



# NOWRA RIVERFRONT

## ENTERTAINMENT+LEISURE PRECINCT

Strategic Direction: Review & Analysis

October 2017

Prepared for Shoalhaven City Council

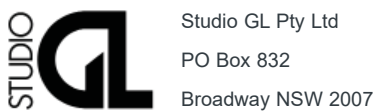
by Studio GL

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## 01 BACKGROUND

## 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## 03 A DECADE OF PLANNING EFFORTS

## 04 PRINCIPLES AND STRATEGIC DIRECTION







# 01 BACKGROUND

- ▶ Introduction
- ▶ Purpose
- ▶ Process
- ▶ Structure

# 01 BACKGROUND

## Introduction

The Nowra Riverfront Precinct has been explored through a wide variety of workshops and strategic plans over many years. The area is constrained and subject to a variety of challenges including flooding, steep topography, difficulty of access, lack of visual connections, fragmented lot ownership and major road infrastructure. NSW Road and Maritime Services (RMS) is currently proposing a second river crossing (a new bridge) west of the existing Shoalhaven Bridge. This major infrastructure proposal will have a significant impact on the Riverfront Precinct.

The riverfront precinct is also a desirable area, due to its prominence, proximity to the highway and the high amenity provided by the Shoalhaven River and views to the Cambewarra Mountain Ranges. The Nowra Riverfront Precinct provides a significant opportunity to shape the future of Nowra and strengthen its role as the civic, community, tourism and recreational hub for the Shoalhaven region.

## Purpose

Studio GL was commissioned by Shoalhaven City Council in December 2015 to provide a review of previous strategic studies, a concise summary of opportunities and constraints, identify recommended planning and design principles and recommend a strategic direction for the precinct. The strategic direction would then inform draft Development Controls for the precinct.

At the time of commissioning it was anticipated that the detail of the future design of the second river crossing (a new bridge) was imminent and Council was keen to ensure previous work was consolidated in order to ensure that the planning for transport and access could be effectively integrated with the land use planning.

At the time of issuing this report (October 2017) details of the new bridge and its impact on the precinct are still unknown.



View towards Shoalhaven Bridge from riverfront



View beneath Shoalhaven Bridge



Sweeping views across the Shoalhaven River from near Scenic Drive

## Process

The process undertaken included a review of previous studies on the Precinct including:

- The Nowra Gateway Masterplan (Cox Humphries Moss, 2010)
- Chapter N7 Nowra Hotel Site and Civic Precinct in Shoalhaven Development Control Plan (DCP) 2014 (previously DCP No. 119)
- The Nowra CBD Master Plan (Arup 2011)
- The Nowra CBD FSR and Heights Study (Jackson Teece, 2013)
- The RMS preferred bridge option (2012/2013)
- Riverfront Precinct Master Plan Submission (Elton Consulting 2011)

Following this review, a series of workshops were held with Councillors, Council staff, RMS, Department of Planning and Environment, Department of Health, NSW Land & Housing Corporation and Landowners to present the analysis and planning history of the Riverfront Precinct, the issues identified and the preferred direction. This has allowed the preferred direction to be discussed and tested during focused face-to-face meetings.

## Structure

This document is structured in four parts.

- Chapter 01 provides an introduction to the report
- Chapter 02 is a review of key issues to help create an understanding of the riverfront precinct
- Chapter 03 is a review and summary of previous reports and studies
- Chapter 04 identifies the principles and recommended strategic direction for the precinct











## 02 UNDERSTANDING THE RIVERFRONT PRECINCT

- ▶ The study area
- ▶ Context
- ▶ Topography and landform
- ▶ Flooding risk
- ▶ Urban structure
- ▶ Land ownership
- ▶ Access and traffic
- ▶ Built form and heritage



The 'Civic Precinct' consists of the Council Administration building and the Shoalhaven Entertainment Centre (SEC)

The Visitor Information Centre relocated to the west of the highway in 2016

The heritage listed Nowra Sailing Club was destroyed by fire in June 2017

One option for future use of the heritage bridge is to retain it for pedestrian and cycle use

The latest preferred option (by RMS) for a second river crossing is to build a new bridge on the western side of the existing concrete structure

Figure 1 Aerial view of the Riverfront Precinct (Photo taken by Colin Douch in 2010)





Junction Street is the core of the Nowra Town Centre

The majority of residential lots in this area are owned by Housing NSW

The central area of the precinct is low-lying and subject to flood inundation

Shoalhaven District Memorial Hospital

The Nowra Pool is a valued community asset and is located on low lying land and was upgraded in 2015

A shared pedestrian and cycling route along the foreshore provides views of the river and the local area



# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## The study area



Open space next to the Shoalhaven River



Pedestrian and cycle path next to the steel trusses of the historic Nowra Bridge

Nowra's Riverfront Precinct is bound by Scenic Drive to the north, Hawthorn Avenue to the east, Hyam Street and Graham Street to the south and Shoalhaven Street to the west. The Princes Highway bisects the precinct along a north south alignment into an eastern and a western area and forms a significant barrier to connections between these two areas.

A striking feature of the precinct is its riverfront location, on the southern side of the Shoalhaven River. The area also has views to the Canberwarra Mountains to the north.

Due to its prominent gateway location and the amenity provided by the river and natural surrounds, the area provides a significant opportunity to shape the character of Nowra in the future and strengthen the town's role as the civic, community, tourism and recreational hub for the region.

The Riverfront Precinct is arguably one of the most constrained areas within Nowra. The land is subject to a range of challenges including flooding, steep topography, heritage, difficulty of access, lack of visual connections, fragmented lot ownership and subdivision and the impact of major road infrastructure including the Shoalhaven Bridge and Princes Highway.

The area west of the highway provides a number of community facilities and uses including the Nowra Olympic Pool and surrounding public open space and the Council Administration building, the Shoalhaven Visitor Information Centre and the Shoalhaven Entertainment Centre (SEC) to the south. The area also includes a hotel/motel (not currently in business) and low density residential housing.

The area east of the highway features the historic Nowra Public Wharf, a public boat ramp, a restaurant and a steakhouse, a motel and a caravan park and the state heritage listed Graham Lodge.





The Shoalhaven Entertainment Centre (SEC)



View of the historic bridge from the south



Heritage-listed Graham Lodge



Figure 2 The Nowra Riverfront study area (Source: Nearmap 2014)





# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Context

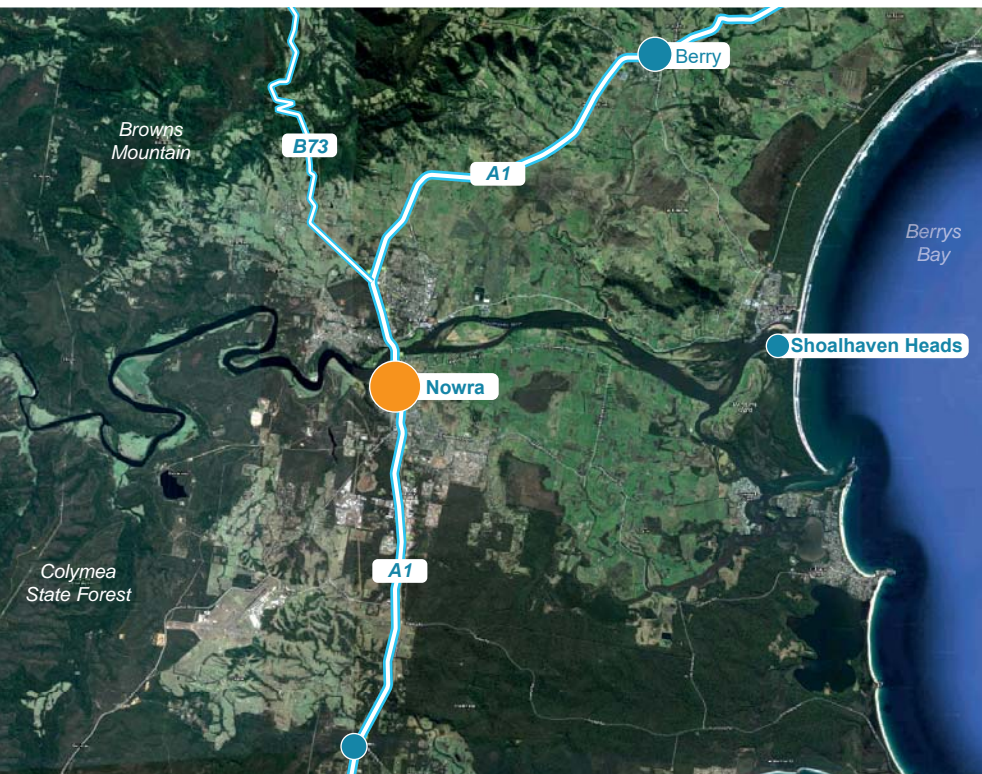


Figure 3 Regional Context (Source Image: Google maps)

Nowra is located approximately 125km south of Sydney by road and 142km north east of Canberra. The area forms a gateway to popular tourist destinations along the coast including Jervis Bay.

Nowra provides the administration facilities for Shoalhaven City Council which currently stretches from just north of Berry to just north of Batemans Bay and encompasses an area of 4,567 square kilometres. The area is growing and in June 2012 the population of the LGA was 96,927.

The Nowra Riverfront precinct is part of the Nowra CBD which includes a large shopping centre, main street shopping and the majority of commercial, retail and entertainment facilities for the region. In 2014 the urban conurbation of Nowra/ Bomaderry had an estimated population of 35,383.



The Shoalhaven District Memorial Hospital is located to the west of the investigation area



Nowra entry sign at the gateway intersection of Princes Hwy and Bridge Rd



State context of Nowra in relation to Sydney, Canberra and Wollongong



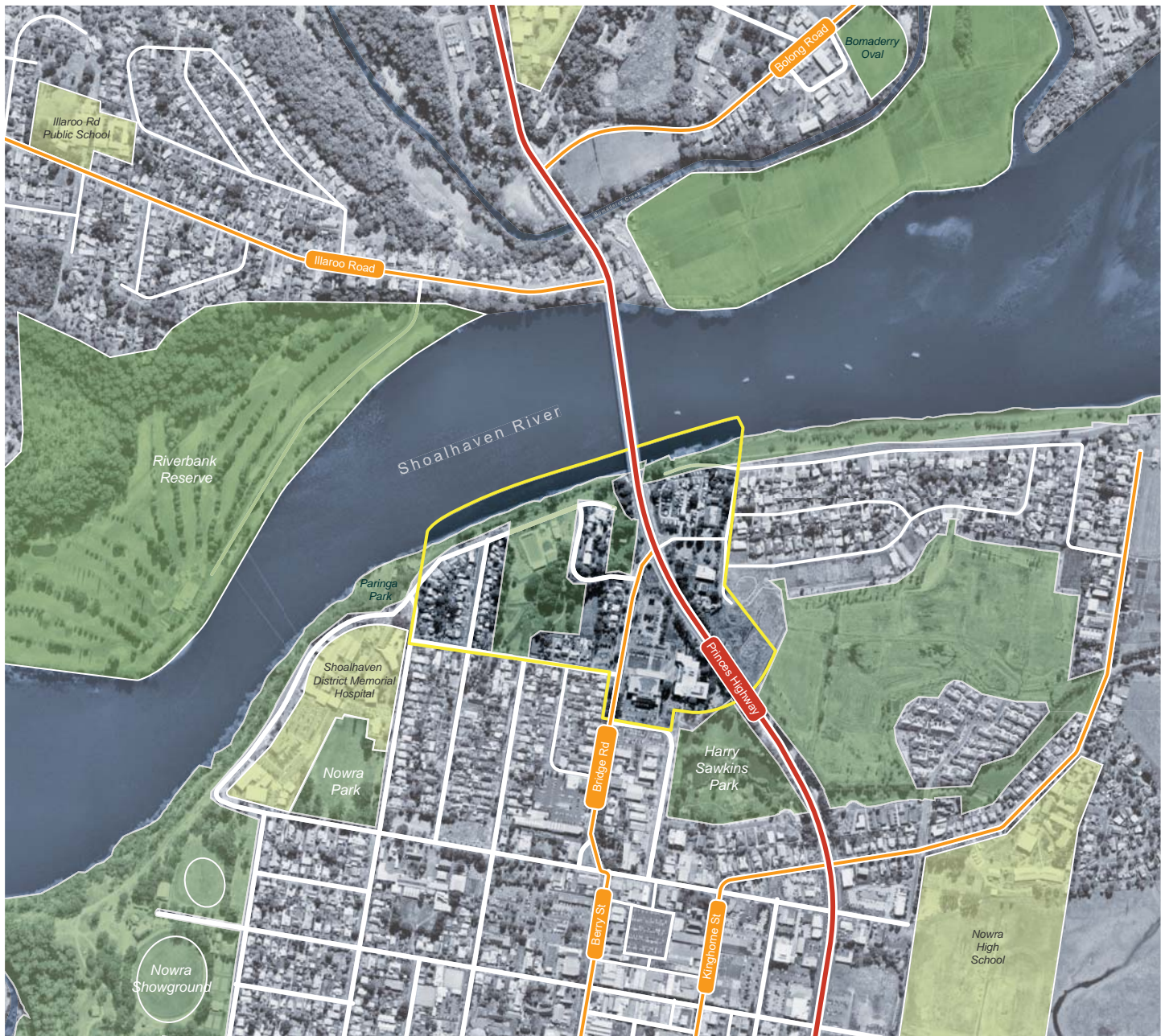


Figure 4 Local context diagram (aerial photo: Google maps)



# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Topography and landform

While most of the Riverfront Precinct is relatively flat, low lying land next to the river, it does rise to two local high points. These occur in the west where it adjoins Shoalhaven Street and to the east at a local high point north of the Council Administration building and the Shoalhaven Entertainment Centre (SEC).

The land along the river frontage is approximately 4 metres above the average water level near the bridge but rises sharply (to approximately 12 metres) in the western corner towards the hospital.



View along Hyam Street towards the SEC



View of the Shoalhaven River down Mandalay Avenue

The western side of the highway has a low lying flood-prone central area that cuts diagonally across the precinct. The topography from this point rises approximately 6 metres, to the Civic Precinct.

Much of the Riverfront Precinct is flood prone which is discussed in greater detail in the following section.

Bridge Road is located on higher land running along a small local ridge. After the construction of the Shoalhaven River Bridge in 1881, Bridge Road was the main access into town until the current Princes Highway alignment was constructed in the late 1970's.

The majority of views of the river occur along Scenic Drive and the public walk through the public open space along the foreshore. Views beyond the river to the escarpment and toward the mountain ranges reinforce the unique setting of the Riverfront Precinct. There are limited visual links to the riverfront due to the street layout and existing landscaping, however views are possible along Shoalhaven Street and Mandalay Avenue to the east, and down Hawthorne Avenue to the east.

