

Coffs Harbour Highway Planning
COFFS HARBOUR BYPASS

Working Paper

Urban Design and Visual Assessment – Inner Bypass Options

Prepared for Connell Wagner

February 2004



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01 Overview

The objectives of the Urban Design and Landscape Assessment report are to identify and undertake a comparative assessment of the following for the Coffs Harbour inner bypass route options:

- visual impact
- user experience; and
- urban impact.

The assessment of these visual, landscape and urban attributes will help guide the evaluation of the Inner Bypass Corridor Option and introduce key landscape and urban design issues to the project. The current route proposals evaluated in this report are as follows:-

- Existing Highway; and
- Inner Bypass Options (including Inner North 1 and 2, and Inner South 1 and 2).

02 The Study Area

The study area, located in the mid north coast of New South Wales, extends from Coffs Harbour to Mid Sapphire Beach, a distance of approximately 10 kilometres. It extends approximately 6 kilometres inland.

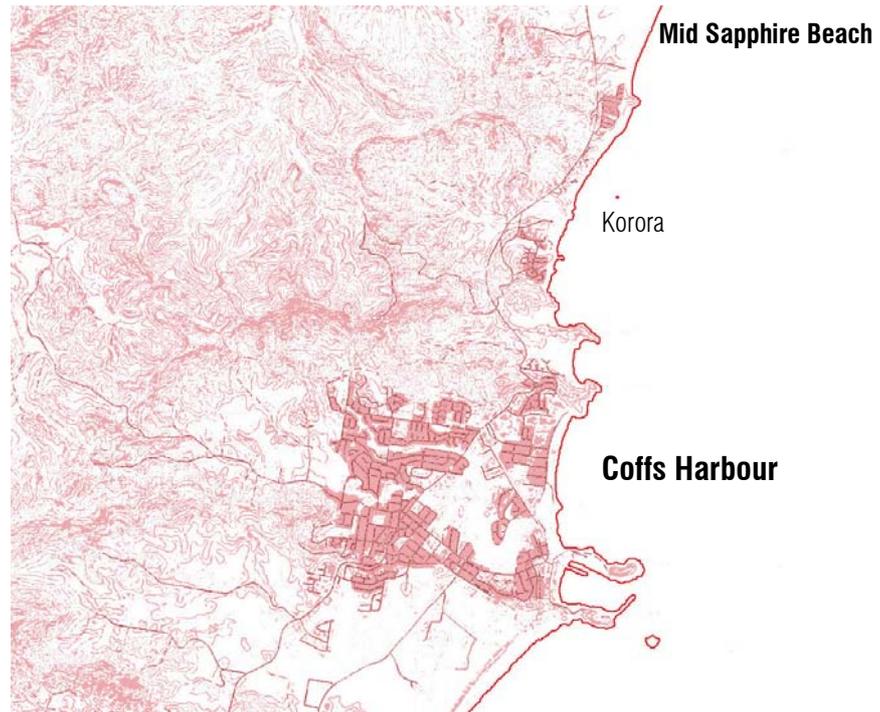
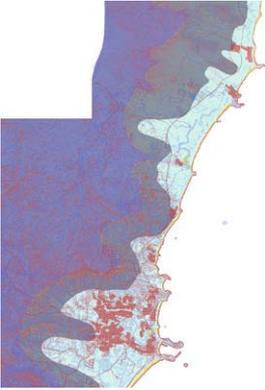


Figure 1 – The Study Area

03 Existing Visual and Urban Environment



The existing visual environment is a combination of natural and cultural attributes that make up the landscape setting. Four main components of the existing visual environment are identified which will form the basis of the urban design and visual assessment. These are:-

- land form;
- vegetation types;
- land use; and
- urban structure.

3.1 Landform

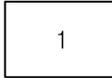
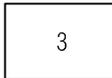
Landform types contribute to the visual and scenic character of a landscape and determine the visual catchment of the study area.

