepared as a tool for development proponents and Council officers to use to guide decisions regarding scenic and landscape values at the rezoning (planning proposal) stage and development application stage.

1.2 WHAT ARE SCENIC AND LANDSCAPE VALUES?

Scenic and landscape values encompass both the inherent value of the physical landscape and the value given to the landscape by the people who view it.

Values placed on a particular landscape by viewers can take into account the perceived scenic quality of the landscape itself, and views to and from that landscape. These values can also include those we give to the physical landscape, covering aspects such as natural elements, built form, landform, vegetation, landscape character and landscape features which combine to distinguish one place from another, what is sometimes referred to as a 'sense of place'.

1.3 WHY DO WE NEED TO PROTECT SCENIC AND LANDSCAPE VALUES?

The protection of scenic and landscape values is important to residents of Lake Macquarie LGA, as well as those that work in it, and visitors to it.

The strong natural qualities of Lake Macquarie LGA are widely recognised and valued, yet like many Australian coastal regions there is pressure for new areas to be developed and existing ones to be changed.

The Council recognises that without the adequate management of our scenic and landscape values these values can be eroded or lost. It is therefore important to identify what is important and how best to protect and manage valued areas, as well as to identify which development types have the greatest potential for negative impact and how best to reduce or prevent such impact.

1.4 POSITIVE AND NEGATIVE ATTRIBUTES OF LAKE MACQUARIE LGA

What are the most important scenic and landscape values in Lake Macquarie LGA and what are the detractors? These questions need to be considered when setting out to protect what is important and identify what needs to be improved.

The unique setting of Lake Macquarie is overwhelmingly created by its strong physical landscape – the lake, the forested ridges, and the coastline – over which the pattern of settlement combines to produce a unique character of natural and urban landscapes.

Some of the most positive attributes of the landscape of the LGA are:

- The forested Mount Sugarloaf range and Watagans which form a strong visual backdrop to the west;
- The many views over the expansive, central water body that is Lake Macquarie, ringed by forested hills and ridgelines, with the foreshore lapped by small settlements, linear parks, larger town centres and small bays and inlets;

- A coastline of rocky headlands separated by long sandy beaches, with many opportunities to enjoy attractive views of the coastline and ocean;
- The extent of protected bushland that provides important visual relief and green breaks between urban areas; and
- The rural landscapes around the western side of the lake, with attractive acreages sprinkled through a bushland setting.

It is these types of positive attributes that these guidelines seek to protect and manage. Yet amongst the positive qualities are also some negative attributes that detract from the visual environment, with some of the most prominent being:

- Poor visual quality of some existing and new commercial/industrial areas;
- Loss of vegetation from; some ridgelines, highly visible hillsides, main road corridors and rural landscapes;
- Incremental loss of tree cover from older urban areas and low cover in many new urban areas;
- Erosion of green breaks that serve to visually separate different urban areas;
- Construction of buildings on visually-sensitive coastal headlands and close to beaches;
- A cumulative increase in infrastructure facilities, particularly transmission towers, monopoles and service authority sub-stations;
- Location of two major power stations on the southern part of the lake; and
- Scale of some development that overwhelms the surrounding visual environment.

These guidelines also seek to reduce the existing negative qualities where practical, and manage future development to minimise negative effects and enhance positive attributes.

1.5 OBJECTIVES OF THESE GUIDELINES

The objectives of these guidelines are to:

- Provide guidance to Council officers and applicants during both the strategic planning and development assessment stages;
- Identify the most visually-sensitive landscapes and sensitive view locations across the LGA;
- Define appropriate levels of scenic management across the LGA and provide recommendations for each level;
- Identify development types and areas most requiring management and provide relevant guidelines; and
- Establish when a landscape and visual impact assessment is required for a development application or planning proposal (rezoning) and what it should include.

1.6 METHODOLOGY

The sequential format of this document reflects the following methodology:

- Description of the important scenic and landscape resources of the Lake Macquarie LGA;
- Identification of landscapes and view locations sensitive to visual change;
- Definition of Scenic Management Zones and provision of guidelines for these zones;

- Provision of guidelines for reducing scenic and landscape impact for key types of development; and
- Clarification of when Council requires a Landscape and Visual Impact Assessment and what it should include.

2 HOW TO USE THIS DOCUMENT

2.1 GENERAL

This document provides valuable baseline and contextual information relevant to any given location within the LGA. It also includes scenic management guidelines for each 'Landscape Setting Unit', as well as more general guidance on particular types of development.

The document also importantly defines when a Landscape and Visual Impact Assessment is likely to be required. In addition, even if a Landscape and Visual Impact Assessment is not required, this document provides guidance on addressing scenic management issues during the development assessment or planning proposal process.

2.2 COUNCIL OFFICERS - STEPS FOR DEVELOPMENT ASSESSMENT OR PLANNING PROPOSALS

For any given location, Council officers should follow the following steps depending on the situation:

- Steps 1 - 3: during DA assessment; and
- Steps 2 - 3: for planning proposals.

Table 1 sets-out the key elements for these steps and where relevant information is contained in this document.

Table 1 - Steps for Development Assessment or Planning Proposals

Steps	What to do	Where information is in Guideline
Step 1 – Identify if a Landscape and Visual Impact Assessment is required	<p>(a) Determine whether a Landscape and Visual Impact Assessment is specifically required.</p> <p>Note that even if the need for a Landscape and Visual Impact Assessment is not specifically identified one can still be requested if justified based on the site location and development characteristics, as this document cannot cover all possible situations. If the need for such an assessment is in question, undertaking Step 2 should assist with such a decision.</p>	Section 7-2, (Table 5, page 47)
Step 2 – Collate baseline information	Collate the following information from this document to provide baseline and contextual information for the assessment:	
	(b) Refer to relevant Landscape Setting Unit sheet (this has contextual information)	Appendix A
	(c) Confirm if the site is identified as a visually-sensitive landscape	Table 2, page 18, and Map 1
	(d) Determine if the site is identified as potentially having a high or moderate visibility (and related visual-sensitivity to change) and the reason	From Table 3, page 19. (see Note 1 below for additional information on this component)
	(e) Determine which Scenic Management Zone applies and refer to relevant guideline	Table 4, page 24 and Appendix B
	(f) Confirm if any other relevant guidelines for proposed type of development	Section 6.0 (note that not all development types or locations are

Steps	What to do	Where information is in Guideline
		addressed)
Step 3 – Implications for assessment stage	(g) During any preliminary discussions with the Applicant, and the subsequent assessment process, consider implications of site context and proposal based on information from Step 2 (in particular by referring to information on relevant Landscape Setting, the potential to affect any visually-sensitive landscape, whether the place has a potential high or moderate visibility and the applicable Scenic Management Zone and scenic management guidelines).	
	(h) If Council requires a Landscape and Visual Impact Assessment, ensure it addresses the requirements and is of a satisfactory standard.	Section 7-3
	(i) In particular, assess the proposal against the Scenic Management Zone guidelines and any relevant guidelines for that type of development.	Table 4 , page 20 and Appendix B and Section 6.0
	(j) Refer to more detailed Council guidelines that may apply that also consider scenic and landscape issues, such as Council's DCP (including the Town Centres DCP and Area Plans).	

Note 1 – Assessing visibility

Table 3 (page 19) defines general locations that have a potentially high visibility and hence are visually sensitive to change. However, these locations may require some further assessment and interpretation from Council officers and/or the Applicant as to whether a site can be seen from certain areas (e.g. from a main road).

This additional assessment should form part of any Landscape and Visual Impact Assessment undertaken by the Applicant. Council officers can also make use of the Council's GIS mapping resources during the assessment process as a tool to confirm potential view effects and likely impacts.

Council's GIS mapping has the capability of mapping visibility to provide a general guide of the area that may be seen from any given location. Such mapping is based on topography, and does not take account of any vegetation or built structures, yet provides a broad tool that can be further refined through more detailed assessment. This should be used as part of Council's available planning tools at the discretion of Council officers. Any information generated through this method will require independent, separate assessment by any Applicant.

2.3 APPLICANTS

Applicants will be notified when a Landscape and Visual Impact Assessment is required as part of any development application or planning proposal. The requirements for such an assessment are set-down in **Section 7.0**.

This document also contains valuable baseline and contextual information relevant to any given site, which can be useful to Applicants even when a Landscape and Visual Impact Assessment is not required.

As well as providing scenic management guidelines for each location or 'Landscape Setting', the document has guidance that is more general on particular types of development that may be relevant.

2.4 HOW TO USE THE LANDSCAPE SETTINGS AND SIGNIFICANT NATURAL LANDSCAPE FEATURES MAPS

The **Landscape Settings and Significant Natural Landscape Features Maps** contained in Appendix 4, identify the Landscape Setting boundaries and the relevant Scenic Management Zone for each Landscape Setting.

The maps also indicate some of the significant natural landscape features of Lake Macquarie LGA (covering features such as such as coastal headlands, prominent hills, lake channel entrances, lake islands and lake promontories), as well as main ridgelines and approximate buffers for those ridgelines.

The maps are intended as a general guide to identify a site's context, and therefore should be used as such.

PART B: SCENIC AND LANDSCAPE RESOURCES THAT NEED PROTECTING

3 SCENIC AND LANDSCAPE RESOURCES OF LAKE MACQUARIE LGA

This section identifies the main landscape and scenic resources of Lake Macquarie LGA. This baseline information is then used in the following section to identify those areas and landscapes most visually sensitive to change.

3.1 BROAD LANDSCAPE STRUCTURE OF LAKE MACQUARIE LGA

The landscape structure of Lake Macquarie LGA consists of four main landscape types:

- Lake;
- Coast;
- Ridges and hillsides; and
- Hinterland.

Lake

Lake Macquarie is Australia's largest coastal lake, extending some 23km north to south, and varies from 2-10 km wide. The foreshore of the lake includes many inlets, bays and promontories, with the lake itself populated by a number of islands, the largest being Pulbah Island which is a national park.

In many places, the foreshore edge is protected in public reserves and parks, providing a green and natural landscape progression to surrounding urban areas. In other parts, residential areas extend to the lake edge, with the foreshore becoming an eclectic mix of moored boats, jetties, small modest-style houses and more dominant, contemporary homes.

The northern and central areas of the lake foreshore are the most developed, with low-density residential areas dominating the foreshore edge. To the south settled areas are less frequent and separated by larger natural and rural land uses. Also present in the south are two power stations, which are a prominent industrial feature seen from many viewpoints.



Figure 1 - Typical Lake Scene

Coast

The coast extends from Catherine Hill Bay in the south to Dudley in the north, and includes the area immediately inland from the coastal edge.

Landform varies from the rocky headlands of locations such as Redhead and Caves Beach, to the long flat expanse of Nine Mile Beach and its inland lagoons. Along the coastal edge are coastal cliffs, rock platforms, and sandy beaches with many parks and reserves allowing public access along its length. The urban footprint begins quite close to the coastal edge in some places, sometimes occupying elevated locations and headlands.



Figure 2 - Typical Coastal Scene (view of Nine Mile Beach)

Ridges and Hillsides

Encircling the lake are the forested hillsides and ridgelines that are integral to the visual environment of the lake itself. These landforms form a strong and dominant visual backdrop to views across and around the lake.

The most dominant natural backdrop of all are the combined landforms of the Watagans and Mount Sugarloaf Range that runs around the western side of the lake; with these high, forested hills a strong visual feature that is a well-recognised landmark seen from many parts of the LGA.



Figure 3 - Ridges and hillsides create an important visual backdrop to the Lake

Hinterland

The hinterland covers most of the areas not identified as part of the lake or coastal landscape, and where views of the lake or coast are generally not available. It varies from the highly developed areas around the city's main town centre of Charlestown in the north, to the flatter industrial and commercial centres around Cardiff and Glendale, to the attractive rural and forested areas that lie around Cooranbong to the west of the lake.



Figure 4 - Typical Hinterland Scene (rural area west of Cooranbong)

3.2 SIGNIFICANT LANDSCAPE TYPES AND FEATURES

Significant landscape types and features, both cultural and natural, need to be identified when seeking to protect landscape and scenic values. For Lake Macquarie LGA, such landscapes are identified as those with:

- Significant natural landscape features;
- Inherent natural values; and
- Heritage or cultural values.

These landscapes are generally sensitive to visual change, or 'visually-sensitive' landscapes, which are subsequently referred to in **Section 4.1**.

The **Landscape Settings and Significant Natural Landscape Features Map** indicates some of the significant natural landscape features of Lake Macquarie LGA.

3.3 LANDSCAPE SETTINGS

Different 'Landscape Settings' have been identified across the LGA as a means of providing a more detailed description of the scenic and landscape resources for different locations or 'settings'.

The Landscape Settings are primarily based on visual catchments, with the boundaries largely established by topographic features such as ridgelines, as well as land use changes and in some cases watercourses. Refer to the **Landscape Settings and Significant Natural Landscape Features Maps in Appendix E**.

Appendix B contains the detailed Landscape Setting sheets, with each sheet providing contextual information that is important when considering any changes that may affect a particular landscape setting.

4 LOCATIONS SENSITIVE TO VISUAL CHANGE

It is important to understand which locations are 'visually-sensitive' or most sensitive to visual change, when seeking to protect and manage the scenic and landscape values of Lake Macquarie LGA.

There are two types of visually sensitive locations:

- Visually-sensitive landscapes (the actual area of the landscape that can be potentially affected by change); and
- Places with a high visibility (those locations that are sensitive to visual change due to visibility).

4.1 VISUALLY-SENSITIVE LANDSCAPES

Visually sensitive landscapes correlate with those previously identified as significant landscape types and features in **Section 3.2**, with those being:

- Significant natural landscape features;
- Natural landscape types with inherent natural values; and
- Landscapes with heritage or cultural values.

Table 2 further defines specific visually sensitive landscapes in the LGA. The visually sensitive nature of these landscapes should be taken into account when considering any proposed major visual change during the development assessment or strategic planning processes.

Table 2 - Visually-sensitive landscapes

<ul style="list-style-type: none">• Main ridgelines (refer Landscape Settings and Significant Natural Landscape Features Map);• Significant natural landscape features such as coastal headlands, prominent hills, lake channel entrances, lake islands and lake promontories (refer Landscape Settings and Significant Natural Landscape Features Map), as well as beaches and wetlands• National Parks, State Recreation Areas and other protected natural conservation areas (areas zoned E1);• Other areas zoned for natural values (areas zoned E2 - Environmental Conservation);• Within 100m of the lake edge (defined as the Mean High Water Mark);• Within 300m of the coastal edge (defined as the Mean High Water Mark); and• Heritage conservation areas and precincts.

It is acknowledged that the identification of significant landscape types and features could also be expanded to include areas with other biodiversity values, Indigenous landscapes and other heritage items. However, these elements are already addressed in other Council documents and hence that information is not repeated in this document.

4.2 PLACES WITH A HIGH VISIBILITY

Places with a high visibility are likely to be sensitive to visual change.

Visibility considers two main aspects:

- The number of potential viewers; and
- How easily a place is seen.

The number of potential viewers relates to aspects such as proximity to transport routes, popularity, closeness to high use areas such as town centres, the lake, coast, those with recreational or other values (such as cultural, heritage or natural) and the availability of attractive views.

Places that are generally the most easily seen are those that are elevated (such as ridges, hillsides and lookouts) and those located within key view corridors (such as seen from or around the lake, coast or along major transport corridors).

Table 3 identifies places with potentially a high or moderate visibility, categorised respectively as having either a high or a moderate visual-sensitivity to change.

Table 3 - Criteria for identifying places with potentially a high or moderate visibility and visual-sensitivity

	High visibility (i.e. high visual-sensitivity to change)	Moderate visibility (i.e. moderate visual-sensitivity to change)
Popular areas (beaches, public reserves, town centres, boating areas)	Areas of high visitation or use and seen from within 300m of those areas ¹ National Parks or other protected reserves and within 300m Within the business zones in the town centres of Morisset, Toronto, Glendale, Cardiff, Warners Bay, Charlestown, Belmont and Swansea.	Areas of moderate visitation or use and within 100m of those areas ¹ Within 300m to 500m of a National Park or other protected reserve
Seen from transport routes	Seen within 300m of the Sydney - Newcastle Freeway or within 100m of a main road ² Seen within 100m of a public railway	Seen within 300m of a main road ² Seen within 300m of a public railway
Seen from lake or lake foreshore	Seen from lake and/or within 300m of lake edge with lake views	Seen from lake and/or within 300m to 1.0km of lake edge with lake views Other heavily vegetated areas seen from lake and/or lake edge within 3km
Seen from coastal edge³	Coastal edge and seen from within 300m of coastal edge	Other areas within 300m of coastal edge Other areas seen within 300 - 500m of coastal edge
Other visually prominent areas	Watagans and Mount Sugarloaf Range (from ridge to foothills) Vegetated main ridgelines and approximately 150m either side of ridge apex (refer Landscape Settings and Significant Natural Landscape Features Map for indicative main ridgeline mapping)	Developed (largely non –vegetated) main ridgelines, and approximately 100m either side of ridge apex (refer Landscape Settings and Significant Natural Landscape Features Map for indicative main ridgeline mapping)
Other view corridors	View corridors mapped in Town Centre Area Plans in Lake Macquarie DCP 2012	
Public lookouts	Depends on visitation, but most considered high unless justified (refer Appendix C for identified public lookouts)	

1 – Estimate visitation based on location and observation, 2 – Refer Appendix C for definitions, 3- Lake or coastal edge defined as Mean High Water Mark

As discussed in **Section 2.2 (Note 1)**, **Table 3** defines only general locations that potentially have a high or moderate visibility and related visual-sensitivity to change, and therefore some further assessment and interpretation may be required as to whether a site can be seen from certain areas (e.g. from a main road).

This additional assessment should form part of any required Landscape and Visual Impact Assessment provided by an Applicant. Council officers may also need to make further assessment as to visibility. Council's GIS mapping is a resource that can also be used by Council officers as it has the capability of mapping visibility to provide a general guide of the area that may be seen from any given location.

PART C: SCENIC MANAGEMENT GUIDELINES

5 SCENIC MANAGEMENT OBJECTIVES AND ZONES

5.1 SCENIC MANAGEMENT OBJECTIVES

The scenic management guidelines are founded on six key objectives that seek to protect and manage the most significant scenic and landscape values of Lake Macquarie LGA, with those being:

- Objective 1 - Protect vegetated ridgelines and upper slopes;
- Objective 2 - Retain green breaks between urban areas;
- Objective 3 - Protect important natural landscape features;
- Objective 4 - Ensure the built environment does not dominate natural landscape qualities in non-urban areas;
- Objective 5 - New development to achieve a balance between the character of both the built and natural environment; and
- Objective 6 – Protect and enhance attractive views from highly visible viewpoints.

The following describes these objectives in more detail.

Objective 1 - Protect vegetated ridgelines and upper slopes

The existing vegetated ridgelines and upper slopes within the Lake Macquarie LGA are a significant landscape feature that creates a sense of enclosure when looking from and across the lake, from the coastal edge and from many other viewpoints.

These ridgelines provide a strong visual backdrop that serves to increase the attractiveness of many viewpoints. The encircling of most of the lake by these ridges enhances the setting of the lake within a bowl-like, distinctly separate landscape. Many ridgelines also have an important role in creating green breaks that divide the urban landscape into distinct urban areas and provide visual relief that reduces the perception of 'urban sprawl'.

A key objective is therefore to protect these ridgelines and upper slopes from further vegetation loss, and where possible restore vegetation that has been previously removed. Any development on main ridgelines should be avoided where possible, and where not possible careful design and siting needs to be undertaken to ensure a balanced result is achieved, and that development remains below the tree-line.

Objective 2 - Retain green breaks between urban areas

Council's Lifestyle 2020 Strategy (and its successors) is the overarching strategic plan for Lake Macquarie LGA. The Strategy supports future development that builds upon the existing urban structure by reinforcing and focussing growth around town centres and minimising new urban development on the fringe. The aim being to achieve a gradation of development intensity - higher near town centres and lower at the urban periphery.