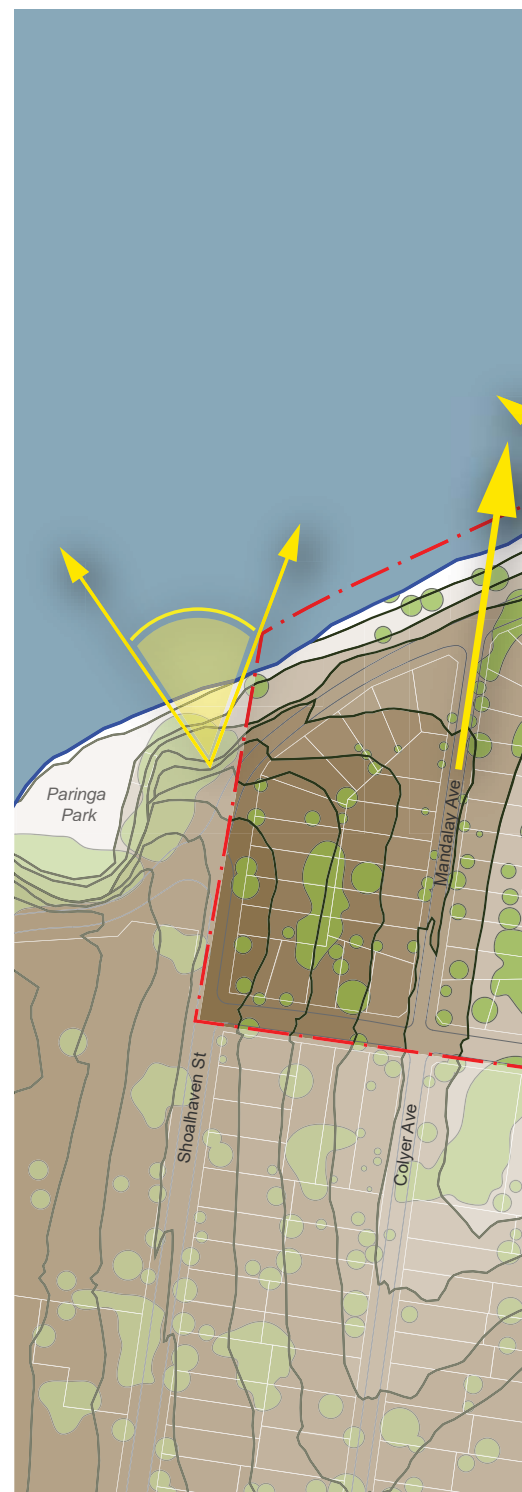


Figure 5 Topography and landform diagram





# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Flooding risk

The western area of the Riverfront Precinct is impacted by flooding which can occur from two directions. Overland flows from the local catchment to the south are drained by two existing culverts that discharge beneath Hyam Street and then flow across open space to the river. In addition, flooding from the Shoalhaven River can over-top Scenic Drive and Wharf Road and flow back into the precinct.

Previous studies and recorded events have determined that the area is subject to flood inundation. The critical maximum flood level has been stated as RL 7.57 AHD and much of the area is identified as High Hazard Flood Storage.



Localised filling and levee banks create an environment next to the river that hinders wayfinding and visual connections

In a 1 in 100 year event, the inundation of parts of the precinct could be up to 2 metres in depth through the central portion of the eastern area.

The Scenic Drive Hydraulic Assessment Stage 1 Report (2008) noted that redevelopment has the potential to reduce the overall flood risk in the area by removing existing flood liable buildings and land usage, and replacing these with buildings designed in accordance with current flood planning controls.

The Gateway Master Plan Report Study (2010) stated that it would be possible to fill parts of the site to enable development if appropriate culverts and overland flow paths were provided. A similar approach may also be possible in the eastern area of the Riverfront Precinct.

Due to the flood prone nature of the entire Riverfront Precinct, future planning will need to undertake significant hydrological and geotechnical investigation and assessment to determine the engineering requirements (and consequently economic viability) of developing flood liable land.



Figure 6 Flooding risk diagram





# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Flooding risk - historic events



The Former Nowra Sailing Club



Ambulance vehicle on flooded street

Opinion Community Life & Style Entertainment Classif

### Shoalhaven River opened to ocean

Aug. 26, 2015, 2:30 p.m.

[Like](#) 860 [Tweet](#) [G+](#) 0



Fast moving waters under bridge



Wharf Road Restaurant during a flood event



The former Nowra Sailing Club



Flooded river bank



Firecrew in operation

(Source of photos on this page: southcoastregister.com.au)





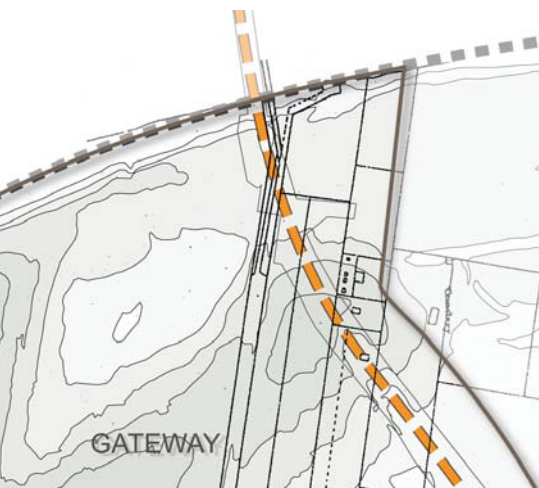
Flood event in 1978 showing a large area of the Riverfront Precinct under water  
(Source: Lower Shoalhaven River Floodplain Risk Management Study)

# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Urban structure



Aerial photograph from the north showing the historic entry into Nowra down the wide, tree lined Bridge Road  
(Source: Berry Historical Society)



The current Princes Highway alignment (orange) shown over early urban structure

The urban structure of the Riverfront Precinct is poor as it is where the historic north/south east/west grid structure of the town clashes with the angled alignment created by the river and the highway. To the north of the precinct the curvilinear nature of the river is echoed by Scenic Drive which runs parallel to the river bank.

On either side of the highway the diagonal alignment of the highway has created a number of triangular and oddly shaped blocks and severed connectivity across the precinct.

There are also fewer roads in the precinct which results in very large blocks, limited access and a number of instances where lots back onto areas of open space, reducing the safety and amenity of the area.

The limited number of roads and the unusual alignment of some roads like Scenic Drive, results in poor wayfinding throughout the area.

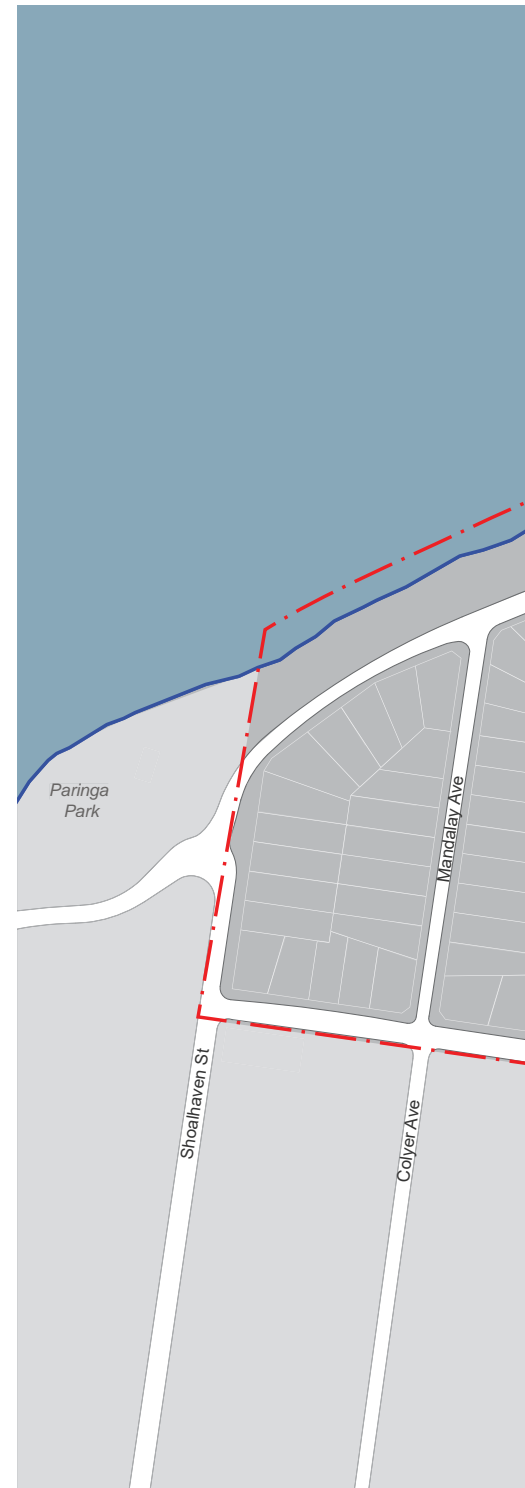
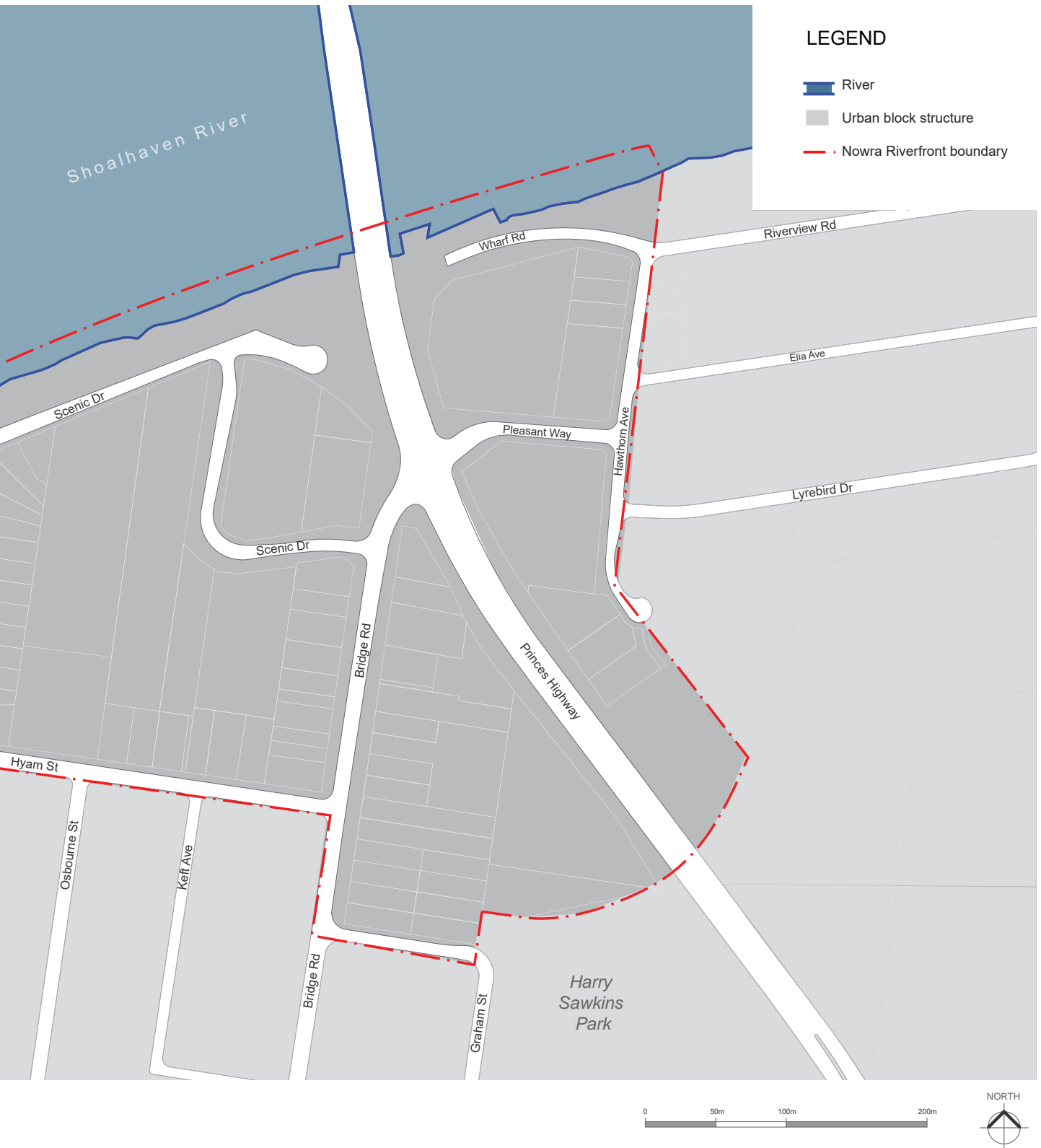


Figure 7 Urban structure diagram





# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Land ownership

A large area of the Riverfront Precinct is Council-owned, including areas of open space along the riverfront and undeveloped land adjoining the Civic Precinct.

Another major landowner in the precinct is the NSW Land and Housing Corporation, who own a large proportion of land between Shoalhaven Street, Mandalay Avenue and north of Hyam Street. Approximately 20% of land within the Riverfront Precinct is in private ownership.



Single storey housing along Mandalay Ave belonging to NSW Land and Housing Corporation

Open space within the precinct is typically located on land which is subject to inundation. This has created a green edge along the northern part of the precinct immediately adjacent to the riverfront, and extending southward to include the aquatic centre and local park.

The existing swimming pool is centrally located within this open space and is considered an appropriate use as the land is subject to flood inundation. The area around the pool currently experiences comparably low utilisation due to its lack of connectivity and wayfinding, the low density of land uses within walking distance and limited public facilities.

Some of this green edge is Crown Land although a substantial amount is Council owned land, including open space that extends north from Hyam Street through to Scenic Drive on the River frontage, bordering the eastern rear boundary of houses on Mandalay Avenue, the rear boundary of houses fronting Hyam Street, and privately owned vacant land behind residences fronting Bridge Road.

The substantial amount of government owned land provides increased flexibility for future planning of the area as it opens up opportunities that may not be possible if the land was in private ownership.



Figure 8 Land ownership diagram





# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Access network

The Princes Highway is a major north-south highway connecting Sydney to Melbourne via the coast. This road experiences high volumes of traffic (especially during school holidays) heading to the NSW south coast and beyond.

The highway bisects the precinct making access to land on both sides of the Princes Highway difficult. When the second bridge crossing was built in the late 1970's a new alignment of the Princes Highway diverted traffic away from Bridge Road and effectively cut east-west connections in the precinct. This is evident in the 'dead-end' streets of Scenic Drive to the east and Wharf Road to the west.



Pedestrian access under the highway next to the Shoalhaven River

The signalised intersection into the precinct provides limited access. Traffic is not able to cross the highway from Bridge Road to Pleasant Avenue and traffic entering the highway can only turn left. This intersection, also referred to as the 'Northern Gateway' intersection, has been the subject of considerable debate over the years due to its poor performance, with congestion and traffic delays during the morning peak being the major concerns.