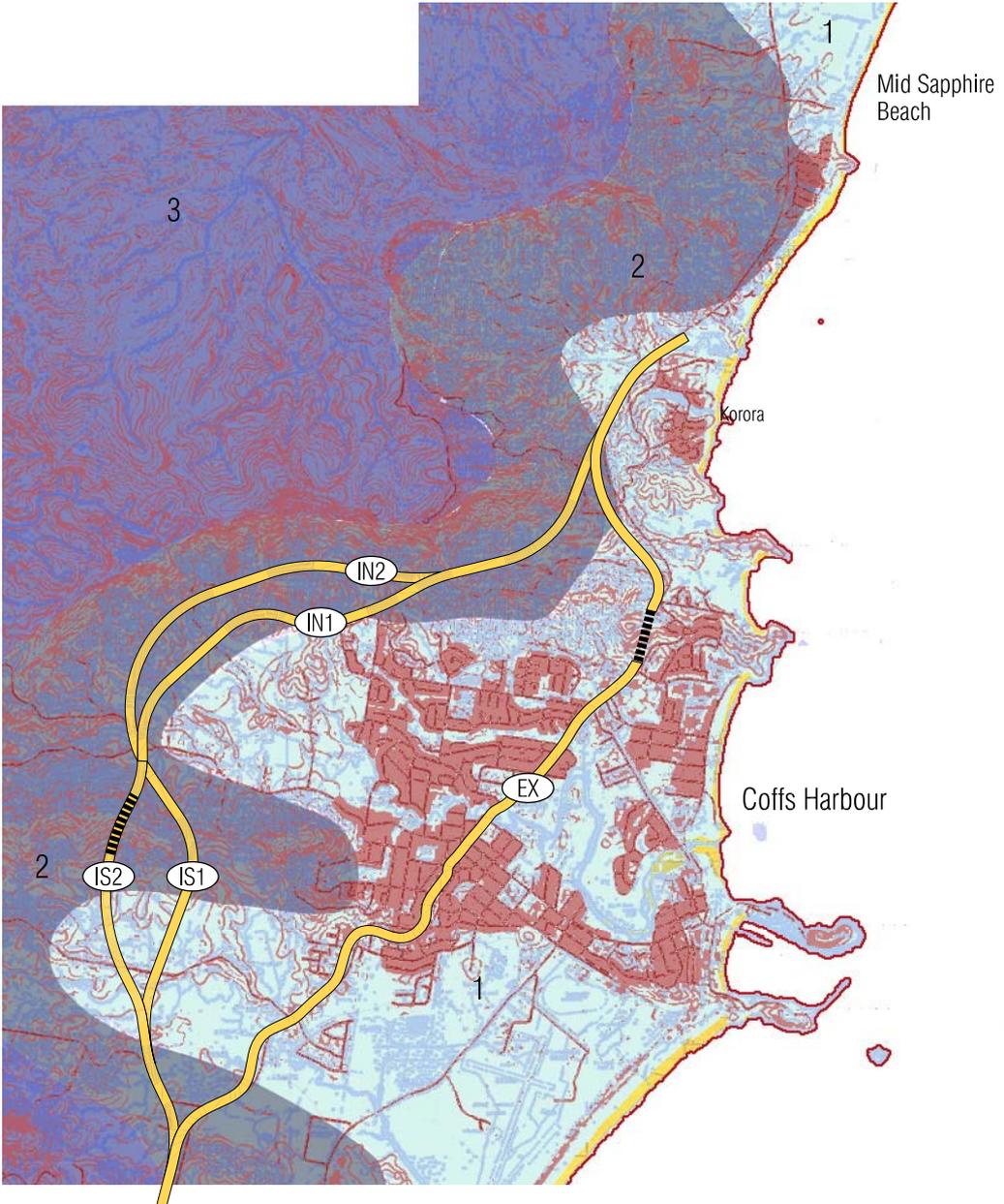
3.3.1 Principles

- Undulating landscapes have a greater diversity of visual experience than flat landscapes.
- Higher undulating landscapes may be more visually prominent and are therefore more visually sensitive than flat landscapes.