An important component in delivering this Strategy is to ensure green breaks are retained between different urban areas and that development is concentrated around existing areas of settlement.

As described in Objective 1, ridgelines provide important green breaks between different urban areas and land uses. In addition, green breaks can also be maintained by rural and semi-rural land uses, public reserves, and large tracts of vegetation. To support Council's strategic planning aims, and to protect the scenic and landscape values of the LGA, a key objective is therefore to minimise further loss of vegetation from existing green breaks, and within these areas ensure compatible land uses and development occurs.



Figure 5 - Forested ridges and hillsides create green breaks and provide a valued visual backdrop to Lake

Objective 3 - Protect natural landscape features

Many natural features around the lake contribute to the scenic and landscape values of the area. Views of these natural features also act as visual cues allowing viewers to use those that are landmarks to understand their position in the landscape.

Natural features of the lake include the lake itself, lake foreshore, surrounding vegetated ridgelines, islands and the many prominent promontories that extend into the lake. Along the coastal edge, natural features include the sandy beaches, fore dunes, native vegetation, rocky headlands, and rock platforms.

It is important to protect both the natural landscape elements themselves, as well as views to them from surrounding areas. The presence of some view corridors to the lake and coast along streets, from public reserves and from within town centres is also a scenic asset that should be protected, and where new developments are proposed any opportunities to increase this visual access to natural landscape features should be identified and implemented where possible.



Figure 6 - Pulbah Island is a landmark natural feature in the Lake

Objective 4 - Ensure built environment does not dominate natural landscape qualities in non-urban areas

New development should not dominate the natural landscape qualities of non-urban areas, such as the rural areas around the western side of the lake. These areas have a character that is overwhelmingly non-developed, with key visual features like vegetation, grassed paddocks, scattered trees and country lanes. Ideally, when introducing new development into this semi-natural landscape the buildings and other elements should be appropriately located and of a design and scale that results in an outcome that is not visually obtrusive.

Objective 5 - New development to have regard to achieving a balance between the character of both the built and natural environment

Managing the dominant nature of the landscape character of Lake Macquarie LGA is integral in ensuring development does not overwhelm the natural characteristics and a high level of visual integration occurs. The height of the vegetated ridgelines, the expansive nature of the lake, the length and ruggedness of the coastal edge and the extent of remnant vegetation in most instances currently dominates the existing development to such an extent that these natural components visually contain the urban development.

There is inevitable pressure to increase the density of development, by either rezoning or redevelopment of existing sites. Often such areas are currently dominated by the natural landscape, or the land is within a highly visible location. Consideration of such proposals should take into account both the existing and desired future character of that area, and seek to reinforce the positive attributes that make that location a distinct place. These considerations can include retaining native vegetation, new landscape and street tree planting with species common to that location, maintaining main view corridors and buildings of compatible design and scale.

Objective 6 – Protect and enhance views of highly visible locations

Highly visible locations in Lake Macquarie LGA include those seen from viewpoints such as the lake, lake foreshore, coastal edge, public areas, and main transport routes. These views establish the dominant character that is seen when travelling throughout the LGA; with water views over Lake Macquarie and the Pacific Ocean integral to the uniqueness of this visual environment.

It is therefore critical that these views are protected and not lost through over-development, removal of vegetation or the inappropriate siting of structures. Areas of high visibility such as coastal headlands and lake promontories should retain natural features and where possible existing vegetation should be conserved, enhanced and lost vegetation reinstated. Further development of these areas should be restricted and carefully managed.



Figure 7 - Munibung Hill (Speers Point) is highly visible from many parts of the LGA

5.2 SCENIC MANAGEMENT ZONES

The purpose of the Scenic Management Zones is to provide clear guidance on what to take into account when considering future development within a particular zone.

Thirteen Scenic Management Zones have been devised by grouping together common existing and desired future character types (based primarily on future likely land use) of each of the Landscape Settings. **Table 4** lists the applicable Scenic Management Zone for each Landscape Setting.

Guidelines for future development in each of the Scenic Management Zones are contained in **Appendix B**.

Each of the Scenic Management Zone guidelines cover:

- The Scenic Management Zone that the Landscape Setting applies to;
- A description of the existing and desired future landscape character; and
- Guidelines for scenic management.

Table 4 - Applicable Scenic Management Zones for Landscape Settings

Landscape Setting	Applicable Scenic Management Zone (refer Appendix B for scenic management guidelines)
AWABA	11(hinterland, limited settlement)
AWABA BAY	1 (lake surround, predominantly natural)
BARDENS BAY	3 (lake surround, moderate settlement)
BELMONT BAY	5 (lake surround, high settlement)
BELMONT LAGOON	9 (coastal edge, natural values)
BELMONT NORTH	12 (hinterland, moderate settlement)
BONNELLS BAY	3 (lake surround, moderate settlement)
CARDIFF	12 (hinterland, moderate settlement)
CARDIFF HEIGHTS	12 (hinterland, moderate settlement)
CATHERINE HILL BAY	7 (coastal edge, low settlement)
CAVES BEACH	8 (coastal edge, moderate settlement)
CHARLESTOWN	13 (hinterland, high settlement)
COAL POINT	3 (lake surround, moderate settlement)
COBRA CREEK	11 (hinterland, limited settlement)
COCKLE BAY	6 (lake surround, disturbed)
COORANBONG	10 (hinterland, rural and natural landscape)
COORANBONG EAST	11 (hinterland, limited settlement)
CROUDACE BAY	3 (lake surround, moderate settlement)
DUDLEY BEACH	7 (coastal edge, low settlement)
ELEEBANA	3 (lake surround, moderate settlement)
FREEMANS WATERHOLE	10 (hinterland, rural and natural landscape)
GATESHEAD	12 (hinterland, moderate settlement)
GLENDALE	13 (hinterland, high settlement)
GREEN POINT	1 (lake surround, predominantly natural)

JOHNYS POINT	3 (lake surround, moderate settlement)
KILABEN BAY	3 (lake surround, moderate settlement)
KILABEN CREEK	11 (hinterland, limited settlement)
KOOROORA BAY	3 (lake surround, moderate settlement)
LAKE ENTRANCE	4 (lake entrance)
LAKE ERARING	2 (lake surround, limited settlement)
MANNERING LAKE	6 (lake surround, disturbed)
MORISSET	12 (hinterland, moderate settlement)
MORISSET PENINSULA	11 (hinterland, limited settlement)
MYUNA BAY	2 (lake surround, limited settlement)
NINE MILE BEACH	9 (coastal edge, natural values)
NORDS WHARF	2 (lake surround, limited settlement)
POINT MORISSET	2 (lake surround, limited settlement)
REDHEAD	8 (coastal edge, moderate settlement)
STOCKTON CREEK	10 (hinterland, rural and natural landscape)
SWANSEA WEST FORESHORE	2 (lake surround, limited settlement)
SWANSEA	4 (lake entrance)
TORONTO	5 (lake surround, high settlement)
WALLARAH	7 (coastal edge, low settlement)
WAKEFIELD	11 (hinterland, limited settlement)
WANGI BAY	3 (lake surround, moderate settlement)
WANGI SOUTH	3 (lake surround, high settlement)
WARNERS BAY	5 (lake surround, high settlement)
WEST WALLSEND	11 (hinterland, limited settlement)
WYEE	11 (hinterland, limited settlement)
WYEE POINT	2 (lake surround, limited settlement)

6 SCENIC MANAGEMENT GUIDELINES FOR DEVELOPMENT

This section provides guidance on general siting, design and other mitigation measures that can reduce negative landscape and visual impacts of development and planning proposals.

As there are other Council guidelines and requirements that apply to different development types that should be referred to during the development process, the detail already included in these guidelines is not intended to be also fully covered by this document. Instead, this section concentrates on highlighting the most important visual issues of different development types, and specific management measures that can reduce the most concerning impacts.

6.1 SCENIC MANAGEMENT OF DEVELOPMENT TYPES

6.1.1 NEW RESIDENTIAL AREAS

Issue: Poor visual outcomes

New residential areas are often criticised for being unattractive, largely due to insufficient vegetation and poor interfaces with surrounding streets and land uses.

Scenic management recommendation:

To encourage the best visual result, new residential areas should be subject to detailed concept plans that achieve the following:

- Maintain visual breaks between surrounding land use areas to reduce the perception of urban sprawl (e.g. via green breaks and vegetated ridgelines);
- Plan for attractive streets with sufficient space for large street trees or other adequate landscape buffers;
- Establish a visual hierarchy of streets that includes differentiation of a main street to create a community focus where appropriate;
- Identify and highlight visual corridors to surrounding attractive views, through measures such as aligning streets towards vistas of the coast, lake, western ranges or bushland;
- Use streets to define public spaces;
- Create pleasant public spaces and parks, and use these to protect and maintain existing site trees;
- Minimise cut and fill through design measures such as the appropriate layout of roads, which will also reduce vegetation loss. Where cut and fill is unavoidable benching of new home sites and provision of retaining walls to unify the site should be considered. Areas for planting should also be identified.
- Width of driveways at the street edge should be kept to a minimum to allow for the greatest area to be available for street trees and to reduce the visual dominance of driveways; and
- Address surrounding main street frontages through orientating housing towards streets, where direct access is not possible consider using techniques such as narrow service roads and thereby avoid unattractive rear fences facing main streets (if not possible then landscape planting should be imposed to improve any views of fencing).

Where identified as particularly important, such as where a location has high landscape and/or scenic values, consideration should be given to detailed requirements for building design and materials to ensure a final urban character that is compatible and of high amenity, such as has occurred at North Wallarah (Murrays Beach). Semi-advanced trees should also be specified for key locations such as streets and public spaces.



Figure 8 - New residential areas are often bare of trees



Figure 9 - Establishing street trees can create a sense of place

Issue: Protect existing trees

New residential developments often result in the loss of many trees. Although these trees may be proposed to be replaced by new trees, such replacement will take many years and is sometimes unsuccessful.

Scenic management recommendation:

Loss of trees should be actively avoided through the initial design process and then carried through to subsequent design stages. Substantial trees (including street trees) should be indicated on the site survey and design measures used to retain as many trees as possible through incorporating these trees into open space systems and as street trees. Design measures should also include restricting the need for cut and fill, designing street layouts and lot boundaries that take account of tree locations and the use of larger lots in sensitive areas to retain existing trees and/or allow replacement growth.

Applicants should also utilise building techniques that can minimise impacts to the landform and existing trees (such as by using pier construction rather than slab on ground or trench footings). New driveways should be located to not impact on street trees, if a street tree must be removed a replacement tree must be planted.

Issue: Asset Protection Zones (APZs)

Asset Protection Zones (APZs) for bushfire protection often require vegetation clearing to meet legislative requirements. However, such clearing can sometimes be reduced through design measures.

Scenic management recommendation:

It may be possible to reduce the need for clearing through master planning. Bushfire assessments and recommendations need to be undertaken in consultation with those responsible for the overall design of a new subdivision. During such a multi-disciplinary design process, measures can be explored to locate APZs to minimise vegetation loss.

6.1.2 ESTABLISHED RESIDENTIAL AREAS

Issue: Street trees

Many established residential areas often have limited street trees, and are less likely to be subject to a designated street tree planting program, thus making it problematic to increase street tree numbers.

Scenic management recommendation:

Any development in residential areas should seek to increase the number of street trees.

Priority should also be given to planting street trees along ridgelines to increase trees in these visually prominent locations.

Issue: Protect existing trees

The loss of existing trees on private land from older residential areas is an ongoing issue, with the result that incremental tree removal is resulting in a net overall loss that is not being adequately replaced. Many new developments or additions seek to extend building footprints and often require the removal of existing trees.

Scenic management recommendation:

Loss of trees should be actively avoided and Applicants encouraged to use building techniques that minimise impacts to trees (such as by using pier construction rather than slab on ground or trench footings). New driveways should be located to not impact on street trees.

Opportunities to nominate the retention of important trees during the development assessment process should be taken where they arise. In such cases, a modest infringement in terms of required setbacks, heights or footprints should be considered as a means to negotiate an outcome that retains established trees. The layout of any proposed lot subdivision should take account of mature trees.

6.1.3 MEDIUM DENSITY DEVELOPMENT



Figure 10 - Medium density development should address the street

Issue: Addressing street frontage

Medium density development, particularly when part of infill development, can often have a poor presentation to the street.

Scenic management recommendation:

Ensure dwellings or units closest to the street are orientated towards the street. Where possible a front fence and separate front entry should be used to further reflect a more traditional residential character. Ownership of this open space by that front dwelling or unit's owner (rather than it being a communal space) will also encourage suitable maintenance of this area.

6.1.4 RESIDENTIAL FLAT BUILDINGS

State Planning Policy (SEPP) 65 – Residential Flat Buildings is applicable to this type of development, and the associated Residential Flat Design Code (RFDC) should also be referred to:

<http://www.planning.nsw.gov.au/StrategicPlanning/Designqualityofresidentialflatbuildings/ResidentialFlatDesignCode/tabid/158/language/en-AU/Default.aspx>.

The following summarises the main visual issues, including those referred to in the RFDC, associated with residential flat buildings.

Issue: Poor visual outcomes

Poor visual outcomes of residential flat buildings can include privacy and overlooking issues, poor presentation to streets, unattractive building designs and inadequate open space and landscaping.

Scenic management recommendation:

Visual privacy:

- Maximise visual privacy between both the buildings on site and adjacent buildings by the careful location and orientation of buildings;
- Ensure adequate street setbacks and privacy; and
- Design building layouts to limit direct overlooking of rooms and private open spaces.

Promote high architectural quality:

- Ensure that new buildings have facades which enhance the public domain and desired street character;
- Articulate building entries;
- Use balcony types which respond to the street character and residential amenity;
- Step buildings to reflect landform changes;
- Avoid long facades without breaks;
- Reduce the visual impact of service elements by integrating them into the design of facades and the roof;
- Ensure high quality treatment of facades using measures such as articulation, material changes, colours, light and shade and high quality building materials to achieve a high standard design result;
- Articulate the roof to reduce the perceived bulk of large roof structures; and
- Avoid use of continuous blank walls at street level and if unavoidable use planting to soften any raised terraces to the street, such as over sub-basement car parking, to reduce their apparent scale.



Figure 11 - Keeping building heights below tree-line reduces visual dominance of built structures

Landscape and retaining existing vegetation:

- Design a landscape that contributes to the site's contextual character and provides a high amenity for residents;
- Give weight to retaining existing vegetation where possible;
- Install street trees as part of the development;
- Consider integrating landscaping into the building design through the use of green walls and roof gardens; and
- Ensure communal open space is of a useful size, has adequate solar access, and creates an attractive setting.



Figure 12 - Trees can break-up impact of taller buildings around the Lake

6.1.5 COMMERCIAL DEVELOPMENT AND TOWN CENTRES

Issue: Many centres lack urban cohesion and are unattractive

Scenic management recommendation:

Design measures to improve visual outcomes:

- Ensure all opportunities taken to increase street trees and other streetscape improvements;
- Where suitable reduce the width of street pavements through measures such as widening footpaths and breaking-up car parking lanes with landscaping, this can encourage outdoor café dining which will activate the street;
- Identify existing view corridors to surrounding natural features such as the lake, coastline or western ranges and ensure these are preserved and enhanced where possible;
- Any proposed commercial/industrial development, particularly along main roads and town centres, should be treated with non-garish (i.e. overly bright) colours, limit overwhelming signage and increase amenity through appropriate landscaping;
- Identify opportunities to introducing view corridors when new developments are proposed; and
- Maintain a human-like scale to provide suitable amenity to centres through the use of continuous low awnings.



Figure 13 - Maintaining view corridors to the Watagans is important in Morisset town centre



Figure 14 - Some town centres, such as Belmont, have few trees and are overwhelmed by the road function

6.1.6 INDUSTRIAL

Issue: Poor presentation to the street

Industrial buildings often have poor presentation to the street. This can be particularly noticeable and of concern in light industrial or bulky goods areas where there is a mix of commercial and industrial uses and large numbers of customers.

Scenic management recommendation:

Ensure that building entrances are located to be easily legible from the street, with the entrance designed to have a human-like scale through the use of awnings, indented or protruding entrance doors, pathways and landscaping.

Provide for trees in the front setback and/or footpath area, and for a pathway that connects in a direct manner to the front entrance from the street. Where possible orientate the front of the building, and the entrance to the street frontage.

Issue: Overall unattractiveness of industrial areas

Scenic management recommendation:

Design measures to reduce unattractiveness:

- Allow for substantial landscaping, including a high percentage of trees, between adjacent buildings to visually break-up the overall mass of buildings and car parks;
- Ensure street trees and footpaths are included to increase the overall amenity;
- Incorporate service roads at subdivision stage to avoid presenting rear walls/elevations to adjoining roads;
- Situate car parks so as to reduce large expanses of hard surface in prominent sites by breaking car parks into smaller components and including trees;
- Improve the look of security fencing by the use of black fencing in the most prominent areas (as black blends into surroundings and is more easily seen through) and the use of landscape screening to soften the view of fencing;

- Ensure high quality treatment of facades and avoid continuous blank walls through measures such as articulation, material changes, colours, light and shade and quality building materials to achieve a high standard design result;
- Limit signage in terms of size and garish colours and rationalise to minimise number of signs;
- Use building colours that are muted and of natural tones (browns, dark greys, khaki greens) particularly where near bushland or seen against it; and
- Screen views from surrounding areas through adequate landscaping that includes tree species, which will eventually grow higher than the buildings.



Figure 15 - Example of an industrial building (centre) that unnecessarily contrasts with the surrounding bushland

6.1.7 MARINAS

The Sydney Harbour Foreshores and Waterways Area DCP (NSW Department of Planning, 2005, <https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/sydney-harbour-foreshores-and-waterways-area-development-control-plan-2005.pdf?la=en>) should be referred to for any proposed marina development. That guideline provides valuable detailed information on issues and design measures associated with marinas.

The following provides an overview of the key issues and potential measures to address that are particularly relevant to Lake Macquarie LGA.

Issues:

Marinas can cause a range of visual issues such as:

- Perceived over-development of the lake, introducing new structures and vessels in natural and semi-natural settings;
- Blocking of public and private views;
- Lighting impacts at night; and
- Impacts to, and removal of, foreshore and lake vegetation.

Scenic management recommendation:

Design measures to reduce visual impact:

- Visual contrast (derived from form, line, colour and texture) between the marina and the existing or desired future character of its Scenic Management Zone to be minimised;

- Visual impact of the marina on surrounding viewpoints (both public and private) should be considered and minimised and include consideration of vessels to be berthed;
- Waterside structures and berthed vessels should not block views from foreshore public open space or views to foreshore public open space from the lake;
- Bulk and scale of buildings and other structures on land should be minimised through mitigation measures including landscaping, articulated walls, detailing of surfaces and by using smaller elements;
- Visual impact of car parking from the lake and on the foreshore should be limited by minimising large expanses of hard surfaces;
- Ensure high quality design and facade treatment of buildings and structures (such as retaining walls);
- Lighting should be designed to be muted and not dominate the surrounding landscape; and
- Advertising signs should be limited in size and number and not detract from the scenic amenity of surrounding land or water-based viewpoints.



Figure 16 - Marinas can be attractive when appropriately sited

6.1.8 TOURIST ACCOMMODATION, ECO-TOURISM AND SENIORS LIVING

Issue: Scenic impact from such development

Visual impacts often result from inappropriate siting, scale and design of these types of development.

Scenic management recommendation:

Design measures to reduce visual impact:

- In rural areas, roadside trees and other roadside vegetation should be retained to maintain the rural character of the road landscape, with weed management where needed;
- Any proposed development is of a scale, character and colour that is compatible with the surrounding setting;
- Ensure internal site planning includes adequate provision of trees, shade, gardens and other measures to provide a high quality amenity for users; and

- Development near the coastal edge or lake foreshore, or on ridgelines or near primary transport corridors, establishes building setbacks sufficient to allow for landscape screening of the development and filtered views consistent with the relevant Scenic Management Zone.