NSW Road and Maritime Services (RMS) has proposed a second river crossing (a new bridge) west of the existing Shoalhaven Bridge (for more detail see Chapter 2). The new bridge will have a significant impact on the Riverfront Precinct as it is expected to include widening of Princes Highway and potential changes to the Bridge Road/ Princes Highway and Pleasant Way intersection.

The long term use of the historic bridge is also unknown but one option proposed is for it to be allocated as a pedestrian and cycle use which could generate significant activity especially to the eastern side. Pedestrian and cycle access across the highway is possible via a path (along the riverfront) under the bridges and at the signalised intersection.



Figure 9 Access network diagram





# 02 UNDERSTANDING THE RIVERFRONT PRECINCT

## Built form and heritage

The range of building typologies within the Riverfront Precinct vary from low density, single storey residential dwellings, low scale tourist accommodation, including a single storey motel and a caravan park along the foreshore and prominent civic facilities such as the Council Administration building and the Shoalhaven Entertainment Centre (SEC) located to the south of the study area.

Large areas within the precinct have little development with areas of open space and off-street carparking near the SEC and Council.



Construction of the Nowra bridge in 1881, Graham Lodge visible on the far side of the river to the left  
(Source: Berry Historical Society)

The precinct contains a number of items that are heritage listed. The historic Nowra Bridge was completed in 1881, built from cast iron and steel it is considered a technically sophisticated structure, unique for its time. Due to its visual aesthetics, the bridge has become a symbol and landmark for Nowra and the Shoalhaven River.

Graham Lodge and Cemetery which lies to the east of the Princes Highway at the southern end of Hawthorn Avenue is one of the oldest buildings in Nowra, built in 1861-62. The residence was acquired by Shoalhaven City Council in 1998 with the aim of adaptively reusing the building to establish a local history interpretive facility. However in 2017 council went out to tender on this site and has agreed on an option to purchase.

Other heritage items include the Nowra public wharf adjacent to the bridge, two houses along Bridge Road and the Captain Cook Bicentennial Memorial (restored boat used in the re-enactment of Cook's landing at Botany Bay, currently in Council storage).



Figure 10 Access network diagram



1. "Shoalhaven River Bridge"—Victorian wrought iron bridge
2. Inter-war Weatherboard Building and Timber Wharf (destroyed by fire in 2017)
3. Graham Lodge (former Greenhills Estate Homestead) and grounds
4. Captain Cook Bicentennial Memorial
5. "Kilsyth"—Federation weatherboard residence
6. "Uuna"—late Victorian weatherboard cottage and garden







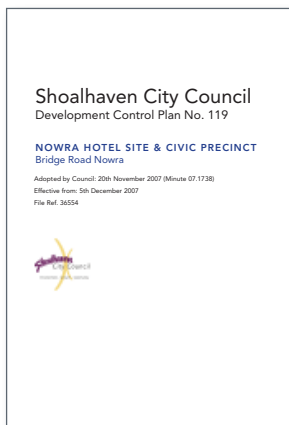
## 03 A DECADE OF PLANNING EFFORTS

- ▶ Hotel Site + Civic Precinct DCP
- ▶ Gateway Master Plan
- ▶ Gateway Master Plan Consultation
- ▶ Nowra CBD Master Plan
- ▶ Nowra CBD Heights and FSR study
- ▶ Shoalhaven River Bridge crossing



# 03 A DECADE OF PLANNING EFFORTS

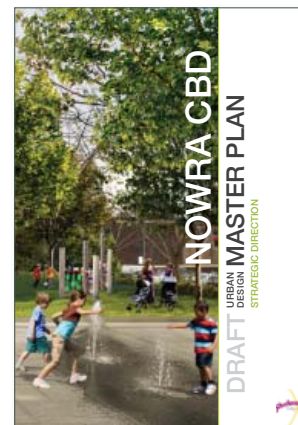
## ★ Nowra Hotel Site & Civic Precinct DCP



## ★ Shoalhaven Gateway Master Plan Study



## ★ Nowra CBD Urban Design Master Plan



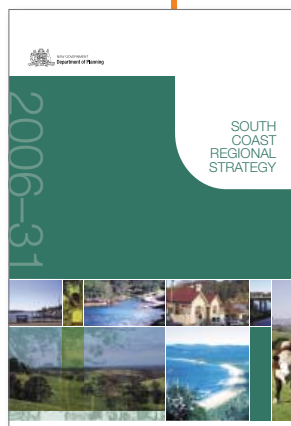
2007

2008

2009

2010

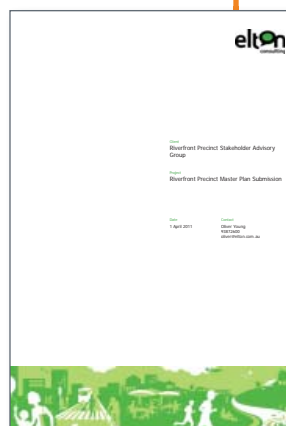
2011



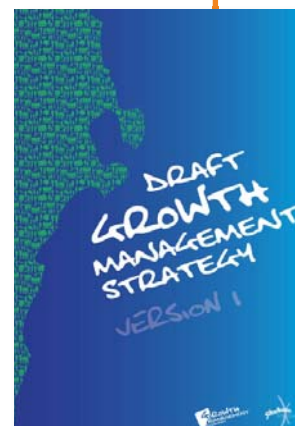
South Coast Regional Strategy



Nowra-Bomaderry Structure Plan

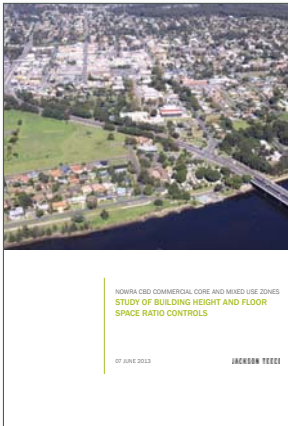


★ Riverfront Precinct Master Plan Consultation

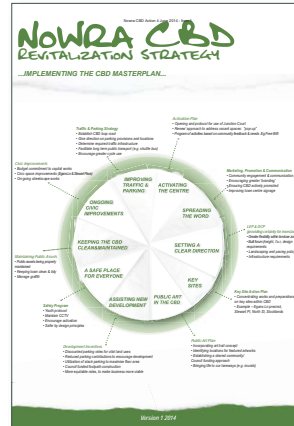


Growth Management Strategy

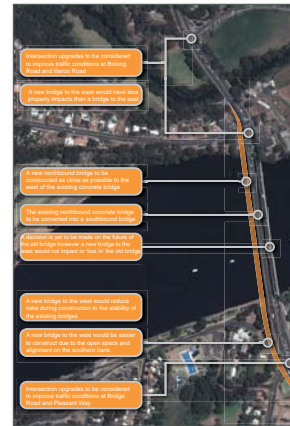
★ Building Heights & FSR Study



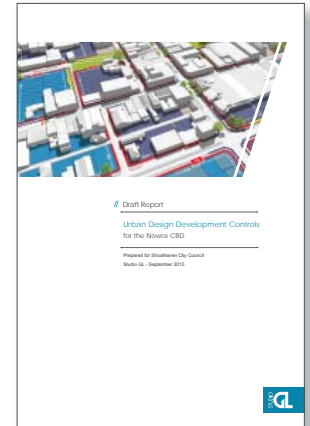
Nowra CBD Revitalization Strategy



★ Shoalhaven River crossing preferred option



Draft Nowra CBD Development Controls



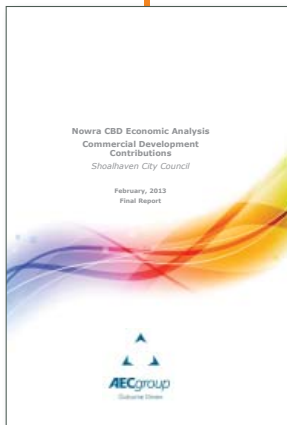
2012

2013

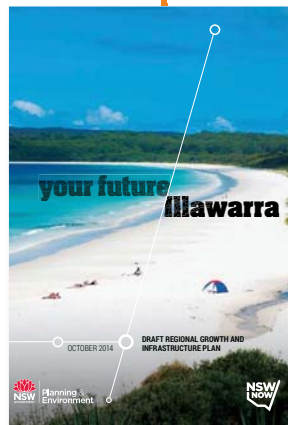
2014

2015

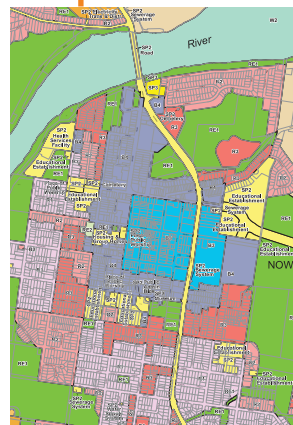
2016



Nowra CBD Economic Analysis



Illawarra Regional Growth and Infrastructure Plan



Shoalhaven Local Environmental Plan 2014

# 03 A DECADE OF PLANNING EFFORTS

## Hotel + Civic Site Proposal (2007)

### Gateway

### Connection to CBD

### Tourist Uses

The DCP for the Hotel & Civic site, prepared in 2007, applies to a triangular piece of land to the north of the Nowra CBD, at the corner of Bridge Road and Princes Highway. It incorporates Council-owned vacant land, the Shoalhaven Entertainment Centre, Council's administration building and associated carparks.

The site is considered of key importance for the perception and future character of the CBD as it is located at the 'northern gateway' into town. Due to its natural elevation, any built form in this location will be highly visible and prominent.

### Objectives

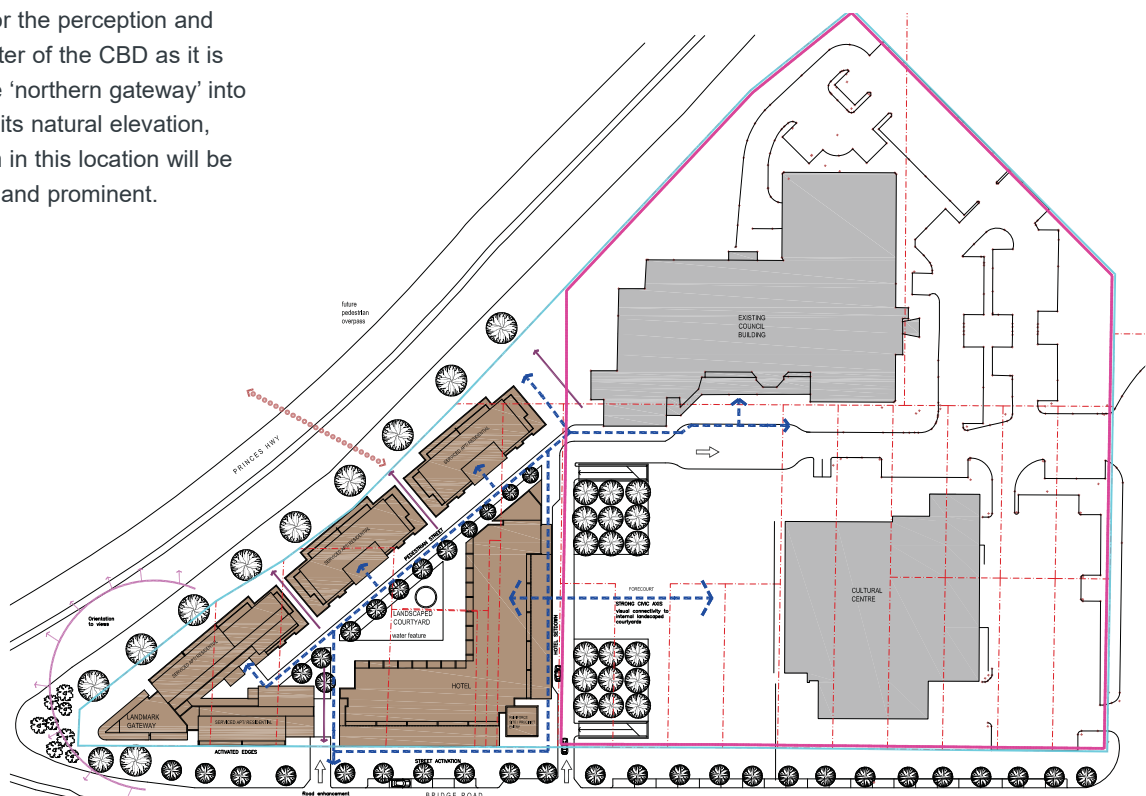
Key objectives of the DCP include creating a strong identifiable gateway into Nowra, providing opportunities for the establishment of a hotel and associated tourist development, providing opportunities for quality apartments, improving existing streetscapes with attractive landscaping and promoting stronger pedestrian links to surrounding recreational areas and the CBD,

The DCP seeks to guide future development proposals with respect to building design, height and bulk, layout and integration with existing development.

### Key controls

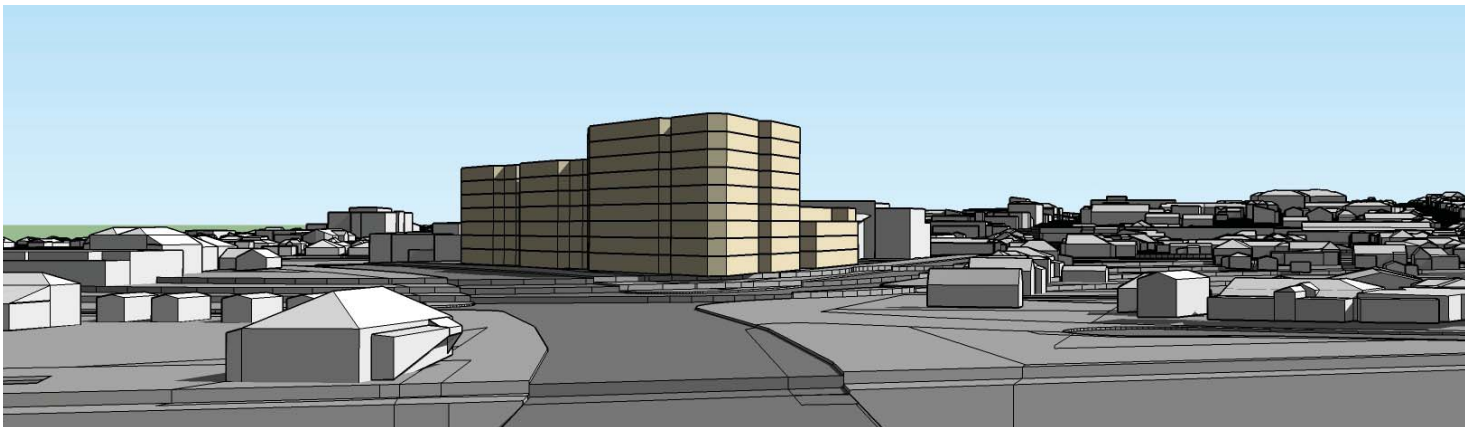
The document outlines principles, objectives, performance criteria and acceptable solutions in regard to urban design, mitigation of environmental impacts, traffic and access and public domain enhancement and integration.