Three broad landform classes are identified within the study area, as shown in Figure 3.1 Land Form Types over page. These are:-

- coastal flats - low and gently undulating coastal strip;
- coastal footslopes - undulating spur and valley landform; and
- upper ranges and valleys - steep and rugged topography.

-  Existing Highway
 -  Inner North 1
 -  Inner North 2
 -  Inner South 1
 -  Inner South 2
 -  Proposed Tunnel
-
-  1 Coastal Flats
 -  2 Coastal Foot Slopes
 -  3 Upper Ranges & Valleys

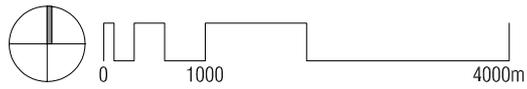


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COFFS HARBOUR SECTION,
ROUTE OPTIONS**

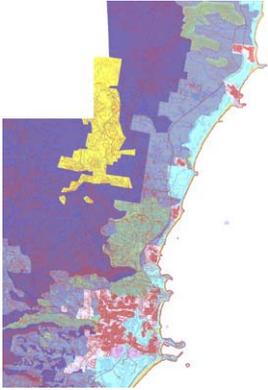
FIGURE 3.1 - Land Form Types

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03 Existing Visual and Urban Environment



3.2 Vegetation

Vegetation characteristics contribute to the visual and scenic character of a landscape. Vegetation often forms the secondary or local view shed and can provide a visual buffer to adjacent areas.

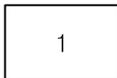
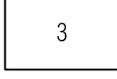
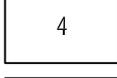
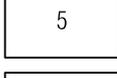
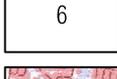
3.2.1 Principles

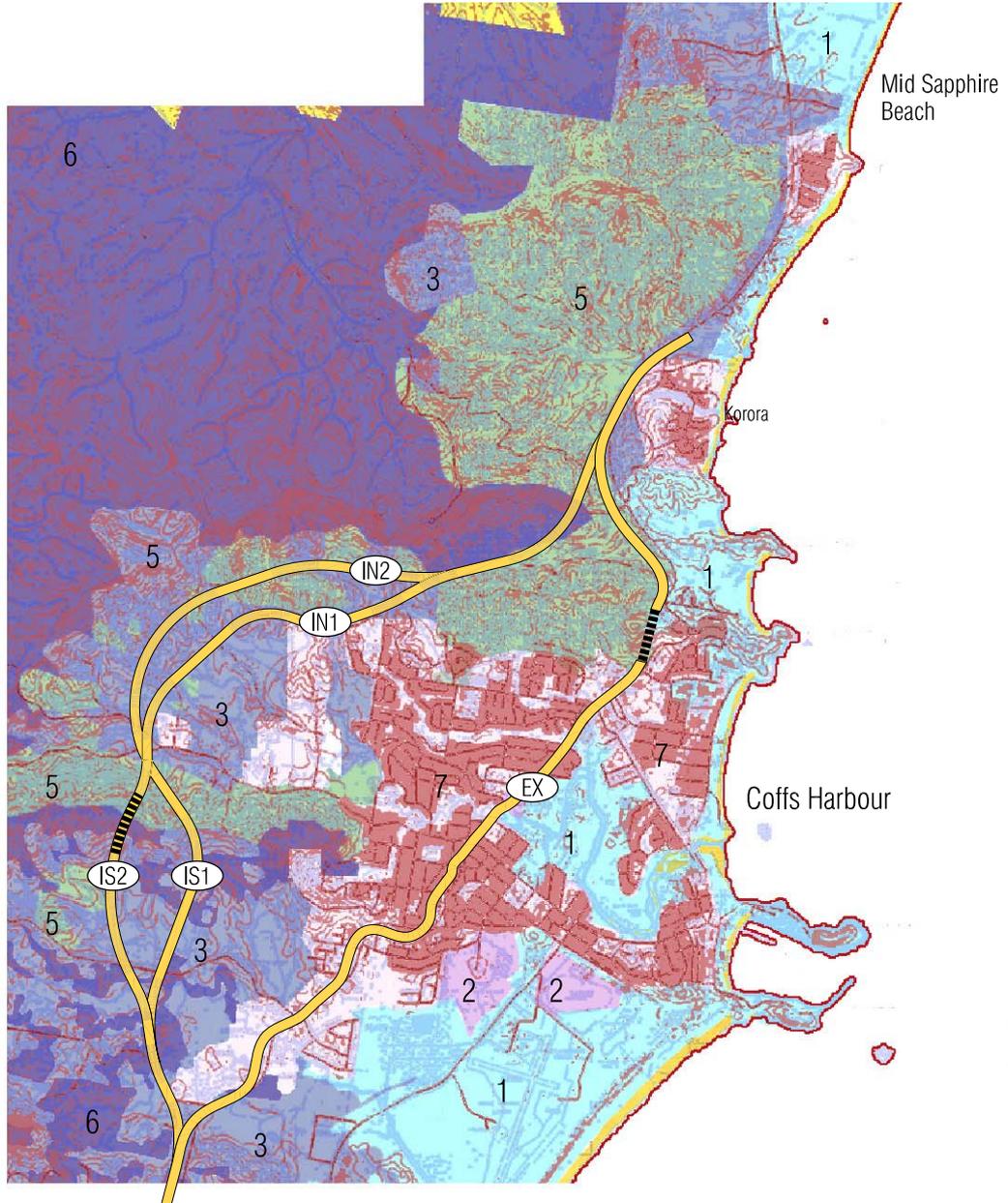
- Homogenous vegetation types strengthen the landscape character of an area.
- Forest has a greater screening capacity than open grassland.