6.1.9 QUARRIES

Issue: High potential for visual impact due to excavation, landform change, colour contrast, infrastructure, vegetation loss, and views from surrounding areas.

Scenic management recommendation:

The two most important elements in managing the visual impacts of quarries are:

- Appropriate identification of sensitive surrounding viewpoints and other visual issues during the planning and the design phase (i.e. when there is the flexibility to make changes to reduce impacts); and
- Establishment of a Quarry Management Plan that addresses visual issues identified through the above process such as via quarry design, screening and rehabilitation and other measures described below.

Direction of quarry face

The quarry face has one of the highest potentials for visual impact as its bare nature means that the face can create a strong and obvious visual contrast with surrounding vegetation. It is desirable that the layout and direction of quarrying be selected and managed to minimise the potential for views of the bare quarry face from the most sensitive surrounding viewpoints, by orientating the face away from direct views from such viewpoints.

Quarrying area

The area to be quarried should be located in a way that considers the potential effects on the landform and site features, and how to most effectively shield views from surrounding locations.

Design measures that can be used include:

- Ensure generous setbacks from surrounding roadways and neighbouring properties for the retention of existing vegetation or establishment of new screening;
- Align the access road so that it prevents direct views into the quarry from the property boundary;
- Retain topographic features that may be able to partially screen the quarry excavation area from outside viewpoints;
- No breaching of any ridgeline;
- Retain vegetation between the quarry and any sensitive viewpoints so as to provide screening;
- Identify where additional screening could be undertaken to reduce impact to surrounding viewpoints, and establish such screening as soon as possible to allow for adequate and timely establishment; and
- Select the most suitable screening materials such as vegetation, earth mounding and fencing to achieve effective visual screening, with temporary screening such as fencing possibly used prior to the establishment of vegetation.

Buildings and plant

Ensure the colour of any fixed plant and buildings is of dark recessive colours such as khaki greens, browns, and dark greys with no reflective materials. Any buildings or structures should also be preferably of a height that cannot be seen from outside the quarry.

Rehabilitation and end use

A critical element in minimising visual impact is to limit the area of exposed surfaces for as short a time as necessary, and rehabilitate completed quarried areas as soon as possible. It is particularly important that upper benches be quickly vegetated to reduce the time available for visual impact. Other areas that may already be degraded and not required for the quarry operations should also be revegetated.

A range of final end use options should be explored and assessed to ascertain which one may be preferable to minimise long-term visual impacts, and these should be illustrated to understand the potential impacts and differences of each.

Achieving a final landform and rehabilitation result that blends into the landscape and is not obvious from surrounding key viewpoints should be the main objective.

6.1.10 RURAL DEVELOPMENT

Issue: Potential for visual impact due to loss of rural character and decrease in existing scenic quality.

Scenic management recommendation:

Many of these recommendations have been adapted from *Visual Landscape Planning in Western Australia* (Western Australian Planning Commission and Department of Planning and Infrastructure, 2007).

Subdivision layout

- The number of buildings visible over the entire site should not appear to be of a density where the appearance is considered to look more urban than rural. Smaller lots will have proportionately less area outside building envelopes and more of the entire site will comprise buildings.
- Design measures to maintain a rural character include varying lot sizes and ensuring pockets of vegetation remain integrated throughout the smaller lots. Smaller lots can also sit within larger lots or common open space, with these areas entwined to protect vegetation and drainage lines.
- The subdivision layout should be designed to not appear as a regimented grid pattern, particularly the road alignment. The road alignment should generally follow contours or run gently across slopes to break-up any views of long road sections, especially any travelling up slopes, to reduce cut and fill.
- Clustering of rural-residential development in less visually sensitive portions of the site, while the remainder maintains a less developed character or is revegetated, can lessen the overall affect on the rural character of the landscape.

Surrounding road edges

- Parts of the site seen in the foreground from major roads should be planned to be of a rural character that is of a low density, or of another land use such as parkland, to provide a visual transition.
- There should be groves of native trees planted along such edges that will partially screen the site, whilst still allowing views between the groves. This is preferable to creating a solid wall of vegetation. Such planting could possibly be included within private properties that are of a size that allows suitable space.

Building envelopes

- Locate potential building envelopes prior to subdivision approval, to ensure that each proposed lot has a suitable site. Building envelopes should be sited to avoid the loss of large trees.

- Buildings should not be located on ridgelines where the apex of the roof would be closer than 5m (in vertical height) from the ground-line of the ridge. Allowance should also be made for space for native trees to be planted behind any house in these upper areas so that a backdrop of vegetation is established that, over time, softens the outline of the house.

Building guidelines

- Colours or materials that may cause glare should be avoided, as should colours that are bright, light, or reflective. In particular, cream, white, or bright colours should be avoided as they will contrast most strongly and therefore have the highest potential impact.
- Other structures such as sheds, garages and tanks should be of similar materials, colours and style to the main house.
- Fencing should be of a rural style, such as timber post and wire strand fencing, or timber post and rail. Colourbond or other similar solid fencing should not be used.

Landscape Planning

- A Landscape Plan should be prepared that addresses where landscape screening is required, any planned re-vegetation or rehabilitation areas and bushfire asset protection zones.
- The plan should include recommendations to protect existing vegetation, creek lines, and any important landscape features. It is preferable that the majority of tree species should be local natives, although it may be appropriate to have some exotic species in some locations.
- It is preferable that street trees be planted in informal groups and at non-regular spacings to achieve an informal appearance.

Other elements

- The entrance to the subdivision should not be highlighted by a large entry statement or 'gateway' as such features are more typical of urban environments. A more modest one may be suitable if designed appropriately.
- Underground power is preferable to above ground, to avoid a proliferation of overhead wires.

6.2 SCENIC MANAGEMENT OF SENSITIVE AREAS

6.2.1 RIDGE AND HILLSIDE DEVELOPMENT

Issue: Visual impacts to vegetated ridges and hillsides

Development on ridge and hillsides, particularly where these areas are heavily vegetated, can cause visual contrast and result in substantial visual impacts due to the prominence of these locations.

Scenic management recommendation:

Specific measures that can be used to address visual impacts include:

- Limiting building height so that the ridgeline is not breached by the top of any building (i.e. the groundline of the ridge apex);
- Landscape buffers and generous setbacks;
- Retention of the majority of existing vegetation, particularly mature native trees;
- Limits on lot coverage and building location;
- Restrictions on building materials and colours so that in areas with a high degree of vegetation, muted natural colours and non-reflective materials are used (i.e. no glass balustrades and silver roofs);
- Restrictions on exterior lighting;

- Design of roads and the general building form to be near-parallel to slope contours;
- Limitations on size and placement of communication towers and antennas, chimneys and other vertical projections;
- Rehabilitation of any disturbed areas as soon as possible, with the establishment of vegetation on any ridgelines given priority; and
- Requirements for utilities to be underground.



Figure 17 - A break in the tree-line along a ridge can be very obvious (centre) and detract from the overall setting

6.2.2 LAKE FORESHORE

Issue: Foreshore development can reduce the scenic quality

Foreshore development can reduce the scenic quality of the subject property and views from the lake and surrounding viewpoints.

Scenic management recommendation:

Siting of buildings and structures:

In Lake Macquarie LGA, foreshore building lines govern the setback of structures from the lake. In addition to these foreshore building lines, the following criteria should be considered for siting buildings and structures:

- Where there is existing native vegetation, buildings should be set-back from this vegetation to avoid disturbance of that vegetation;
- Buildings should address the lake in terms of presenting an attractive facade towards the lake and also any surrounding streets; and
- Buildings should not obstruct important views and vistas from public places to the lake.

Built form guidelines:

- Buildings and other structures should generally be of the same scale and of a design character consistent with their surroundings, with proposed contrasting designs only considered where they are likely to enhance the setting (and this is specifically justified);

- Colours should be sympathetic and generally consistent with the dominant building colours of any area, and use of reflective materials is minimised;
- Walls and fences should be low enough to allow views of private gardens from the lake, and preferably be at least semi-transparent, with any solid wall section of a height no greater than 700mm;
- Development should minimise substantial alteration of natural ground levels and the dominance of structures along the foreshore, including limiting the size and location of boatsheds and other ancillary structures;
- Main view corridors should be maintained to any landmarks, water, or heritage items as far as possible.



Figure 18 - Belmont Bay lake foreshore dominated by structures close to the lake edge

Treatment of foreshore edge:

Consideration should be given to the typology of the Lake foreshore (i.e. urban, residential, rural, natural) when restoration of the foreshore edge is considered. Where suitable, the restoration of the edge to a more natural state should be encouraged. Any proposed infrastructure structures, such as drainage structures, should be designed to be setback as far as possible from the foreshore and design measures and landscape screening implemented to reduce visual impacts.

6.2.3 COASTAL HEADLANDS

Issue: Visual impacts due to over-development of coastal headlands

Coastal headlands are prominent landscape features that are very visible, and therefore particularly sensitive to changes and over-development.

Scenic management recommendation:

Specific measures that can be used to address visual impacts include:

- Development be restricted on land within 150m of the coastal edge, including no increase in height and footprint to any existing buildings;
- New development within 200m of the coastal edge should not be visible from any beaches (i.e. below Mean High Water mark);
- Avoid removal of any existing vegetation;

- Any development should contribute to the rehabilitation of any degraded areas and result in no net loss of vegetation;
- Any buildings should be of a low scale and not dominant, with building colours recessive (muted, natural colours) and surfaces non-reflective; and
- Development is limited to ensure building and structure height does not extend above the physical ground line of the headland, not the tree line.



Figure 19 - Redhead headland with development close to coastal edge

6.2.4 LAKE PROMONTORIES

Lake promontories are those landforms that extend from the main outer lake edge into the main water body. For the most part the guidelines that apply to ridgelines and foreshore areas should also be applied to any proposed development of these locations, depending on the actual landform and characteristics of the site.



Figure 20 - Wangi Wangi promontory is highly visible as it extends well into the Lake

6.2.5 PUBLIC RESERVES

Issue: Minimal vegetation on ridgelines, coastal headlands, and foreshore edges

Limited vegetation in some public reserves detracts from the scenic quality of their landscape setting and surrounding viewpoints.

Scenic management recommendation:

Where public reserves are located on ridgelines, coastal headlands or the lake foreshore they are ideally located to increase vegetation within these areas through new tree planting. Opportunities to add or increase public reserves in these critical locations should also be identified during any development or planning proposal process as a means of protecting existing native vegetation and allowing for re-vegetation of degraded areas.



Figure 21 - Swansea's western foreshore is well-conserved in linear public reserves

Issue: Assessing new development proposals

New development proposals that affect public reserves require careful consideration and design to minimise any visual impact.

Scenic management recommendation:

Proposals for new development in existing public reserves should take account of the following to minimise visual impact:

- The type of existing recreation resources and surrounding development and how introducing new elements would relate to these in terms of scale and character;
- Loss of public access or any decrease in it;
- Any potential need to remove of vegetation; and
- Views to the public reserve from surrounding properties, and the lake or coast.

6.2.6 HERITAGE PROPERTIES

Issue: Ensuring the visual curtilage of heritage items and precincts is protected

Scenic management recommendation:

When assessing impacts to heritage items or precincts, consideration should be given to ensuring the surrounding setting (or visual 'curtilage') is not eroded or negatively impacted. Appropriate measures to address may include adequate screening, maintaining view corridors to and from the item or precinct, and increasing or protecting heritage plantings. Any trees on the Significant Tree Register, and others that may contribute to the overall setting, should be retained.

6.3 SCENIC MANAGEMENT OF LAND USE ZONE CONFLICTS

Issue: Visual conflicts between different land use zones

Visual and privacy conflicts between different land use zones, particularly residential zones, can be exacerbated by zoning boundaries occurring mid-block.

Scenic management recommendation:

Analysis needs to be undertaken on a place-by-place basis to determine the best location for a zone change based on a visual perspective. Transition treatments, setbacks, scaling of buildings and other design measures should be considered as ways to minimise visual conflicts. Preference should be given to ensure any changes in residential zonings and densities occur along street edges.

Visual and privacy conflicts can also occur where commercial zones interface with residential zones. It is similarly preferable if such zone boundaries follow street edges, or if not possible or preferable for other reasons, measures are implemented to reduce potential impacts such as overlooking and reduced visual amenity.

6.4 SCENIC MANAGEMENT OF DESIGN ELEMENTS

6.4.1 CAR PARKS

Issue: Unattractive car parks

Car parks can be unattractive and are often in prominent locations.

Scenic management recommendation:

Car parks should be sited and designed to not dominate views from public areas, main transport corridors, within public reserves and from the lake or coastal edge.

Where possible car parks should be located at the rear of shopping areas and commercial buildings, particularly extensive car parks. To increase the amenity and attractiveness of car parks trees should be included in new car parks, and the owners of established car parks in town centres encouraged to increase street trees where possible.

Other effective design measures can be sleeving car parks behind an outer edge of shops that creates an active street frontage and conceals the car park.



Figure 22 - Trees can greatly increase the visual and shade amenity of car parks

6.4.2 LIGHTING

Issue: Lighting impacts

Bright lighting, and especially floodlighting around the lake which reflects on the water, can cause problems with night navigation and should be avoided. Such lighting also increases visual contrast with surrounding areas at night, with reflections exacerbating this problem.

Scenic management recommendation:

Lighting should be designed to be muted and not dominate the surrounding landscape setting. It should not be directed towards any areas beyond the property such as the lake or bushland.

6.4.3 ROADS

Issue: Road design on hilly sites

Roads tend to have a greater visual impact on hilly sites when roads are orientated up a slope, thus allowing for a view where the road can be easily seen and not visually broken-up by intervening buildings or vegetation.

Scenic management recommendation:

Design roads to generally follow contours and discourage long lengths of roads that are located up a slope. Roads should also be designed to minimise the extent of cut and fill which can increase visual impact and tree loss.

Issue: Character of unformed roads and no footpaths desirable in some locations

In some locations, especially some lower developed suburbs close to the lake or coast, as well as rural areas, it may be desirable to retain the character of unformed roads (i.e. without hard kerbs and gutters) where these roads are integral to the informal character. Often engineering requirements may specify that new development install kerb and gutter, whereas the desirability of this requirement should take into account the overall alteration to the existing character, which will result in a more urbanised, formal character.

The construction of hard road edges, and concrete footpaths, can also lead to the need for substantial trees to be removed, which will also normally reduce scenic quality.

Scenic management recommendation:

Engineering standards should be varied where the requirement for hard road edges and/or footpaths will lead to a loss of the existing informal character of those areas where this is currently a dominant element, or in new areas where such a character is desirable (such as some coastal or bushland dominated sites).

6.4.4 EXISTING VEGETATION AND LANDSCAPE PLANTING

Issue: Managing existing vegetation and landscape planting to reduce visual impact

Existing vegetation, particularly mature trees, should be retained as far as possible.

Vegetation that is common in an area, including native species and cultural plantings (i.e. exotic species that are frequently found in an area or the LGA such as Norfolk Island Pines), can have important scenic and landscape values, as well as ecological values, and needs to be preserved and enhanced.

Scenic management recommendation:

The following considerations should be observed when providing landscaping for developments:

- The location of any trees identified by Council in the Significant Tree Register;

- Appropriate species from those found in the surrounding landscape should be incorporated (including locally found natives, other natives and suitable exotic plants);
- Endemic native species should be used in areas where native vegetation is present or has the potential to be regenerated;
- Existing mature trees should be retained where possible and incorporated into the design of new developments;
- The implementation of water sensitive urban design principles and soft landscape solutions for water management;
- Vegetation along ridgelines and on hillsides should be retained and supplemented with additional planting, including through increasing street trees along ridgeline streets; and
- Historic landmark plantings around the lake and other prominent locations should be planted when suited to a proposed development to reinforce this characteristic of the Lake Macquarie LGA.



Figure 23 - Landscape planting in central median can provide a dual function for water management

6.4.5 SERVICES

Issue: Visual impact of services

Scenic management recommendation:

Where possible underground power should be used in new development areas to reduce the visual impact of powerlines and the related restriction on street tree establishment. The use of common trenches for a variety of services also reduces such impacts.

Elements such as transmission towers, monopoles, and substations should be sited and designed to minimise visual impact. Where possible they should be setback from major transport corridors and consideration given to colours that may reduce visual contrast with the background.

Co-location of different services on one pole and utilising buildings and reservoirs for more discrete antennae should also be encouraged. Substations should also include landscape screening where possible.



Figure 24 - Monopoles and transmission towers can have a visual impact

6.5 VIEW SHARING

Issue: Developments resulting in an unreasonable sharing of views

New development may reduce existing views available from properties and residential dwellings.

Scenic management recommendation:

This issue is comprehensively addressed in the Planning Principle established by the Land and Environment Court in *Tenacity Consulting v Warringah Council* [2004] NSWLEC 140 (refer **Appendix D**). Under that planning principle, developments must provide for the reasonable sharing of views in accordance with established guidelines and assessment methods.

PART D: REQUIREMENTS FOR LANDSCAPE AND VISUAL IMPACT ASSESSMENT

7 PREPARING A LANDSCAPE AND VISUAL IMPACT ASSESSMENT

7.1 WHAT IS A LANDSCAPE AND VISUAL IMPACT ASSESSMENT?

A landscape and visual impact assessment measures and assesses potential landscape and visual effects or impacts. The process ideally then uses this information to inform and influence the design or planning process, ultimately producing an outcome that has taken account of potential landscape and visual impacts and shaped the result to reduce negative impacts and enhance the existing landscape and visual environment.

The Landscape Institute and the Institute of Environmental Management and Assessment (2002) define these two effects as:

“Landscape effects derive from changes to the physical landscape, which may give rise to changes in its character and how it is experienced. This may in turn affect the perceived value ascribed to the landscape.”

“Visual effects relate to the changes that arise from the composition of available views as a result of changes to the landscape, to people’s response to the changes, and to the overall effects with respect to visual amenity.”

A landscape and visual impact assessment is concerned with both of these effects or impacts.

7.2 WHEN IS A LANDSCAPE AND VISUAL IMPACT ASSESSMENT REQUIRED?

In Lake Macquarie LGA, Landscape and Visual Impact Assessment is required for:

- All planning proposals (rezonings), (unless specified by Council);
- For any development applications for any development specified in **Table 5** (unless specified by Council); and
- Any other development if requested by Council.

Table 5 - Development requiring a landscape and visual impact assessment

Type, category or impact of development:
<ul style="list-style-type: none"> • Any designated, SEPP 14 or SEPP 65 development • Any new development or alterations and additions resulting in a building or structure equivalent to 4 storeys or more (in any zone), or a car park of 2 or more storeys (in any zone) • Camping grounds and caravan parks • Telecommunication towers • Substantial loss of native tree cover (land parcels of one hectare or greater) • Subdivisions (in any zone with 10 or more lots proposed) • Tourist and visitor accommodation • Eco-tourist facilities • Waste or resource management facilities • Recreation facilities (major)

- Cemeteries
- Freight transport facilities
- Service stations
- Removal of any tree on the Significant Tree Register
- Seniors living developments and hospitals with more than 30 beds
- Educational facilities (all proposals within rural and environmental zones, and new facilities in residential zones)
- Any industrial or commercial buildings being more than 50 metres long on any side, or being over 10 metres high

Location of development:

- Any development that is; within 300m of the Mean High Water Mark of the lake or coastal edge, or on a ridgeline and involves two or more of the following:
 - height equivalent to 3 or more storeys, or
 - sloping site (10% or more), or
 - requiring a combined cut and fill exceeding 2 metres, or
 - a development footprint exceeding 2000m².
- Any building or structure in a public reserve having a footprint exceeding 100m² or being over 10 metres high.
- Any development on a heritage item and/or development within a heritage conservation area (apart from alterations and additions to existing houses or new complying development houses)
- Any development within 300m of the Sydney-Newcastle Freeway (apart from alterations and additions to existing houses or new complying development houses)

7.3 REQUIREMENTS OF LANDSCAPE AND VISUAL IMPACT ASSESSMENT

A Landscape and Visual Impact Assessment needs to assess both landscape and visual impacts.