Key controls contained in the DCP include three different height zones ranging from 3 up to 9 storeys, no maximum FSR, buildings to be contemporary in nature, landscape buffer zones to Princes Highway, and orientation to maximise views of the Shoalhaven River and mountain ranges to the north.

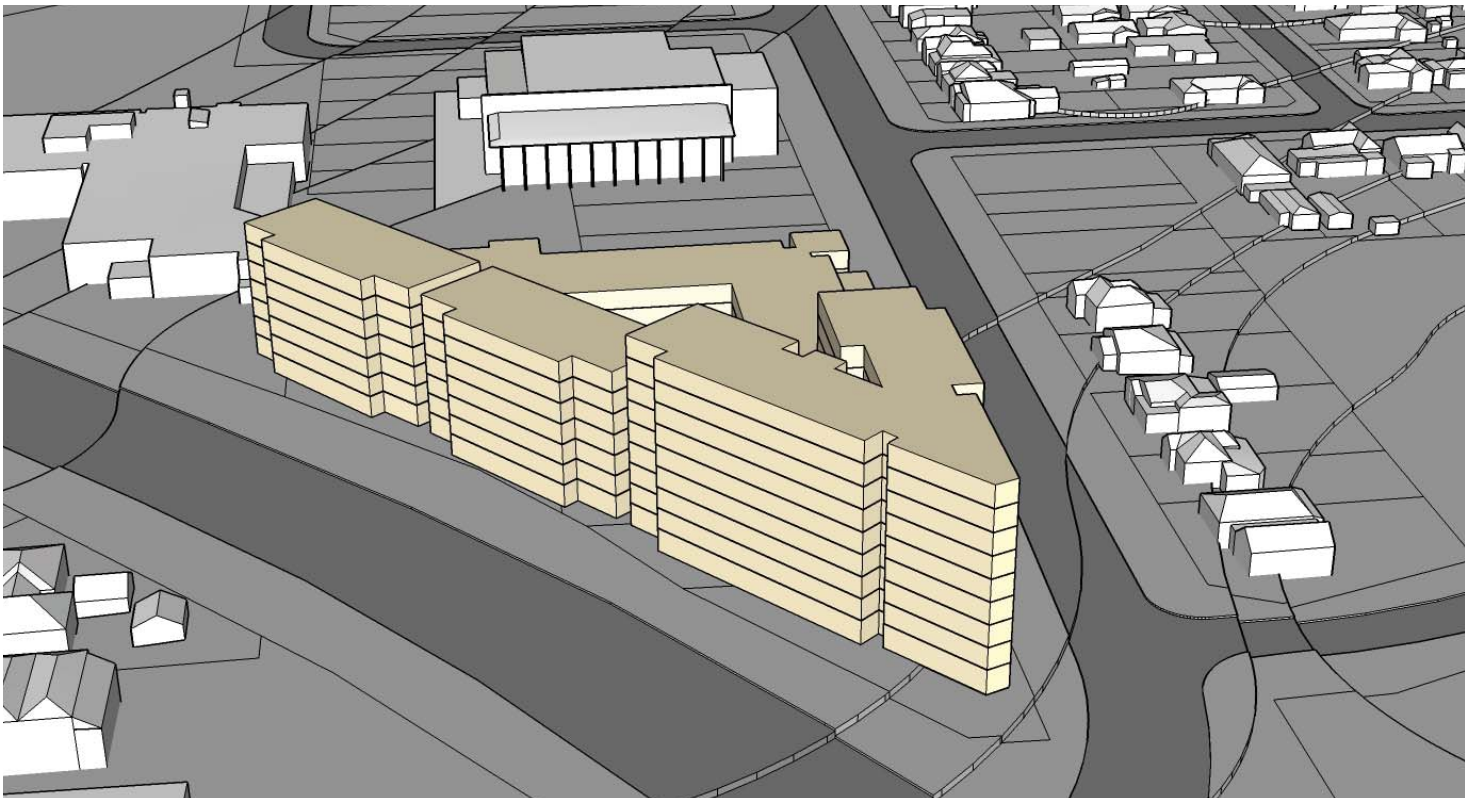


DCP Public Domain Plan





Approach from the bridge travelling south - indicative 3D Model view prepared during analysis background work for the draft Nowra CBD DCP, 2015



Aerial perspective of the extent of permitted development - indicative 3D Model view prepared during analysis background work for the draft Nowra CBD DCP, 2015

# 03 A DECADE OF PLANNING EFFORTS

## Shoalhaven Gateway Master Plan (2010)

### Dealing with flooding

### Traffic and access

### Balanced development

The Riverfront Gateway Master Plan, prepared by Cox Humphries Moss in early 2010, considered land west of the Princes Highway. Key principles included improved access and use of the precinct, integrated (sensitive) development, balancing private development and publicly accessible facilities and open spaces, and high quality visual appearance of new development reflecting community aspirations for the area.

#### Flooding issues

The study outlines that a significant flow path for flood waters is required between the Shoalhaven River, across Bridge Road, and across the Princes Highway, to allow for extreme flood conditions.

The study proposes to manage local catchment from Hyam Street through to the Shoalhaven River via a combination of a surface and/or piped stormwater flow path and a landscaped overland flow path minimum 15 metres wide, linking Hyam Street and the river.

#### Connecting the precinct

The study proposed extending the existing street grid south of Hyam Street into the site to create a strong connection to, and permeability with, the existing pedestrian and road network. The main entry point to the precinct is proposed to be off Hyam Street.

#### Building heights and uses

New development aimed to contribute to the successful integration of the site and the Riverfront with the existing town. Building heights extended up to 4 storeys and active frontages were to be provided along the riverfront. The area between the existing Mandalay Ave and Shoalhaven Street was identified for possible use as a health facility adjacent to the existing Hospital.

#### Implementation

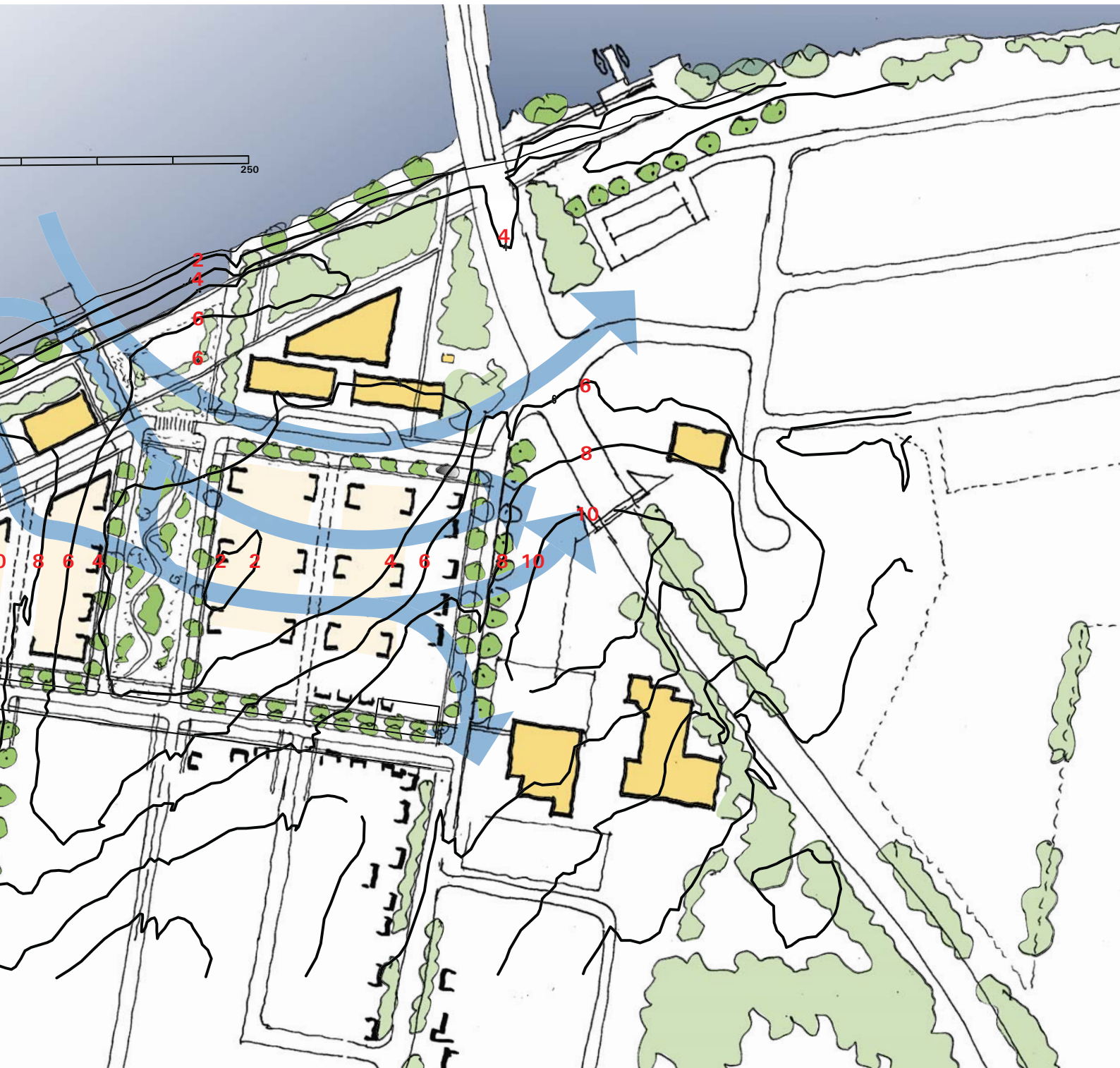
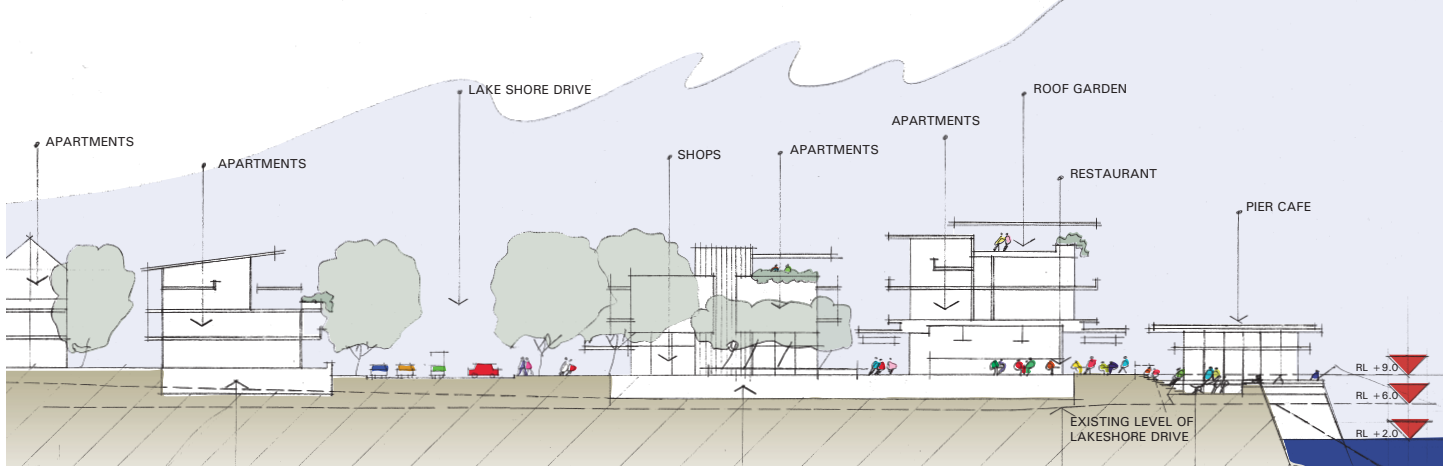
The study suggested a 'progressive' implementation approach selecting individual development sites that require little or no major infrastructure work and offering these to the market first. The proceeds could then be used to implement sufficient infrastructure work to enable the release of additional sites.

Prior to this, the Masterplan noted that issues such as land ownership and possible consolidation and rationalisation of land within the site would need to be addressed.



Moderated option







# 03 A DECADE OF PLANNING EFFORTS

## Shoalhaven Gateway Master Plan (2010) Traffic Report

Eastern T-intersection

Scenic Drive to Wharf Road

Roundabout

Right-turn overpass

This traffic study was undertaken as part of the Riverfront Gateway Master Plan, by Hughes Trueman in 2010. It reviews the (poor) performance of the Bridge Road/ Princes Highway/ Pleasant Way intersection and proposes possible treatment options to improve traffic flow, reduce queuing and speed up turning movements.

The study also identifies the opportunity for a new bridge across the Shoalhaven River to the west of the existing bridge. The report further anticipates that there will be a high demand for pedestrians to cross the highway and recommends that a pedestrian bridge be provided to increase pedestrian safety and minimise the impact on traffic efficiency.



Existing situation

Currently Wharf Road and Scenic Drive (to the west of the highway) do not connect.

The northern intersection is currently performing poorly with long waiting periods and queuing on the highway.

Right-turn movements from the highway into Bridge Road are a key concern.



### Eastern T-intersection

This option closes access to Pleasant Way and provides a T-Intersection further south to connect directly with Hawthorn Avenue. However, this would result in traffic on Princes Highway queuing at the new intersection in order to allow motorists in and out of Hawthorn Ave.



### Scenic Drive - Wharf Road

This option also closes off access to Pleasant Way. It connects Scenic Drive to the west with Wharf Road to the east. This would increase right turning traffic into Bridge Road and is likely to increase queuing into the southbound through lane(s) on Princes Highway.



### Roundabout

This was considered to be the preferred option in terms of the intersection's aesthetic appeal. It was noted that a roundabout may not operate as efficiently as signals, however, a detailed analysis is required to test and compare each treatment.



### Right-turn overpass

This option provides an overpass for motorists turning right into Bridge Road in order to provide uninterrupted flow and consequently improve the intersection's performance. It was noted that the option may be considered in combination with the closure of Pleasant Way.



# 03 A DECADE OF PLANNING EFFORTS

## Shoalhaven Gateway Master Plan Consultation (2011)

Flooding issues

Traffic and access

Heritage significance

Activation of the riverfront

Nowra Pool

Future development & uses



Following the public exhibition of the Shoalhaven Gateway Master Plan Study, Elton Consulting prepared this document which records the views, issues and ideas expressed by 20 community participants during the Shoalhaven River Front Precinct Stakeholders Advisory Group workshop. The workshop was held on Wednesday 23 March 2011.

The following summary seeks to identify the community's aspirations for the precinct in order to inform future planning and discussion.

Flooding was identified as a major challenge for the future development of the precinct. The advisory group also noted that the resolution of traffic issues was crucial, identifying congestion, the poor performance of the Bridge Rd/ Princes Highway intersection and the lack of pedestrian/ cycle connections to the riverfront precinct as key issues.

The heritage significance of the area was highlighted. The riverfront precinct is seen as a place of considerable historical importance (both indigenous and non indigenous) and it was expressed that the area 'should become a vibrant, living history site and a celebration of the past.'