Seven broad vegetation classes are identified within the study area, as shown in Figure 3.2 Vegetation. These are;-

- coastal wetland;
- open woodland;
- forest;
- cleared land (recreational);
- cleared land (pasture);
- cultivated land (crops).and
- urban

-  Existing Highway
-  Inner North 1
-  Inner North 2
-  Inner South 1
-  Inner South 2
-  Proposed Tunnel

-  1 Coastal wetland
-  2 Cleared Land (recreational)
-  3 Woodland
-  4 Cleared Land (pasture)
-  5 Cleared Land (crops)
-  6 Forest
-  7 Urban

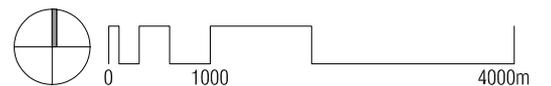


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ROUTE OPTIONS**

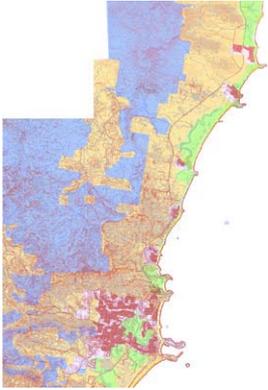
FIGURE 3.2 - Vegetation

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03 Existing Visual and Urban Environment