Baseline information contained within this document on aspects such as Landscape Settings, significant landscape features and types, visually sensitive landscapes, and places with a high or moderate visibility should be referred to as a general guide.

More detailed assessment and interpretation of this information in terms of a specific location or proposal should be integral to the Landscape and Visual Impact Assessment by the Applicant.

The potential visibility of any view location (refer **Table 3**) should be taken as indicative only, and will depend on more detailed assessment. For Council officers, Council's GIS mapping may assist in that regard (refer **Section 2.2** for more detail). It is the Applicant's own responsibility to ensure that any assessment considers the visibility from surrounding areas through an independent process.

The Landscape and Visual Impact Assessment report should be designed to reflect the relative complexity and likely public interest of a given proposal, yet should broadly address the following (with headings highlighting this format):

1. **Describe the landscape and visual context** - Describe the existing landscape and visual environment of the site and its immediate surrounds, including broad landscape types and land uses, landscape setting, scenic quality, significant landscape features and landscape types and general views available to and from the site. The purpose of this step is to provide a comprehensive understanding of the existing landscape and scenic values of the site and its context.
2. **Identify the visibility and related visual-sensitivity of the landscape and any viewpoints** – Identify the likely visibility and visual-sensitivity of the site and any viewpoints from or to it, taking account of the criteria defined in this document (refer **Tables 2 and 3**) and make an assessment

as to any viewpoint's relative importance based on the criteria for high or moderate visibility or visual sensitivity (as defined in **Table 3**).

Also, identify individual surrounding viewpoints to the site, and those that will see it from distances in the range of: close foreground (less than 300m); foreground (300m to 1km); mid-ground (1 – 5km); and, distant (over 5km).

- 3. Describe likely visual changes** – Describe the visual changes associated with any proposed development, referring to aspects such as development types, height, scale, earthworks, vegetation removal, proposed landscape works, car parking, roadways, lighting, staging and any currently included mitigation measures. Where possible quantify any changes (e.g. extent of vegetation to be removed and cut and fill) and use plans, elevations and cross-sections to illustrate.
- 4. Assess the likely landscape and visual impacts** - Assess the likely landscape and visual impacts of the proposed development, with particular reference to:
 - Direct site impacts - magnitude of landscape and visual change to the site itself (referring to vegetation removal, landform change, scale of the development, change to the landscape character and visual contrast with surroundings).
 - Surrounding viewpoints - magnitude of landscape and visual change to surrounding viewpoints considering the viewpoint's characteristics (i.e. the type of viewer and whether the change would affect transient and/or permanent viewers) and consider night lighting effects where relevant. Undertake this assessment for viewpoints in the range of:
 - close foreground (less than 300m);
 - foreground (300m to 1km);
 - mid-ground (1 – 5km); and,
 - distant (over 5km).
 - For each viewpoint, describe the magnitude and type of visual change, approximate distance and an assessment of the level of impact to that viewpoint (using the impact terminology defined in **Section 7.3.1**). For certain development types the effect of staging, or time, should also be discussed, such as the effect both before and after any proposed landscape or rehabilitation works may have had time to mature.
 - Mitigation measures – recommend any further mitigation measures that could be applied to reduce any identified impacts to the site or viewpoints to it, then if relevant re-assess the potential level of impact considering the proposed mitigation measures. The report must also identify why certain ameliorative measures were not accepted (for example a reduction in height, increased setbacks, or relocation).
 - Alternative mitigation measures - address why certain ameliorative measures were not included that may have reduced the potential impact (i.e. reduction in height, increased setbacks or relocation).
 - For some proposals it may be necessary to address view-sharing principles as identified by the NSW Land and Environment Court, refer **Section 6.5** and **Appendix D**. In such cases, the terminology used by the Court should be applied and an equivalent impact level given that is consistent with the requirements of this document.
- 5. Report illustration** - Include illustrations such as photomontages, artist's impressions and other three-dimensional (3D) imaging where necessary to clarify the landscape and visual changes and potential impacts to the site and surrounding viewpoints. For some projects, Council may specifically nominate the requirements of this component.
- 6. Summary and conclusion** - The report should include a summary of the main findings of the report, and if appropriate, a discussion of the overall likely level of landscape and visual impact

of the proposed development on the site and surrounding viewpoints (using the impact terminology defined in **Section 7.3.1**).

7.3.1 TERMINOLOGY

Describing the level of impact

The following classifications for describing the degree of landscape and visual of impact are to be used in any Landscape and Visual Impact Assessment to achieve a level of consistency (adapted from *Landscape Institute of Environmental Management and Assessment, 2002*):

- **None** – No part of the proposal, or work or activity associated with it, is discernible.
- **Negligible** – Only a very small part of the proposal is discernible and/or is at such a distance that it is scarcely appreciated. Consequently, it would have very little effect on the scene.
- **Minor** – The proposal constitutes only a minor component of the wider view, which might be missed by the casual observer or receptor. Awareness of the proposal would not have a marked effect on the overall quality of the scene.
- **Moderate** – The proposal may form a visible and recognisable new element within the overall scene that affects and changes its overall character.
- **Severe** – The proposal forms a significant and immediately apparent part of the scene that affects and changes its overall character.
- **Devastating** – The proposal becomes the dominant feature of the scene to which other elements become subordinate, and significantly affects and changes the character.

7.3.2 ILLUSTRATION METHODS

Selecting an illustration method

There are a range of techniques that can be used to illustrate proposed visual changes and the scale of any change in a three-dimensional (3D) way, with the appropriateness of using one or more techniques dependent upon the complexity, potential for impact and public interest. Alternatives include photomontages, artist's impressions and 3D moving images.

Photomontages are developed by using photographs as a basis for illustrating proposed visual changes, by overlaying and rendering the changes within the image. Creating accurate photomontages is generally a specialised process that can be quite costly.

An alternative to producing technically accurate photomontages are those that could be termed 'artist's impressions'. These artist's impressions are more a general illustration of how the proposed changes may look, and may be acceptable in certain circumstances where high accuracy is not needed or cannot be relied upon. Such illustration may be presented either on a photographic base or as a more 'sketch-like' graphic image, yet should be of a relatively accurate scale.

3D moving images are sometimes referred to as 'walk through' or 'fly-around' illustrations, created by using a computer program. These images can be based on rendered photography of the actual site, or be totally computer-generated. Still images can also be produced from any view within the moving image. High quality 3D moving images are generally the most costly method of illustration.

A clear description needs to be provided of why any chosen illustration method was selected and the methodology used. Images that cannot be accurately verified should be labelled as 'artist's impressions' rather than photomontages.

Requirements for photographs and photomontages

A camera focal length of 50mm (35mm format) is recommended for any photographs of the site, particularly those to be used for any photomontage images, as this is closest to the view perceived by a human eye. If an alternative focal length is used then a comparative photograph at a focal length of

50mm should be provided. Photos should generally be level (i.e. horizon through midline of image, and not rolled) to avoid 3-point perspective distortion. The only exception to this would be for tall buildings at close range.

For photomontages, the viewpoint should be identified on a plan and the Australian Height Datum (AHD) of the viewpoint should be identified and surveyed (ideally the camera height and location should be surveyed as one of the reference points). The camera height should be at a height in the range of 1.5 - 2.0m above ground to represent the height of an adult.

The location and height of at least five reference points in the photographic view need to be identified and possibly surveyed, depending on the complexity of the project and potential for impact. Such reference points could include a visible landmark, landform, building, or other structure such as a transmission tower, with heights and reference points labelled. For built-up areas, kerb-lines, corners of buildings and ridge/parapet heights are important references that should be surveyed wherever possible. With this information, it should then be possible for an independent evaluator to check the accuracy of the photomontage.

For panoramic images, where more than one photograph is required to achieve a desired wider view, then a camera focal length of 50mm is required, with an overlapping of at least approximately one third between adjacent photographs. If stitched panorama views are required, the original source photos should also be provided.

Cross-sections

Cross-sections should be included that clearly indicate the existing groundline, proposed groundline, extent of cut and/or fill, trees to be removed or planted, new and existing buildings and structures. The location of cross-sections should be shown on a plan. Cross-sections are particularly important for any development that involves substantial landform change.

PART E: REFERENCES

8 REFERENCES

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APPENDICES

APPENDIX A - LANDSCAPE SETTINGS

The Landscape Settings are in alphabetical order.

Viewing Levels

Where listed 'Viewing Level' refers to the assessed general viewing level for each Landscape Setting, taking into account the number and proximity of locations from where the unit can be seen and the potential number of viewers. These viewing levels can be used as a general guide when considering the context of any given site or location, however, due to the large areas that some Landscape Settings cover the likely viewing levels of any given site may vary from the overall one given to the particular Landscape Setting.

Four Viewing Levels are used:

- Level 1 – High
- Level 2 – Medium
- Level 3 – Low
- Level 4 – Very low.

Scenic quality

The Landscape Settings include a ranking of scenic quality in terms of low, moderate or high. This ranking should be used as a broad guide only, as within any given Landscape Setting there can be a range of varying scenic quality.

AWABA

Scenic Quality Rating: Moderate

Description

Rural hinterland around Awaba township bounded on the west by mostly forested areas that extend to the foothills of the Watagan Ranges. The rail corridor runs north-south through Awaba. The Awaba Road from Toronto west to the F3 Freeway runs generally east-west through the area.

Land Use

Residential, road and rail corridor.

Observation Points

Road and rail viewpoints.

Viewing Level

Level 3.

Scenic Features

Watagan Ranges and forested areas.

Landscape Appreciation

The roads through this area provide views of this mostly natural landscape.

AWABA BAY

Scenic Quality Rating: Moderate

Description

A 3km section of foreshore, lying generally north south. It is 1 to 2km across the lake from Croudace Bay, Warners Bay and can be viewed from the Esplanade. The narrow open space foreshore rises to a forested ridge backdrop. Foreshore area is dedicated State Recreation Reserve and maintains a highly natural setting.

Land Use

Residential and recreation.

Observation Points

Lake, Lake Foreshore and the Esplanade, Warners Bay and Eleebana.

Viewing Level

Level 3.

Foreshore Landscape Character

A bushland hillside rises from the Lake foreshore. The residential area to the south of Bolton Point extends to the foreshore.

Scenic Features

Lake views.

Landscape Appreciation

The Lake foreshore of this area is of high value as the natural foreshore edge can be seen in the mid-ground from Warners Bay, Macquarie Drive, and the Esplanade.

BARDENS BAY

Scenic Quality Rating: Moderate

Description

The unit comprises a very small inlet at Fishery Point and two small bays - Sugar Bay and Bardens Bay, 0.5-1km wide, facing south-east on the southern side of Morisset Peninsula.

Land Use

Residential and recreational.

Observation Points

Road access to Lake, boat ramps, lake foreshore below Bulgonia Road.

Viewing Level

Level 3.

Foreshore Landscape Character

Varied foreshore of rocky ledges and points between a grassed foreshore. The foreshore at the outfall of Lake Petite has a scenic natural edge.

Scenic Features

Lake views and treed ridgeline.

Detrimental Features

Residential housing is visually prominent in natural area.

Landscape Appreciation

Access to the lake edge is limited. Residential areas along the hillside enjoy Lake views. The natural edge at Lake Petite is a scenic contrast to the developed lake edge.

BELMONT BAY

Scenic Quality Rating: Moderate

Description

Belmont Bay is a wide and curving bay 3km wide between Cardiff Point and Marks Point. The foreshore is parkland for the most part and the terrain is generally flat. Views to the higher Swansea ridge in the south, the long ridge of Coal Point 3 to 4km over the Lake and the Watagan Range in the distance. The suburban and commercial hub of Belmont lies at the centre of the bay.

Land Use

Recreational use on the foreshore and within the bay, it is popular for boat launching and anchorage with the Yacht Club and 16 Footers the Sailing Club focal points. Urban and suburban areas lie around the Bay. The Pacific Highway lies to the east.

Observation Points

Yacht Club and 16 Footers Sailing Club, Marks Point, Pacific Highway and Brooks Parade.

Viewing Level

Level 2.

Foreshore Landscape Character

Combination of housing to waters edge in north and south with long linear foreshore reserve in centre of Bay.

Scenic Features

Views to Marks Point with its prominent trees, Cane Point, Coal Point across the Lake and long lake views to the north and south.

Detrimental Features

Some power line scars on distant ridges and large car parks.

Landscape Appreciation

Belmont Bay offers the first foreground view of the Lake from the Pacific Highway when coming from the south. Views across the water are appreciated for their higher degree of naturalness and forested hillside.

BELMONT LAGOON

Scenic Quality Rating: Moderate

Description

A small lagoon and wetlands behind the dune system of Nine Mile Beach. Varied coastal vegetation from a natural reed and forest shoreline around much of its edge, to a Melaleuca forest near the lagoon and a Casuarina forest or open heath vegetation on the dunes.

Land Use

Minor- natural buffer and reserve and a caravan park near the Pacific Highway.

Observation Points

Lagoon seen from Highway at Belmont and Ocean Park Road.

Viewing Level

Level 3.

Scenic Features

Lagoon and natural vegetation along the water's edge.

Detrimental Features

Disturbed areas and views of Sewage Treatment Works.

Landscape Appreciation

Access fairly limited. Popular Fernleigh Track cycleway runs through unit.

BELMONT NORTH

Scenic Quality Rating: Moderate

Description

This unit covers the area north of Belmont Bay to the east-west ridge along Tingira Heights, including the shopping area of Belmont.

Land Use

Commercial/retail and light industrial uses are generally found along the Pacific Highway. A mixture of low, medium and high-density residential uses are closest to Belmont, becoming dominated by detached housing and larger blocks in north.

Observational Points

Various elevated sections of the Pacific Highway and the elevated area around Floraville Road.

Viewing Level

Level 2 with the Pacific Highway being Level 1.

Scenic Features

Views of the ocean, Lake Macquarie, the Watagans and remnant bushland.

Detrimental Features

Strip commercial, light industrial and bulky goods retail developments located adjacent to the Pacific Highway at Belmont and to north. Limited tree cover, particularly nearer Belmont and along Highway.

Landscape Appreciation

Travellers along the Pacific Highway and Floraville Road gain attractive views of the ocean and lake. Views of the ocean and lake from an elevated viewer position provide visual interest in an area of otherwise moderate scenic quality.

BONNELLS BAY

Scenic Quality Rating: Moderate

Description

Bonnells Bay is a wide bay along the northern foreshore of Morisset Peninsula and south of the Dora Creek peninsula. At the western end are two small distinct inlets and a very small island, Goat Island. The southern enclosure of the unit is the treed ridge of Morisset Peninsula. Housing extends along much of the slopes to the foreshore where jetties, boat ramps, and small parks break up the treed foreshore.

Land Use

Residential, small shops and recreation.

Observation Points

Housing, foreshore parks, boat ramps and headlands, Shingle Splitters Point and Hungary Point.

Viewing Levels

Level 3.

Foreshore Landscape Character

Natural character along the north side of the Bay, mixed residential frontages, natural landscape at headlands, parks, and jetties.

Scenic Features

Headlands, Lake viewpoints and Shingle Splitters Point.

Detrimental Features

View of power station stacks.

Landscape Appreciation

The outlook from the residential area, along the peninsula to the natural foreshore in the north, enhances the scenic quality. The treed ridgeline backdrop to the housing allows significant views from the Lake and various viewpoints along the Wangi Wangi Peninsula and major roads.

CARDIFF

Scenic Quality Rating: Low

Description

Residential and semi-industrial area located on the flatter landform north of Munibung Hill and south of the ridges of Cardiff heights. Includes the Winding Creek valley, with the Main Northern Railway line and Main Road main transport routes.

Land Use

Residential, commercial, road and rail corridors and recreation and sports fields.

Observation Points

Major roads and community nodes.

Viewing Level

Level 2.

Scenic Features

Views of natural bushland landscape of the ridges, hillsides and gullies. Parkland - open space corridor along major road acting as a green relief to urban fabric. Recognisable feature of Munibung Hill to south.

Detrimental Features

Streetscape of part of major roads with commercial development and signage, etc.

Landscape Appreciation

The heavily treed and natural landscape character of Cardiff Heights is significant as a green backdrop to the urban area of Cardiff. It brings a separation and distinct identity to Lake Macquarie and Newcastle, and an easy understanding of the natural landscape structure of the northern district of Lake Macquarie City.

CARDIFF HEIGHTS

Scenic Quality Rating: Moderate

Description

Semi-urban and residential area on the undulating hillsides in the north of the LGA.

Land Use

Residential, commercial and recreation and sports fields.

Observation Points

Major roads and community nodes.

Viewing Level

Level 1.

Scenic Features

Views of natural bushland landscape of the ridges, hillsides and gullies form a visual backdrop to the LGA's north.

Detrimental Features

Some parts of streetscape along major roads.

Landscape Appreciation

The heavily treed and natural landscape character of Cardiff Heights is significant as a green backdrop to the urban area of Cardiff. It brings a separation and distinct identity to Lake Macquarie and Newcastle, and an easy understanding of the natural landscape structure of the northern district of the LGA.

CATHERINE HILL BAY

Scenic Quality Rating: High

Description

Small bay 2km long between headlands with a curving sandy beach. At the southern end of the hillside lies the historic township of Catherine Hill Bay. On this southern headland, a jetty and other infrastructure such as coal storage, handling and ship loading facilities for a nearby colliery extend into the water. The western and northern hillsides around the beach remain a scenic natural bushland and coastal vegetation setting.

Land Use

Residential, small historic coal loading facility, tourist sightseeing of historic village and recreational use of beach.

Observation Points

Beach, Catherine Hill Bay village and Flowers Drive.

Viewing Level

Level 2.

Foreshore Landscape Character

Curving sandy beach, low dune / foreshore heath vegetation and grassy hillside on the northern headland. Cleared open grassy area near beach where the road meets the beach.

Scenic Features

Catherine Hill Bay Village and Bay views.

Detrimental Features

Some small disturbed areas and newer development. Future planned development needs to be sensitive to setting and not detract from the beauty of the area.

Landscape Appreciation: The small scale and historic charm of the village with its scenic overlook of the Bay is an outstanding scene for the visitor. Natural foreshore, ocean panoramas, village and coal industry history, together encompass an attractive scale and landscape setting.

CAVES BEACH

Scenic Quality Rating: High

Description

Beach unit 2.5km long facing SE between Frenchman's Rocks and Spoon Rocks headland. Sand dunes enclose the beach view shed. Low cliffs with small caves rise from the sandy beach itself at the southern end.

Land Use

Recreation includes swimming, surfing, walking, fishing and view appreciation.

Observation Points

Beach and road along ridge behind beach.

Viewing Level

Level 2.

Water's Edge

Sand, surf beach, rocky points, surf breaking on rocks and tidal effect on beach.

Scenic Features

Cliffs, caves and beach views along coast.

Detrimental Features

Minor impact result from houses behind beach and on headland intruding on the beach naturalness. The surf club and car park impact on the naturalness of their locality.

Landscape Appreciation

A popular surfing beach at the southern end. The beach is popular for walks due to an interest in the caves and the rocky platforms, the headlands and the natural dune enclosure.

CHARLESTOWN

Scenic Quality Rating: Moderate

Description

This covers the topographically elevated area of Charlestown and the surrounding side-slopes in the north-eastern part of the LGA. It includes the commercial centre of Charlestown with its multistorey buildings and the regional shopping centre, as well as flanking lower density residential areas.

Land Use

Commercial, residential, recreational, Pacific Highway corridor.

Observation Points

Pacific Highway and local roads. Views of taller buildings on skyline can be seen from many surrounding areas including some limited places near Lake.

Viewing Level

Scenic Features

Views to western Ranges and other distant views over wider LGA and towards Newcastle along northern ridgeline edge. Charlestown overall provides a central green space.