Ideas for activating the riverfront included leveraging of the natural beauty of the river and mountain ranges, increasing commercial uses within the precinct (i.e. motel/hotel, cafe, restaurants, expansion of uses in synergy with the Nowra Olympic Pool) and relocating the tourist information centre.

It was felt that better connections and signage to existing facilities would improve wayfinding. The Nowra Pool in the centre of the site was a much valued community asset and participants of the workshop expressed their desire for further upgrades and improvements to the facility and its surrounds. The advisory group also stressed that the pool was located on land dedicated as 'community' land.





### **Flooding**

There are a number of constraints to development and activation of the Riverfront Precinct, including the (frequent) potential for flooding.



### **Traffic and access**

Better access, wayfinding, ease of congestion and ensuring sufficient access to and from the precinct is a key aspiration.



### **Heritage significance**

The Riverfront Precinct is historically significant and this should be recognised and acknowledged in future planning.



### **Activation of the precinct**

The Riverfront Precinct is the 'Gateway to Nowra' and needs to be better activated to attract more locals and visitors.



### **Nowra Olympic Pool**

The Nowra Pool should be retained and its facilities and surrounds improved to become the focal point of the precinct.



### **Future development & uses**

Compatible commercial uses should be considered (potentially in conjunction with the Nowra Pool to improve its economic viability).

# 03 A DECADE OF PLANNING EFFORTS

## Nowra CBD Master Plan (2011)

### River promenade upgrade

### Relocation of intersection

### North-south green link

The Nowra CBD Urban Design Master Plan, prepared by Arup in 2011, outlines a strategic direction to revitalise the Nowra CBD over the next 25 years. It provides a framework and identifies a vision, key initiatives and strategies.

The document states that the Riverfront Precinct "plays a role in defining the identity of the Nowra CBD. Future development and changes to access should maximise open rural views to the east from the highway, protect heritage values and improve access to the river and the western side of the CBD." Relevant proposed initiatives included the upgrades as indicated.

#### Riverfront promenade

The river foreshore offers outstanding views and was considered one of Nowra's greatest assets. Suggestions for the reinvigorating of the water's edge included provision of playground facilities, BBQs and public art, increasing of lighting levels, and the potential realignment of Scenic Drive.

#### Northern gateway intersection

The master plan stated that a strong northern gateway into the Nowra CBD is highly desirable, and suggests two potential alternative locations. Treatment options explored included a roundabout and grade separation (overpass or underpass).

#### Green link to CBD

High-quality green links assist in wayfinding. A key pedestrian route was identified as the North-South Green Link, which is an extension to the existing Graham Street link.

The link was to connect the Riverfront Precinct with Harry Sawkins Park, Egans Lane car park, the proposed town square (now established and named 'Jelly Bean Park') and down Kinghorne Street towards Marriott Park.

Proposed improvement to the Shoalhaven River promenade

Investigate the possibility of a relocation of the northern gateway intersection

Proposed extension of the north-south "Green Link"

Proposed new gateway park at Moss Street

Strengthened Cultural Precinct and night-time activity zone

Proposed new town square at Egans Place

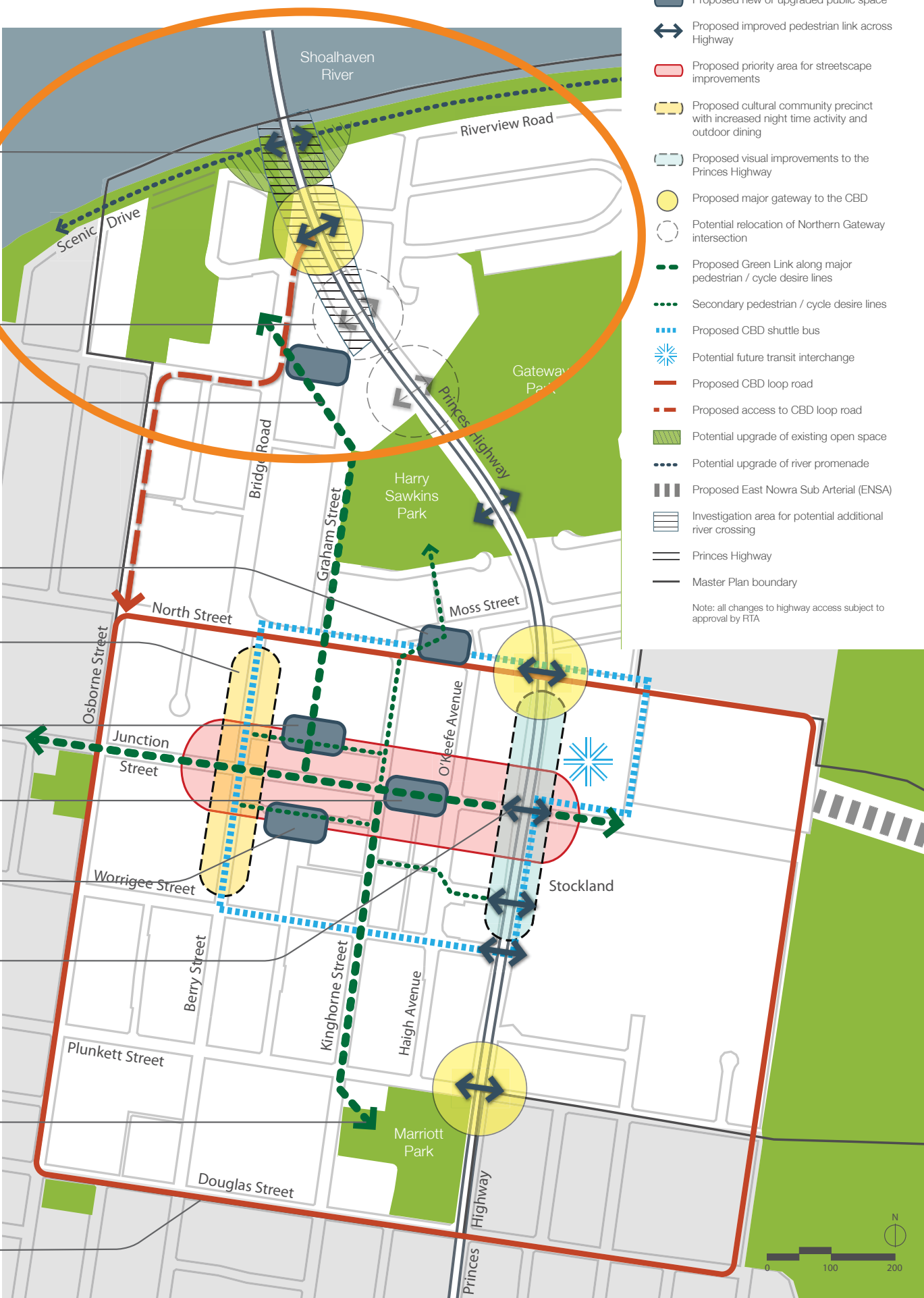
Proposed upgrade and revitalisation of Junction Court

Proposed new civic space at Stewart Place

Proposed new pedestrian access across highway at Junction Street

Proposed upgraded "Green Link" to the core of the CBD and Marriott Park

Proposed CBD Loop Road creating an access route around the core of the CBD





# 03 A DECADE OF PLANNING EFFORTS

## Nowra CBD Master Plan (2010) Northern Gateway Options

9x options considered

Long term recommendation

A range of options were explored for the Bridge Road/ Princes Highway intersection and nine of these options were documented in the Nowra CBD Urban Design Master Plan 'Ideas and Illustrations' report, Arup, 2011.

The recommended option relocated access from the highway to the east (Riverview precinct) and the west (Gateway precinct) to a new signalised intersection north of the Council Chambers but south of Graham Lodge.

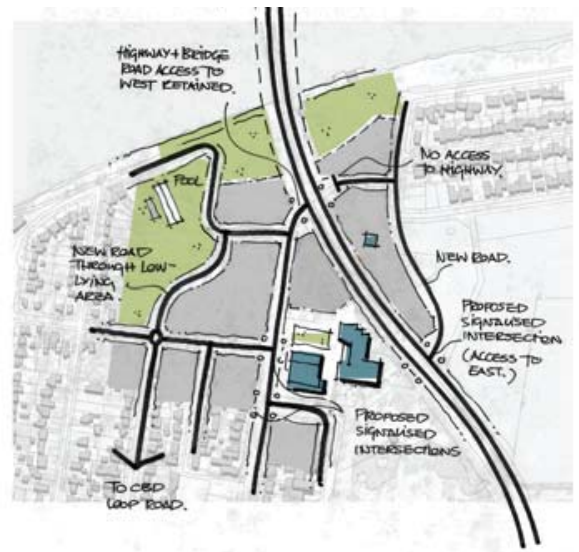
This option also proposed realigning Scenic Drive to improve access and views to the river and to create a more regular development parcel next to the highway.

A key advantage of this option was that the signalised intersection would provide good pedestrian and cycle connections east to west. It was hoped that relocating the intersection further south, away from the bridge, would reduce congestion. The location and arrival experience at this location, next to key civic landmarks such as Council's Administration building and the Shoalhaven Entertainment Centre (SEC), would create a prominent entry into town.

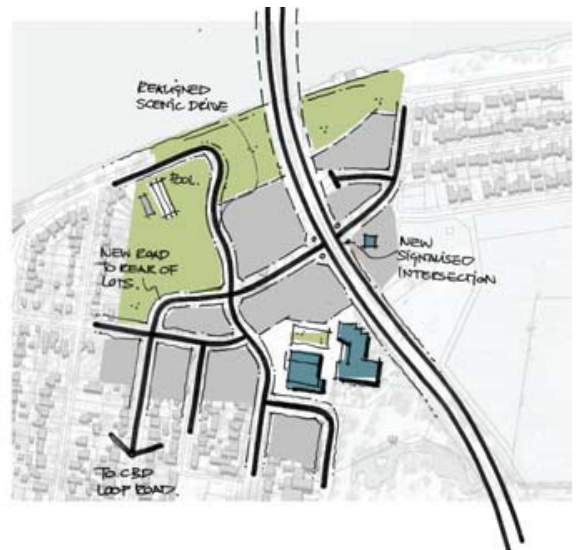
Another advantage is the creation of regular shaped, well-connected potential development sites. The proposed realignment of Scenic Drive and the new entry road also improved access and views to the river.

A disadvantage of the new location of the intersection and road connecting to Bridge Road was the separation of the potential triangular-shaped development site to the north of the Council building and SEC, however the new more regular site, was likely to be more suitable and efficient to develop.

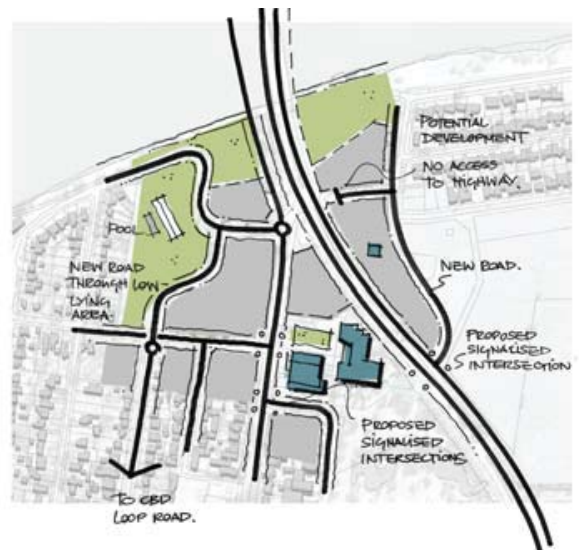
Option 1A



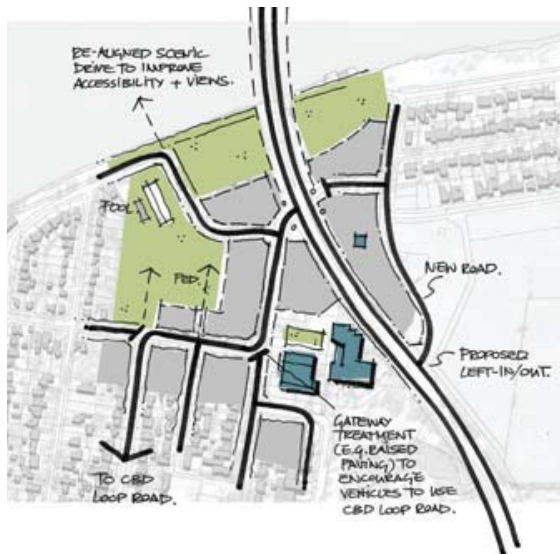
Option 2B



Option 3A



Option 1B (recommended - short term)



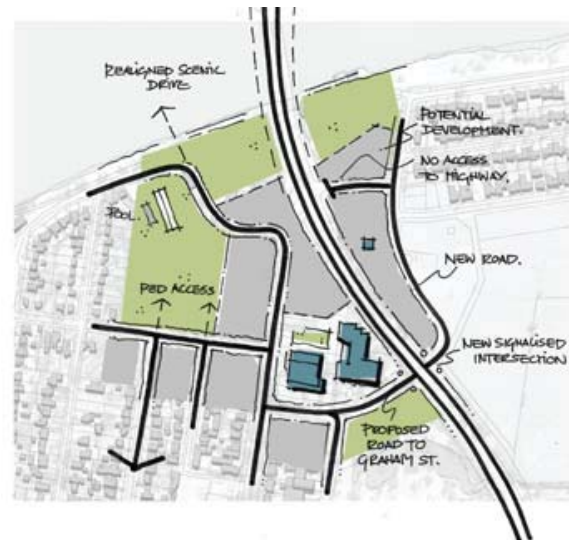
Option 2A



Option 2C (recommended - long term)



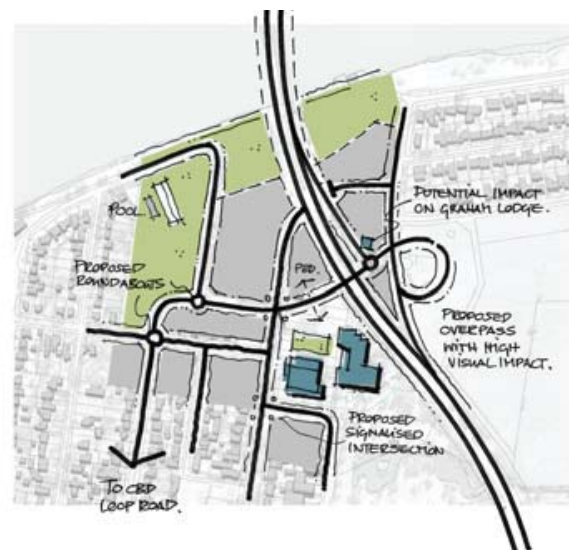
Option 2D



Option 3B



Option 3C



# 03 A DECADE OF PLANNING EFFORTS

## Nowra CBD Heights and FSR study (2013)

Height limit up to 28m

FSRs between 1.5 and 2.3

Adopted > SLEP 2014

The Building Height and Floor Space Ratio Controls Study by Jackson Teece, prepared in 2013, examines the proposed Nowra CBD Commercial Core (B3) and Mixed Use (B4) Zones to inform the setting of controls in the Shoalhaven Local Environmental Plan, as well as complementary controls in the Shoalhaven Development Control Plan.