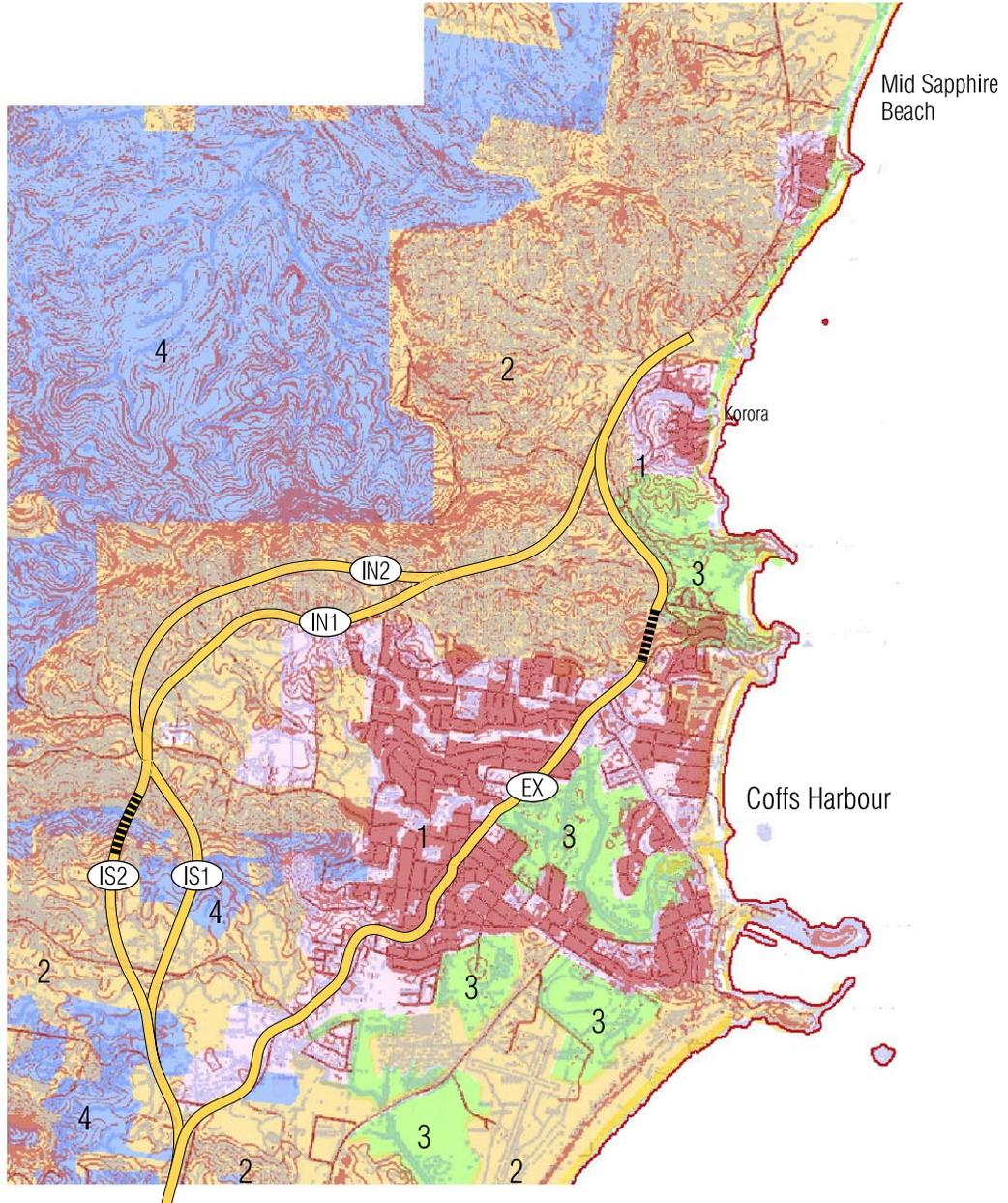
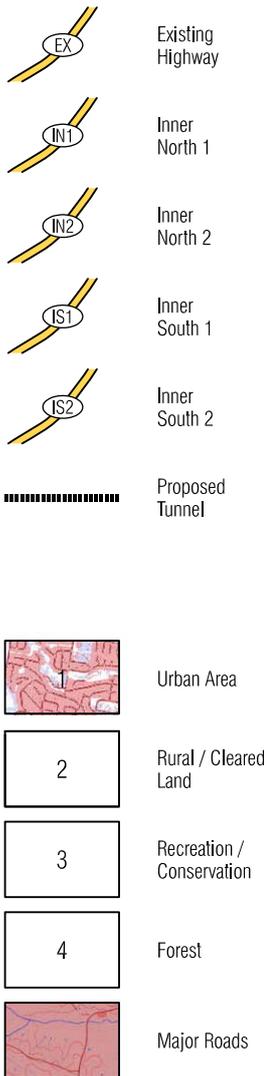


3.3 Land Use

Land use characteristics contribute to the visual character of a landscape and are important in the analysis of visual impact. Land use types are often closely associated to landform types and influence vegetation cover.