Detrimental Features

Vegetation cover poor in some places.

Landscape Appreciation

Distant views that are possible provide for a wide appreciation of the overall LGA.

COAL POINT

Scenic Quality Rating: High

Description

Peninsula, 0.5km wide, extending 5km into the lake in a north west direction. The central narrow ridgeline is covered with Eucalyptus bushland forming a natural skyline above the residential development on the lower hillsides. Remnant trees and established garden trees provide greenness and soften the residential character.

Land Use

Residential and foreshore recreational activities.

Observation Points

Houses, roads, foreshore jetties and small parks.

Viewing Level

Level 2.

Foreshore Landscape Character

Foreshore below the housing have small boatsheds, jetties in semi natural/ garden edge. Generally rocky or earth edge- no beaches. At the Point itself, rocky headlands enclose a very small bay.

Scenic Features

Forested ridgeline and landform seen from Lake and other foreshores.

Landscape Appreciation

The road around the point offers scenic outlooks over the lake. The small pockets of park and boat ramps offer low key foreshore appreciation. Coal Point, and in particular the forested ridgeline, is part of important scenic feature and outlooks from many eastern Foreshore areas and the Lake itself.

COBRA CREEK

Scenic Quality Rating: Low

Description

Riverine forest along Cobra Creek.

Land Use

Open spaces, a natural buffer to Vales Point Power Station and associated infrastructure, and a residential area of Wyee Bay.

Observation Points

Wyee Road and Rutleys Road.

Viewing Level

Level 4.

Scenic Features

Naturalness and pattern of creek vegetation in the wider landscape.

Detrimental Features

View of Power Station and transmission lines.

Landscape Appreciation

The line of natural vegetation provides a green backdrop and edge to the open lands in the north and south, adding visual diversity and pattern. The habitat value of the creek corridor is important.

COCKLE BAY

Scenic Quality Rating: Moderate

Description

Small, long and narrow bay, 1km wide, situated between Speers Point and Marmong Point at the northernmost part of the Lake. Boolaroo and the junction of Lake Road from Newcastle, lie at the head of the bay with residential and associated development around the bay behind open space and the foreshore.

Land Use

Lake foreshore, residential and recreational use.

Observation Points

The Esplanade, Edwards Park, Marmong Point Marina and Speers Point Park.

Viewing Levels

Level 2.

Foreshore Landscape Character

Open grassed park in part, Cockle Creek enters the Lake as an estuary of islands, although the natural landscape has been changed through the location of a major road through this area.

Scenic Features

Five Islands and water views, vegetated ridgeline to east, which forms a visual backdrop to this part of the Lake.

Landscape Appreciation

The small scale of Cockle Bay and the natural hillside enclosure to the west and south form an urban foreshore setting with amenity and scenic value. The Lake foreshore is important as open space and provides access to the Lake views.

COORANBONG

Scenic Quality Rating: High

Description

Rural landscape to the west of Cooranbong village. The Watagan Range rises in the western part of the unit around the scenic small rural creek valleys. The road from Cooranbong to Martinsville follows Dora Creek through varied rural landscapes below the steep hillsides of the Range.

Land Use

Farming and residential.

Observation Points

Martinsville, Martinsville Road outlooks and Cooranbong settlement.

Viewing Level

Level 4.

Scenic Features

Rural landscape and riverine vegetation pattern.

Detrimental Features

The many transmission lines that cross forested and open rural areas.

Landscape Appreciation

A variety of natural landscapes can be seen along the roads reaching through the creek valleys into the foothills.

COORANBONG EAST

Scenic Quality Rating: Moderate

Description

Rural landscape bisected by the north south route of the F3 Freeway. The Watagan Range is seen further to the west. Small village of Cooranbong remains relatively intact, yet newer residential development has occurred to the east that cannot be generally seen from the village.

Land Use

Farming, residential and Cooranbong village.

Observation Points

Martinsville, Martinsville Road outlooks and Cooranbong settlement.

Viewing Level

Level 3.

Scenic Features

Rural landscape, Watagan Range and riverine vegetation pattern.

Landscape Appreciation

A variety of natural landscapes and the Watagans can be seen along the roads.

CROUDACE BAY

Scenic Quality Rating: Moderate

Description

Small bay, 2km across, enclosed by headlands of Hartley Point and Rocky Point. Coal Point is seen to the south-west, Awaba Bay and Bolton Point are seen in the mid-ground and the Watagan Ranges are seen as the backdrop to the Bay outlook. The dense suburbs of Valentine, Croudace Bay and Eleebana rise above the developed foreshore parklands.

Land Use

Residential and recreation use of the lake foreshore include walking, view appreciation, water sports and boating.

Observation Points

Hartley Point, Lake foreshore and Croudace Bay.

Viewing Level

Level 2.

Foreshore Landscape Character

Open grassed park, scattered trees, ramp and jetty, foreshore road and moderately prominent housing.

Scenic Features

Watagan Ranges and Bolton Point with a forested ridgeline seen across the lake.

Detrimental Features

Open grassed residential character, much of the foreshore lacks potential diversity and naturalness.

Landscape Appreciation

The scale of visible development in this unit, particularly as seen from the foreshore and main road is not dominant to the form and scenic value of the natural landscape structure.

DUDLEY BEACH

Scenic Quality Rating: High

Description

A small beach, located 1-2km between enclosing headlands. The steep hillside backdrop close to the foreshore encloses the predominantly natural beach setting. Access is limited. Narrow creek valley and hillsides along Flaggy Creek lie to west.

Land Use

Recreational and scenic appreciation from the ridge above.

Observation Points

Beach and Burwood Road on ridge above Glenrock State Recreation Area. Adjacent residential areas and roads situated along the ridgelines.

Viewing Level

Level 3.

Coastline

Sandy beach, surf, tidal inundation and rocky headlands.

Scenic Features

Views of beaches, expansive forested area and headlands. Natural creek vegetation, bushland on hillsides and green edge to residential areas.

Detrimental Features

Houses on ridge above.

Landscape Appreciation

The small intimate scale of this beach unit is attractive and enticing, with extensive forested area proving an important green break to urban area.

On the hillsides, trees and dense undergrowth add diversity to the urban landscape, highlighting the natural landscape structure. Area has an important role in providing a valuable green break.

ELEEBANA

Scenic Quality Rating: Moderate

Description

Encompasses the residential area of Eleebana bounded by Rocky Point to the south, a ridgeline to the west and the ridgeline to the north that separates Warners Bay.

Coal Point is seen to the south-west, Awaba Bay and Bolton Point are seen in the mid-ground and the Watagan Ranges are seen as the backdrop to the Bay outlook.

Land Use

Residential with limited recreational access to the lake foreshore.

Observation Points

Rocky Point.

Viewing Level

Level 2.

Foreshore Landscape Character

Mostly developed with limited public access due to waterfront properties mostly to lake edge. Housing dominates character of Rocky Point, with area on opposite side of Croudace Bay Road having a higher degree of vegetation.

Scenic Features

Watagan Ranges and Bolton Point with a forested ridgeline seen across the lake. Views of Green Point and its ridge to south.

Detrimental Features

Much of the foreshore lacks potential diversity and naturalness. Some housing unattractive and visually jarring.

Landscape Appreciation

The scale of visible development, particularly as seen from the foreshore and main road is mostly not dominant to the form and scenic value of the natural landscape structure. Attractive, elevated glimpses of Lake from main road.

FREEMANS WATERHOLE

Scenic Quality Rating: Moderate

Description

This unit comprises landscape of the undulating foothills of the Watagan Ranges, from Freemans Waterhole south to Cooranbong.

Land Use

Road corridor, small farms and forested reserves.

Observation Points

Freemans Waterhole Road Stop, Freemans Drive lookouts, Awaba State Forest.

Viewing Level

Level 3.

Scenic Features

Views of the Watagans.

Landscape Appreciation

The landscape is observed primarily by road users. The F3 corridor offers views to the rugged forested hills.

GATESHEAD

Scenic Quality Rating: Moderate, some parts Low.

Description

Includes the residential, industrial and commercial areas north of Tingira Heights ridge and south of the ridge to the north that separates Charlestown. The landscape varies from hilly to flat in the centre.

Land Use

Residential, industrial and commercial areas.

Observation Points

Surrounding residential areas, Pacific Highway, Newcastle Inner City Bypass, popular commercial/bulky goods area around Gateshead and Bennetts Green.

Viewing Level

Level 2.

Scenic Features

Mostly forested ridge to south and east.

Detrimental Features

Unattractive light industrial and commercial development, including along Pacific Highway.

Landscape Appreciation

The area is largely developed with quite limited vegetation. Surrounding ridges provide important visual relief and break up urban areas to south, east and north.

GLENDALE

Scenic Quality Rating: Moderate, some parts Low.

Description

This unit comprises the area around the Glendale commercial centre and along Main Road to Edgeworth.

Land Use

Commercial, residential, light industrial

Observation Points

Glendale commercial centre, Main Road, Sydney-Newcastle Railway

Adjacent residential areas and roads situated along the ridgelines.

Viewing Level

Level 2.

Scenic Features

Views of the Watagans and Mount Sugarloaf Range.

Detrimental Features

Some commercial areas along Lake Road and Main Road are unattractive and bare of vegetation. Some degraded areas, especially in south.

Landscape Appreciation

The landscape is observed by both road and railway users. Views to forested ridgeline to north provides important visual break.

GREEN POINT

Scenic Quality Rating: High

Description

Natural forested hillside and rocky foreshore on the edge of the major ridgeline north west of Belmont. This unit is the natural landscape enclosure of north Belmont Bay and the foreground view shed of the Lake from Coal Point.

Land Use

Walking trails, recreational users and view appreciation.

Observation Points

Lake foreshore for walkers. Views from public reserves around foreshore, many parts of Lake and its foreshore on opposite sides of Lake (Belmont, Marks Point, Toronto, Marmong Point and Awaba Bay are some)

Viewing Level

Level 2.

Foreshore Landscape Character

Rocky rugged foreshore and open eucalyptus forested slopes adjoining the Lake.

Scenic Features

Landform and naturalness.

Landscape Appreciation

Access is limited to walkers providing Lake outlooks. The prominence of this unit and its natural landscape make it a valuable asset on the foreshore and as a natural divide between Belmont and the Croudace Bay urban area.

JOHNYS POINT

Scenic Quality Rating: High

Description

The wide head of Morisset Peninsula comprises three to four separate bays between rocky points that are seen across the Lake below the treed ridge of the Peninsula. The northern section of the unit has residential development. Much of the foreshore is natural.

Land Use

Residential and recreational.

Observation Points

Road around the Point, Sunshine Park, Lake Foreshore at access points of Silverwater and Sunshine Wharfs.

Viewing Level

Level 3.

Foreshore Landscape Character

The foreshore is varied with natural rocky edges at the Points and small grassed parks next to the foreshore at access places.

Scenic Features

Shingle Splitters Point, Fig Tree Point, Johnys Point and Lake views.

Landscape Appreciation

The unit is predominantly seen from the Lake, the foreshore and housing to the east and north. The naturalness of the point of the Morisset Peninsula reinforces the scenic quality of the lake views in this area.

KILABEN BAY

Scenic Quality Rating: High

Description

A deep, 3-4km long and 1km wide, bay between the Peninsulas of Coal Point to the north and Fishing Point to the south. It comprises several smaller view sheds along the foreshore due to the curves and diversity of terrain. Residential areas of Coal Point south, Rathmines and Fishing Point lie between natural forested areas at the head of the Bay at Kilaben Creek mouth, and Rathmines foreshore reserve.

Land Use

Residential, the large Rathmines Park and lake activities.

Observation Points

Jetties around foreshore, Fishing Station Point Park and Catalina Park.

Viewing Level

Level 2.

Foreshore Landscape Character

Varied foreshore from, reeds and wetland forest at Kilaben Creek mouth, rocky treed headland and wide flat spaces at Rathmines parkland foreshore, to a low key residential edge of jetties, gardens and natural character of reeds, Melaleucas and Casuarinas.

Scenic Features

Natural headland and Points between residential edges of the lake.

Detrimental Features

View of industrial area.

Landscape Appreciation

Scenic foreshore character available to the visitor at Rathmines and Catalina Park. As the Bay is long and narrow, views from the outer edge of the Lake are limited. The headlands of Fishing Station Point and Skye / Coal Point are of high scenic interest.

KILABEN CREEK

Scenic Quality Rating: Low

Description

The unit comprises the creek and its natural and rural setting between Toronto township and Rathmines to the south, and west to the outskirts of Awaba.

Land Use

Small farms and residential.

Observation Points

Awaba and Wangi Roads viewpoints.

Viewing Level

Level 4.

Scenic Features

Creek and riverine vegetation.

Landscape Appreciation

The major road around the Lake south of Toronto passes through the unit at the head of Kilaben Bay. The Awaba Road along the north also has semi-natural views of the Lake landscape setting with a backdrop to the treed areas along Kilaben Creek.

KOOROORA BAY

Scenic Quality Rating: High

Description

A small bay 1km wide situated between Bolton Bay and the township of Toronto. The bay lies in a residential area of the lake. The foreshore is a public open space reserve with jetties and boat hire facilities. Fennell Bay is a smaller enclosed connected bay, lying to the west.

Land Use

Residential, lake focused recreation and small local commercial centres.

Observation Points

Foreshore at boat ramp, Esplanade park, jetties, Lions Park and Toronto Road.

Viewing Level

Level 2.

Foreshore Landscape Character

Parkland foreshore, grassed open character on north.

Scenic Features

Lake outlooks, Fig Tree Point and Bolton Point.

Detrimental Features

In places urban development visually prominent.

Landscape Appreciation

Views to the enclosed bay are an amenity to the local area. Views from the Lake are limited. The Toronto Road crosses the narrow water body between Fennell Bay and Kooroora Bay.

LAKE ENTRANCE

Scenic Quality Rating: Moderate

Description

The area comprises the winding channels, mangroves, flats and waters of Swan Bay, Lake Head, Lake Entrance and Black Neds Bay. It also includes the low lying 2km wide flats between the Lake and Nine Mile Beach on which lie the suburbs of Pelican Flat and Blacksmiths Beach.

Land Use:

Recreational uses include boating, fishing and camping, residential and urban infrastructure of roads and bridges.

Observation Points

Lake Entrance, Swansea Channel, foreshore parks and boating areas.

Viewing Level

Level 2.

Foreshore Landscape Character

High diversity of visual character along the water edge. This includes grassed parklands, stone seawalls at the entrance to the sea, sandy beaches, mangrove and melaleuca woodland along sections of the waterways.

Scenic Features

View of islands and water and passing boating activity in a near natural setting.

Detrimental Features

Some unattractive areas near bridge crossing and environs.

Landscape Appreciation

The highway is divisive of this natural landscape local area, detracting from a clear visual understanding of the natural processes and link between lake and sea. Nevertheless this special place is accentuated by forested ridge to the south and the views of sandy beaches, tidal flats and water. Mangroves and melaleuca, and traditional timber cottages around Pelican Flat are special features.

LAKE ERARING

Scenic Quality Rating: Moderate

Description

Lake Eraring is separated from Lake Macquarie by the long narrow peninsula formed by the banks of Dora Creek. Its foreshore consists of a predominantly natural landscape of Casuarina and Melaleuca forests with housing along the road that follows Dora Creek to the boat ramp at the mouth of the creek.

Land Use

Residential, recreation and power station water outfall.

Observation Points

Dora Street and boat ramp.

Viewing Levels

Level 3.

Foreshore Landscape Character

Forest and reeds to foreshore in many places. Foreshore generally natural with access limited.

Scenic Features

Naturalness.

Detrimental Features

Views of power station detract from naturalness but have cultural landscape value.

Landscape Appreciation

The cultural landscape and built elements associated with the Eraring Power Station are an interesting contrast to the natural setting. Views to the power station towers are seen above the road and bush setting in parts.

MANNERING LAKE

Scenic Quality Rating: Moderate

Description

The unit comprises the view shed of the lake and its setting. The visual boundary to the north is the band of riverine vegetation along Cobra Creek and to the west the urban area of Wyee. The lake comprises much ash waste from nearby power station.

Land Use

Power station precinct, workings and ash disposal.

Observation Points

Local road viewpoints.

Viewing Level

Level 4.

Foreshore Landscape Character

Undeveloped character to lake edge.

Scenic Features

Bushland hillsides surrounding lake.

Detrimental Features

Views of Vales Point Power Station, transmission lines, substations and other infrastructure.

Landscape Appreciation

The unit is not readily seen by visitors or residents of other areas as road access is limited.

MORISSET

Scenic Quality Rating: Moderate, some parts Low

Description

The unit is the landscape setting of the Morisset township extending from the town area near the Lake to the south and west.

Land Use

Residential, mixed use, industrial, small farms and freeway and rail corridors.

Observation Points

Dora Street F3 Freeway and railway.

Viewing Level

Level 2.

Scenic Features

Remnant bushland areas.

Detrimental Features

Urban sprawl, roadside advertising and visually obtrusive commercial and industrial development.

Landscape Appreciation

The landscape edges of the district around Morisset to the north and south of the riverine forests along Dora Creek and Cobra Creek and the rising foothills of the Watagan Range to the west are distinctive. The F3 Freeway, Freemans Drive and Wyee Road are major roads passing through the unit from which the landscape is seen. The identity of Morisset is enhanced by a distinct landscape setting that is enhanced by elevated views to the west of the Watagans.

MORISSET PENINSULA

Scenic Quality Rating: Moderate

Description

The unit comprises the central ridgeline and hillsides of the Morisset Peninsula. Housing extends along the local roads on both the north and south facing hill slopes. The higher land and ridgeline remain predominantly bushland covered.

Land Use

Residential.

Observation Points

Housing and road viewpoints.

Viewing Level

Level 3.

Scenic Features

Forested ridgeline which is very sensitive to any loss in its visual integrity.

Landscape Appreciation

The peninsula unit is the route by which the lakeside areas of Bonnells Bay, Bardens Bay, Trinity Point and Johnys Point are reached. Scenic, panoramic views over the Lake are available from the road and the housing.

MYUNA BAY

Scenic Quality Rating: Moderate

Description

The south facing bay has a scenic curve 2km across with an outlook to the southern lake. The small Whiteheads Lagoon lies west of the foreshore.

Land Use

Residential, recreation centre and open space.

Observation Points

Foreshore and Summerhill Drive.

Viewing Level

Level 3.

Foreshore Landscape Character

The treed foreshore provides a high degree of naturalness.

Scenic Features

Rocky Point and Goonda Point define the bay.

Detrimental Features

View of the Power station detracts from naturalness, however, this has cultural interest.

Landscape Appreciation

The naturalness of the Points and forested backdrop are a valuable contrast to the residential development of Wangi Wangi Point.

NINE MILE BEACH

Scenic Quality Rating: Moderate (to high)

Description

Long, evenly curved, east and south-east facing beach. The beach extends north from Swansea Headland the flat topped Moon Island close offshore and the Lake Entrance to the prominent, high rugged headland of Redhead Point. The surf beach is wide, the sand dunes low to moderate in height. The north and south ends of the beach are the focus of swimming with surf club buildings and road access.

Land Use

Recreation, conservation sewage treatment works.

Observation Points

Blacksmith's Beach, Redhead, parts of Jewells and Redhead Beach.

Viewing Level

Level 1.

Water's Edge

Wide, long surf beach and tidal effect.

Scenic Features

Panoramic ocean view, Redhead Point and Moon Island.

Detrimental Features

Some disturbed areas and sewage treatment buildings.

Landscape Appreciation

The extent and scale of this beach unit, the vigour of the surf and the absence of foredune development give it a "wilderness" quality. The bird life, wind effects and tidal changes enliven the naturalness. The long sweep of the beach is a dominant visual asset. Redhead Point is an outstanding regional scenic feature that is a landmark seen from coastal areas to the south and north, its setting marred somewhat by the nearby buildings and houses.