The study consists of a Technical Review and an Analysis Summary Report, overshadowing studies of selected areas and the main report, which recommends maximum building heights, floor space ratios and other related controls.

Key conclusions relevant to the northern part of the study area are that future development should aim to maintain the positive features and character of the town, that there is a need to achieve greater legibility for the township from the highway (both visual and physical access) and that various existing development controls, including parking requirements, are considered to be a disincentive to development.



Overshadowing at 12pm (Winter) of potential built form along Bridge Road

### Planning controls

The report reviewed the draft SLEP 2013 which defined a standard maximum building height limit of 11.0 metres for the majority of the CBD area. The most notable exception is the 'hotel site and civic precinct' north of the Shoalhaven Entertainment Centre along Bridge Road with building heights permissible up to 28 metres (8 storeys). The relevant recommendations of the study are summarised as:

**28m - 8 storeys** - for land north of Hyam Street, identified as a major gateway in to Nowra CBD, with the potential for built form to leverage off the proximity to the river foreshore and views to the hinterland.

**15m - 4 to 5 storeys** - for land north of Harry Sawkins Park and part of the potential tourism precinct at Scenic Drive.

**12m - 3 to 4 storeys** - for land to the east of Princes Highway and to the south of Hyam Street.

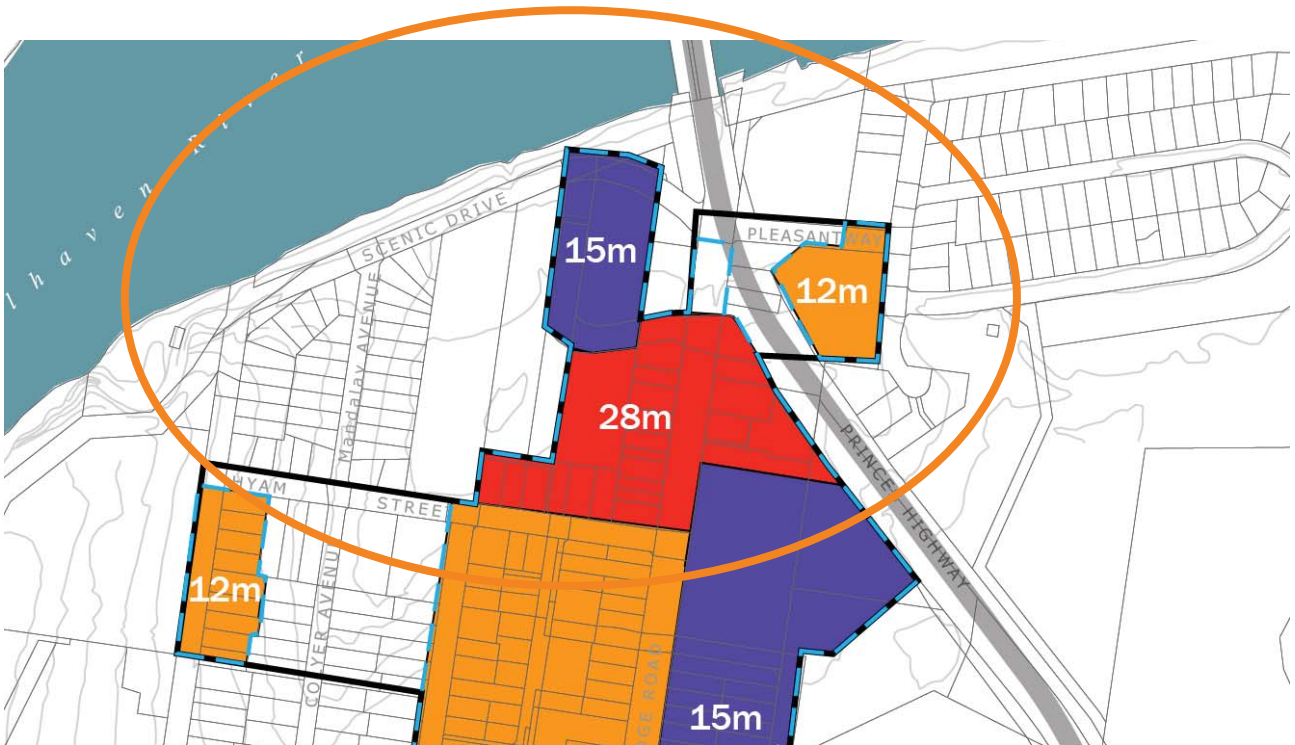
**FSR 1.5:1** - for land to the east of Princes Highway and to the south of Hyam Street.

**FSR 1.8:1** - for some land to the north at the river foreshore part of the potential tourism precinct at Scenic Drive.

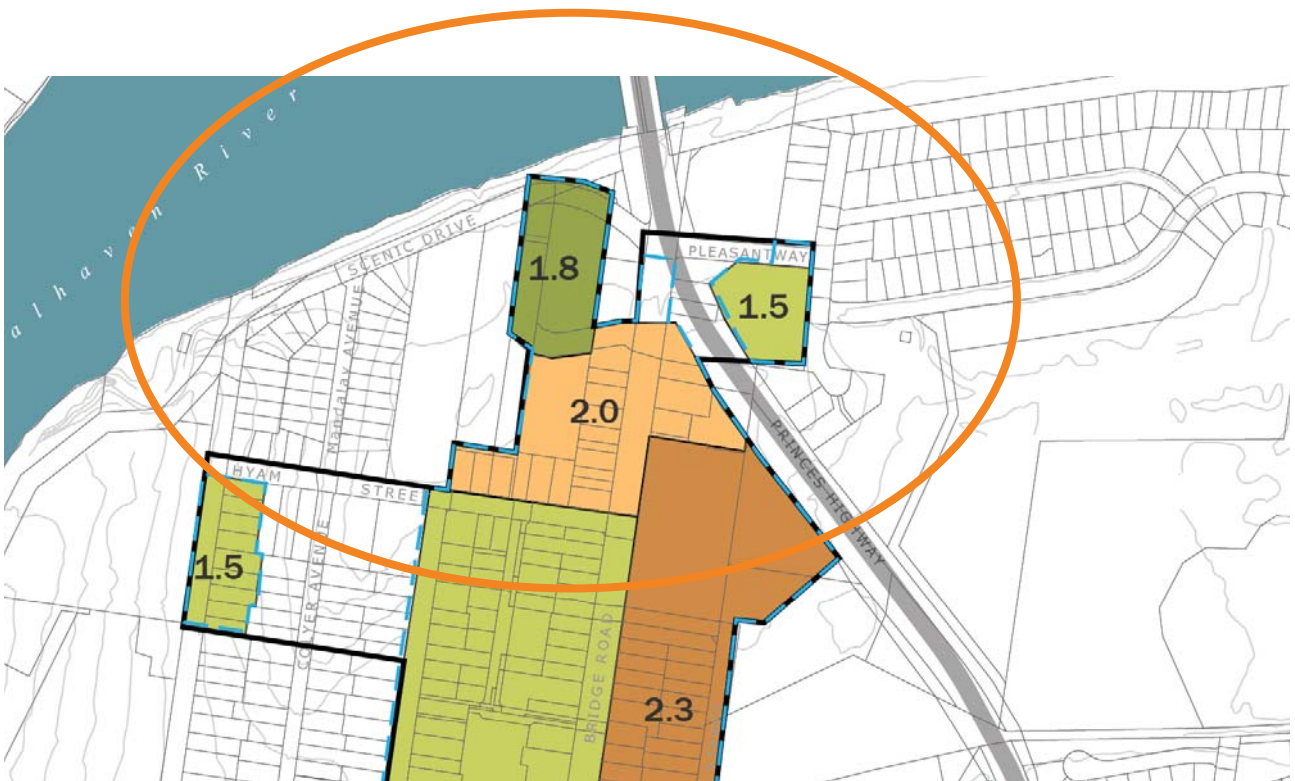
**FSR 2.0:1** - For land near the northern gateway; proposed lower FSR coupled with building heights of up to 28m to achieve developments with narrow tall residential towers.

**FSR 2.3:1** - for land surrounding Harry Sawkins Park with the potential to accommodate higher density mixed use buildings.





Proposed maximum building heights



Proposed maximum floor space ratios

# 03 A DECADE OF PLANNING EFFORTS

## Shoalhaven River Bridge crossing

New Bridge

Decision on old Nowra Bridge

Impact of road alignment

In 2012/13, RMS identified five possible locations for a new river crossing which included an option for a western bypass, a bridge on the existing southbound bridge alignment, a new bridge immediately east or west of the existing crossing and a new bridge further downstream east of the existing crossing.

These options were assessed as part of a value management process that looked at the project objectives and discussed the opportunities and constraints for each option.

Each option was then assessed and ranked in order of their perceived value for money. This assessment, and the outcome of a community consultation process, resulted in the preference for a new river crossing immediately west of the existing bridges.

RMS stated in May 2015 that it has started working on concept designs for the bridge, and has started investigations into the intersections at Bolong, Illaroo and Bridge roads (the 'Northern Gateway' intersection).

RMS is also considering what should happen to the old Nowra Bridge once the new bridge is built, i.e. retain the bridge, remove it or relocate it.

A community consultation process, carried out in late 2014, strongly supported the retention and reuse of the bridge in its current location. Popular suggestions for the future use of the bridge included a shared path / cycleway, markets, pop-up cafes, or other entertainment uses such as festivals or fun runs.







Intersection upgrades to be considered to improve traffic conditions at Bolong Road and Illaroo Road

A new bridge to the west would have less property impacts than a bridge to the east

A new northbound bridge to be constructed as close as possible to the west of the existing concrete bridge

The existing northbound concrete bridge to be converted into a southbound bridge

A decision is yet to be made on the future of the old bridge however a new bridge to the west would not impact or 'box in' the old bridge

A new bridge to the west would reduce risks during construction to the stability of the existing bridges

A new bridge to the west would be easier to construct due to the open space and alignment on the southern bank

Intersection upgrades to be considered to improve traffic conditions at Bridge Road and Pleasant Way





























## 04 PRINCIPLES AND STRATEGIC DIRECTION

- ▶ Opportunities and constraints
- ▶ Riverfront precinct aerals
- ▶ Objectives
- ▶ Planning and design principles
- ▶ Recommended strategic direction
- ▶ Unknowns and questions still to be answered

# 04 UNDERSTANDING THE RIVERFRONT PRECINCT

## Opportunities and constraints

### LEGEND

-  Major barrier to east-west movement
-  Indicative extent of proposed new bridge
-  Indicative extent of proposed bridge embankment
-  Opportunity to reuse historic Nowra bridge
-  Pedestrian east-west connection (on-grade)
-  Pedestrian east-west connection (underpass)
-  Possible location for 'Northern Gateway' intersection
-  Land in private ownership
-  Low-lying land significantly affected by a 1% AEP
-  Extent of land not affected by a 1% AEP
-  Topographical highpoint
-  Existing riverfront promenade
-  Existing direct link to riverfront
-  Opportunity for additional link (pedestrian and/or vehicular)
-  Poor interface (rear of properties) to open space
-  Existing heritage item
-  Heritage item destroyed in fire
-  Existing civic facility (Council, SEC, Visitor Centre, Pool)
-  Potential extension of study area to incorporate cemetery
-  Public open space / public recreation
-  Topography contours
-  Nowra Riverfront Precinct study area

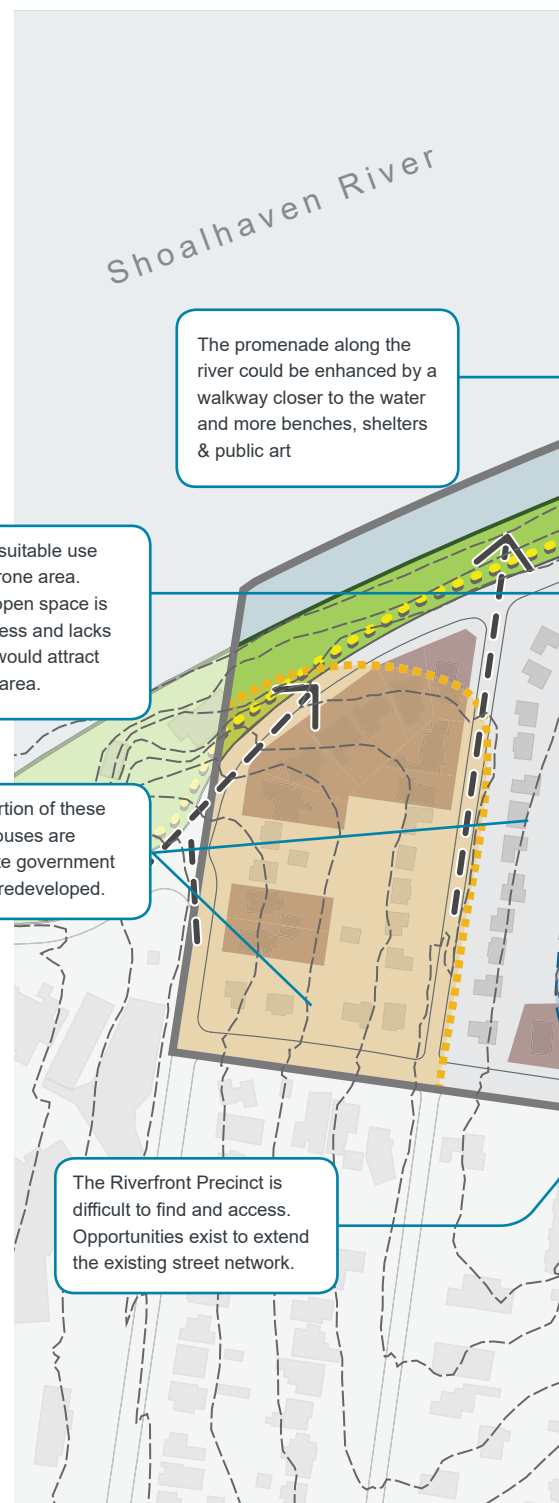
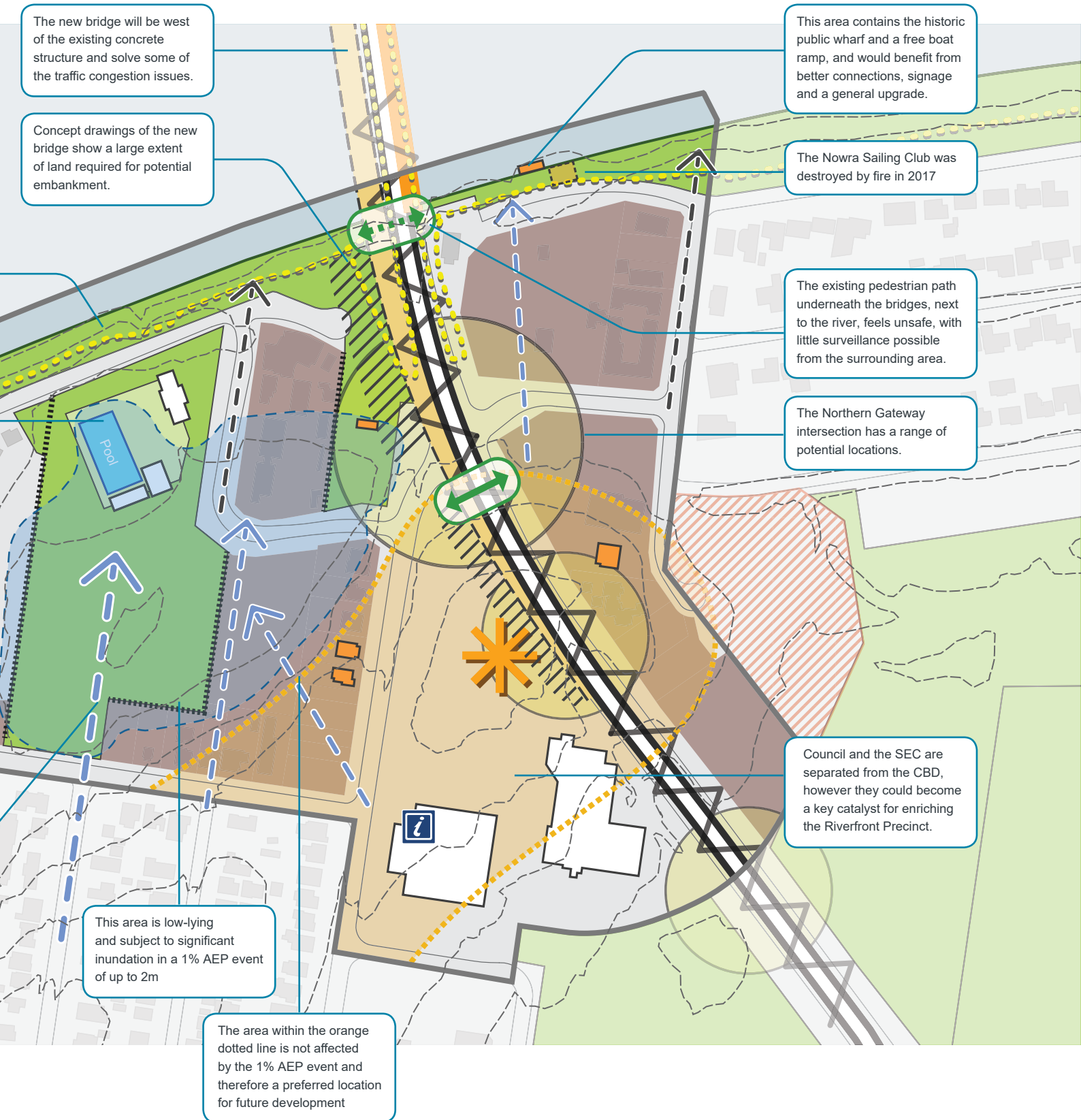