Four broad categories of land use are identified within the study area, as shown in Figure 3.3 Land Use. These are;-

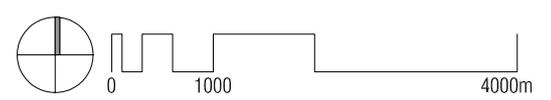
- natural (forested);
- urban area (residential / industrial / commercial);
- rural area (farmland); and
- recreation and conservation.



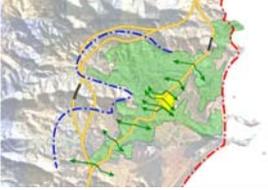
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FIGURE 3.3 - Land Use
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03 Existing Visual and Urban Environment



3.4 Urban Structure

The urban structure of Coffs Harbour is influenced by the topography, coastline, current urban area and traffic flows (both vehicular and pedestrian).

3.4.1 Principles

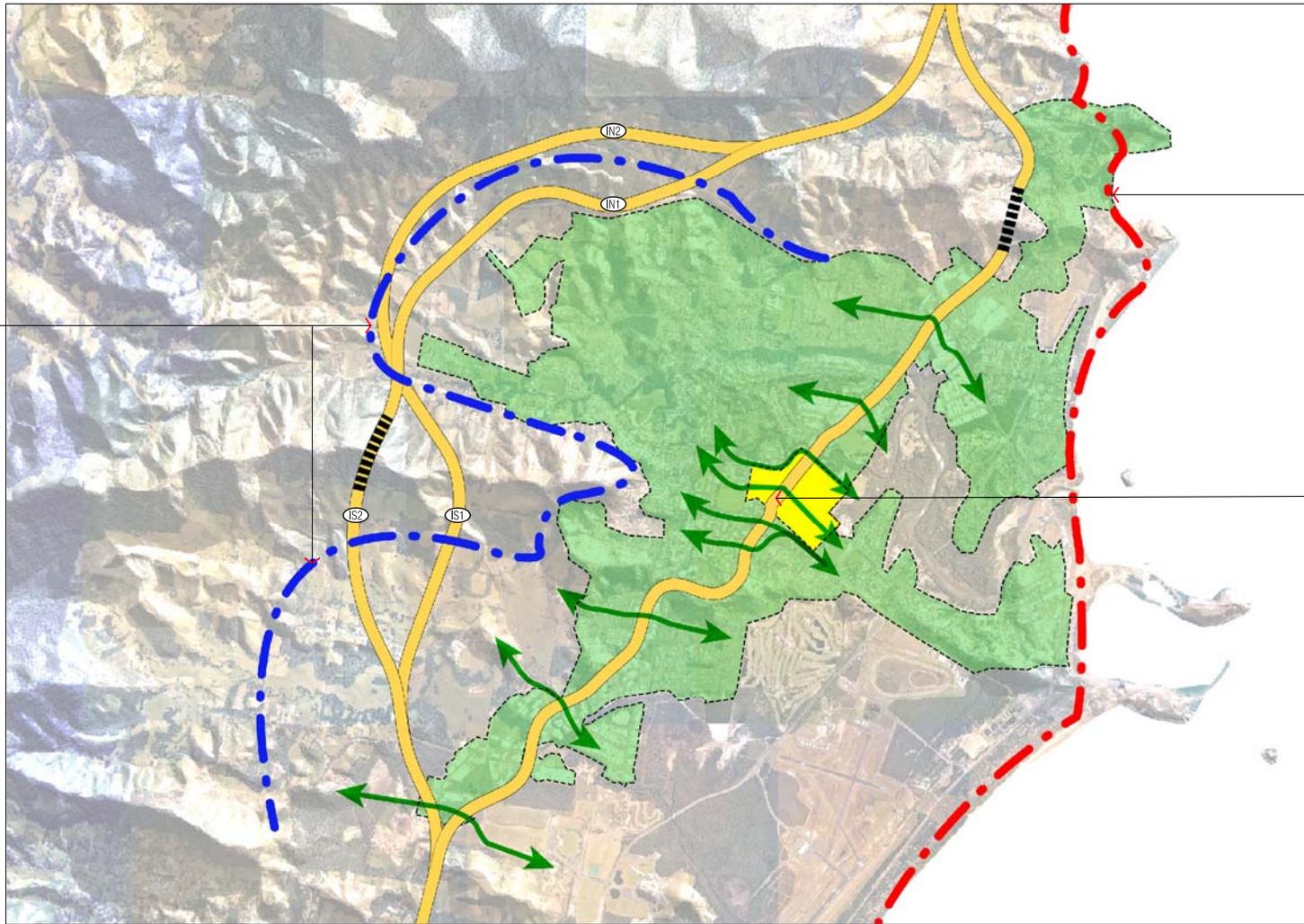
- The upper ranges and valleys and coastline provide a natural boundary to urban expansion.
- The existing highway divides the urban area physically.
- Limited vehicular traffic flow and pedestrian movement provides activity crucial to maintaining an active and successful retail/commercial district