NORDS WHARF

Scenic Quality Rating: High

Description

West facing the Lake, below the close high ridgeline between the Lake and the coast. The Pacific Highway enters Lake Macquarie along this bushland ridge. The small foreshore villages of Nords Wharf and Cam's Wharf are approached from the winding road that drops from the ridge. Lake views from the foreshore reach across to Point Wolstoncraft only 1.5km away or long views north up the length of the Lake.

Land Use

Residential and recreation including boating along the lake and fishing.

Observation Points

Lake Foreshore, jetty, Nords Wharf and Cams Wharf villages.

Viewing Level

Level 2.

Foreshore Landscape Character

Small bays along the indented foreshore. Natural forest backdrop and much of the foreshore is a natural landscape. Foreshore, mown grass park under eucalypt trees in residential areas.

Scenic Features

Views across Lake to Point Wolstoncraft, Pulbah Island and north up the Lake.

Detrimental Features

Minor- foreshore park and residential character.

Landscape Appreciation

The close forested hillside rising steeply from the Lake gives a compact, predominantly natural setting, keeping the settlement small in scale, in sympathy with the narrow Lake inlet. Access to the Lake foreshore is important. Views from the Lake are into a predominantly natural foreshore around this inlet.

POINT MORISSET

Scenic Quality Rating: High

Description

Small visually distinct lake edge separated by headlands from the viewsheds to the north and south. Steep forested hillside curving to the major ridgeline to the east. Pulbah Island lies close offshore.

Land Use

Residential, natural and recreational use.

Observation Points

Water and foreshore, Murrays Beach residential area and Nesca Park (semi-private). Cams Wharf and Nords Wharf to the south.

Viewing Level

Level 3.

Foreshore Landscape Character

Rocky, forested edge with hillside coming down to Lake foreshore. Mostly natural with some linear public reserves in south.

Scenic Features

Natural topography and vegetation interspersed with residential areas in south. Views across Lake with Pulbah Island and Wangi Wangi Point in foreground. Green breaks between hideaway villages.

Detrimental features

Planned new urban areas need to be managed to limit loss of natural features and scenic quality of views from Lake and Pacific Highway.

Landscape Appreciation

The northern part of this setting is valuable as a natural foreshore south of Swansea and in association with the complete naturalness of Pulbah Island. Also valuable as a natural bushland setting of Lake Macquarie when seen on approach from the Pacific Highway.

REDHEAD

Scenic Quality Rating: Moderate

Description

This unit covers the area from the northern part of Redhead residential area, north to Dudley residential area. Between these two settlements lies the Awaba Nature Reserve, which is heavily forested.

Land Use

Small amount of residential interspersed with natural forested areas.

Observation Points

Redhead, northern part of Nine Mile Beach, Awaba Nature Reserve Redhead Road and Ocean Street.

Viewing Level

Level 2.

Coastline

Sandy beach, surf, tidal inundation and rocky headlands.

Scenic Features

Views of coast along Nine Mile Beach and headlands.

Detrimental Features

Houses close to coastal edge and headland in some areas.

Landscape Appreciation

Recreational and scenic appreciation of the coast and natural areas.

STOCKTON CREEK

Scenic Quality Rating: Moderate

Description

The unit comprises the view shed and landscape setting of Stockton Creek and the Mandalong Road which follows the creek valley in most parts.

Land Use

Farming and sightseeing.

Observation Points

Mandalong Road.

Viewing Level

Level 4.

Scenic Features

Watagan Range.

Detrimental Features

Transmission lines.

Landscape Appreciation

The Mandalong Road winding up the creek valley offers scenic views of rural landscapes with forested foothills and winding creek vegetation between the small fields.

SWANSEA WEST FORESHORE

Scenic Quality Rating: Moderate

Description

The lake edge of Swansea, between the Lake entrance to the north, and Point Morisset to the south. The residential settlement lies along the Lake foreshore between these natural edges. Wangi Wangi Point lies in the foreground across the lake and from its central position long lake views north and south are available.

Land Use

Residential, recreation, foreshore activities and caravan park.

Observation Points

Lake Foreshore, Lake, roads and residential areas.

Viewing Level

Level 3.

Foreshore Landscape Character

Predominantly developed/ altered edge though maintaining a low-key semi-natural character. Caravan Park in treed setting on northern point. Natural foreshore at southern end of Galgabba Point.

Scenic Features

Lake views and offshore islands in sand flats.

Detrimental Features

Loss of natural lake foreshore, in part, along Swansea foreshore.

Landscape Appreciation

Access via a cycleway and foreshore parks, though generally accessed by locals and users of the caravan park.

SWANSEA

Scenic Quality Rating: Moderate, some parts Low

Description

The peninsula of Swansea extending around to Caves Beach, from north of the forested ridgelines that form a backdrop to the south. Residential settlement dominates the landscape, with water views of the lake and Lake Entrance present in many viewpoints.

Land Use

Residential, recreation, foreshore reserves, commercial (Swansea town centre).

Observation Points

Lake Foreshore, Pacific Highway (including Swansea Bridge), Mawson lookout, other roads.

Viewing Level

Level 2.

Foreshore Landscape Character

Predominantly developed/ altered edge though maintaining a low-key semi-natural character with many areas contained in linear foreshore reserves.

Scenic Features

View of islands, Lake, Lake Entrance and Pacific Ocean and forested ridgeline and hillside to south.

Detrimental Features

Limited tree cover in urban area. Swansea town centre showing signs of neglect although located in potentially attractive location.

Landscape Appreciation

Local and visitor appreciation of foreshore reserves and water views.

TORONTO

Scenic Quality Rating: Moderate, some parts High

Description

Includes the areas of Fennell Bay, Edmunds Bay and Toronto Bay, flanked by ridgelines to the south and north, and the railway to the west. Areas nearer the water are quite urbanised, with Eucalyptus bushland forming a natural skyline above the residential development on the lower hillsides. Covers the Toronto town centre and industrial areas to west.

Land Use

Residential, commercial, industrial and foreshore recreational activities.

Observation Points

Houses, roads, foreshore jetties, railway and small parks.

Viewing Level

Level 2.

Foreshore Landscape Character

In some places, the foreshore below the housing has small boatsheds, jetties with semi natural/ garden edge. Generally rocky, built or earth edge - no beaches. Wide linear park along Toronto Bay.

Scenic Features

Forested ridgeline and landform seen from Lake and other foreshores.

Landscape Appreciation

The Lake edge at Toronto provides a popular viewing point across the Lake to Bolton Point, Green Point in the mid-ground and Swansea in the background. Coal Point to the south, and in particular the forested ridgeline, is part of important scenic feature and outlooks from many eastern foreshore areas and the Lake itself. A variety of recreational uses enhances the landscape appreciation in Toronto town centre.

WALLARAH

Scenic Quality Rating: High

Description

The coastline of this unit is a rugged, indented, rocky, exposed waters edge below a series of forested ridges and gullies of the Swansea Peninsula along which the Pacific Highway enters Lake Macquarie. Pinny Beach is a very small beach between the rocky Quarries Head and the Caves area about midway along the coast between Caves Beach and Catherine Hill Bay.

Land Use

Minor recreational use of the coasts and forests, previous quarrying in hinterland, highway corridor and associated services, residential area under development.

Observation Points

Pacific Highway, Pacific Ocean, Lake and Catherine Hill Bay.

Viewing Level

Level 2, level 1 - Highway view shed.

Waters Edge

Currently limited access yet will increase as planned urban development continues.

Scenic Features

Naturalness of hillsides and ridges, forest landscape and scenic natural setting of Highway entrance from south to Lake Macquarie LGA.

Detrimental Features

View of old quarries and road cuttings from Lake area and parts of Highway. Potential views of new residential development in once fully undeveloped landscape.

Landscape Appreciation

Much of this unit comprises the forested hillsides and steep gullies east of the Pacific Highway above Pinny Beach and the Caves. Where it is seen from the Highway, the natural undeveloped landscape plays a highly significant role as the natural setting and approach along the ridge to Swansea. The indented coastline of rocky headlands and small bays has a high scenic value due to the landform and naturalness, and the contrasting sandy beaches north and south.

WAKEFIELD

Scenic Quality Rating: Moderate

Description

Rural hinterland in the north-west of the LGA bounded on the west by mostly forested areas that extend to the foothills of the Watagan Ranges. The F3 Freeway runs generally east-west through the area.

Land Use

Rural, forest, mining, highway corridor.

Observation Points

F3 Freeway. Mount Sugarloaf.

Viewing Level

Level 3.

Scenic Features

Watagan Ranges and forested areas.

Landscape Appreciation

The roads through this area provide views of this mostly natural landscape.

WANGI BAY

Scenic Quality Rating: Moderate

Description

This unit comprises of two small 5km wide bays, Eraring Bay and Wangi Bay. The bays are enclosed by, Fishing Station Point and Wangi Point, two long narrow peninsulas into the centre of the Lake. Wangi Point extends for 3.5km into the Lake to nearly 1km from the Swansea foreshore and visually divides Lake Macquarie into north and south areas. The higher lands on these points and that surrounding the unit generally remain bushland or heavily treed suburbs.

Land Use

Residential and recreational use of the Lake edge and bays.

Observation Points

Fishing Station Point, Eraring Bay, and public area, boat ramp and major roads at Wangi Wangi Bay.

Viewing Level: Level 2.

Foreshore Landscape Character

The first type of foreshore line comprises a private edge with houses, a garden, boat shed and small jetties forming the traditional foreshore residential character. The second type is bushland and natural rocky foreshore at headlands and points.

Scenic Features

Lake views with overlapping promontories the natural point, Fishing Station Point and Wangi Wangi.

Detrimental Features

Encroachment of housing on hillsides and up to ridges and loss of bushland enclosure and dominance of naturalness. The Power Station may be considered by some, however, it forms part of the unique cultural and historical character of Lake Macquarie and may be accepted as having a role in the landscape.

Landscape Appreciation

The small bays and enclosing points gives this unit many scenic outlooks from the road and foreshore. Residential development is dominant along these roads.

WANGI SOUTH

Scenic Quality Rating: High

Description

The south facing side of the Wangi Wangi Peninsula. The foreshore rises to the long east-west ridge of the Peninsula. Outlooks south are to Pulbah Island in the foreground and to wide views of the indented foreshore of the southern lake.

Land Use

Residential.

Observation Points

Foreshore, in particular, beaches and parks, Wangi Wangi Point, Watkins Road and Dobell Drive.

Viewing Level

Level 3.

Scenic Features

View to Pulbah Island and Wangi Wangi Point.

Detrimental Features

Visually prominent housing on hillsides and ridge.

Landscape Appreciation

The Wangi Wangi Peninsula is a significant part of the foreshore for outlooks all round the north and south sections of the Lake. The forested ridge and the natural landscape of the Point make a highly valuable contribution to the Lake scenery.

WARNERS BAY

Scenic Quality Rating: Moderate

Description

Lake Foreshore of Warner's Bay suburb curving around a narrow bay, 2km wide, between promontories of Speers Point and Eleebana. The Esplanade is the major road around the lake in the north and lies between the residential and commercial area. Parkland lines the foreshore of the whole unit.

Land Use

Parkland and water-based recreation with view appreciation from the road and urban area. Away from lake edge is the town centre of Warners Bay, bulky goods/industrial areas further north and interspersed residential areas.

Observation Points

The Esplanade, Lake Foreshore - Warners Reserve, Hillsborough Road and Warners Bay Park.

Viewing Level

Level 1.

Foreshore Landscape Character

Open grassed park.

Scenic Features

Lake views.

Detrimental Features

Loss of naturalness and diversity along Lake Foreshore.

Landscape Appreciation

The long curving Esplanade with its Lake outlook is an asset as it offers a close appreciation of the Lake experience from a major road. The foreshore parkland is a valuable open space.

WEST WALLSEND

Scenic Quality Rating: Moderate

Description

The landscape setting includes the heritage area of West Wallsend village, Holmesville and the surrounding forested foothills of the Mount Sugarloaf Range. The F3 Freeway corridor runs west of West Wallsend.

Land Use

Freeway corridor, forested reserve, residential and collieries (used and disused).

Observation Points

West Wallsend, F3 freeway, transmission line corridor and George Booth Drive.

Viewing Level

Level 3.

Scenic Features

Watagan and Mount Sugarloaf Range and bushland covered hillsides.

Detrimental Features

Some freeway cuttings have left visual scars on the hillsides and transmission corridors carve up many forested areas.

Landscape Appreciation

The historic township of West Wallsend maintains considerable heritage and scenic quality. West Wallsend has a significant association with its natural landscape setting forming an edge and backdrop to the town, helping to retain its historic relationship to its setting. The F3 Freeway corridor is separated from the town by a forested ridge.

WYEE

Scenic Quality Rating: Moderate

Description

Wyee unit extends from the township of Wyee west to the Watagans. The range, bisected by rugged spurs and creek valleys, is a backdrop to Wyee and the district. The freeway and Wyee Road run north-south along the eastern edge.

Land Use

Residential, rural residential, Farms, F3 Freeway and Main Northern Railway corridors.

Observation Points

Major roads and residential areas.

Viewing Level

Level 3.

Scenic Features

Watagan Range and Olney State Forest.

Detrimental Features

Power transmission lines and visual impact of road and rail corridors in parts. Some parts display neglect as the area transformed from rural land use to a more urbanised one in parts. Wyee village and the railway are unattractive.

Landscape Appreciation

A varied landscape including the diversity of Lake hinterland landscape, rugged forested hillsides, undulating rural areas, creeks and remnant bushland, small rural settlements and urban infrastructure of road and rail. The rural cultural landscape is valuable as a setting and green buffer to the industrial and dense urban areas.

WYEE POINT

Scenic Quality Rating: High

Location

South west lake foreshore.

Description

The unit comprises the foreshore, north from Wyee Point to Bluff Point and Bardens Bay indented in several deep narrow bays. Outlooks to the Lake extend along to the long inlet south of the Morisset Peninsula. Cobra Creek and the outfall from Lake Mannering empty into the lake at the southern end of the unit.

Land Use: Residential, recreational and institutional (Morisset Hospital).

Observation Points

Morisset Park, road access at foreshore, wharfs and baths.

Viewing Level

Level 3.

Foreshore Landscape Character

Varied foreshore of residential edge and natural landscape.

Scenic Features

Natural landscape around the foreshore of Bird Cage Point, Wyee Point, Vales Point and parkland setting to the foreshore below the Hospital.

Detrimental Features

View of transmission lines in hinterland.

Landscape Appreciation: Two major parks lie on the foreshore, Morisset Park and Mannering Park, which offer lake views and scenic foreshore appreciation.

APPENDIX B - SCENIC MANAGEMENT ZONE GUIDELINES

Table 6 - Scenic Management Zone – 1(lake surround, predominately natural)

<p>Applies to Landscape Settings:</p> <p>Green Point, Awaba Bay</p> <p>Also applies to:</p> <p>any National Parks, State Recreation Reserves or islands</p>	
<p>Existing landscape character</p> <p>Minimal loss of the natural landscape has occurred through development and the natural environment remains the dominant landscape character.</p> <p>The shoreline is all or mostly natural.</p> <p>Existing vegetated ridges and hillsides provide a strong visual backdrop to views from the lake and foreshore, with bays and inlets providing a sense of enclosure.</p> <p>Desired future landscape character</p> <p>The intent for future development within these areas is to retain the natural landscape features and to maintain a sense of enclosure and tranquillity.</p> <p>Any further development should not occur or be limited and unobtrusive, depending on conservation status and the natural landscape values.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • it is sited and designed to reduce impact on the current natural foreshore, forested hillsides and ridgelines; • the visual integrity and massing of the existing tree canopy is retained when viewed from surrounding areas; • views of the natural landscape from the lake or coast should, as far as possible, remain undisturbed and encroachment into natural areas should preferably be avoided, and if not, largely mitigated; • any development should contribute to the rehabilitation of any degraded areas and result in no net loss of vegetation; and • any buildings should be of a low scale and not dominant, with building colours recessive (muted, natural colours) and surfaces non-reflective. <p>Development on ridgelines is limited to ensure:</p> <ul style="list-style-type: none"> • Building and structure height does not extend above the physical ridgeline, not the tree-line. • Tree clearing is limited to ensure no loss of the dominant tree canopy. <p>Development on the hillsides:</p> <ul style="list-style-type: none"> • Is required to be partially (75-85%) screened by suitable vegetation within five years.

Table 7 - Scenic Management Zone – 2 (lake surround, limited settlement)

<p>Applies to Landscape Settings:</p> <p>Lake Eraring, Myuna Bay, Nords Wharf, Point Morisset, Swansea West Foreshore, Wyee Point</p>	
<p>Existing character</p> <p>A low level of development has occurred and yet the natural environment remains the dominant landscape character.</p> <p>The shoreline is partially affected by development.</p> <p>Existing vegetated ridges and hillsides provide a strong visual backdrop to views from the lake and foreshore.</p> <p>Areas of development are limited and separated by substantial green breaks.</p> <p>Some areas contain significant open space providing public access to the shoreline which has a natural or semi-natural appearance.</p> <p>Desired future character</p> <p>Future development should ensure that the key natural landscape features are protected, further vegetation loss is minimised and development does not dominate.</p> <p>The intent is to allow development and uses consistent to those currently present, and to ensure any development is of a compatible scale.</p> <p>Where public reserves are located along the foreshore any future changes should reflect the dominant natural scale and informal character.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • any further development along the lake foreshore and entrance drives should be minimised and cumulative and incremental loss of vegetation avoided; • development should avoid substantial alteration of natural ground levels and the dominance of structures along the foreshore; • the informal character of residential areas should be enhanced, and where kerb and gutter not present, this should be retained; • existing ridgeline vegetation which provides a dominant backdrop to views from the lake is retained; • the number and size of jetties and boat moorings maintains the relative naturalness of the foreshore; • recreational reserves and activities which are characteristic of the area are preserved or improved; and • opportunities to rehabilitate any degraded areas are identified. <p>Development on ridgelines is limited to ensure:</p> <ul style="list-style-type: none"> • the visual integrity and massing of the tree canopy is retained, with tree clearing limited to ensure no net loss of tree canopy; and • building and structure height does not extend above the physical ridgeline, not the tree-line. <p>Development on the hillsides:</p> <ul style="list-style-type: none"> • is required to be partially (75-85%) screened by suitable vegetation within five years.

Table 8 - Scenic Management Zone – 3 (lake surround, moderate settlement)

<p>Applies to Landscape Settings:</p> <p>Bardens Bay, Bonnells Bay, Coal Point, Croudace Bay, Eleebana, Johnys Point, Kilaben Bay, Kooroora Bay, Wangi Bay, Wangi South,</p>	
<p>Existing character</p> <p>A low to moderate level of mostly detached housing with generally a balance of vegetation and built form.</p> <p>The shoreline is partially or almost totally affected by development, with some parts of the foreshore protected in public reserves.</p> <p>Vegetated ridges and some hillsides usually provide a strong visual backdrop to views from the lake and foreshore.</p> <p>Areas of development are almost continuous with some larger areas of intervening vegetation.</p> <p>Desired future character</p> <p>Future development in these areas should have regard to protecting key landscape elements including pockets of natural shoreline, native vegetation, vegetation in and around dwellings and maintain the density, scale and spacing of development.</p> <p>A balance between built form and the natural landscape should be achieved, including when viewed from the lake.</p> <p>Green breaks between areas of development, that provide visual and physical relief, should be preserved and strengthened.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • development should minimise substantial alteration of natural ground levels and the dominance of structures along the foreshore; • existing ridgeline vegetation which provides a dominant backdrop to views from the lake is retained; • screening of buildings and structures and rehabilitation planting is implemented along the foreshore to achieve a minimum of 30-50% screening coverage (when viewed from the lake), within 5 years; • where predominantly treed, development is sited and designed to minimise the need for vegetation clearance and to maintain a natural appearance for the foreshore, within 20 metres of the Mean High Water Mark; • recreational reserves and activities which are characteristic of the area are preserved or improved; • opportunities to rehabilitate any degraded areas are identified; and • the height of buildings and structures does not extend above the physical ridgeline, not the tree-line.