Figure 11 Opportunities and constraints diagram





# 04 PRINCIPLES AND STRATEGIC DIRECTION

## Riverfront Precinct - Existing



Figure 12 Aerial artist impression of the Riverfront Precinct, looking south

## Riverfront Precinct - Potential bridge duplication



Figure 13 Aerial artist impression of the Riverfront Precinct showing the proposed bridge duplication to the west

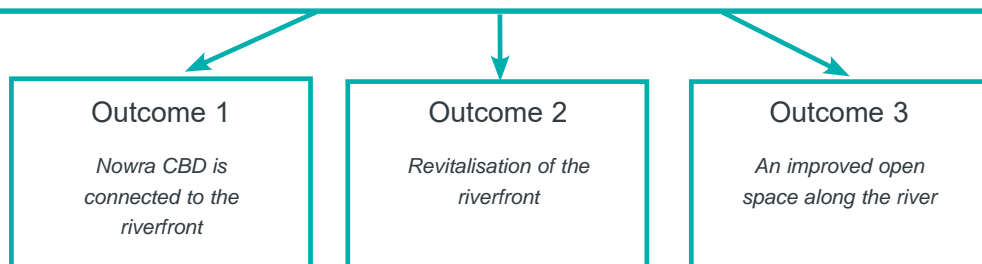


## OBJECTIVES



## ACTIONS AND DESIGN ELEMENTS

- Maximise the area of high quality public open space along the riverfront
- Increase the amount of level accessible open space with views of the river
- Reduce number of dwellings that back onto areas of open space
- Increase the attractiveness of the existing open space
- Retain tall trees and indigenous landscape where possible
- Create a more connected access and movement network
- Improve routes from the CBD and Civic Precinct to the river
- Improve connectivity (pedestrian, bike and vehicle) along the riverfront
- Improve links (pedestrian and bike) across the river to the high school and town centre
- Ensure east-west connections across the highway
- Use land swaps/rezoning/developer contributions to improve the quality of the open space
- Maximise the value and activity created by existing nodes including the pool, the hospital, Shoalhaven Entertainment Centre, Council Administration Centre
- Improve visual and physical links to the rest of the CBD
- Provide direct, safe and convenient pedestrian routes from key destinations to the river front
- Create an attractive place through high quality landscape, built form, signage and public art





# 04 PRINCIPLES AND STRATEGIC DIRECTION

## Planning and design principles



### ◀ A permeable and connected network

Redevelopment of the area should create a more permeable access and movement network with improved links from the CBD and Civic Precinct to the river. Prioritise east-west connections across the highway, connectivity (pedestrian, bike and vehicle) and links across the river. Improve wayfinding by creating new routes to the river.



### ◀ Local Activity Nodes

Leverage off the value and activity created by existing key nodes including the pool, the hospital, Shoalhaven Entertainment Centre (which now includes the relocated Visitor Information Centre), Council Administration Centre and the nearby CBD and large shopping centre.



### ◀ A strong gateway into Nowra

Create a strong gateway into Nowra that showcases the attractions of the location through high quality landscape, built form, signage and public art. Make it easy to access the town and the key attractions of the northern precinct.



### ◀ An effective pedestrian/cycle network

Ensure direct, safe and convenient pedestrian routes from key destinations such as the Entertainment Centre, the hospital and the Council Building to the river front. Link pedestrian and cycle routes across the river to safe convenient routes to the high school and town centre and the shared walkway along the river front.



### ◀ A safe and well defined public domain

Maximise the size and quality of the public domain open space along the riverfront. Increase the amount of level and easily accessed open space that has views of the river. Reduce the number of areas which have lots backing onto the open space and increase the attractions and value of the existing open space. Retain tall trees and indigenous landscape where possible.



### ◀ Catalyst for urban renewal

Leverage off a high quality public domain as a catalyst for urban renewal and use developer contributions to improve the quality and attractions of the open space.

# 04 PRINCIPLES AND STRATEGIC DIRECTION



Figure 14 Strategic direction diagram

- Existing open space
- Back fences to open space
- Poor visibility into open space

## The Challenge

A key issue for the precinct is the high number of sites that back onto open space and the lack of views into the open space.



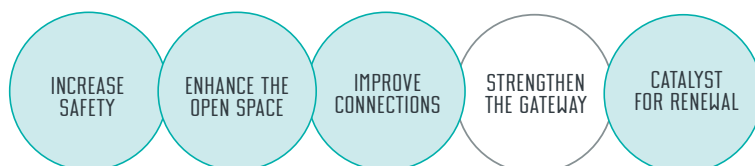


Figure 15 Strategic direction diagram





## Strategic Direction

It is recommended that council seek to build new roads within the open space in order to improve connections, enhance access to the open space, increase safety and act as a catalyst for renewal.

# 04 PRINCIPLES AND STRATEGIC DIRECTION



Figure 16 Strategic direction diagram

-  Privately owned land
-  Council owned open space

## The Challenge

Council owns a small area of poorly located open space next to the Princes Highway.

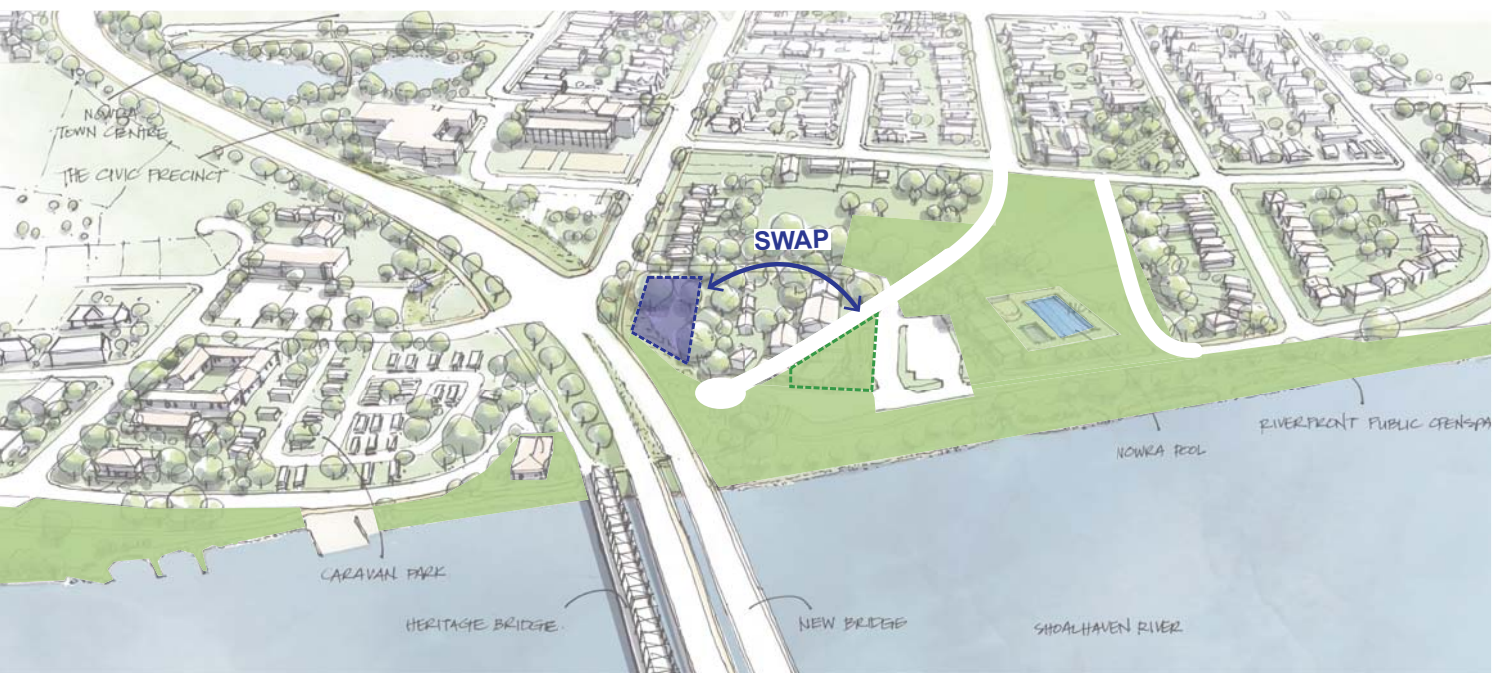




Figure 17 Strategic direction diagram

-  Privately owned land
-  Council owned open space

## Strategic Direction

It is recommended that council explores the opportunity to negotiate a "land swap" with the owner of this property which will expand the size of the open space next to the river.



# 04 PRINCIPLES AND STRATEGIC DIRECTION



Figure 18 Strategic direction diagram



Existing car park



Proposed car park relocation

## The Challenge

The existing car park for the pool is located on level land with excellent views of the river.

## Strategic Direction

Over time, it would be preferable that council move car parks away from the waterfront and reallocate areas with views to riverfront open space.



Figure 19 Strategic direction diagram

- Potential riverfront open space
- ✱ Heritage item
- New gateway

## The Challenge

The current gateway at Bridge Road / Pleasant Way and Princes Highway does not create an attractive and legible entry into the precinct.

## Strategic Direction

With the new bridge crossing, council should seek to create a more legible urban structure and showcase key heritage items.

# 04 PRINCIPLES AND STRATEGIC DIRECTION

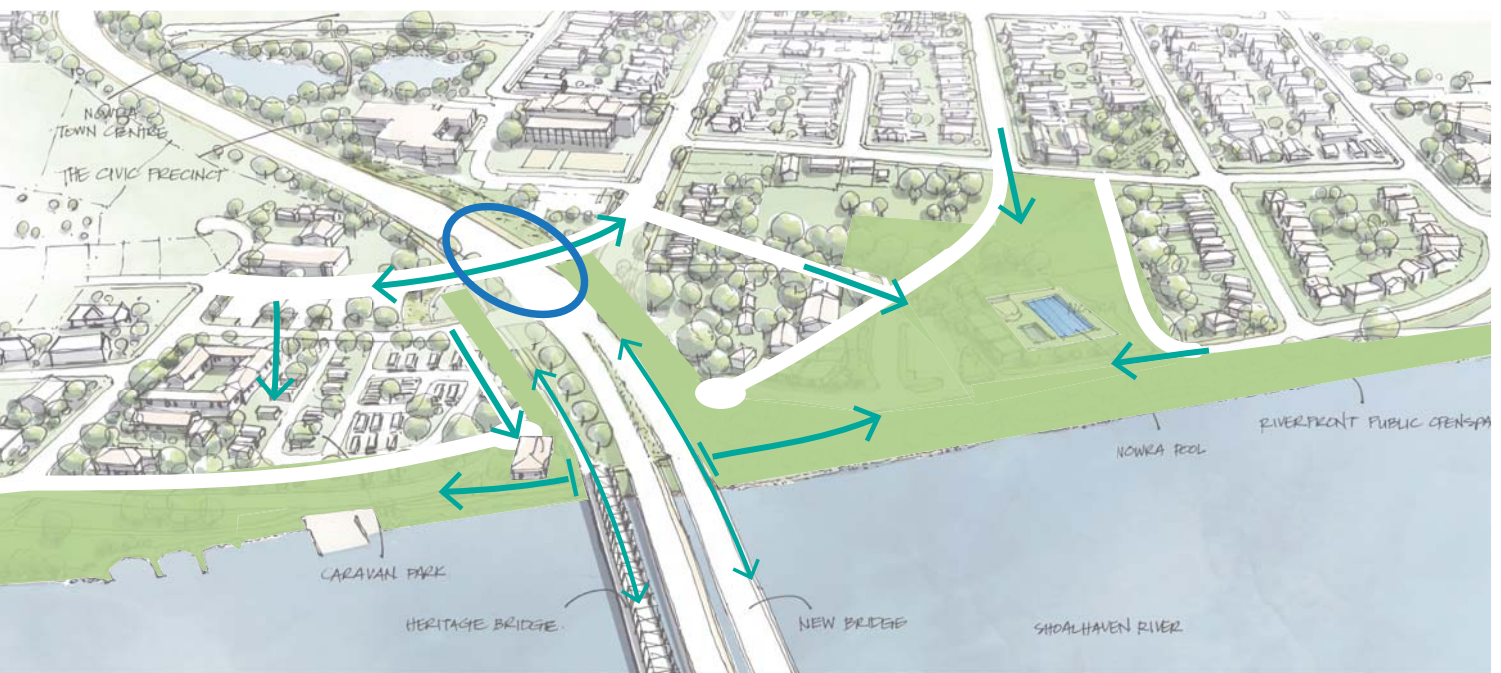
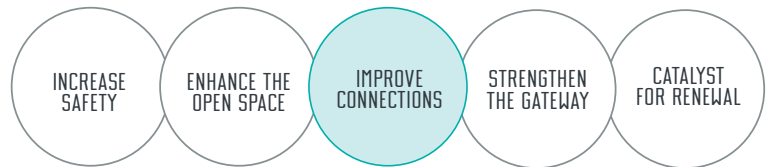


Figure 20 Strategic direction diagram

- Potential riverfront open space
- ← Connections to riverfront
- New gateway

## The Challenge

People's ability to find their way to the riverfront, along the riverfront and up to the bridges in order to cross the river is currently not attractive or legible.