Five major influences on the urban structure have been identified within the Coffs Harbour area. These are:-

- the coastline, which contains urban expansion to the east;
- the base of the upper ranges and valleys, which contain urban development to the west;
- the existing highway, which divides the existing urban areas and CBD;
- the CBD; and
- the Coffs Harbour urban area.

The following sections describes the Coffs Harbour Bypass route options.

Coastal footslopes, habitat corridors and planning regulations provide a barrier to urban expansion to the west



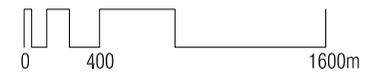
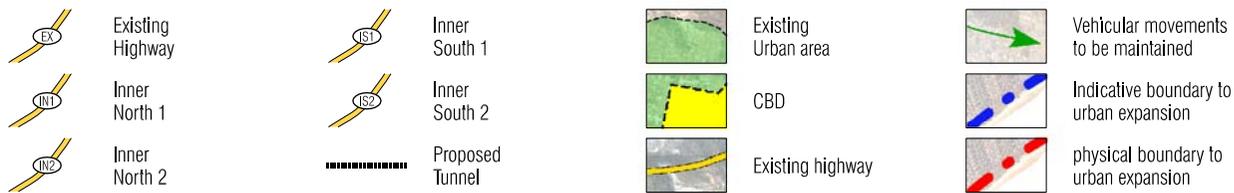
Coast line provides a physical barrier to urban expansion to the east

Existing highway divides urban areas and CBD

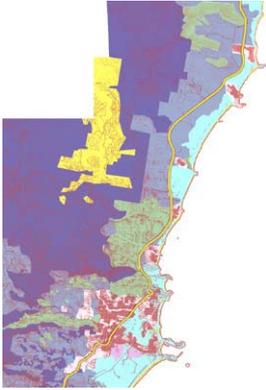
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FIGURE 3.4 - Urban Structure