Table 9 - Scenic Management Zone – 4 (lake entrance)

<p>Applies to Landscape Settings:</p> <p>Lake Entrance, Swansea</p>	
<p>Existing character</p> <p>The extent of urban development is moderate to high, although development generally of a low scale and residential.</p> <p>A large part of the lake shoreline is within public reserves and of a semi-natural character.</p> <p>Views of Swansea Channel and the coastal edge dominate many viewpoints.</p> <p>The landform is relatively flat, with dominant natural landscape features being the Swansea Channel, wetlands of Black Neds Bay and the sandy beach of Salts Bay.</p> <p>Desired future character</p> <p>Future development in these areas should ensure that views of the dominant natural landscape features are protected and these characteristics enhanced where possible.</p> <p>This includes protecting pockets of natural shoreline, trees along the foreshore edge, native vegetation, vegetation in and around dwellings, public reserves and along streets.</p> <p>A balance between built form and the natural landscape should be achieved when considering new development, including when viewed from Swansea Channel.</p> <p>The vegetated ridgeline to the south is an important visual backdrop and should be protected from further vegetation loss.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • view corridors to Swansea Channel, the lake, Pacific Ocean and western ranges along streets, within public reserves and from town centres are retained and enhanced where possible; • development should minimise substantial alteration of natural ground levels and the dominance of structures along the foreshore; • any buildings of three storeys or more to be partially screened (approximately 30 - 50%) when viewed from Swansea Channel, within 5 years; • where predominantly treed, development is sited and designed to minimise the need for vegetation clearance and to maintain a natural appearance for the foreshore, within 20 metres of the Mean High Water Mark; • any development that will be viewed from Pacific Highway, coastal edge or Swansea Channel needs to carefully consider visual impact to those areas; • any proposed commercial development along Pacific Highway should be treated with non-garish (i.e. overly bright) colours, limit overwhelming signage and increase the existing poor amenity through appropriate landscaping; • recreational reserves and activities which are characteristic of the area are preserved or improved; and • opportunities to rehabilitate any degraded areas are identified.

Table 10 - Scenic Management Zone – 5 (lake surround – High settlement)

<p>Applies to Landscape Settings:</p> <p>Belmont Bay, Warners Bay, Toronto</p>	
<p>Existing character</p> <p>High level of urban development present, including commercial uses.</p> <p>Located along lake foreshore with viewpoints across lake, with lake shoreline mostly built upon or in formalised public reserves.</p> <p>Limited vegetation, with the built form dominant.</p> <p>The character displays signs of an emerging increase in development densities in some locations.</p> <p>Desired future character</p> <p>The intent for these areas is to encourage development appropriate for town centres. This includes compact, higher density development with a mix of retail, business and residential uses.</p> <p>These centres should have active street frontages, a pleasant atmosphere for pedestrians and attractive streets.</p> <p>The character of buildings and the surrounding landscape should reflect the lakeside location and the popularity of these areas as social and recreational destinations.</p> <p>Physical and visual connections to the lake are important and should be preserved and enhanced.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • view corridors to the lake and western ranges along streets, within public reserves and from town centres are retained and enhanced where possible; • new and increased recreational activities within public reserves may be suitable, yet should aim to preserve and improve important natural features and public access; • car parks should be sited and designed to not dominate views from public areas, the lake or from within public reserves; • opportunities to increase public access to the lake are identified and implemented; • opportunities to improve the aesthetics of popular lakeside drives, cycleways and pedestrian pathways should be identified and implemented; • any proposed commercial/industrial development along main roads and near lake edge, in particular, should be treated with non-garish (i.e. overly bright) colours, limit overwhelming signage and increase amenity through appropriate landscaping; • buildings are of a scale that does not dominate views from the lake nor breach the tree-line of surrounding ridgelines; • any buildings of three storeys or more to be partially screened (approximately 30 - 50%) when viewed from the lake, within 5 years; • for commercial and industrial buildings provide for trees in the front setback and/or footpath area. Where the area is covered by an adopted Town Centre Area Plan and/or Streetscape Master Plan street trees and trees in front set-backs should be provide in accordance with that plan; and • create attractive pedestrian and vehicular thoroughfares and entry points to the town centre.

Table 11 - Scenic Management Zone – 6 (lake surround, disturbed)

<p>Applies to Landscape Settings:</p> <p>Cockle Bay, Mannering Lake</p>	
<p>Existing character</p> <p>These areas are located along the lake foreshore in areas that are in places quite disturbed.</p> <p>Topography is usually relatively flat, with areas generally including a mix of land uses often dominated by commercial and industrial.</p> <p>Areas of vegetation present, although often disturbed.</p> <p>Desired future character</p> <p>Development is suitable for these areas provided that the following issues are taken into consideration:</p> <ul style="list-style-type: none"> • the contribution that existing industrial uses make to the economics and functioning of the lake and their need for location on the lake edge; • establishment of open space and recreational opportunities; • mitigating against incompatible land uses; and • preserving and strengthening vegetation screening along the lake foreshore and reducing the stark contrast of built elements. 	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • design and mitigation measures are provided between incompatible land uses to minimise noise, visual and other amenity impacts; • remaining natural elements along the lake foreshore are preserved to maintain a natural screen to the lake; • opportunities to rehabilitate any degraded areas, strengthen vegetation screening and increase public access and recreational benefit, are identified and implemented; • building materials are selected to reduce colour contrast and blend any new and existing structures as far as possible into the surrounding landscape; • any new development applications consider opportunities to remedy existing shortcomings where possible; and • vegetation is integrated within the development to minimise the contrast between natural and built elements.

Table 12 - Scenic Management Zone – 7 (coastal edge, low settlement)

<p>Applies to Landscape Settings:</p> <p>Wallarah, Catherine Hill Bay, Dudley Beach</p>	
<p>Existing character</p> <p>Located near coastal edge, with minimal development disturbance along that edge. Opportunities for coastal views common and these views are valued and contribute to the area's attractiveness.</p> <p>The landscape is of a predominantly natural character with native trees dominant.</p> <p>Development is limited to small pockets separated from other developed areas by large green breaks.</p> <p>Landform varies yet is usually hilly in some parts, with the coastal edge a combination of rocky headlands, rock platforms and sandy beaches.</p> <p>Desired future character</p> <p>Protect the dominant natural character of the coastline whilst allowing some sensitive modification. Visual impacts of development should be managed through appropriate design, scale, built form, siting and the retention of trees and other natural features.</p> <p>Proposed future residential areas should be limited to ensure that the existing low development character is maintained by addressing boundary issues, providing adequate screening and setbacks from main roads and existing development, and protecting valued areas of vegetation. Rehabilitation should occur to areas with diminished scenic quality.</p> <p>It is important to maintain the integrity of existing green breaks between different settlements.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • views of the natural landscape from the coastal edge should, as far as possible, remain undisturbed; • new development within 200m of the coastal edge should not be visible from any beaches (i.e. the coastal edge) and not impact on the natural processes associated with this area; • development is restricted on land within 150m of the coastal edge, including no increase in height and footprint to any existing buildings; • height of development is restricted to prevent overshadowing of the beach; • it is sited and designed to reduce impact on the natural coastal edge, coastal headlands, forested hillsides and ridgelines; • opportunities to increase public access to the coastal edge are identified and implemented; • existing view corridors to the ocean available along streets, from within public reserves and from commercial centres are retained and enhanced where possible, and the opportunity for new view corridors identified; • any development should contribute to the rehabilitation of any degraded areas and result in no net loss of vegetation; • any buildings should be of a low scale and not dominant, with building colours recessive (muted, natural colours), surfaces mostly non-reflective and consistent with any relevant heritage colours where applicable; and • development on ridgelines and coastal headlands is limited to ensure building and structure height does not extend above the physical ridgeline, not the tree-line.

Table 13 - Scenic Management Zone – 8 (coastal edge, moderate settlement)

<p>Applies to Landscape Settings:</p> <p>Caves Beach, Redhead</p>	
<p>Existing character</p> <p>Located near coastal edge, with a moderate degree of development present. Opportunities for coastal views common and these views are valued and contribute to the area's attractiveness.</p> <p>The landform varies yet is usually hilly in some parts. Vegetation in developed parts is quite limited, with some larger pockets of vegetation contained in existing reserves.</p> <p>Desired future character</p> <p>Protect the existing dominant natural landscape features of the coastal environment whilst allowing appropriate development to continue to occur.</p> <p>Rehabilitation should occur to areas with diminished scenic quality.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • views of the natural landscape from the coastal edge should, as far as possible, remain undisturbed; • new development within 200m of the coastal edge should not be visible from any beaches (i.e. the coastal edge) and not impact on the natural processes associated with this area; • development is restricted on land within 150m of the coastal edge, including no increase in height and footprint to any existing buildings; • height of development is restricted to prevent overshadowing of the beach; • opportunities to increase public access to the coastal edge are identified and implemented; • neighbourhood centres and other commercial/industrial areas should be enhanced with landscape improvements and street tree planting; • existing view corridors to the ocean available along streets and from within public reserves are retained and enhanced where possible, and the opportunity for new view corridors encouraged; • any development should contribute to the rehabilitation of any degraded areas and result in no net loss of vegetation; and • development on ridgelines and coastal headlands is limited to ensure building and structure height does not extend above the physical ridgeline, not the tree-line.

Table 14 - Scenic Management Zone – 9 (coastal edge, natural values)

<p>Applies to Landscape Settings:</p> <p>Nine Mile Beach, Belmont Lagoon</p>	
<p>Existing landscape character</p> <p>Minimal loss of the natural landscape has occurred through development and the natural coastal environment remains the dominant landscape character.</p> <p>The existing natural landscape is valued.</p> <p>Desired future landscape character</p> <p>The intent for future development within these areas is to retain the natural landscape features, restrict any future development and improve degraded areas.</p> <p>Any further development should be limited and unobtrusive.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • it is sited and designed to reduce impact on the current coastal edge and any wetlands, fore-dunes or coastal headlands; • views of the natural landscape from the coast should, as far as possible, remain undisturbed and encroachment into natural areas should preferably be avoided, and if not, largely mitigated; • the informal character of this semi-natural setting should be enhanced and where kerb and gutter not present this should be retained where possible; • any development should contribute to the rehabilitation of any degraded areas and result in no net loss of vegetation; and • any buildings should be of a low scale and not dominant, with building colours recessive (muted, natural colours) and surfaces non-reflective.

Table 15 - Scenic Management Zone – 10 (hinterland, rural and natural landscape)

<p>Applies to Landscape Settings:</p> <p>Cooranbong, Stockton Creek, Freemans Waterhole</p>	
<p>Existing character</p> <p>A mostly rolling to hilly landscape with areas of rural land use interspersed with larger tracts of native bushland.</p> <p>The dominant character is one of limited rural development enveloped in a mostly natural and attractive landscape.</p> <p>Distant views are generally limited by vegetation and topography, with many views enclosed. Some distant views are possible from higher areas.</p> <p>Desired future character</p> <p>To maintain the scenic qualities of the rural and natural landscape by guiding change and ensuring any detrimental impacts of development are minimal, including vegetation loss.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • vegetation removal on ridgelines, hillsides and along watercourses is restricted; • vegetation removal within 40 metres of a waterway or natural gully line is restricted except where required for creek crossing or limited access between adjacent paddocks; • roadside trees and other roadside vegetation is retained to maintain the rural character of the road landscape; • neighbourhood centres should be enhanced with landscape improvements and street tree planting and any proposed development within centres of a compatible scale and type; • any proposed development is of a scale and character that is compatible with the rural and natural landscape, including any proposed tourist developments; and • development seen from major viewpoints such as along primary transport corridors is designed to reduce impact to those viewpoints by restricting its location, size, form and prominence, integrating landscape screening and using construction materials and colours typical and sensitive to a rural setting.

Table 16 - Scenic Management Zone – 11 (hinterland, limited settlement)

<p>Applies to Landscape Settings:</p> <p>Awaba, Cobra Creek, Cooranbong East, Kilaben Creek, Morisset Peninsula, Wakefield, West Wallsend, Wyee</p>	
<p>Existing character</p> <p>A mostly rolling to hilly landscape with areas of rural land use and small residential settlements interspersed with larger tracts of native bushland.</p> <p>The landscape character is a mix of the natural landscape and limited pockets of development. Some areas of bushland are quite disturbed by transmission corridors.</p> <p>Distant views are generally limited by vegetation and topography, with many views enclosed. Some distant views are possible from higher areas.</p> <p>Desired future character</p> <p>To maintain the scenic qualities of the rural and natural landscape by guiding land use change and ensuring any detrimental impacts of development are minimal and restricted to planned areas.</p> <p>Proposed future residential areas should be confined to building upon existing areas. Such development should address boundary visual issues through appropriate design and mitigation measures.</p> <p>It is important to maintain the visual integrity of vegetated ridgelines and hillsides as well as other green breaks between different settlement areas.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • any further development along main roads and entrance drives should be minimised and cumulative and incremental loss of vegetation avoided; • development should avoid substantial alteration of natural ground levels; • the informal character of residential areas in this semi-natural setting should be enhanced and where kerb and gutter not present this should be retained where possible; • existing ridgeline and hillside vegetation which provides a dominant backdrop to views from surrounding key viewpoints (such as the lake, residential areas, shopping centres and main transport routes) is retained; • building and structure height does not extend above the physical ridgeline, not the tree-line; • opportunities to rehabilitate any degraded areas are identified; • recreational reserves and activities which are characteristic of the area are preserved or improved; • neighbourhood centres should be enhanced with landscape improvements and street tree planting and any proposed development within centres of a compatible scale and type; • roadside trees and other roadside vegetation is retained to maintain the rural character of the road landscape where consistent with future planning; and • development seen from major viewpoints such as along primary transport corridors is designed to reduce impact to those viewpoints by restricting its location, size, form and prominence.

Table 17 - Scenic Management Zone – 12 (hinterland, moderate settlement)

<p>Applies to Landscape Settings:</p> <p>Belmont North, Cardiff, Cardiff Heights, Gateshead, Morisset</p>	
<p>Existing character</p> <p>A moderate level of development exists, with residential areas consisting of mostly detached housing.</p> <p>Mix of uses present, including a dominance of commercial and industrial in some places. Areas of development are almost contiguous with some larger areas of intervening vegetation and semi-rural uses having an important role in providing green breaks.</p> <p>Vegetated ridges and some hillsides usually provide a strong visual backdrop for most viewpoints. Some locations may have distant views to the coast, lake or western ranges. Landform varies.</p> <p>Desired future character</p> <p>Future development in these areas should have regard to protecting key landscape elements including pockets of native vegetation and vegetation on ridgelines and in and around residential areas and commercial centres.</p> <p>A balance between built form and the natural landscape should be achieved. Any views of development from main roads, the coast or lake should be softened by screening vegetation and appropriate design measures such as set-backs.</p> <p>Existing view corridors should be preserved and enhanced, as well as opportunities for new view corridors identified.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • view corridors to the lake, coast and western ranges along streets, within public reserves and from town centres are retained and enhanced where possible; • car parks should be sited and designed to not dominate views from public areas or main roads; • new and increased recreational activities within public reserves may be suitable, yet should aim to preserve and improve important natural features and public access; • existing ridgeline vegetation which provides a dominant backdrop to views from main roads, the lake and coast is retained; • opportunities to rehabilitate any degraded areas are identified; • any proposed commercial/industrial development along main roads, in particular, should be treated with non-garish (i.e. overly bright) colours, limit overwhelming signage and increase amenity through appropriate landscaping; • neighbourhood centres should be enhanced with landscape improvements and street tree planting; • any views of development from the coast or lake should be softened by screening vegetation and appropriate design measures such as set-backs; and • green breaks that provide visual relief to the urban area should be preserved, and enhanced, where possible.

Table 18 - Scenic Management Zone – 13 (hinterland, high settlement)

<p>Applies to Landscape Settings:</p> <p>Charlestown, Glendale</p>	
<p>Existing character</p> <p>Generally a high level of development, with residential areas consisting of a mix of mostly detached housing, interspersed with medium density and some high rise.</p> <p>Mix of uses present, including a dominance of commercial and industrial in some places. Areas of development are almost contiguous with some larger areas of intervening vegetation having an important role in providing green breaks.</p> <p>Vegetated ridges and some hillsides provide a strong visual backdrop for most viewpoints. Some locations may have distant views to the coast, lake or western ranges. Landform varies.</p> <p>Desired future character</p> <p>The intent for these areas is to encourage development appropriate for town centres. This includes compact, higher density development with a mix of retail, business and residential uses.</p> <p>These centres should have active street frontages, a pleasant atmosphere for pedestrians and attractive streets.</p> <p>The character of buildings and the surrounding landscape should reflect the location and the popularity of these areas as social and recreational destinations.</p> <p>View corridors within the wider landscape are important and should be preserved and enhanced.</p>	<p>Scenic management guidelines</p> <p>Any development within these areas is to satisfy the following guidelines:</p> <ul style="list-style-type: none"> • view corridors to the lake, coast and western ranges along streets, within public reserves and from town centres are retained and enhanced where possible; • car parks should be sited and designed to not dominate views from public areas or main roads; • new and increased recreational activities within public reserves may be suitable, yet should aim to preserve and improve important natural features and public access; • existing ridgeline vegetation which provides a dominant backdrop to views from main roads, the lake and coast is retained; • any views of development from the coast or lake should be softened by screening vegetation and appropriate design measures; • any proposed commercial/industrial development along main roads, in particular, should be treated with non-garish (i.e. overly bright) colours, limit overwhelming signage and increase amenity through appropriate landscaping; • for commercial and industrial buildings provide for trees in the front set-back and/or footpath area. Where the area is covered by an adopted Town Centre Area Plan and/or Streetscape Master Plan, street trees and trees in front set-backs should be provide in accordance with that plan; • green breaks that provide visual relief to the urban area should be preserved, and enhanced, where possible; and • create attractive pedestrian and vehicular thoroughfares and entry points to the town centre.

APPENDIX C – DEFINITIONS FOR TABLE 3

Definition of Main Roads

Roads within Lake Macquarie LGA defined as 'major roads' for the purpose of this document:

- The **Hunter Expressway**, which provides a link from the F3 to Cessnock and the Upper Hunter.
- **State Highway 10 - the Pacific Highway** – which links Swansea, Belmont, and Charlestown to the F3 in the south and Newcastle City Centre in the north. This road links the major centres of the eastern side of the Lake and is an important link to Wyong LGA.
- **State Highway 23 – the “Newcastle Bypass” - from Bennetts Green to Garden Suburb**. It provides fast access from the eastern side of the Lake to John Hunter Hospital, the University of Newcastle Callaghan Campus and the employment lands to the north.
- **Main Road 217 from the F3 to Morisset (Stockton Street), Toronto (Carey Street), and Glendale (Lake Road) to Wallsend**. This road links the major centres of the west side of the Lake and other than the F3, is the only major road to the north from the lakeside communities in the west of Lake Macquarie.
- **Main Road 220 from Freemans Waterhole (Palmers Road) and the F3 to Toronto (Awaba Road)**, providing a direct route from Toronto to the F3 and to Cessnock.
- **Main Road 527 from Belmont to Warners Bay, Cardiff (Macquarie Road), Glendale (Main Road), West Wallsend, and the F3 to Cessnock (George Booth Drive)**. It links a number of suburbs and commercial centres and provides access to the Hillsborough Road light industrial area and the Cardiff light industrial area. West of the Crossroads, Glendale, the road provides access to the rapidly expanding new urban areas between Edgeworth and West Wallsend as well as heavy vehicle access to the F3 and Cameron Park industrial area.
- **Regional Road 454 - Wye Road - Morisset to Wye and Doyalson**. This road provides access from the west side of the Lake to other roads which connect with destinations in the Central Coast, as well as to communities on the southeast of the Lake, such as Swansea.
- **Hillsborough Road from Speers Point (The Esplanade) to Warners Bay (Medcalf Street) and Charlestown (Charlestown Road)**. This road links lakeside communities such as Warners Bay and Speers Point with Charlestown.
- **Glendale Drive from Main Road Cardiff to Lake Road Glendale**. This road provides an important link between areas in the north east of the LGA including the Cardiff and Hillsborough employment lands, with western Newcastle, the Port, and the Link Road to the F3. The Pennant Street overpass links this road and Main Road 527 to the Cardiff Industrial Estate.
- **Munibung Road extended**, which links Cardiff with Cockle Creek through the Cardiff and Pasminco industrial areas. This road connects with the Pennant Street overpass, providing heavy vehicle access to the arterial road system plus facilitating much of the 'journey to work' needs of the City pending development of improved public transport systems.
- **Glendale Drive from Main Road Cardiff to Lake Road Glendale**.