## Strategic Direction

The new bridge and gateway intersection should provide council with the opportunity to improve wayfinding and pedestrian and bicycle access to the precinct and around the precinct.





Figure 21 Strategic direction diagram

- Potential riverfront open space
- Developable land fronting open space

## The Challenge

With the proposed new road alignment, some land currently zoned open space will be poorly located.

## Strategic Direction

Poorly located land should be rezoned and sold to help fund the open space improvements.

# 04 PRINCIPLES AND STRATEGIC DIRECTION

Heights: as proposed in the Nowra CBD Height & FSR Study (2013)

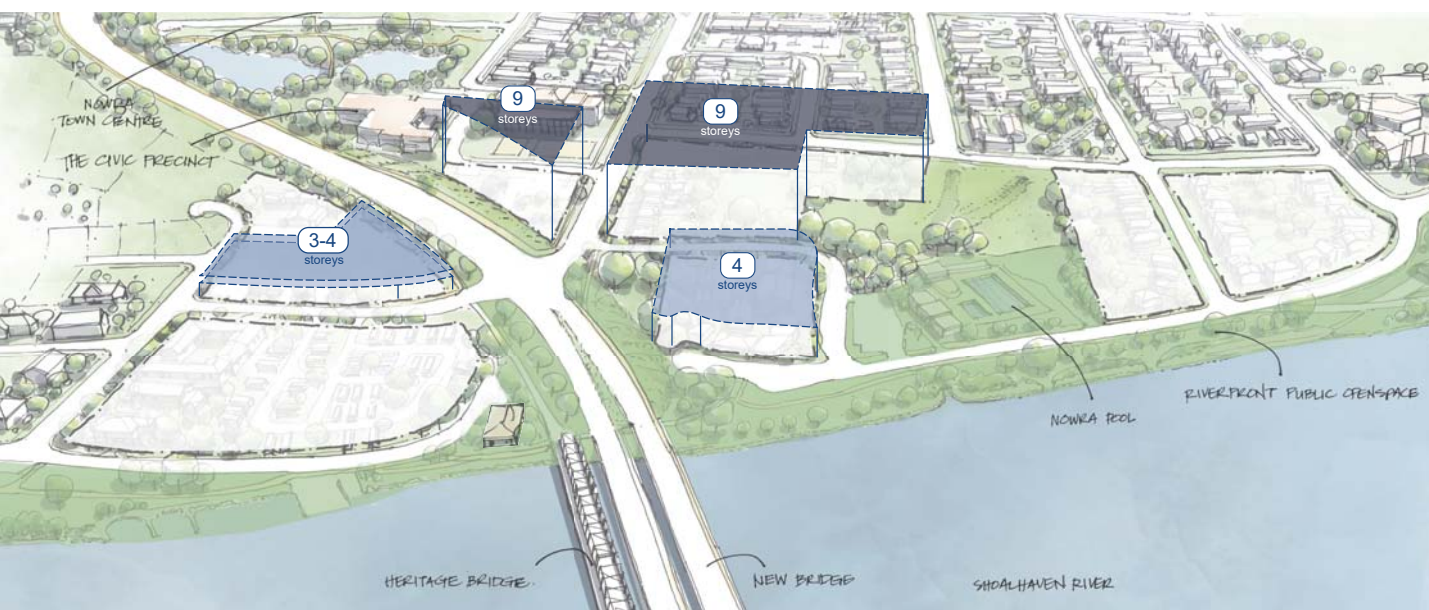


Figure 22 Proposed heights from Nowra CBD Height and FSR study (2013) diagram

Heights: current LEP (2014)

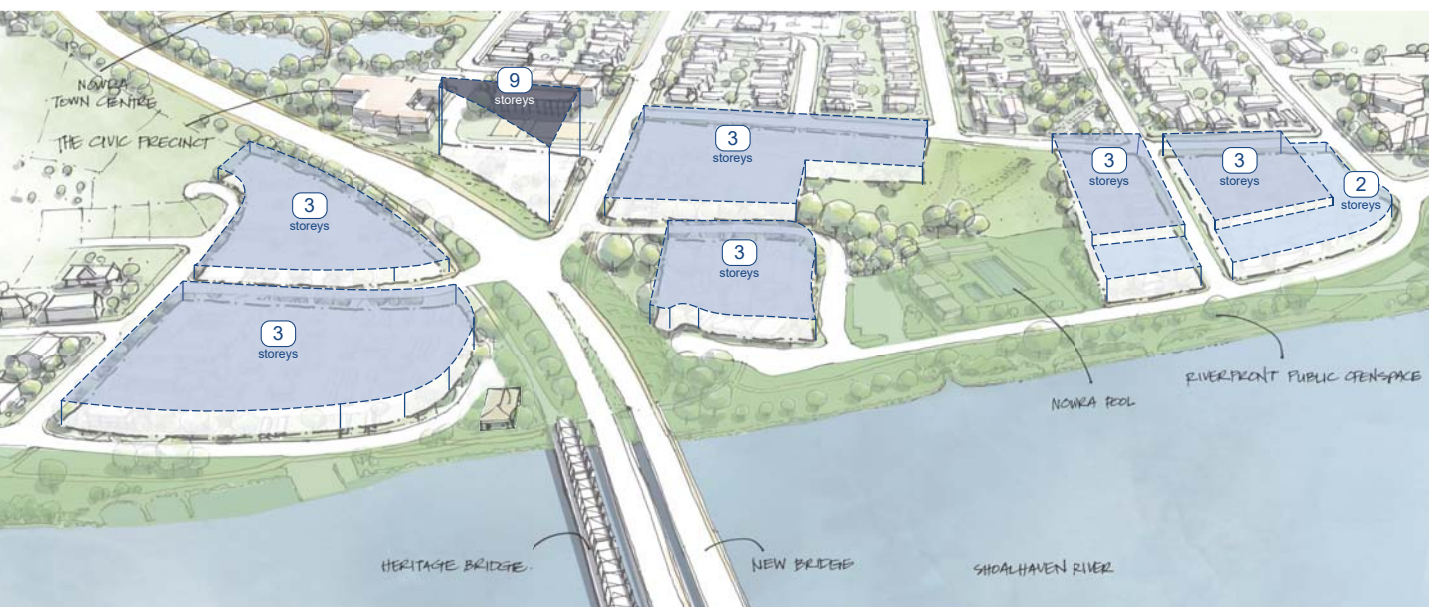


Figure 23 Proposed heights from current LEP (2014) diagram



## Heights: potential alternative

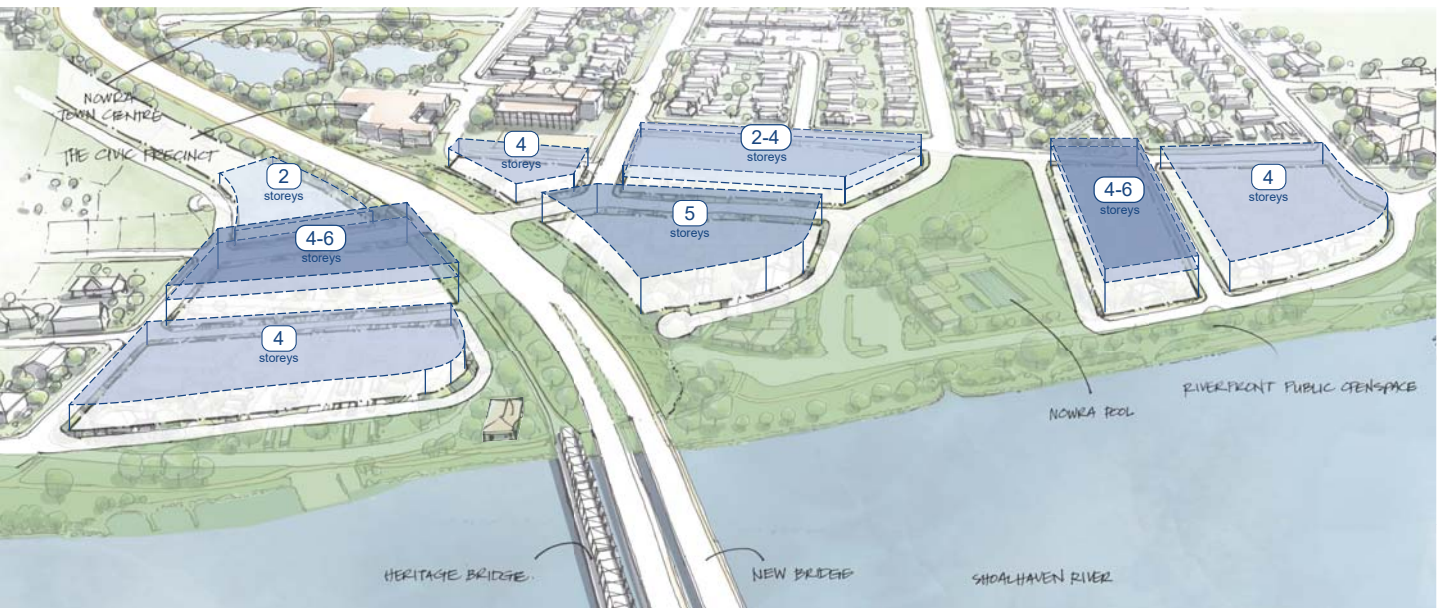


Figure 24 Potential alternative heights diagram (NB - road layout still to be confirmed)

Over the last few years a wide range of heights have been considered in this precinct. It is recommended that the areas that allow taller heights is extended but heights are generally kept around 5/6 storeys in height (but slightly lower in areas adjoining heritage items). This height should be sufficient to encourage growth and ensure an “urban edge” to the open space without dominating views across the wider landscape.

Some sites may be able to accommodate a slight increase in height of an additional 2 to 3 storeys but this should be assessed on a site by site basis and be linked to improvements to the public domain (possibly via a Voluntary Planning Agreement)



# 04 PRINCIPLES AND STRATEGIC DIRECTION

Unknowns and questions still to be answered



## Impact of new bridge

The current bridge crossing options by RMS indicate a significant physical and visual impact on sites to the west of the highway. Sites to the east of the highway may benefit from removal of the current south bound lanes and pedestrian and cycle access to the old bridge. The impact on overland flows and opportunity for surface and/or piped stormwater under the highway is also unknown.



## Access from/ to Princes Highway

The final location and design of the intersection of Pleasant Way and Bridge Road and the highway (ie grade separation/ signalised) could help to reconnect the two sides of the precinct or increase their separation. The final design may also change the location and design of the intersection of Bridge Road and Scenic Drive.



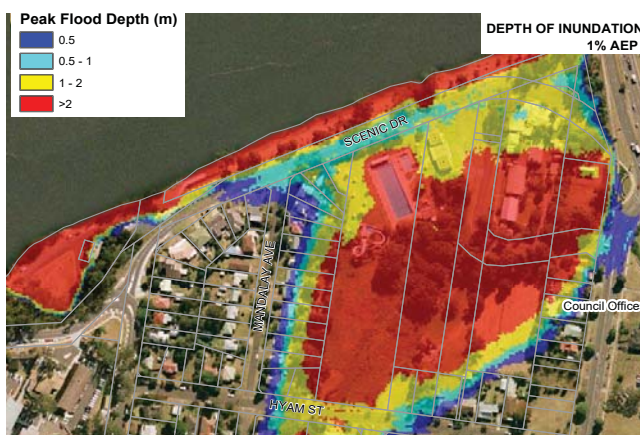
## Availability of government land

Significant areas within the precinct are currently owned by local and state government. The availability for redevelopment and/or land swaps would provide additional opportunities to increase the accessibility through the area with new roads and better utilisation of developable/ higher land.



#### ◀ Heritage and amalgamation

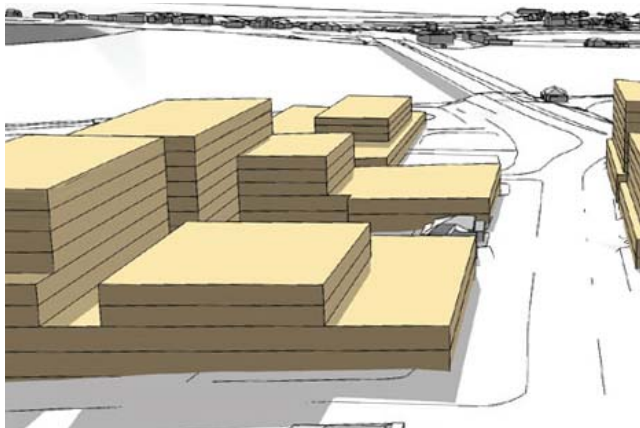
Constraints on development of the precinct include the location of existing heritage items, the poor location and design of open space areas (backing onto lots). sites heavily impacted by flooding and overland flows. More efficient development parcels and use of land may be possible if sites can be amalgamated and/or heritage listing removed (subject to specialist heritage advice).



Source: Scenic Drive Hydraulic Assessment, WMA Water, 2008

#### ◀ Building in flood prone areas

The Nowra CBD Background Report by Arup recommended that the Shoalhaven River Flood Study (2000) be reviewed and updated before investigations began into concept and detailed design development options for specific sites, to confirm the existing flood levels and to provide a starting point for determining the likely impacts/ viability of specific development options.



Source: Heights and FSR Study, Jackson Teece, 2013

#### ◀ Intensity of development

The currently proposed heights and FSRs in the Heights and FSR Study (2013) assume that development will need to step down next to existing heritage items and that significant development will be possible on land that is vulnerable to flooding. It is recommended that a more detailed development capacity is determined following confirmation of the new road alignment and the extent of development possible in flood prone areas.