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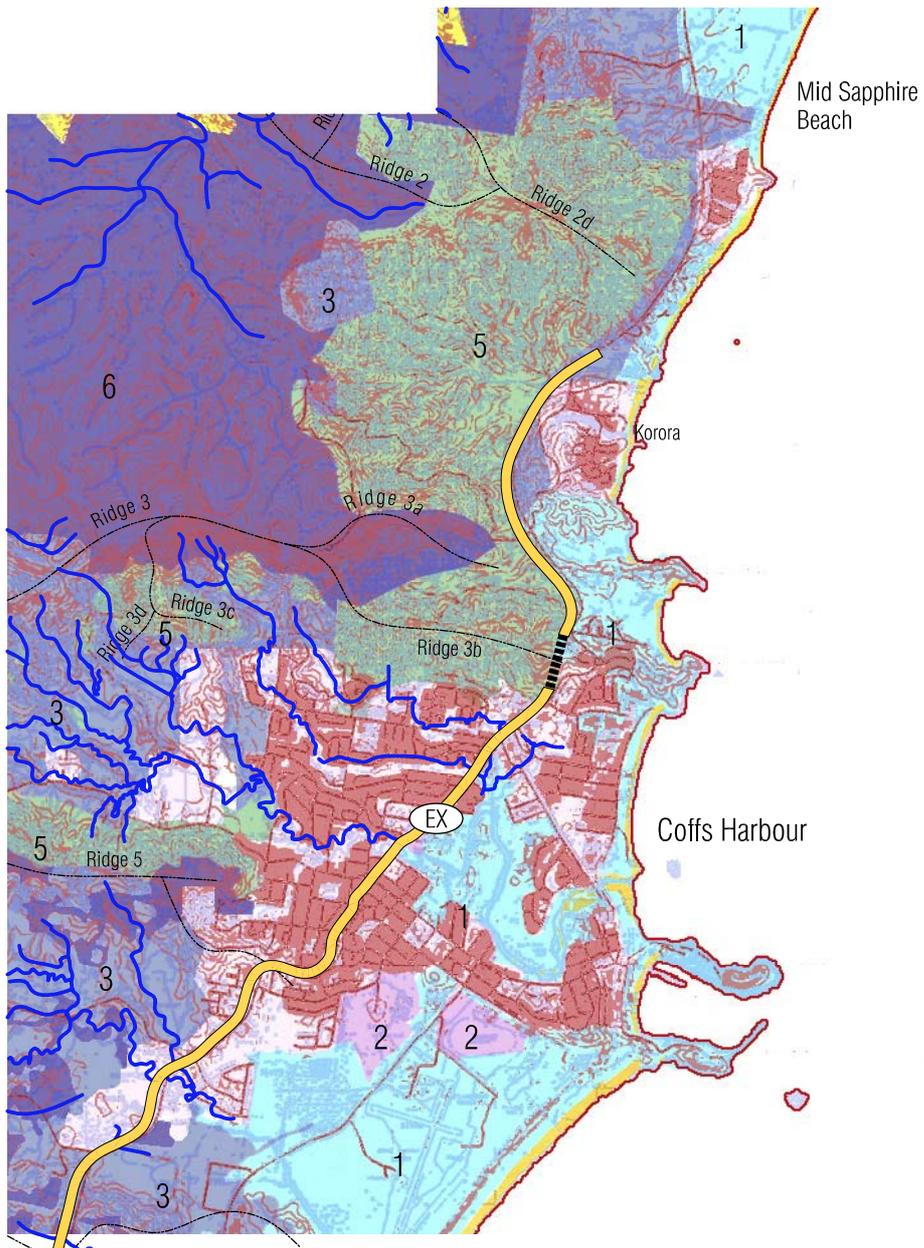


4.1 Upgrade of Existing Highway

The concept for an “ultimate” upgrade of the existing highway through Coffs Harbour has been developed to provide a dual-carriageway facility with grade-separated interchanges at key locations for east-west movements as shown in Figure 4.1 over page. These would be complemented by the provision of service roads or adjustments to existing local roads for access to properties and businesses along the existing corridor.

The main features of the Highway Upgrade option are:-

- A total of 9 grade separated interchanges at
 - Englands Road / Stadium Drive
 - North Boambee Road / Cook Drive
 - Thompsons Road / Halls Road
 - Combine Street / Albany Street
 - north of Coffs Creek near Beryl Street
 - Bray Street / Orlando Street
 - Arthur Street/Mastrocolas Road (existing)
 - Bruxner Park Road/James Small Drive South; and
 - Old Coast Road/James Small Drive North;
- Rationalisation and connection of industrial area access roads on the southern outskirts between Englands Road and Thompsons Road;
- Horizontal alignment improvements (larger radii) and widening between Thompsons Road and Albany Street;
- Lowering of the highway (in an open slot arrangement) through the CBD area between Park Avenue and Coff Street, with widening on the western side;
- Provision of a service road on the eastern side of the highway over the same length
- Additional east/west overbridges at Park Avenue/Moonee Street and High Street/Harbour Drive;
- A 500 metre long tunnel through Macauleys Headland, with local traffic remaining on the existing highway; and



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FIGURE 4.1 - Existing Highway

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Existing Highway



Proposed Tunnel

Ridges		Drainage Corridors	
1	Coastal wetland	4	Cleared Land (pastoral)
2	Cleared Land (Recreational)	5	Cleared Land (crops)
3	Woodland	6	Forest