Public lookouts

1. Mawson Lookout - Caves Beach
2. Reids Mistake
3. Redhead Point
4. Munibung Hill
5. Mt Waring - Toronto
6. Fishing Point
7. Wangi Wangi Point
8. Shingle Splitters Point

9. Monkey Faced Lookout - Onley State Forest, Watagans
10. Summit Point - Watagans
11. Mount Sugarloaf
12. Speers Point
13. Booragul/Marmong Point

APPENDIX D - PRINCIPLES OF VIEW SHARING

In NSW, the principles of View Sharing have been established in the Land and Environment Court under the case of *Tenacity Consulting v Warringah Council* [2004] NSWLEC 140. The planning principles established by that case have been widely adopted in NSW and frequently used by the Court in relevant cases.

Where view sharing is an issue the planning principle is to be addressed in the Landscape and Visual Impact Assessment report.

The following excerpt is directly from that case:

“25 The notion of view sharing is invoked when a property enjoys existing views and a proposed development would share that view by taking some of it away for its own enjoyment. (Taking it all away cannot be called view sharing, although it may, in some circumstances, be quite reasonable.) To decide whether or not view sharing is reasonable, I have adopted a four-step assessment.

26 The first step is the assessment of views to be affected. Water views are valued more highly than land views. Iconic views (e.g. of the Opera House, the Harbour Bridge or North Head) are valued more highly than views without icons. Whole views are valued more highly than partial views, eg a water view in which the interface between land and water is visible is more valuable than one in which it is obscured.

27 The second step is to consider from what part of the property the views are obtained. For example, the protection of views across side boundaries is more difficult than the protection of views from front and rear boundaries. In addition, whether the view is enjoyed from a standing or sitting position may also be relevant. Sitting views are more difficult to protect than standing views. The expectation to retain side views and sitting views is often unrealistic.

28 The third step is to assess the extent of the impact. This should be done for the whole of the property, not just for the view that (sic) is affected. The impact on views from living areas is more significant than from bedrooms or service areas (though views from kitchens are highly valued because people spend so much time in them). The impact may be assessed quantitatively, but in many cases this can be meaningless. For example, it is unhelpful to say that the view loss is 20% if it includes one of the sails of the Opera House. It is usually more useful to assess the view loss qualitatively as negligible, minor, moderate, severe or devastating.

29 The fourth step is to assess the reasonableness of the proposal that is causing the impact. A development that complies with all planning controls would be considered more reasonable than one that breaches them. Where an impact on views arises as a result of non-compliance with one or more planning controls, even a moderate impact may be considered unreasonable. With a complying proposal, the question should be asked whether a more skilful design could provide the applicant with the same development potential and amenity and reduce the impact on the views of neighbours. If the answer to that question is no, then the view impact of a complying development would probably be considered acceptable and the view sharing reasonable.”

APPENDIX E - LANDSCAPE SETTINGS AND SIGNIFICANT NATURAL LANDSCAPE FEATURES MAPS

The landscape settings and significant natural landscape features maps identify the Landscape Setting boundaries and the relevant Scenic Management Zone for each Landscape Setting.

The maps also indicate some of the significant natural landscape features of Lake Macquarie LGA (such as coastal headlands, prominent hills, lake channel entrances, lake islands and lake promontories), as well as main ridgelines and approximate buffers for those ridgelines.

The maps are intended as a general guide to identify a site's context, and therefore should be used as such.

The maps are divided into four sections for ease of readability:

- Map 1 depicts the north-eastern section of the LGA.
- Map 2 depicts the north-western section of the LGA.
- Map 3 depicts the south-eastern section of the LGA.
- Map 4 depicts the south-western section of the LGA.

Alternatively download a copy of the Landscape Setting and [Scenic Management Zone Map](#).

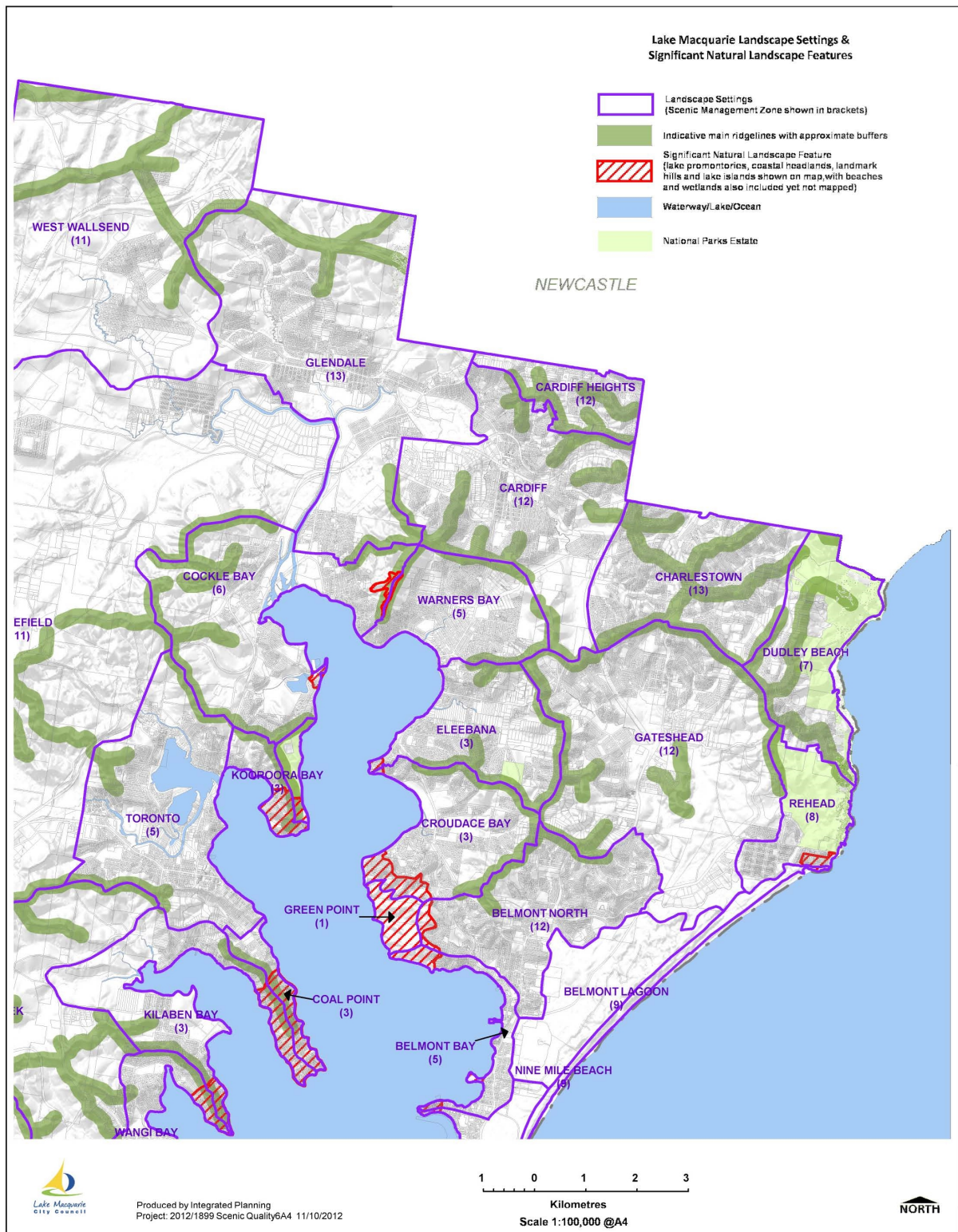


Figure 25 - Map 1- Landscape Setting and Scenic Management Zone - north-eastern section of the LGA

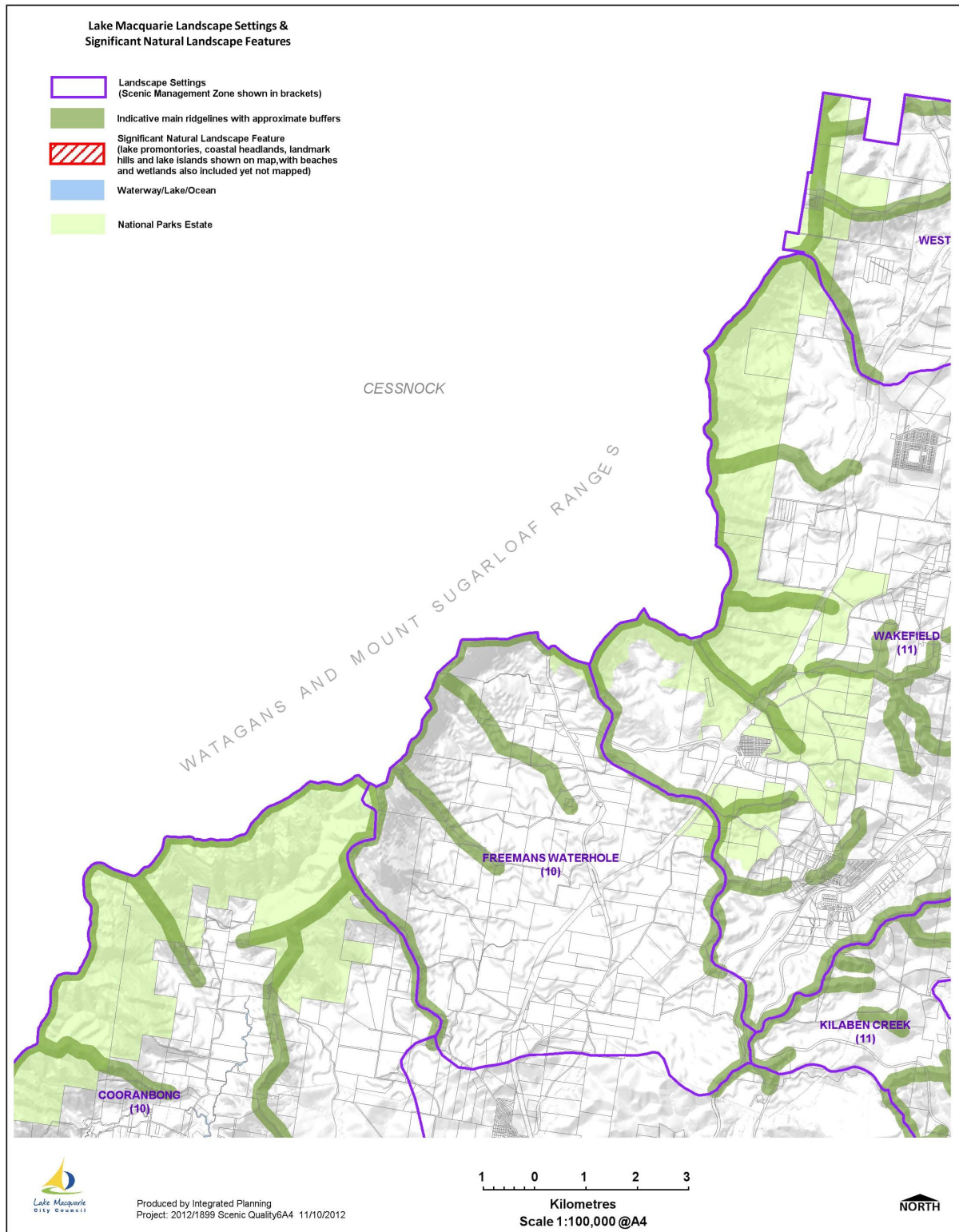


Figure 26 - Map 2 - Landscape Setting and Scenic Management Zone - north-western section of the LGA

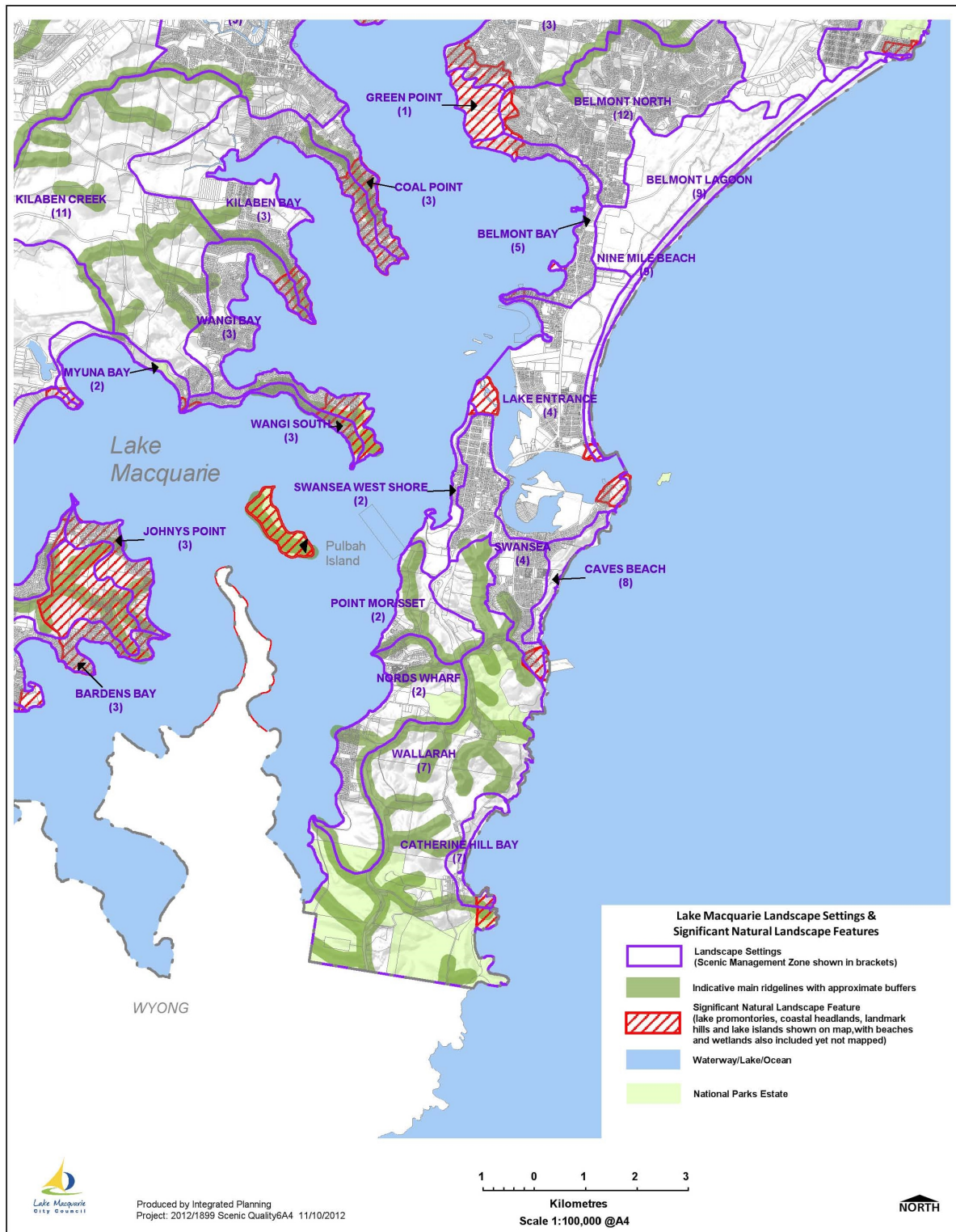


Figure 27 - Map 3 - Landscape Setting and Scenic Management Zone - south-eastern section of the LGA

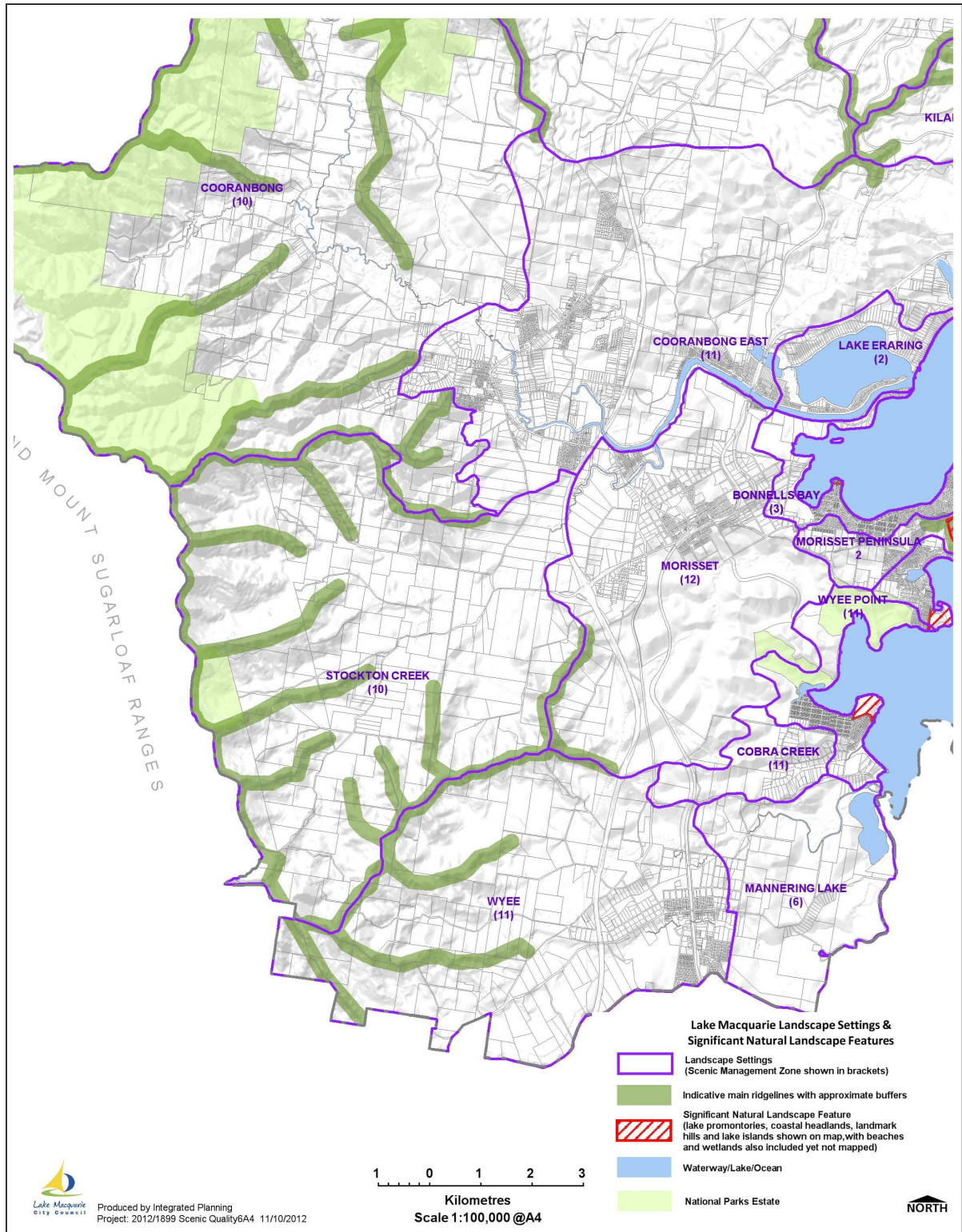


Figure 28 - Map 4 - Landscape Setting and Scenic Management Zone - south-western section of the LGA